



भारतीय दूरसंचार विनियामक प्राधिकरण
Telecom Regulatory Authority of India



**Recommendations on
the Terms and Conditions of Network Authorisations
to be Granted Under the Telecommunications Act, 2023**

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Chapter I: Introduction and Background

A. History of Telecommunications

- 1.1 For thousands of years, the quickest method of sending complex messages over long distances was with a courier on horseback. At the end of the 18th century, Claude Chappe established a network of visual semaphore stations across France. Then came the electrical revolution. Experiments were conducted in sending electric signals along wires, and in 1839, the world's first commercial telegraph service opened in London with a system created by Charles Wheatstone. In the United States, Samuel Morse used the new Morse code to send his first telegraph message in 1844.
- 1.2 Telegraph wires soon linked major towns in many countries. A submarine telegraph wire was laid between Britain and France in 1850, and a regular service inaugurated the following year. In 1858, the first transatlantic telegraph cable was laid. But there was a problem. Where lines crossed national borders, messages had to be stopped and translated into the particular system of the next jurisdiction. To simplify matters, regional agreements began to be forged, and in Europe, representatives of 20 States gathered in Paris at an International Telegraph Conference to find ways to overcome barriers and make services more efficient. They would create a framework to standardize telegraphy equipment, set uniform operating instructions, and lay down common international tariff and accounting rules.
- 1.3 On 17th May 1865, the first International Telegraph Convention was signed in Paris by its twenty founding members, and the International Telegraph Union (the first incarnation of ITU) was established to supervise subsequent amendments to the agreement. Only a decade later, the next leap forward in communications occurred with the patenting of the telephone in 1876. At the

International Telegraph Conference held in Berlin in 1885, ITU began to draw up international legislation governing telephony.¹

B. Telecommunications Laws in India

1.4 In the pre-independence era, the Imperial Legislative Council, the legislature of British India, enacted two statutes viz. the Indian Telegraph Act, 1885² and the Indian Wireless Telegraphy Act, 1933³ to administer telegraphy⁴ in India. The Indian Telegraph Act, 1885 gave the Central Government an exclusive privilege to establish, maintain, and work telegraph⁵ in India. It also gave the Central Government the power to grant licenses to any person to establish, maintain or work a telegraph within any part of India. The Indian Wireless Telegraphy Act, 1933 regulated the possession of wireless telegraphy apparatus in the country. It prohibited the possession of wireless telegraphy apparatus without a license from the Central Government.

1.5 Even after the independence of the country in 1947, the Government of India continued to administer telecommunications through the Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933⁶.

¹ Source: <https://www.itu.int/en/history/pages/ITUsHistory.aspx>

² The Indian Telegraph Act, 1885 (as amended) is available at the URL: https://dot.gov.in/sites/default/files/the_indian_telegraph_act_1985_pdf.pdf

³ The Indian Wireless Telegraphy Act, 1933 (as amended) is available at the URL: : https://dot.gov.in/sites/default/files/THE_INDIAN_WIRELESS_TELEGRAPHY_ACT_1933_1.pdf?download=1

⁴ Cambridge Dictionary defines "telegraphy" as the use of communication systems that work by sending electric signals through wires or by radio waves. Source: <https://dictionary.cambridge.org/dictionary/english/telegraphy>

⁵ Section 3 (1AA) of the Indian Telegraph Act, 1885 provides that "*telegraph*" means any appliance, instrument, material or apparatus used or capable of use for transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, visual or other electro-magnetic emissions, Radio waves or Hertzian waves, galvanic, electric or magnetic means.

⁶ Apart from these two statutes, viz. the Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933, the Parliament enacted the Telegraph Wires (Unlawful Possession) Act, 1950 and the Telecom Regulatory Authority of India Act, 1997. The Telegraph Wires (Unlawful Possession) Act, 1950 regulates the possession of telegraph wires and provides for the punishment of the offence of unlawful possession thereof. Through the Telecom Regulatory Authority of India Act, 1997, TRAI and Telecom Disputes Settlement and Appellate Tribunal (TDSAT) have been established - TRAI for regulating the telecommunication services, and TDSAT for adjudicating disputes and disposing of appeals.

- 1.6 In December 2023, the Parliament passed the Telecommunications Act, 2023⁷. The purpose of the Act is to amend and consolidate the laws concerning the development, expansion, and operation of telecommunication services and telecommunication networks, assignment of spectrum, and related matters⁸. Section 3 of the Telecommunications Act, 2023, which grants the power of authorisation to the Central Government is reproduced below:

"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.

(2) The Central Government may while making rules under sub-section (1) provide for different terms and conditions of authorisation for different types of telecommunication services, telecommunication network or radio equipment.

(3) The Central Government, if it determines that it is necessary in the public interest so to do, may provide exemption from the requirement of authorisation under sub-section (1), in such manner as may be prescribed.

(4) Any exemption granted prior to the appointed day under the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933 shall continue under this Act, unless otherwise notified by the Central Government.

(5) Any authorised entity may undertake any merger, demerger or acquisition, or other forms of restructuring, subject to any law for the time being in force and any authorised entity that emerges pursuant to such process, shall comply with the terms and conditions, including fees and charges,

⁷ The Telecommunications Act, 2023 is available at the URL: <https://egazette.gov.in/WriteReadData/2023/250880.pdf>

⁸ Section 60 (1) of the Telecommunications Act, 2023 provides as below:

"Subject to the other provisions of this section, the enactments namely, the Indian Telegraph Act, 1885, and the Indian Wireless Telegraphy Act, 1933, are hereby repealed."

applicable to the original authorised entity, and such other terms and conditions, as may be prescribed.

(6) A license, registration, permission, by whatever name called, granted prior to the appointed day under the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933, in respect of provision of telecommunication services or telecommunication network—

(a) where a definite validity period is given, shall be entitled to continue to operate under the terms and conditions and for the duration as specified under such license or registration or permission, or to migrate to such terms and conditions of the relevant authorisation, as may be prescribed; or

(b) 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.

(7) Any authorised entity which provides such telecommunication services as may be notified by the Central Government, shall identify the person to whom it provides telecommunication services through use of any verifiable biometric based identification as may be prescribed.

(8) The Central Government may, subject to such terms and conditions, including fees or charges as may be prescribed, allot telecommunication identifiers for use by authorised entities.

(9) The Central Government may allow use of telecommunication identifiers allotted by international bodies which are recognised by the Central Government from time to time.”

C. References Received from DoT on Terms and Conditions of Authorisations Under Section 3(1) of the Telecommunications Act, 2023

(1) DoT's Reference Dated 21.06.2024

- 1.7 The Department of Telecommunications (DoT), Ministry of Communications, Government of India, through a letter dated 21.06.2024, sent a reference to Telecom Regulatory Authority of India (hereinafter, also referred to as "TRAI", or "the Authority") under Section 11(1)(a) of the TRAI Act, 1997 on the subject '*Seeking recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to provide telecommunication services as per the provisions of the Telecommunications Act 2023*'. In this regard, The Authority, on 11.07.2024, issued a consultation paper on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023'. After a comprehensive consultation with stakeholders, the Authority sent its recommendations⁹ on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' to DoT on 18.09.2024.

(2) DoT's Reference Dated 26.07.2024

- 1.8 DoT, through a letter dated 26.07.2024 (**Annexure 1.1**), sent another reference to TRAI under Section 11(1)(a) of the TRAI Act, 1997 on the subject- '*Seeking 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*

⁹ The recommendations are available at the URL: https://trai.gov.in/sites/default/files/2024-11/Recommendation_18092024.pdf

Act 2023'. An extract of the DoT's reference dated 26.07.2024 is reproduced below:

"The Telecommunications Act, 2023 has been published in the Official Gazette of India. It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint and different dates may be appointed for different provisions of this Act. Section 3(1)(b) of the Act provides for obtaining an authorisation by any person intending to establish, operate, maintain or expand telecommunication network, subject to such terms and conditions, including fees or charges, as may be prescribed. A background note on related aspects in this regard including relevant sections of the Telecommunications Act, 2023 that may have bearing on the terms and conditions of authorisations is attached as Annexure to this reference.

2. In this regard, under Section 11(1)(a) of the TRAI Act, 1997 (as amended), TRAI is requested to provide its recommendations within 60 days of receipt of this reference 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."

- 1.9 The background note enclosed with the DoT's reference dated 26.07.2024 is reproduced below:

"1. Section 3(1)(a) and 3(1)(b) of the Telecommunications Act 2023 provide for authorizations to provide telecommunication services and to establish, operate, maintain or expand telecommunication network respectively. As per Section 2 of the Telecommunications Act 2023, telecommunication, telecommunication network and telecommunication service are defined as follows:

(p) "telecommunication" means transmission, emission or reception of any messages, by wire, radio, optical or other electro-magnetic systems whether or not such messages have been subjected to rearrangement, computation or

other processes by any means in the course of their transmission, emission or reception;

(s) "telecommunication network" means a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite networks or submarine networks, or a combination of such networks, used or intended to be used for providing telecommunication services, but does not include such telecommunication equipment as notified by the Central Government;

(t) "telecommunication service" means any service for telecommunication;

2. A reference dated 21.06.2024, to TRAI, has been sent for seeking its recommendations on terms and conditions, including fees or charges, for authorisation to provide telecommunication services under section 3(1)(a) of the Telecommunications Act 2023. List of the extant licenses, registrations, and permissions being granted under the Indian Telegraph Act 1885 is provided in this reference.

3. Section 3(2) of the Telecommunications Act 2023 provides for different terms and conditions of authorisation for different types of telecommunication services and telecommunication network.

4. Section 3(5) of the Telecommunications Act 2023 provides that any authorised entity may undertake any merger, demerger or acquisition, or other forms of restructuring, subject to any law for the time being in force and any authorised entity that emerges pursuant to such process, shall comply with the terms and conditions, including fees and charges, applicable to the original authorised entity, and such other terms and conditions, as may be prescribed.

5. Section 3(6) of the Telecommunications Act 2023 provides that a licence, registration, permission, by whatever name called, granted prior to the appointed day under the Indian Telegraph Act, 1885, in respect of provision of telecommunication services shall be entitled to continue to operate under the terms and conditions and for the duration as specified under such licence or registration or permission, or to migrate to terms and conditions of the relevant authorization as may be prescribed.

6. *TRAI Recommendations on 'Rationalization of Entry Fee and Bank Guarantees' dated 19.09.2023 have been received and same are under consideration of the Government. Meanwhile, a reference dated 21.06.2024, to TRAI, has been sent for seeking its recommendations on terms and conditions, including fees or charges, for authorisation to provide telecommunication services under section 3(1)(a) of the Telecommunications Act 2023.*

Another reference for seeking recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to establish, operate, maintain or expand telecommunication network under section 3(1)(b) of the Telecommunications Act 2023, is being sent along with this note.

Accordingly, the issues relating to Entry Fee and Bank Guarantees may also be revisited along with the fee or charges for different types of authorizations.

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.

iii. Reference agreement between authorized entities establishing, operating, maintaining or expanding the telecommunication network and authorized entities providing telecommunication services.

iv. Latest developments in the field of telecommunications such as cloud hosted telecommunication networks being used to provide Unified Communications as a Service (UCaaS) & Communications. Platform as a Service (CPaaS), virtualisation of telecommunication networks, Ground Station as a Service (GSaaS) as envisaged under the Indian Space Policy 2023, etc.

v. Rationalization of Entry Fee and Bank Guarantees for various authorizations in view of the provisions of the Telecommunications Act 2023.

8. Many other Sections of the Telecommunications Act 2023 may have, either direct or indirect, linkages with the terms and conditions of the authorisation to establish, operate, maintain or expand telecommunication network. Some of these Sections of the Telecommunications Act 2023 are 4 to 9, 19 to 24, 32 to 42, 44, 45, 49, and 55. Many terms and conditions of the extant licensing and regulatory framework relates to different Sections of the Telecommunications Act 2023. Further, some of the terms and conditions may be required to be amended/incorporated in light of certain new provisions in this Act and policy/Act in related sectors such as Space. The possibility of reducing the number of authorisations and simplification/merger/rationalization of the terms and conditions to improve Ease of Doing Business, may also be examined.”

(3) DoT’s Letter Dated 17.10.2024

- 1.10 Thereafter, DoT sent another letter dated 17.10.2024 (**Annexure 1.2**) to the Authority, through which, DoT requested TRAI to consider an authorisation for satellite communication network under Section 3(1)(b) of the Telecommunications Act, 2023. A relevant extract of the letter dated 17.10.2024 is reproduced below:

"1. As per the background note of the reference dated 26.07.2024 in para 7(ii), TRAI has been requested to consider its earlier recommendations on Satellite Earth Station Gateway (SESG) also, while formulating the recommendations sought vide reference dated 26.07.2024.

2. In this regard, keeping in view the increasing use of NTN (Non terrestrial networks) including satellite communication networks in provisioning of FSS (Fixed Satellite Services) including VSAT services and MSS (Mobile Satellite Services), TRAI may consider an authorisation for satellite communication network under Section 3(1)(b) of the Telecommunications Act 2023 alongwith the following:

a. Terms and conditions relating to such authorisation

- b. Provision of assignment of spectrum for both feeder link as well as user link under such authorisation*
- c. Service area of such authorisation*
- 3. This authorisation for satellite communication network under Section 3(1)(b) of the Telecommunications Act 2023 may be used to provide services to entities authorised under Section 3(1)(a) of the Telecommunications Act 2023."*

D. TRAI's Consultation Paper Dated 22.10.2024

- 1.11 With respect to the DoT's reference dated 26.07.2024 and the subsequent letter dated 17.10.2024, the Authority, on 22.10.2024, issued a consultation paper¹⁰ on 'The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023' (hereinafter also referred to as "the Consultation Paper dated 22.10.2024") for soliciting comments of stakeholders on various issues. Initially, the last dates for receiving comments and counter-comments on the Consultation Paper dated 22.10.2024 were 12.11.2024, and 19.11.2024 respectively. However, at the request of a few stakeholders, the last dates for submitting comments and counter-comments were extended upto 19.11.2024, and 26.11.2024 respectively.
- 1.12 In response to the Consultation Paper dated 22.10.2024, 32 stakeholders submitted their comments and 11 stakeholders furnished their counter-comments. An open house discussion (OHD) with stakeholders on the subject was held on 17.12.2024.

¹⁰The consultation paper dated 22.10.2024 is available at the following URL:
https://traigov.in/sites/default/files/2024-09/CP_11072024.pdf

E. The Present Recommendations

- 1.13 Based on the comments and counter-comments received from stakeholders in the consultation process, and its own analysis, the Authority has arrived at the present recommendations. The recommendations comprise three chapters. This chapter provides an introduction and background to the subject. Chapter II provides a brief description of the issues, a summary of stakeholders' comments, and the Authority's analysis and recommendations thereupon. Chapter III provides an analysis and recommendations on the financial aspects of network authorisations. Chapter IV provides a summary of the recommendations.

Chapter II: Examination of Issues

A. Extant Regime of Telecommunication Licensing in India

- 2.1 Prior to the enactment of the Telecommunications Act, 2023, the Central Government administered the licensing of telecommunications in India mainly through the Indian Telegraph Act, 1885, and the Indian Wireless Telegraphy Act, 1933. Section 4 of the Indian Telegraph Act, 1885 gave the Central Government an exclusive privilege in respect of telegraphs. It also gave the Central Government the power to grant a license, on such conditions and in consideration of such payments as it thinks fit, to any person to establish, maintain or work a telegraph within any part of India. The relevant extract of Section 4 of the Indian Telegraph Act, 1885 is reproduced below:

*"4. Exclusive privilege in respect of telegraphs, and power to grant licenses.—
(1) Within India, the Central Government shall have the exclusive privilege of establishing, maintaining and working telegraphs:
Provided that the Central Government may grant a license, on such conditions and in consideration of such payments as it thinks fit, to any person to establish, maintain or work a telegraph within any part of India: ..."*

- 2.2 The Wireless Telegraphy Act, 1933 regulated the possession of wireless telegraphy apparatus in the country. Section 3 of the Wireless Telegraphy Act, 1933 prohibited the possession of wireless telegraphy apparatus without a licence.¹¹

¹¹ Section 60(1) of the newly enacted 'the Telecommunications Act, 2023' provides that "[s]ubject to the other provisions of this section, the enactments namely, the Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933, are hereby repealed."

B. Authorisation Regime Under the Telecommunications Act, 2023

2.3 Section 3 of the Telecommunications Act, 2023 (**Annexure 2.1**) gives the Central Government the power of authorisation. Section 3(1) of the Telecommunications Act, 2023 is reproduced below:

*"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."*

2.4 A few subtle differences between the regime of the old statute viz. Indian Telegraph Act, 1885 and the new statute viz. the Telecommunications Act, 2023 are given below:

- (a) Under the Indian Telegraph Act, 1885, the Central Government granted licenses for establishing, maintaining or working a telegraph. On the other hand, the Telecommunication Act, 2023 envisages the grant of authorisations. Therefore, upon coming into force of the relevant provisions of the Telecommunication Act, 2023, any person, intending to establish, operate, maintain or expand telecommunication network will have to obtain from the Central Government an authorisation under the Telecommunications Act, 2023 instead of a license under the Indian Telegraph Act, 1885.
- (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 Telecommunication Act, 2023, and a person intending to establish, operate, maintain, or expand telecommunication networks will have to obtain an authorisation under Section 3(1)(b) of the

Telecommunication 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*".

- 2.5 With respect to the DoT's reference dated 21.06.2024 for seeking recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to provide telecommunication services as per the provisions of the Telecommunications Act 2023, the Authority has sent its recommendations¹² on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' to DoT on 18.09.2024. The present recommendations relate to the terms and conditions of various network authorisations to be granted under Section 3(1)(b) of the Telecommunication Act 2023, keeping in view the DoT's reference dated 26.07.2024.

C. Salient Points of the DoT's Reference Dated 26.07.2024 and the DoT's Letter Dated 17.10.2024

- 2.6 Through the reference dated 26.07.2024, DoT has sought recommendations of TRAI on terms and conditions, including fees or charges, for authorisations to establish, operate, maintain, or expand telecommunication network as per the provisions of the Telecommunications Act 2023. In the background note annexed with the reference dated 26.07.2024, DoT has requested TRAI to consider the following aspects while formulating its recommendations:

¹² The recommendations are available at the URL: https://traigov.in/sites/default/files/2024-11/Recommendation_18092024.pdf

- (a) Type, scope, and terms & conditions of each authorisation to be granted under section 3(1)(a)¹³ and 3(1)(b) of the Telecommunications Act, 2023
- (b) Some of the recommendations of TRAI on Digital Connectivity Infrastructure Provider (DCIP), Internet Exchange Point (IXP), Content Delivery Network (CDN), Satellite Earth Station Gateway (SESG), In Building Solution (IBS) etc. are under consideration of the Government.
- (c) Reference agreement between authorised entities establishing, operating, maintaining, or expanding the telecommunication network and authorised entities providing telecommunication services
- (d) The latest developments in the field of telecommunications such as cloud hosted telecommunication networks, and ground station-as-a-service (GSaaS) etc.
- (e) Rationalization of Entry Fee and Bank Guarantees for various authorisations in view of the provisions of the Telecommunications Act 2023.

2.7 In the background note annexed to the reference dated 26.07.2024, DoT has stated that many terms and conditions of the extant licensing and regulatory framework relate to different sections of the Telecommunications Act, 2023. DoT has indicated that various sections¹⁴ of the Telecommunications Act, 2023 and the policies/ Acts in related sectors such as Space may have a bearing on terms and conditions of network authorisations under the Act. DoT has also requested TRAI to examine the possibility of reduction in the number of

¹³ As mentioned in the previous section, in respect of the authorisations to be granted under Section 3(1)(a) of the Telecommunications Act, 2023, the Authority has already sent its recommendations on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' to DoT on 18.09.2024. The recommendations are available at the URL: https://traigov.in/sites/default/files/2024-11/Recommendation_18092024.pdf.

¹⁴ In the background Note, DoT has drawn attention to the provisions of the clauses 3(1)(b), 3(2), 3(5) and 3(6) of the Telecommunications Act, 2023 and has stated that many other sections, such as sections 4 to 9, 19 to 24, 32 to 42, 44, 45, 49 and 55 of the Telecommunications Act, 2023 may have either direct or indirect linkages with the terms and conditions of the authorisation to establish, operate, maintain, or expand telecommunication network.

authorisations and simplification/ merger/ rationalization of the terms and conditions to improve ease of doing business (EoDB).

2.8 Through a subsequent letter dated 17.10.2024, DoT has requested the Authority to consider an authorisation for satellite communication network under Section 3(1)(b) of the Telecommunications Act, 2023 alongwith the following aspects:

- (a) Terms and conditions relating to such authorisation
- (b) Provision of assignment of spectrum for both feeder link as well as user link under such authorisation
- (c) Service area of such authorisation

2.9 In the letter dated 17.10.2024, DoT has stated that the authorisation for satellite communication network under Section 3(1)(b) of the Telecommunications Act 2023 may be used to provide services to entities authorised under Section 3(1)(a) of the Telecommunications Act 2023.

D. Telecommunication Networks Under the Telecommunications Act, 2023

2.10 Section 2 of the Telecommunications Act, 2023 defines the terms 'message', 'telecommunication', 'telecommunication equipment', 'telecommunication network' and 'telecommunication service' as below:

(g) "message" means any sign, signal, writing, text, image, sound, video, data stream, intelligence or information sent through telecommunication;

(p) "telecommunication" means transmission, emission or reception of any messages, by wire, radio, optical or other electro-magnetic systems, whether or not such messages have been subjected to rearrangement, computation or other processes by any means in the course of their transmission, emission or reception;

(q) "telecommunication equipment" means any equipment, appliance, instrument, device, radio station, radio equipment, material, apparatus, or user equipment, that may be or is being used for telecommunication, including software and intelligence integral to such telecommunication equipment; and excludes such equipment as may be notified by the Central Government;

(s) "telecommunication network" means a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite networks or submarine networks, or a combination of such networks, used or intended to be used for providing telecommunication services, but does not include such telecommunication equipment as notified by the Central Government;

(t) "telecommunication service" means any service for telecommunication;

2.11 In general, an entity establishes a telecommunication network for the following purposes:

- (a) To provide telecommunication services to end consumers¹⁵ by using the telecommunication network; or
- (b) To provide the telecommunication network to other eligible entities so that such entities can provide telecommunication services to end consumers.

2.12 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, 2023¹⁶. A corollary to this statement is that under the authorisation to establish, operate, maintain, or expand the 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-

¹⁵ The entity can also provide (captive) telecommunication services to itself.

¹⁶ An entity intending to provide a telecommunication service will require to obtain an authorisation under Section 3(1)(a) of the Telecommunications Act, 2023 unless the Central Government has exempted the requirement of obtaining an authorisation to provide such a telecommunication service under Section 3(3) of the Telecommunications Act, 2023.

as-a-service to eligible entities, which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023.

E. Broad Structure of Network Authorisations Under the Telecommunications Act, 2023

2.13 With respect to the DoT's reference dated 21.06.2024 for seeking recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to provide telecommunication services as per the provisions of the Telecommunications Act, 2023, the Authority had solicited comments of stakeholders on the broad structure of authorisations under Section 3(1) of the Telecommunications Act, 2023¹⁷ through the consultation paper on 'the Framework for Service Authorisations to be Granted Under the

¹⁷ Through the consultation paper on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' dated 11.07.2024, the Authority had raised the following questions in respect of structure of authorisations under Section 3(1) of the Telecommunications Act, 2023:

"Q1. For the purpose of granting authorisations under Section 3(1) of the Telecommunications Act, 2023, whether the Central Government should issue an authorisation to the applicant entity, as is the international practice in several countries, in place of the extant practice of the Central Government entering into a license agreement with the applicant entity? In such a case, whether any safeguards are required to protect the reasonable interests of authorized entities? Kindly provide a detailed response with justifications.

Q2. Whether it will be appropriate to grant authorisations under Section 3(1) of the Telecommunications Act, 2023 in the form of an authorisation document containing the essential aspects of the authorisation, such as service area, period of validity, scope of service, list of applicable rules, authorisation fee etc., and the terms and conditions to be included in the form of rules to be made under the Telecommunications Act, 2023 with suitable safeguards to protect the reasonable interests of the authorised entities in case of any amendment in the rules? Kindly provide a detailed response with justifications.

Q3. In case it is decided to implement the authorisation structure as proposed in the Q2 above, -

- (a) Which essential aspects of authorisation should be included in authorisation documents?*
- (b) What should be the broad category of rules, under which, terms and conditions of various authorisations could be prescribed?*
- (c) Whether it would be appropriate to incorporate the information currently provided through the extant Guidelines for Grant of Unified License and Unified License for VNO, which included, inter-alia, the information on the application process for the license, eligibility conditions for obtaining the license, conditions for transfer/ Merger of the license etc., in the General Rules under the Telecommunications Act, 2023?*
- (d) What could be the broad topics for which the conditions may be required to be prescribed in the form of guidelines under the respective rules?*

Kindly provide a detailed response with justifications.

Q4. In view of the provisions of the Telecommunications Act, 2023, what safeguards are required to be put in place to ensure the long-term regulatory stability and business continuity of the service providers, while at the same time making the authorisations and associated rules a live document dynamically aligned with the contemporary developments from time to time? Kindly provide a detailed response with justifications."

The consultation paper dated 11.07.2024 is available at the URL: https://traigov.in/sites/default/files/2024-09/CP_11072024.pdf

Telecommunications Act, 2023' dated 11.07.2024. After a comprehensive consultation with stakeholders, the Authority, through the recommendations on the 'Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' dated 18.09.2024, recommended, *inter-alia*, as below in respect of service authorisations under the Telecommunications Act, 2023:

"4.1 The Authority recommends that-

- (a) The Central Government should grant Service Authorisation under section 3(1) of the Telecommunications Act, 2023 instead of entering into an agreement with the entity.*
- (b) For any change(s) in the terms and conditions of the Authorisation, except for the reason of the interest of the security of the State, the Central Government should seek TRAI's recommendations.*

...

4.4 The Authority recommends that the Rules under Section 3(1)(a) of the Telecommunications Act, 2023 should be organized in the manner given below:

- (a) Telecommunications (Grant of Service Authorisations) Rules*
- (b) Telecommunications (Main Service Authorisations) Rules*
- (c) Separate rules for each auxiliary service authorisation*
- (d) Separate rules for each captive service authorisation*

4.5 The Authority recommends that-

- (a) The Telecommunications (Grant of Service Authorisations) Rules should contain the terms and conditions for the grant of various service authorisations under Section 3(1)(a) of the Telecommunications Act, 2023. In this regard, the Authority recommends the terms and conditions which should be included in the Telecommunications (Grant of Service Authorisations) Rules, enclosed as Annexure-2.2.*
- (b) Each service authorisation to be granted by the Central Government under Section 3(1)(a) of the Telecommunications Act, 2023 should be in the*

form of an authorisation document, containing the essential elements of the service authorisation. The format for the authorisation document is included in Annexure-2.1.

- (c) The detailed terms and conditions should be prescribed through the rules notified under Section 3(1)(a) of the Telecommunications Act, 2023.”*

2.14 As the Authority has made the afore-mentioned recommendations on service authorisations under the Telecommunications Act, 2023 after following a consultation with stakeholders in respect of the broad structure of authorisations under Section 3(1) of the Telecommunications Act, 2023, the Authority has decided to make similar recommendations in respect of network authorisations under the Telecommunications Act, 2023 as well. Accordingly, **the Authority recommends that -**

- (a) The Central Government should grant network authorisations under section 3(1)(b) of the Telecommunications Act, 2023 instead of entering into an agreement with the entity.**
- (b) Detailed terms and conditions of each network authorisation should be prescribed through the rules notified under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (c) For making any change(s) in the terms and conditions of the network authorisations emanating from these recommendations, except for the reason of the interest of the security of the State, the Central Government should seek TRAI’s recommendations.**
- (d) The Rules under Section 3(1)(b) of the Telecommunications Act, 2023 should be organized in the manner given below:**
 - (i) Telecommunications (Grant of Network Authorisations) Rules; and**
 - (ii) Separate rules for each network authorisation**
- (e) The Telecommunications (Grant of Network Authorisations) Rules should contain terms and conditions for the grant of**

various network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023. In this regard, the Authority recommends the terms and conditions which should be included in the Telecommunications (Grant of Network Authorisations) Rules, enclosed as Annexure-2.2.

- (f) Each network authorisation to be granted by the Central Government under Section 3(1)(b) of the Telecommunications Act, 2023 should be in the form of an authorisation document, containing the essential elements of the network authorisation. The format for the authorisation document is included in Annexure-2.3.**

2.15 After making recommendations with respect to the broad framework for network authorisations under the Telecommunications Act, 2023, the Authority proceeds to examine the specific issues raised in the Consultation Paper dated 22.10.2024.

F. Infrastructure Providers

2.16 The Government of India opened Infrastructure Providers Category-I (to be called "IP-I")¹⁸ to private sector¹⁹ with effect from 13.08.2000 under a registration framework²⁰. IP-I registration holders can establish and maintain the assets such as dark fiber, right of way, duct space and tower for providing on lease/ rent/ sale basis to the licensees of telecom services licensed under Section 4 of the Indian Telegraph Act, 1885 on mutually agreed terms and conditions. IP-I registration holders are not permitted to work and operate or

¹⁸ Source: <https://archive.pib.gov.in/archive/releases98/lyr2000/raug2000/r13082000.html>

¹⁹ Indian companies registered under the Companies Act are eligible to apply.

²⁰ No license is issued for IP-I. The applicant company is required to be registered with DoT only. There is no restriction on foreign equity and number of entrants. There is no entry fee and no bank guarantee. The applicant company is required to pay Rs. 5,000 as processing fee along with the application.

provide telegraph service including end to end bandwidth as defined in Indian Telegraph Act, 1885 either to any service provider or any other customer.²¹ The Guidelines for Registration of Infrastructure Provider Category-I (IP-I)', which were originally issued by the Government on 13.08.2000, have been amended from time to time. Under the extant policy framework, IP-I registration holders are being regulated through these guidelines.

2.17 While opening the IP-I to private sector, the Government, on 13.08.2000, also opened Infrastructure Provider-Category-II (IP-II) to private sector. As per the Guidelines for Issue of Licence to Infrastructure Providers-Category-II (IP-II) dated 13.09.2000²², "*Infrastructure Providers Category-II (IP-II) are those Infrastructure Providers who lease/ rent out/ sell end to end bandwidth i.e. digital transmission capacity capable to carry a message.*" All Indian registered companies were eligible to apply for IP-II license²³. With effect from 14.12.2005, DoT discontinued the issuance of IP-II licenses²⁴. The existing IP-II licensees were asked to migrate to National Long Distance (NLD) license.

2.18 In the year 2009, DoT, through its letter No. 10-51/2008-CS-III dated 09.03.2009, clarified that "*the scope of IP-I category providers, which is presently limited to passive infrastructure, has been enhanced to cover the active infrastructure, if this active infrastructure is provided on behalf of the licensees, i.e. they can create active infrastructure limited to antenna, feeder cable, Node B, Radio Access Network (RAN) and transmission system for and*

²¹ Source: <https://dot.gov.in/infrastructure-provider>

²² Source: <https://archive.pib.gov.in/archive/releases98/lyr2000/raug2000/r13082000.html>

²³ However, the foreign equity of the applicant company was not to exceed 74%. The applicant company was required to pay Rs. 10,000 as processing fee along with the application. There was no entry fee for IP-II license. However, a Performance Bank Guarantees of Rs. 1,000 million was required to be submitted before signing the IP-II license agreement. There was no restriction on number of players. The license was valid for 20 years from the date of license agreement.

²⁴ Source: <https://dot.gov.in/infrastructure-provider>

on behalf of UASL/ CMSP licensees." Thereafter, in the year 2016, DoT, through the letter No. 10-40/2007-CS-III dated 28.11.2016, clarified, *inter-alia*, that "the *IP-I providers are not permitted to own and share active infrastructure. The IP-I providers can only install the active elements (limited to antenna, feeder cable, Node B, Radio Access Network (RAN) and transmission media only) on behalf of Telecom licensees i.e. these elements should be owned by the companies who have been issued license under Section 4 of Telegraph Act, 1885."*

2.19 Meanwhile, in the year 2011, TRAI issued its recommendations on 'Telecommunications Infrastructure Policy' dated 12.04.2011 and recommended, *inter-alia*, that "*Infrastructure providers should be permitted to install and share active network limited to antenna, feeder cable, Node B, Radio Access Network (RAN) and transmission system, subject to the condition that they are brought under the Unified Licensing regime as recommended by this Authority in May 2010."*

2.20 On 13.03.2020, TRAI issued its recommendations on 'Enhancement of Scope of Infrastructure Providers Category-I (IP-I) Registration' and recommended, *inter-alia*, that "*[t]he scope of Infrastructure Providers Category-I (IP-I) Registration should be expanded to satisfy the present need for telegraph in the country. The expanded scope of the IP-I registration should include to own, establish, maintain, and work all such infrastructure items, equipment, and systems which are required for establishing Wireline Access Network, Radio Access Network (RAN), and Transmission Links. However, it shall not include core network elements such as Switch, MSC, HLR, IN etc. The scope of the IP-I Registration should include, but not limited to, Right of Way, Duct Space, Optical Fiber, Tower, Feeder cable, Antenna, Base Station, In-Building Solution (IBS), Distributed Antenna System (DAS), etc. within any part of India."*

2.21 With respect to the TRAI's recommendations on 'Enhancement of Scope of Infrastructure Providers Category-I (IP-I) Registration' dated 13.03.2020, DoT, through its letter dated 11.08.2022, informed, *inter-alia*, as below to TRAI:

"The undersigned has been directed to refer to TRAI Recommendations dated 13.03.2020 on the subject "Enhancement of Scope of Infrastructure Providers Category-1 (IP-I) Registration" and subsequent communications held in this regard as mentioned above.

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.

4. However, the competent authority has decided for creation of a new category of license namely Telecom Infrastructure License' (TIL). Such licensees may be permitted to establish, maintain and work all equipment for wireline access, radio access and transmission links, except the core equipment and holding of spectrum. Further, the department is of the view that IP-I registration holders (existing/ new) may also be permitted to obtain Telecom Infrastructure License on voluntary basis.

5. TRAI is requested to give recommendations for the terms and conditions of such license, applicable license fee etc. under section 11(1)(a) of the TRAI Act 1997."

2.22 With respect to the DoT's letter dated 11.08.2022, TRAI issued a consultation paper on 'Introduction of Digital Connectivity Infrastructure Provider (DCIP) Authorization under Unified License (UL)' dated 09.02.2023. After conducting a

comprehensive consultation with stakeholders, TRAI sent its recommendations on 'Introduction of Digital Connectivity Infrastructure Provider (DCIP) Authorization under Unified License (UL)' dated 08.08.2023 to DoT. The salient points of the said recommendations are given below:

- (a) A new category of light-touch license named 'Digital Connectivity Infrastructure Provider' (DCIP) license should be created.
- (b) The scope of the DCIP authorization should include owning, establishing, maintaining, and working all such apparatus, appliance, instrument, equipment, and system which are required for establishing all Wireline Access Network, Radio Access Network (RAN), Wi-Fi systems, and transmission links. However, it should not include spectrum and core network elements such as Switch, MSC, HLR, IN etc. 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. within any part of India. 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.
- (c) There should not be any license fee applicable to DCIP authorization.
- (d) For obtaining DCIP Authorization, the entry fee should be kept at Rs. 2 lakh and application processing fee should be kept at Rs. 15,000.
- (e) No performance bank guarantee (PBG) or Financial Bank Guarantees (FBGs) should be imposed on DCIPs.
- (f) Enabling provision should be made by DoT for DCIP licensees to purchase radio equipment without assignment of any spectrum.

2.23 The afore-mentioned recommendations on 'Introduction of Digital Connectivity Infrastructure Provider (DCIP) Authorization under Unified License (UL)' dated 08.08.2023 are under consideration of DoT and are yet to be implemented.

2.24 Meanwhile, in the year 2022, DoT issued an amendment in the scope of IP-I registration through the letter No. 10-12/2012-CS-III dated 10.11.2022. Through the said amendment, the following provision was included in the scope of IP-I registration:

"IP-I registration holders shall also share the above-mentioned infrastructure with the entities as may be specified by the Central Government in the interest of national security and public interest and as per terms and conditions which may be specified by the Central Government."

2.25 Thereafter, in the year 2024, DoT issued another amendment in the scope of IP-I registration through the letter No. 10-12/2012-CS-III dated 27.06.2024. Through the said amendment, the following provision was included in the scope of IP-I registration:

"IP-I registration holders shall not enter into any exclusive contract for establishing the infrastructure (under the scope of IP-I registration) or Right of Way (RoW) with any public entity or any person."

2.26 In the above background, the Authority, in the Consultation Paper dated 22.10.2024, expressed a view that, as both IP-I and DCIP belong to the category of infrastructure provider, and are envisaged as light-touch authorisations, it requires to be deliberated as to whether the scopes of the extant IP-I Registration, and the DCIP Authorisation (as recommended by TRAI in August 2023) should be subsumed into a single network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.

2.27 In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited views of stakeholders on the following set of questions:

- 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.*
- 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) The scope and terms & conditions of the merged authorisation.*
- 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, scope and terms & conditions of the IP-I authorisation under 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, scope, and terms & conditions of the DCIP authorisation (as recommended by TRAI in August 2023)? If yes, kindly provide a detailed response with justifications.*

Comments of Stakeholders on Q1

- 2.28 In response to Q1, many stakeholders have opined that there is no need to merge the scopes of the extant IP-I Registration and DCIP Authorization (as recommended by TRAI in August 2023), into a single authorisation under Section 3(1)(b) of the Telecommunications Act, 2023. On the other hand, a few stakeholders have suggested that the scopes of the extant IP-I Registration and DCIP Authorization should be merged into a single authorisation.

2.29 A broad summary of comments of the stakeholders who have opposed the merger of the scopes of the extant IP-I Registration and DCIP Authorization into a single authorisation is given below:

- (a) The IP-1 companies specialize in managing power and real estate which requires a unique skill set. Power is a considerable operating expenditure (opex) for telecom service providers and requires not only efficiency but also the highest level of focus to create a sustainable telecom infrastructure. Majority of the IP-1 companies possess the necessary skills for setting up passive infrastructure but not active infrastructure. The active infrastructure, which is included in the proposed DCIP authorization, is quite different and will require different skill sets. Introducing a requirement for IP-1 registration holders to handle active infrastructure under a merged authorisation would necessitate a significant shift in their operational focus and capabilities, potentially leading to inefficiencies and service disruptions.
- (b) The clubbing of IP-1 Registration with DCIP Authorisation (as recommended by TRAI) will be detrimental to the present IP-I registration holders as they will have to migrate to an authorisation, which will have financial and other compliance related obligations.
- (c) At present, there are 1525 entities which hold IP-I Registration. It might therefore be unfair for those IP-I registration holders who do not wish to provide active infrastructure to be forced to get migrated to the proposed DCIP regime and to pay the entry fee and application processing fee.
- (d) The potential takers for the active infrastructure provider business are yet to be ascertained. In anticipation, a simple passive infrastructure provider business should not be complicated by merging it with DCIP Authorisation.

2.30 A broad summary of comments of the stakeholders who have supported the merger of the scopes of the extant IP-I Registration and DCIP Authorization into a single authorisation is given below:

- (a) Merging IP-I with DCIP will streamline the regulatory framework and ensure consistency across the entire infrastructure sector. It will ensure that all infrastructure providers are held to the same standards and applicable conditions.
- (b) It will offer greater flexibility to respond to changing market dynamics and technological advancements, as there will no longer be two separate regulatory frameworks with different requirements for similar infrastructure.

2.31 One of the stakeholders has suggested that a Unified Infrastructure Authorisation should be introduced to allow entities to choose between passive and active infrastructure under light-touch regulation; this model would enable passive infrastructure providers to focus on their specialization while also allowing active infrastructure providers to play a key role in expanding telecom services, creating a more balanced and competitive telecom market.

2.32 Another stakeholder has opined that DCIP and IP-I should not be subjected to the requirement of obtaining authorisation under the Telecommunications Act, 2023 as they neither qualify to be 'telecommunication network' nor are they used to provide services using scarce resources.

Analysis w.r.t. the Issues Raised Through Q1

2.33 Telecommunication infrastructure is the bedrock for reliable telecommunication services. With increasing digitalization, telecommunication infrastructure has become a crucial part of the digital economy. With the latest mobile technology (5G), telecom infrastructure will work as a backbone for every industry vertical.

2.34 Recognizing the fact that the telecommunication infrastructure is highly capital intensive, shared use of telecommunication infrastructure among telecom service providers is being promoted and facilitated globally. Infrastructure

sharing enables speedy roll-out of telecommunication services, especially in developing countries. It helps in avoiding infrastructure duplication, and thereby bringing down the overall cost of the networks.

2.35 Telecommunication infrastructure sharing can be divided into two broad categories viz. (a) passive infrastructure sharing, and (b) active infrastructure sharing. Passive infrastructure sharing is usually referred to as the sharing of space or physical supporting infrastructure such as dark fibre, right of way, duct space, tower, etc. Active infrastructure sharing is the sharing of electronic infrastructure of the telecommunication network including access network (consisting of antenna, feeder cable, base transceiver station, backhaul network etc.) and core network (consisting of server, switch, and other core functionalities).

2.36 ITU Recommendation ITU-T D.264 (04/2020)²⁵ on 'Shared uses of telecommunication infrastructure as possible methods for enhancing the efficiency of telecommunications' defines active and passive infrastructure sharing as below:

"Active infrastructure sharing: Sharing of radio access network elements, e.g., antenna, base transceiver stations and radio network controllers.

Passive infrastructure sharing: Sharing of passive elements of the network infrastructure e.g., masts, containers, towers, power supply and air conditioning equipment."

2.37 The ITU recommendation ITU-T D.264 (04/2020) also depicts a potential scenario of cost savings depending on the number of cooperating operators and the option they have selected for network sharing as reproduced below:

²⁵ <https://www.itu.int/rec/T-REC-D.264-202004-I>

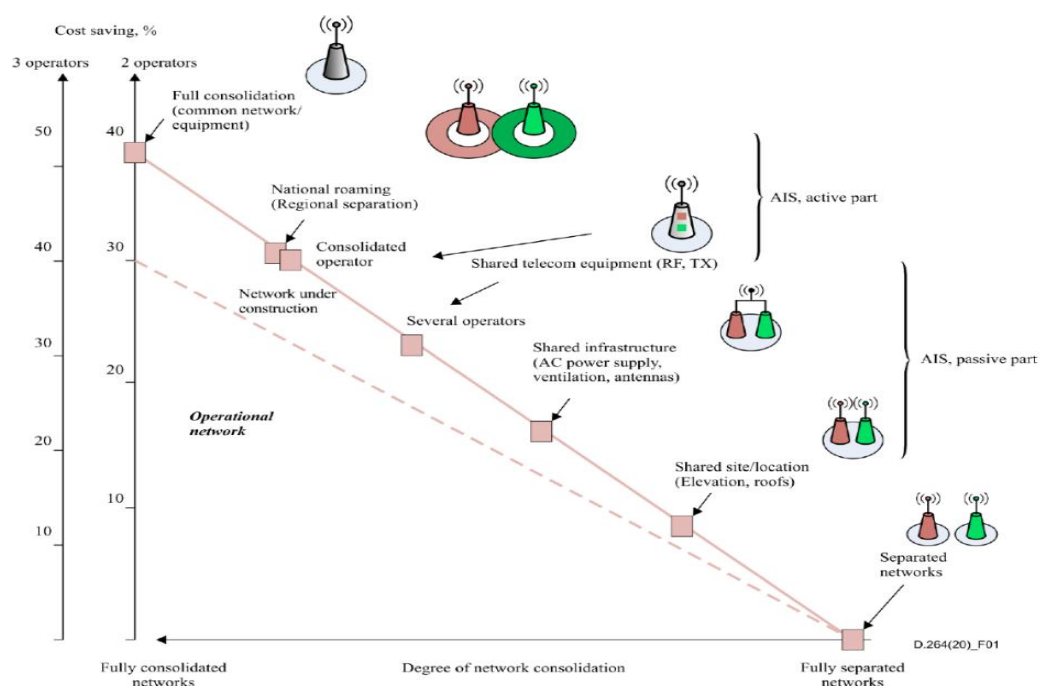


Figure 2.1:

Cost Saving Depending on the Selected Option of Network Sharing²⁶

2.38 The afore-mentioned ITU recommendation ITU-T, D.264 (04/2020) suggests that infrastructure sharing has a direct impact on costs, and subsequently on tariffs and investment; it may also enhance competition in the telecommunication market. According to the said ITU recommendation, the use of passive infrastructure sharing model can lead to the lowering of the telecommunication tariff by 30%; adding the active infrastructure sharing model can raise the savings of customers upto 50%.

2.39 Report on infrastructure sharing²⁷ by Body of European Regulators for Electronic Communications (BEREC) provides a provisional analysis of

²⁶ Source: ITU Recommendation ITU-T D.264 (04/2020) on 'Shared uses of telecommunication infrastructure as possible methods for enhancing the efficiency of telecommunications' available at the URL: <https://1f8a81b9b0707b63-19211.webchannel-proxy.scarabresearch.com/rec/T-REC-D.264-202004-I/en>

²⁷ Source: https://www.berec.europa.eu/sites/default/files/files/document_register_store/2018/6/BoR_%2818%29_116_BEREC_Report_in_frastructure_sharing.pdf

infrastructure sharing arrangements, which are currently in place in many European countries. The report includes various scenarios of sharing arrangements, benefits and challenges, as well as future evolution of sharing arrangements due to 5G. The report also indicates cost savings from infrastructure sharing as per the figures provided by some National Regulatory Authorities (NRAs). The following table presents the cost savings from infrastructure sharing as mentioned in BEREC's report:

Table 2.1:
Cost Saving from Infrastructure Sharing

Cost saving from passive infrastructure sharing	16%-35% CAPEX	16%-35% OPEX
Cost saving from active infrastructure sharing (excluding spectrum)	33%-35% CAPEX	25%-33% OPEX
Cost saving from active infrastructure sharing (including spectrum)	33%-45% CAPEX	30%-33% OPEX

2.40 In this regard, the Authority took note of the following facts:

- (a) In July 1992, the Government of India announced the opening of the sub-sector of value-added services to private investment for Electronic Mail, Voice Mail, Data Services, Audio Text Services, Video Text Services, Video Conferencing, Radio Paging and Cellular Mobile Telephone Service (CMTS). In November 1994, the Government issued the first set of telecommunication service licenses for cellular mobile telephone service (CMTS) in the four metro cities of Delhi, Bombay (now Mumbai), Calcutta (now Kolkata) and Madras (now Chennai). The CMTS license agreement for metro cities contained, *inter-alia*, the following requirement to provide the service:

"1.1 The Licensee shall install and run Applicable Systems²⁸ within 12 months of the effective date. ...

*1.2 The Licensee shall operate and provide the Services. He will be **solely** responsible for the installation, networking, operation, treatment of the complaints, issue of bills to his subscribers, collection of his component of revenue, claims, damages arising out of this operation."*

- (b) Owing to the afore-mentioned provision in the CMTS license, telecom service providers installed towers and other passive infrastructures on their own and there was no sharing of such infrastructure.
- (c) In 1999, the Government announced a new policy framework through the New Telecom Policy (NTP) 1999. Through the NTP 1999, Government permitted service providers²⁹ to share their infrastructure with any other type of service provider.
- (d) In August 2000, the Government of India opened Infrastructure Provider Category-I (IP-I) for the private participation under a registration framework³⁰. IP-I registration holders were permitted to provide passive telecommunication infrastructure such as dark fiber, right of way, duct space and tower to licensed service providers.

2.41 The Authority also noted that DIPA and EY in their joint report³¹ on 'From evolution to revolution: Advancing a decade of innovation in the Indian tower industry' published in 2020 mentioned as below:

²⁸ The CMTS license agreement defined the term 'Applicable Systems' as below:

"The APPLICABLE SYSTEMS are Cellular Mobile Telecommunication Systems conforming to GSM (Group Special Mobile or Global System for Mobile Communications) standards issued by European Telecom Standards Institute and as specified by the Tender Specifications No. 44-29/91-MMC within the Service Area as given in Schedule 'A' of this licence."

²⁹ In respect of cellular mobile service providers, fixed service providers. Cable providers and radio paging service providers, The NTP 1999 stipulated, *inter-alia*, that "sharing of infrastructure with any other type of service provider shall be permitted".

³⁰ As per the extant policy, no license is issued for IP-I. The applicant company is required to be registered with DoT. The application processing fee for IP-I registration is Rs. 5,000. A company, after registering with DoT as IP-I, can establish and maintain the assets such as dark fiber, right of way, duct space and tower for the purpose of granting on lease/ rent/ sale basis to the licensees of telecom services licensed under Section 4 of the Indian Telegraph Act, 1885 on mutually agreed terms and conditions.

³¹ Source: <https://dipa.co.in/reports/From%20evolution%20to%20revolution.pdf>

- (a) After the year 2005³², the mobile tower industry evolved under IP-I companies which installed and maintained assets like tower and related infrastructure for renting/ leasing to telecom service providers for providing cellular telecom services.
- (b) During 2006-07, prior to the establishment of IP-I industry in India, a mobile tower site represented 70% of network costs³³.
- (c) In India, by the co-use of the infrastructure provided by IP-I companies, telecom service providers could share costs of deployment and operations of a tower site. It also increased the speed to market, as the tower deployment cycle shortened from 90 days to 45 days.

2.42 Currently, there are more than 1,500 companies which hold IP-I registrations in India. At present, there are about 8,20,000 mobile towers in the country, of which about 79% mobile towers are held by IP-I registration holders.

2.43 At present, IP-I registration holders are mainly in the business of establishing, maintaining, and operating and expanding mobile tower sites in the country. After establishing mobile tower sites, IP-I companies provide mobile tower sites on lease/ rent basis to one or several telecom service providers³⁴.

2.44 At this stage, it would be worthwhile to make a comparison of the extant IP-I Registration and the DCIP Authorization (as recommended by TRAI in August

³² First tower sharing breakthrough –Indian telco approaches an equipment leasing firm to start building the first independent infrastructure. Source: ibid

³³ The joint report of DIPA and EY also mentioned that the building, rigging, materials and power (i.e. building access to electrical networks to connect base stations to power) of a mobile tower consists of more than 50% of capex for both developed and emerging markets; sharing these costs can significantly reduce required costs and some telecom service providers have experienced 35%-40% reduction in the total cost of ownership (TCO) due to sharing of passive infrastructure; land rent, power and backhaul consist of more than half of operating cost (opex) in developed markets and almost half of opex in emerging markets. Sharing these components can significantly reduce costs.

³⁴ As per a report of Crisil, the tenancy ratio of mobile tower sites is about 1.41.³⁴ Tenancy ratio refers to the average number of tenants (i.e. telecom service providers) sharing a tower's infrastructure.
Source: <https://www.communicationstoday.co.in/fy25-towercos-tenancy-ratio-1-41-capex-rs-21000cr-expected-crisil/>

2023). The following table presents a comparison of the main features of IP-I and DCIP:

Table 2.2:
Comparison of the Main Features of IP-I and DCIP

S. No.	Feature	Extant IP-I Registration	DCIP Authorization (as recommended by TRAI in august 2023)
1	Main scope	Provision of dark fiber, right of way, duct space and towers to licensed telecom service providers	Provision of wireline access network, radio access network, Wi-Fi system, transmission links, IBS, dark fiber, right of way, duct space and towers to licensed telecom service providers
2	Type of authorisation	Registration	Authorization under Unified License
3	Application Processing Fee	Rs. 5,000	Rs. 15,000
4	Entry Fee	-	Rs. 2 lakh
5	Technical and security conditions	-	technical, and security conditions relevant for provisioning of telecommunication access network

2.45 In short, while the scope of the extant IP-I Registration covers the provision of passive telecommunication infrastructure (such as tower, poles, duct space,

dark fiber, dark fiber) only, the scope envisaged under the DCIP authorization (as recommended by TRAI in august 2023) includes not only the provisioning of passive telecommunication infrastructure, but also the provisioning of certain active telecommunication equipment (such as telecommunication access network, Wi-Fi system, transmission links, and IBS). The regulatory obligations on the extant IP-I registration are much lighter than those for the DCIP authorization (as recommended by TRAI in August 2023).

2.46 In this background, the Authority examined the comments of stakeholders with respect to the need for the merger of IP-I with DCIP. The Authority notes that while one set of stakeholders have opined that the merger of IP-I with DCIP will streamline the regulatory framework for telecom infrastructure providers and ensure consistency across the entire infrastructure sector, the other set of stakeholders have contended that such a merger would necessitate a significant shift in the operational focus and capabilities of IP-I companies, leading to inefficiencies.

2.47 While examining the comments of stakeholders, the Authority took cognizance of the following aspects:

- (a) Telecommunication infrastructure providers have played a key role in the proliferation of telecommunication services in the country. The infrastructure sharing model of IP-I has not only helped in a significant reduction in capex and opex of telecom service providers but has also assisted in a faster roll-out of telecommunication services in the country. Overall, the policy framework for IP-I has, so far, been a successful one.
- (b) The main activities of IP-I companies are (i) acquiring land or building on lease or rent, (ii) establishing towers, (iii) managing the powering infrastructure at the tower site, and (iv) onboarding tenants (telecom service providers) on the tower sites. Clearly, the skill sets needed for performing such activities are significantly different from the skill sets needed for establishing and maintaining active telecommunication

equipment (such as telecommunication access network, Wi-Fi system, transmission links, and IBS) under the DCIP Authorization (as recommended by TRAI in August 2023). Essentially, the operational focus and capabilities required for IP-I would be significantly different from those for DCIP.

- 2.48 Given the success of IP-I policy framework in the country and the consequent need to preserve the focus of IP-I companies on the provisioning of passive telecommunication infrastructure, the Authority is of the view that the scope of the extant IP-I Registration should not be merged with the scope of DCIP Authorization (as recommended by TRAI in August 2023).
- 2.49 A stakeholder has contended that IP-I entities are not liable to be subjected to authorisation under the Act as they neither qualify to be 'telecommunication network' nor are they used to provide services using scarce resources. In this regard, the Authority notes that the term 'telecommunication network' has been defined under the Telecommunications Act, 2023 as "*a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite networks or submarine networks, or a combination of such networks, used or intended to be used for providing telecommunication services, but does not include such telecommunication equipment as notified by the Central Government*". The Authority notes that the telecommunication infrastructure which is established, maintained, operated and expanded by IP-1 companies and is given to telecom service providers for the provision of telecommunication services is fully covered under the term "telecommunication network' under the Telecommunications Act, 2023. Therefore, in terms of Section 3 (1)(b) of the Telecommunications Act, 2023, any person intending to establish, operate, maintain, or expand telecommunication infrastructure items namely dark fibers, right of way, duct space, and towers would require network authorisation from the Central Government. The Authority is of the view that

such an authorisation may be termed as Infrastructure Provider (IP) Authorisation³⁵.

2.50 Considering the comments of stakeholders and the foregoing discussion, **the Authority recommends that-**

(a) The Central Government should introduce Infrastructure Provider (IP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.

(b) Any entity intending to establish, operate, maintain, or expand dark fibers, right of way, duct space, and towers should obtain IP Authorisation from the Central Government.

2.51 As it has already been concluded in the preceding paragraphs that the scope of the extant IP-I Registration should not be merged with the scope of DCIP Authorization (as recommended by TRAI in August 2023), the Authority is of the view that Q2 of the Consultation Paper dated 22.10.2024, which is related to the regulatory framework under a merged authorisation of IP-I and DCIP, no longer requires to be deliberated. Therefore, the Authority proceeds to examine the issue raised through Q3(a) and Q3(b) of the Consultation Paper dated 22.10.2024.

Comments of Stakeholders on Q3(a)

2.52 Through Q3(a) of the Consultation Paper dated 22.10.2024, the Authority solicited comments from stakeholders on the changes required to be incorporated in the eligibility conditions, area of operation, validity period, scope and terms & conditions of IP-I Authorisation under the Telecommunications Act, 2023 as compared to the extant IP-I Registration. In

³⁵ It is noteworthy that in the year 2000 when the Government introduced infrastructure provider categories, the term 'IP-I' was used in order to distinguish it from 'IP-II'.

response, a few stakeholders have opined that no change is required to be incorporated in the IP-I Authorisation under the Telecommunications Act, 2023 as compared to the extant IP-I Registration. On the other hand, many other stakeholders have provided a range of suggestions, a summary of which is given below:

- (a) The scope of IP-I may be enhanced to include additional passive elements of a telecommunication network to cover the scope of a passive in-building solution (IBS). This will be beneficial for the growth of digital connectivity inside buildings.
- (b) The scope of IP-I should be enlarged to include provision of the active infrastructure to telecom service providers.
- (c) To harness the true potential of digital telecom infrastructure, IP-I companies should also be allowed to lease their infrastructure to data centre operators, and other emerging digital service providers.
- (d) As per the existing licensing framework in India, access spectrum is assigned to access service licensees with a validity period of 20 years. The infrastructure provided by the IP-I companies is utilized by these access service licensees to provide their services to end users. The validity period of IP-I Authorisation should be kept as 20 years, which may be extended on request of the authorised entities.

Analysis w.r.t. the Issues Raised Through Q3(a)

2.53 In the year 2021, the Government issued the revised guidelines for registration of IP-I³⁶. The salient points of the revised guidelines are given below:

- (a) Eligibility conditions for the grant of IP-I Registration: The applicant must be an Indian company.

³⁶ Revised Guidelines for Registration of Infrastructure Providers - Category-I (IP-I) dated 22.12.2021 are available at DoT's website at the following URL:
<https://dot.gov.in/sites/default/files/RevisedIP-1Guidelines22122021.pdf?download=1>

- (b) Application processing fee: Rs. 5,000
- (c) Non-exclusivity clause: The registration for IP-I shall be on non-exclusive basis without any restriction on the number of entrants.
- (d) Scope: (i) The IP-I registered company shall provide dark fibers, right of way, duct space, towers on lease/ rent out/ sale basis to the licensees of telecom services on mutually agreed terms and conditions. (ii) In no case, The IP-I registered company shall work and operate or provide telegraph service including end-to-end bandwidth either to any service provider or any customer.
- (e) Terms and conditions: (i) The IP-I registered company shall submit a copy of an agreement entered into with the telecom service providers to DoT within 15 days of signing such agreement. (ii) IP-I registered company shall provide for the use of infrastructure in a non-discriminatory manner.

2.54 The Authority is of the view that while most of the provisions of the extant IP-I Registration may be incorporated without any amendment, in the IP authorisation under Section 3(1)(b) of the Telecommunications Act, 2023, the following two aspects of the extant IP-I Registration, specifically, require a close look:

- (a) Validity period: No validity period has been specified, which implies that IP-I Registration remains valid until it is revoked by DoT, or is surrendered by the IP-I registration holder, and
- (b) Scope: IP-I companies are permitted to provide only dark fibers, right of way, duct space, towers to licensed telecom service providers³⁷.

³⁷ It is worth noting that DoT issued an amendment in the scope of IP-I registration on 10.11.2022 and included the following provision in the scope of IP-I registration:
"IP-I registration holders shall also share the above-mentioned infrastructure with the entities as may be specified by the Central Government in the interest of national security and public interest and as per terms and conditions which may be specified by the Central Government."

- 2.55 Regarding the validity period of IP Authorisation, the Authority took note of the following aspects:
- (a) Under the extant telecommunication service licensing regime, the validity period is, generally, 20 years. Access spectrum is also assigned for a period of 20 years.
 - (b) Through the recommendations on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023 dated 18.09.2024, the Authority has recommended a validity period of 20 years for most of the service authorisations.
- 2.56 In light of the above facts, the Authority is of the view that it would be appropriate to keep the validity period of IP Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 as 20 years.
- 2.57 Further, the Authority examined the comments of stakeholders in respect of the scope of the IP Authorisation. While a few stakeholders have suggested that the scope may be enhanced to include passive in-building solution (IBS) and other active elements, a few other stakeholders have opined that infrastructure providers should also be allowed to lease their infrastructure to data centre operators, and other emerging digital service providers.
- 2.58 In the following section of these recommendations on IBS, the Authority has recommended that the deployment of IBS should be exempted from the requirement of obtaining a network authorisation. Accordingly, the Authority is of the view that IP authorised entities may also be permitted to provide IBS to the eligible authorised entities.
- 2.59 As far as the suggestion of a few stakeholders for allowing IP authorised entities to lease their infrastructure to data centre operators etc. is concerned, the Authority is of the view that in case such a permission is included in the scope of IP Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023, it would have the effect of permitting IP authorised entities to provide

telecommunication services. As an entity cannot provide telecommunication services to end consumers through an authorisation under Section 3(1)(b) of the Telecommunications Act, 2023, the question of allowing IP authorised entities to lease their infrastructure to data centre operators etc. does not arise.

2.60 In view of the foregoing discussion, **the Authority recommends the following in respect of Infrastructure Provider (IP) Authorisation:**

- (a) Main scope of IP Authorisation: To provide dark fibres, right of way, duct space, towers, and in-building solution (IBS) to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023**
- (b) Period of validity of IP Authorisation: 20 years**
- (c) The detailed terms and conditions for IP Authorisation have been included in Annexure-2.4.**
- (d) The terms and conditions for the grant of IP Authorisation have been included in Annexure-2.2.**

Comments of Stakeholders on Q3(b)

2.61 Through Q3(b) of the Consultation Paper dated 22.10.2024, the Authority solicited comments from stakeholders on the need for making changes in the eligibility conditions, area of operation, validity period, scope and terms & conditions of the DCIP Authorization (as recommended by TRAI in August 2023). In response, broadly three types of responses have been received from stakeholders. At one extreme, a few stakeholders have suggested that there is no need for DCIP Authorisation. On the other extreme, a few stakeholders have opined that there is no need for any change in the terms and conditions etc. of DCIP Authorization (as recommended by TRAI in August 2023). In the middle, a few stakeholders have proposed certain changes in the terms and conditions etc. of DCIP Authorization (as recommended by TRAI in August 2023).

2.62 A broad summary of the comments of the stakeholders, who have suggested that there is no need for DCIP Authorisation, is given below:

- (a) The proposed DCIP Authorisation will create regulatory imbalance and serious level-playing field issues. With DCIPs being exempt from the levy of License Fee, DCIPs will have a competitive advantage over telecom service providers (TSPs) wishing to offer their infrastructure for sharing with other TSPs. Allowing such arrangement of regulatory arbitrage will result in many TSPs obtaining DCIP authorisations and creating their network under such DCIP authorisations instead of service authorisations.
- (b) Another level-playing field issue is the lack of security requirements and the proposal of very light-touch regulations. Any exemption from security requirements can lead to a large part of active networks elements being unsecure as per current regulatory requirements and creating an imbalance in the cost of procurement of equipment from vendors by DCIP vis-a-vis TSPs. Due to the proposed very light-touch regulations on DCIP, there will also be concerns about the stability of DCIP network, which can become a single point of failure for many networks.
- (c) A widespread adoption of DCIP will pose new challenges in the form of external control over quality of service (QoS) and pricing.

2.63 A few stakeholders have proposed that the entities holding DCIP Authorisation should be permitted to provide services to data centers and cloud service providers; they should also be permitted to establish and illuminate dark fiber for enabling high-speed connectivity for captive use, thereby ensuring operational control of cloud service providers and data centers over such captive networks; this would enable data center operators and cloud service providers to construct, operate, and efficiently manage their own networks, as configured and optimized to meet customer requirements without being entirely dependent on licensed TSPs for connectivity.

Analysis w.r.t. the Issues Raised Through Q3(b)

- 2.64 The Authority notes that in spite of the fact that DoT permitted telecom service providers to share antenna, feeder cable, Node B, Radio Access Network (RAN) and transmission system with other telecom service providers in the year 2016, and that the advantage of cost savings from the active infrastructure sharing is acknowledged internationally and is well documented in numerous reports including the BEREC's report³⁸ and the ITU's recommendations³⁹, telecom service providers in India have shown little or no interest in sharing of active infrastructure so far. In respect of passive infrastructure sharing, the Authority notes that even through the infrastructure sharing was enabled in NTP 1999, telecom service providers did not show much interest in sharing the passive infrastructure amongst them. The sharing (co-use) of passive infrastructure became successful only after several independent companies obtained IP-I registrations from the Government and started operating with the sole focus on providing passive infrastructure to the licensed telecom service providers.
- 2.65 The regulatory regime for IP-I with a specific scope of operation, and light-touch regulatory obligations resulted in the success of the passive infrastructure provisioning segment of the telecom sector in the country. The Authority is of the view that the introduction of the proposed DCIP authorisation with a specific scope of operation and reasonably light-touch regulatory obligations is likely to provide an impetus to the provisioning of access network infrastructure in the country in a manner like the impetus provided by IP-I companies to the provisioning of passive telecom infrastructure in the country.

³⁸ Source:

https://www.berec.europa.eu/sites/default/files/files/document_register_store/2018/6/BoR_%2818%29_116_BEREC_Report_in_infrastructure_sharing.pdf

³⁹ Source: ITU Recommendation ITU-T D.264 (04/2020) on 'Shared uses of telecommunication infrastructure as possible methods for enhancing the efficiency of telecommunications' available at the URL: <https://1f8a81b9b0707b63-19211.webchannel-proxy.scarabresearch.com/rec/T-REC-D.264-202004-I/en>

- 2.66 The Authority examined the suggestions given by a few stakeholders for enhancing the scope of DCIPs. The Authority is of the view that permitting DCIPs to - (a) share their active network infrastructure with data centers and cloud-service providers and (b) establish and illuminate optical fiber cable for captive use, would be akin to permitting them to provide telecommunication services, which is impermissible under a network authorisation granted under Section 3(1)(b) of the Telecommunications Act, 2023.
- 2.67 Considering the comments received from stakeholders and further analysis, **the Authority recommends that –**
- (a) The Central Government should introduce Digital Connectivity Infrastructure Provider (DCIP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
 - (b) Any entity intending to establish, operate, maintain, or expand wireline access network, radio access network (RAN), transmission links, and Wi-Fi systems should obtain DCIP Authorisation from the Central Government.**
 - (c) Main scope of DCIP Authorisation:**
 - (i) DCIP authorised entities may provide wireline access network, radio access network (RAN), transmission links, Wi-Fi systems, and In-Building Solution (IBS) to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.**
 - (ii) DCIP authorised entities may also provide dark fibers, right of way, duct space, and towers to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.**
 - (iii) DCIP authorised entities shall not establish, operate, maintain or expand core network elements such as Mobile Switching Center (MSC), Home Location Register (HLR), Intelligent Network (IN) etc.**

- (iv) DCIP authorised entities shall not provide end-to-end bandwidth using transmission systems to any authorised entity, or any user, or for their captive use.**
 - (v) Spectrum shall not be assigned to DCIP authorised entities. However, for configuration, provisioning, operation and maintenance of its radio access network equipment, a DCIP authorised entity may use spectrum resources of its partnering service authorised entities.**
 - (vi) The usage of access spectrum of a partnering service authorised entity on a radio access network (established by the DCIP authorised entity) by any other partnering service authorised entity will be permitted only if such service authorised entities have access spectrum sharing arrangement between them.**
- (d) The detailed terms and conditions for DCIP Authorisation have been included in Annexure-2.4.**
- (e) The terms and conditions for the grant of DCIP Authorisation have been included in Annexure-2.2.**

G. In-building Solution (IBS)

2.68 In the year 2023, the Authority issued recommendations⁴⁰ on 'Rating of Buildings or Areas for Digital Connectivity' dated 20.02.2023. Recognizing the fact that digital connectivity has become the backbone to access various services such as health, remote working, online learning, e-commerce, and entertainment, the Authority, in the recommendations dated 20.02.2023, opined that the deployment of digital communication infrastructure (DCI)

⁴⁰ https://tra.gov.in/sites/default/files/Recommendation_20022023.pdf

should be made an integral part of the basic infrastructure for buildings. The Authority described the term 'DCI' as below:

"Digital Connectivity Infrastructure (DCI) consists of passive and active elements which include any apparatus, appliance, instrument, equipment, and system used or capable of extending seamless digital connectivity. All infrastructure required for establishing Wireless or Wireline Access Networks such as Radio Access Networks (RAN) and Wi-Fi systems, and Transmission Links Interface, Duct Space, Optical Fiber, Poles, Towers, Feeder cable, Antenna, Base Station, In-Building Solutions (IBS), Distributed Antenna System (DAS), or any other equipment to be used for the provision of digital connectivity, may be part of DCI. However, it shall not include core network elements". (Emphasis supplied)

2.69 In the recommendations on 'Rating of Buildings or Area for Digital Connectivity' dated 20.02.2023, the Authority stated, *inter-alia*, as below in respect of the ownership of DCI:

- (a) Ownership of DCI should lie with a person or body who is responsible for the creation, operation and upgradation of DCI as per the needs of the end users and such person or body can be the 'Property Manager'. The Property Manager is the person or body who is responsible to oversee and manage the development, operation and maintenance of a Building and has the authority either as owner(s) of the Building or as an agent of the owner(s).
- (b) The term "Property Manager" would include an owner or a developer or a builder of a real estate project(s) or an area(s) responsible to plan, design and build facilities like multi storey residential buildings, Commercial buildings or complexes, etc.

2.70 In the recommendations on 'Rating of Buildings or Area for Digital Connectivity' dated 20.02.2023, the Authority made the following observations:

"As per Indian Telegraph Rules, 1951 (Rule 472), "Any person may without a licence establish, maintain and work a telegraph (not being a wireless telegraph) within the limits of a single building, compound or estate: Provided that no telegraph line pertaining to the telegraph shall pass over or under a public road". However, if Property Manager intends to deploy active wireless equipment, licence as specified by DoT is required to be taken. Further, if Property Manager uses services of a licensee to deploy active wireless equipment, to that extent, the licensee shall be the owner of such active equipment. However, onus for providing access of such DCI including active wireless equipment deployed by a licensee, shall lie with the Property Manager."

- 2.71 With the afore-mentioned observations, the Authority, through the recommendations on 'Rating of Buildings or Area for Digital Connectivity' dated 20.02.2023, recommended *inter-alia*, as below:

"...the Property Manager shall be the owner of the deployed DCI whether created by himself or through his agent and shall be responsible for maintenance, expansion and upgradation of such DCI. The Property Manager shall allow access of DCI to all service providers in fair, non-chargeable, transparent and non-discriminatory manner and shall not have any exclusive arrangements or agreements with any infrastructure/ service provider.

Provided that in case active wireless equipment is installed by a licensee, the licensee will be responsible for maintenance, expansion and upgradation of such DCI and to that extent, the ownership lies with that licensee. However, this installation of active wireless equipment will be carried out on behalf of the Property Manager and Property Manager shall be responsible for ensuring that the licensee compulsorily gives access of such active wireless equipment to all

service providers on fair, transparent, non-discriminatory, and non-exclusive manner.”⁴¹

2.72 TRAI recommendations on ‘Rating of Buildings or Area for Digital Connectivity’ dated 20.02.2023 are under consideration of DoT at present.

2.73 Through the Recommendations on ‘the Framework for Service Authorisations to be Granted Under the telecommunications Act, 2023’ dated 18.09.2024, the Authority has recommended, *inter-alia*, that *“any person may, without a service authorisation, establish, operate, maintain, or expand telecommunication network (not being a wireless telecommunication network) within the limits of a single building, compound or estate, provided that no part of such telecommunication network should pass over or under a public road.”* In this context, the Authority expressed the following views in the Consultation Paper dated 22.10.2024:

- (a) The Authority intends to recommend a similar provision in respect of network authorisations under the Telecommunications Act, 2023, i.e., any person, without a network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 should be permitted to establish, operate, maintain, or expand telecommunication network (not being a wireless telecommunication network) within the limits of a single building, compound or estate, provided that no part of such telecommunication network passes over or under a public road.
- (b) While establishment, operation, maintenance, or expansion of wireline telecommunication network within the limits of a single building, compound or estate (provided that no part of such telecommunication network passes over or under a public road) is envisaged to be

⁴¹ In the said recommendations dated 20.02.2023, the Authority also expressed its view that for making digital connectivity an essential part of a building and accordingly recommended that the development of DCI is required to be made an integral part of the building construction and approval process, similar to water, electricity, gas and fire protection, and safety, etc.

recommended on network authorisation-exempt basis, it requires to be examined as to whether there is a need to also introduce an enabling framework for permitting property managers to establish, operate, maintain or expand in-building solution (IBS), keeping the fact in mind that IBS is, generally, deployed at the stage of development of the property alongwith the wireline digital communication infrastructure.

2.74 In this background, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments from stakeholders on the following question:

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.

Comments of Stakeholders on Q4

2.75 In response to Q4(a), some stakeholders have provided lists of telecommunication equipment and elements which should be included in the ambit of in-building solution (IBS). The suggested telecommunication equipment and elements are given below:

(a) Distributed Antenna System (DAS), Base Transceiver Station (BTS), Small Cells, Cables such as Coaxial Cables, Fiber Optic Cables, and Cat 6/ Cat 7 Ethernet Cables.

- (b) Indoor antennas including panel antennas, ceiling-mounted omnidirectional antennas, and wall-mounted directional antennas to distribute signals within the building; outdoor antennas which capture signals from nearby cellular towers and feed them into the in-building system for enhanced indoor coverage.
- (c) Remote Radio Units (RRUs), Power Supply Units (PSUs) and Backup Systems, Network Controllers, RF Splitters, Combiners, Taps, RF Feeder Cables, RF Couplers, RF Repeaters, RF Loads, Master Optical Units (MOU), Remote Optical Units (ROU), Shared Base Band Units (BBU), Shared Remote Radio Heads (RRH), Fiber Distribution Units, Optical Networking Units (ONU), Optical Line Terminals (OLT), Fiber Access Terminals (FAT boxes), and any other related accessories for setting up an in-building solution (IBS).

2.76 In response to Q4(b), stakeholders have expressed a unanimous opinion that there is no need to introduce a new authorisation under Section 3(1)(b) of the Telecommunication 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. Though stakeholders are unanimous on the final opinion, their viewpoints are somewhat nuanced. A summary of the viewpoints expressed by stakeholders in response to Q4(b) is given below:

- (a) View-1: The Access providers, creating the network through the auctioned spectrum, have the sole right to transmit across the geography including the in-building locations. No third party right can be created for any person to utilize/ transmit these frequencies in the name of in-building service provider.
- (b) View-2: DCIPs will be and TSPs are authorised to deploy both wireless and wireline telecommunication network as per the prescribed framework. The property manager acts as a neutral host of the infrastructure. With this

framework, the authorisation under the Telecommunications Act, 2023 for the property manager for IBS is not required.

- (c) View-3: Property managers may be allowed to install in-building wireless solutions on behalf of the authorised TSPs. For this activity, such IBS providers should only be required to be registered with the authorised TSPs. For this purpose, there is no need to introduce a new category of authorisation for IBS.

Analysis w.r.t. the Issues Raised Through Q4

- 2.77 Through the Recommendations on 'the Framework for Service Authorisations to be Granted Under the telecommunications Act, 2023' dated 18.09.2024, the Authority recommended, *inter-alia*, that "*any person may, without a service authorisation, establish, operate, maintain, or expand telecommunication network (not being a wireless telecommunication network) within the limits of a single building, compound or estate, provided that no part of such telecommunication network should pass over or under a public road.*" As the matter relates to establishing, operating, maintaining, or expanding telecommunication network, the Authority is of the view that for the reasons of parity, there is a need for a similar provision in respect of network authorisations under the Telecommunications Act, 2023. Accordingly, **the Authority recommends that any person, without network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 should be permitted to establish, operate, maintain, and expand telecommunication network (not being a wireless telecommunication network) within the limits of a single building, compound or estate, provided that no part of such telecommunication network passes over or under a public road.**

2.78 According to Ericsson, people spend 90% of their time indoors⁴² and over 80% of mobile data is consumed inside.⁴³ Therefore, the importance of a robust mobile network inside buildings cannot be over-emphasized. Notwithstanding the fact that a significant expansion of telecommunication networks is being undertaken by telecom service providers in the country, the following two phenomenon have posed a challenge to the provisioning of robust telecom coverage and adequate capacity inside buildings:

- (a) Densification of the urban landscape: Due to the constant development in the landscape and skyline of the urban areas, the buildings and areas which were well covered earlier by the mobile towers have started facing severe mobile coverage issues. Further, many high-rise buildings are being built which are much taller than the serving mobile towers in the vicinity. The higher floors of such high-rise buildings often face the problem of insufficient mobile signal strength. Lifts, basements and underground parking areas of the buildings face the problem of inadequate coverage even more.
- (b) Usage of higher frequencies of spectrum: As the demand for mobile data has progressively grown in the country, mobile operators have started using higher frequencies of spectrum (such as the frequency spectrum in 3500 MHz band) along with the lower frequencies of spectrum. As the telecommunication signals of higher frequencies decay faster with distance and upon incidence of obstructions, the mobile operators find it harder to deliver mobile services inside the buildings through the higher frequency spectrum.

⁴² Source: <https://www.ericsson.com/en/blog/2023/7/5-ways-indoor-5g-will-change-life>

⁴³ Source: <https://www.ericsson.com/en/small-cells/indoor-coverage#:~:text=Ericsson's%20indoor%20small%20cells%20are,operators%20within%20the%20same%20Dot>

2.79 In this context, the in-building solution (IBS) has emerged as a telecommunications solution to address the problem of poor mobile network coverage and insufficient capacity inside buildings. IBS is used to extend and distribute cellular signals of mobile operators within a building with high quality mobile communication for indoor environments such as offices, shopping malls, hospitals, and airports.⁴⁴ Generally, IBS comprises a distributed antenna system (DAS)⁴⁵ and telecommunications cables as outlined below:

- (a) DAS is a network of antennas that are strategically placed throughout a building or area to improve cellular mobile coverage and capacity. The antennas are connected to a central hub, which is typically connected to a cellular mobile network, allowing for the distribution of cellular mobile signals to provide coverage in areas where the cellular mobile signal may be weak or non-existent.⁴⁶.
- (b) Telecommunication cables such as optical fibre cables (OFC), coaxial cable and ethernet cables (like Cat 6 and Cat 7) are deployed to distribute cellular mobile signal emanating from the central hub to the network of antennas.

2.80 Institute of Electrical and Electronics Engineers (IEEE) in its research article⁴⁷ on 'Impact of Indoor Distributed Antenna System on RF-EMF Global Exposure' (May, 2023) has presented the outcome of a study which was conducted to analyze the overall impact of the installation of indoor DAS on global human exposure. In the said article, IEEE stated, *inter-alia*, that "[t]his analysis takes into account both downlink exposure, which includes exposure from outdoor

⁴⁴ Source: <https://ieeexplore.ieee.org/document/8261887>

⁴⁵ A distributed antenna system (DAS) is a physical implementation that aims to enhance coverage and capacity by connecting multiple low-power remote units (RUs) to a central base station, extending radio frequency (RF) coverage over a wider geographical area like a mall or sports arena.
Source: <https://www.sciencedirect.com/topics/computer-science/distributed-antenna-system>

⁴⁶ Source: <https://www.sannytelecom.com/what-is-a-das-antenna/>

⁴⁷ Source: <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=10176346>

base stations and indoor DAS, as well as uplink exposure induced by mobile phones. To this end, we carried out measurement campaigns in the premises of an organization and two subway stations in France, with the capability to selectively activate or deactivate the DAS antennas. The global exposure is evaluated using the 'Exposure Index (EI)' metric, which was developed as part of the European project LEXNET. The EI metric takes into consideration the exposure induced by both base stations and mobile devices, as well as the specific usage service (such as data or voice calls). The results have shown that deploying indoor DAS implies a reduction in the global EMF exposure while improving the quality of the cellular network connectivity." (Emphasis supplied)

2.81 IBS is essentially a system of telecommunication equipment which is used for providing telecommunication services, and therefore, it constitutes 'telecommunication network' in the scheme of the Telecommunications Act, 2023. Therefore, in terms of Section 3(1)(b) of the Telecommunications Act, 2023, any person intending to establish, operate, maintain or expand IBS would require to obtain an authorisation from the Central Government unless, in terms of Section 3(3) of the Telecommunications Act, 2023, it is exempted from the requirement for obtaining such an authorisation from the Central Government. In this context, the Authority examined the framework for the establishment of IBS in other countries.

2.82 IBS in Australia: In the year 2024, the Australian Media and Telecommunications Association (AMTA)⁴⁸ released guidelines⁴⁹ on 'Design Guidelines for Distributed Antenna Systems (DAS)'. The purpose of the DAS Design Guidelines is "*to provide guidance for the installation of network*

⁴⁸ The Australian Media and Telecommunications Association (AMTA) is the main industry body representing Australia's mobile telecommunications industry. AMTA members include mobile network operators and service providers, mobile phone and device manufacturers, retail outlets, network equipment suppliers and other suppliers to the industry.

⁴⁹ Source: <https://amta.org.au/wp-content/uploads/2024/10/MCF-Design-Guidelines-for-Distributed-Antenna-Systems-Draft-2.0-IBC-Workgroup-11092024-1.pdf>

equipment in buildings and other infrastructure so that by compliance with these DAS Design Guidelines, the building owners and occupiers can be confident that mobile carriers will be capable of connecting their equipment and providing high quality coverage within the facility. These DAS Design Guidelines provide a series of recommended technical standards and procedures to facilitate multi-carrier access to a DAS”.

2.83 In these guidelines, the building of a DAS involves mainly three stakeholders:

(a) Building owner:

Though the term ‘Building Owner’ has not been defined in the guidelines, it is analogous to the term ‘Property Manager’, as referred to in these recommendations.

(b) DAS contractor:

The term ‘DAS contractor’ means “*an organisation that designs, installs and implements a DAS.*”

(c) Lead carrier/ sharing carriers/ DAS infrastructure operator:

The term ‘lead carrier’ is defined as “*a Carrier engaged contractually by a Building Owner to provide Carrier base station connection and ongoing maintenance/ fault management.*”.

The term ‘carrier’ is defined as “*a member of the Mobile Carriers Forum who is the owner and operator of a public mobile telecommunications network in Australia, currently Optus, Telstra and TPG Telecom and their related body corporates*”.

The term ‘DAS infrastructure operator’ is defined as “*a third party that can perform the functions of a ‘Lead Carrier’.*”

2.84 In the AMTA’s guidelines, the building owner has been enabled to perform the following functions:

‘The building owner may, in its discretion:

- initiate the DAS requirement and engage the DAS Contractor to provide a solution;*

- *provide equipment room/s to house DAS and Carrier equipment (e.g. Floor Space, Secure Rooms, Wall Space);*
- *provide power supply for the DAS and Carrier equipment (e.g. AC lead in and outlets);*
- *provide environmental management for DAS and Carrier equipment (e.g. Airconditioning);*
- *provide cable path access and amenities (e.g. risers, cable trays, conduit, floor penetrations);*
- *engage a Lead Carrier to provide Carrier connection and maintenance (e.g. Carrier base station and ancillary equipment) through commercial agreements that typically specify service level agreements on repair and maintenance timing, fault monitoring, and managing DAS adjustments resulting from fit-outs and refurbishments; and*
- *may engage a third party to provide and own the DAS."*

2.85 The AMTA's guidelines provide that the building owner may also "*appoint a Lead Carrier who will provide a compliance assessment of designs and installations to ensure that the DAS installation meets all regulatory, operational, security, and health and safety standard requirements*" where "*[t]he appointment of a Lead Carrier is at the discretion of the building owner and is intended to reduce costs and increase efficiency but is not mandatory.*" The guidelines also provide that "*to complete an in-building coverage solution, a DAS requires connection to Carrier network infrastructure... the combined DAS and Carrier equipment solution can only be operated by an entity that is registered with the ACMA as a licenced carrier.*"

2.86 In short, the AMTA's guidelines provide that a building owner may establish the in-building coverage solution including DAS, however, the operation of the in-building coverage solution including DAS and carrier equipment solution will only be carried out by a licensed carrier (licensed entity).

2.87 IBS in the European Union (EU): The Commission Implementing Regulation of European Union (EU) in their document 2020/1070⁵⁰ on 'specifying the characteristics of small-area wireless access points pursuant to Article 57 paragraph 2 of Directive (EU) 2018/1972 of the European Parliament and the Council establishing the European Electronic Communications Code' has stated as below in respect of the deployment of a small-area wireless access point:

*"(1) As recognised by Directive (EU) 2018/1972, since low power small-area wireless access points are likely to have a positive impact on the use of radio spectrum and on the development of wireless communications in the Union, the deployment of small-area wireless access points should be facilitated through a **permit-exempt deployment regime**.*

*(2) A small-area wireless access point comprises different operational elements, such as a signal processing unit, a radiofrequency unit, an antenna system, cable connections and casing. In some cases, the antenna system or portions thereof could be installed separately from the other elements of a small-area wireless access point and connected by one or more dedicated cables. This concept is used for **distributed antenna systems** or a distributed radio system used by one or multiple operators. A small-area wireless access point may be designed to serve two or more radio spectrum users."* (Emphasis supplied)

2.88 In essence, the Commission Implementing Regulation of EU envisages, *inter-alia*, a permit-exempt deployment regime for small area wireless access points including DAS.

2.89 After examining the framework for the establishment of IBS in other countries, the Authority perused the Addendum to Model Building Bye Laws, 2016 issued

⁵⁰ Source: https://eur-lex.europa.eu/eli/reg_impl/2020/1070/oj/eng

by Ministry of Housing and Urban Affairs (MoHUA), Government of India in March 2022. Annexure III deals with 'Provisions for inbuilding solutions-Digital Communication Infrastructure', which emphasizes that suitable provision for the creation of Common Telecom Infrastructure (CTI) inside the newly constructed public places like Airports, commercial complexes and residential complexes, be incorporated in State/ UT Building Bye Laws. It mentions, *inter-alia*, that the builder/ RWA should be mandated to ensure that:

- (a) While preparing the building plans, there is a need to mandate to have properly demarcated sections within buildings and on rooftops for housing Broadband/ digital connectivity Infrastructure/ antenna. These areas should have access to power supply for reliable, always-on services.
- (b) Access to building as well as CTI facilities inside the building should be available on a fair, transparent and non- discriminatory manner to all Service Providers/ IP-I's.
- (c) The Service Providers/ IP-I's should have unrestricted access for maintenance work.
- (d) The permission to in-building access and/ or CTI facilities inside the building should not be seen as a source of revenue generation for builder(s)/ RWA(s) but as a means for facilitating penetration of broadband access and thereby helping in socio-economic growth of all the residents.
- (e) Charges (rentals/ power rates etc.) levied to the TSPs/IP-Is should be fair, transparent and non-discriminatory and should be on residential rates.

2.90 In essence, the Addendum to Model Building Bye Laws 2016 issued by MoHUA lays a strong emphasis on the development of Common Telecom Infrastructure (CTI) in buildings. It recognizes that builders and RWAs can facilitate increased penetration of broadband access inside buildings.

- 2.91 In short, the development of a common telecom infrastructure (CTI) inside facilities like multi-storey residential building, commercial buildings, complexes etc. is a stated public policy goal in India. CTI comprises both wireline and wireless telecommunication equipment and infrastructure. IBS including DAS is an integral part of CTI.
- 2.92 The Authority is cognizant of the fact that IBS is, generally, deployed alongwith the wireline telecommunication infrastructure at the stage of the development of the property. Therefore, an enabling framework for the deployment of IBS including DAS would facilitate property managers⁵¹ to conceptualize, design and deploy full-scale CTI (wireline, as well as wireless) inside facilities like multi-storey residential buildings, commercial buildings, complexes etc. With the help of CTI developed by property managers, telecommunication service providers would be able to provide seamless digital connectivity inside such buildings. Clearly, an enabling framework for the deployment of IBS by property managers would serve a significant public interest.
- 2.93 In light of the foregoing discussion and considering the fact that many countries have kept the deployment of DAS inside buildings outside the purview of stringent regulations, the Authority is of the view that the establishment, maintenance and expansion of IBS by property managers may be exempted from the requirement of obtaining authorisation from the Central Government in the public interest.
- 2.94 Further, the Authority is of the view that to derive full benefits of IBS deployed by property managers, property managers should be mandated to provide

⁵¹ In the Rating of Properties for Digital Connectivity Regulations, 2024 dated 25.10.2024, the Authority has defined the term 'property manager' as below:
"property manager" means the person who is either the owner of the property to be rated for digital connectivity or has any legal right to control or manage the property;

access to IBS to all eligible telecommunication service providers and DCIPs on fair and non-discriminatory manner. Besides, a condition should be imposed on all relevant telecom service providers and DCIPs prohibiting them to enter into any exclusive contract for right of way with property managers.

2.95 The Authority is of the view that it would be necessary that the IBS deployed by property managers meets the following conditions:

- (a) Any telecom equipment used in IBS should not degrade the performance of existing networks to which it is connected.
- (b) The safety of the end users and public should not be adversely affected due to IBS. Radio frequency emissions from telecom equipment used in IBS should not exceed prescribed standards.
- (c) Telecom equipment used in IBS should comply with the relevant national and international regulatory standards and requirements.

2.96 To ensure that the conditions mentioned above are fully met, the Authority is of the view that the critical components of IBS should be Mandatory Testing and Certification of Telecommunication Equipment (MTCTE) certified by Telecom Engineering Centre (TEC), DoT.

2.97 Further, based on the inputs received from stakeholders in the consultation process and its own analysis, the Authority is of the view that the following telecommunication equipment may be included within the ambit of IBS:

- (a) Distributed antenna system (DAS) comprising of antennas, radio frequency (RF) couplers, RF splitters, RF combiners, RF repeaters and RF feeder cables and other accessories for setting up DAS
- (b) Telecommunication cables such as coaxial cable, optical fiber cable (OFC) and ethernet cables
- (c) Optical fiber equipment comprising of Master Optical Units (MOU), Remote Optical Units (ROU), Fiber Distribution Units, Optical Networking Units (ONU), Optical Line Terminals (OLT), Fiber Access Terminals (FAT)

2.98 In view of the above, **the Authority recommends that-**

- (a) The following telecommunication equipment should be included within the ambit of in-building solution (IBS):**
 - (i) Distributed antenna system (DAS) comprising of antennas, radio frequency (RF) couplers, RF splitters, RF combiners, RF repeaters and RF feeder cables and other accessories for setting up DAS**
 - (ii) Telecommunication cables such as coaxial cable, optical fiber cable (OFC) and ethernet cables**
 - (iii) Optical fiber equipment comprising of Master Optical Units (MOU), Remote Optical Units (ROU), Fiber Distribution Units, Optical Networking Units (ONU), Optical Line Terminals (OLT), and Fiber Access Terminals (FAT)**
- (b) The property manager should be permitted to establish, operate, maintain, and expand in-building solution (IBS) within the limits of a single building, compound, or estate, managed by it. For this purpose, there should be no requirement of obtaining any authorisation from the Central Government under Section 3(1)(b) of the Telecommunications Act, 2023. Here, the term “property manager” means the person who is either the owner of the property or has any legal right to control or manage the property.**
- (c) A property manager should provide access to the IBS established by it in its property to the eligible service authorised entities and DCIP authorised entities in fair and non-discriminatory manner.**
- (d) Telecom Engineering Centre (TEC), Department of Telecommunications, should issue guidelines for design, installation, maintenance and operation of IBS equipment.**
- (e) Telecom Engineering Centre (TEC), Department of Telecommunications, should identify critical components of IBS**

and bring such components under Mandatory Testing and Certification of Telecommunication Equipment (MTCTE) regime.

- (f) Once the Central Government introduces the regime of MTCTE certification, any IBS equipment established by the property managers should be mandatorily MTCTE certified from TEC.**
- (g) A condition must be imposed on all relevant service authorised entities and DCIP authorised entities prohibiting them to enter into any exclusive contract for right of way with property managers.**

H. Content Delivery Networks

2.99 Earlier, through the consultation paper on 'Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India' dated 16.12.2021, TRAI sought inputs of stakeholders on promoting the establishment of (i) Data Centres, (ii) Content Delivery Networks, and the (iii) Internet Exchange Points in the country. After following a comprehensive consultation process, TRAI, on 18.11.2022, sent its recommendations⁵² on 'Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India' to DoT. Through the said recommendations dated 18.11.2022, TRAI recommended, *inter-alia*, that *"there should not be any licensing framework for the CDN players. However, ..., the Authority recommends that the CDNs should be registered with Department of Telecommunications through a simple online registration process...."*

⁵² https://tra.gov.in/sites/default/files/Recommendations_18112022.pdf

2.100 DoT, through its reference dated 26.07.2024, has requested TRAI to consider, *inter-alia*, some of its previous recommendations, which are under consideration of DoT, including those on CDNs. In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments of the stakeholders on the following question:

"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."

Comments of Stakeholders on Q5

2.101 In response to Q5, comments received from the stakeholders may be broadly classified in two groups. While a few stakeholders have favoured a light-touch regulatory framework for CDNs, many other stakeholders have contended that CDNs should not be regulated under the Telecommunication Act, 2023.

2.102 A broad summary of comments of the stakeholders, who have opined in favour of a light-touch regulatory framework for CDNs, is given below:

- (a) The growing role of CDNs may make telecom service providers somewhat dependent on the performance of connected CDNs. Interconnectivity between telecom service providers and CDNs should not affect the overall quality of service. Therefore, it is necessary to put some regulations on CDNs for meeting minimum QoS standards.

- (b) To help avoid duplication of efforts at multiple telecom service providers, content should be blocked by issuing orders directly to the concerned CDNs or platforms hosting the content in India or to the content providers.

2.103 A broad summary of comments of the stakeholders, who have opposed regulating CDNs through a network authorisation under the Telecommunications Act, 2023, is given below:

- (a) At its core, CDN provides software and servers for computing and storage. CDN is not a telecommunication network, and hence, it is not covered under the ambit of the Telecommunications Act, 2023.
- (b) CDNs work under mutual agreements with telecom service providers and content providers and should be kept out of the regulatory framework.
- (c) CDN players are already regulated as intermediaries through the Information Technology (Intermediary Guidelines and Digital Media Ethics) Rules, 2021. Any further regulation of CDNs will stifle the growth of CDNs in the country.
- (d) Through the recommendations dated 18.11.2022, TRAI recommended that CDNs should submit a copy of an agreement entered into with telecom service providers to DoT and TRAI. This recommendation seems to be without any basis or justification and will prove to be a significant intervention in the CDN market. Peering agreements are typically negotiated with proprietary terms based on specific conditions. The disclosure of such proprietary information is unwarranted. TRAI can use its existing powers to ask telecom service providers to furnish information on their agreements with CDNs. TRAI does not need to regulate CDNs to obtain this information.
- (e) There is no evidence of market failure in CDN market. CDN prices decreased by 300% between 2017 and 2020, which is indicative of a competitive environment in the CDN market. The presence of multiple players leads to an ecosystem where providers reduce their prices and offer competitive plans to improve their market share. Any regulation of

CDNs would have a disproportionate impact on small players, act as an entry barrier, and stifle innovation and throttle the growing market.

Analysis of the Issues Raised Through Q5

2.104 A content delivery network (CDN) is a network of servers linked together with the goal of delivering content as quickly, cheaply, reliably, and securely as possible. CDNs place their servers near the end users to improve speed and connectivity. They make use of various techniques such as caching, load balancing, optimization, use of security protocol etc. to improve the consumer experience. The content of a content provider is stored, processed, and replicated across multiple nodes (servers) of the content delivery network, and is served to users from the 'network edge' i.e. a node which is closest to the user. The following figure depicts a schematic diagram of a typical CDN:

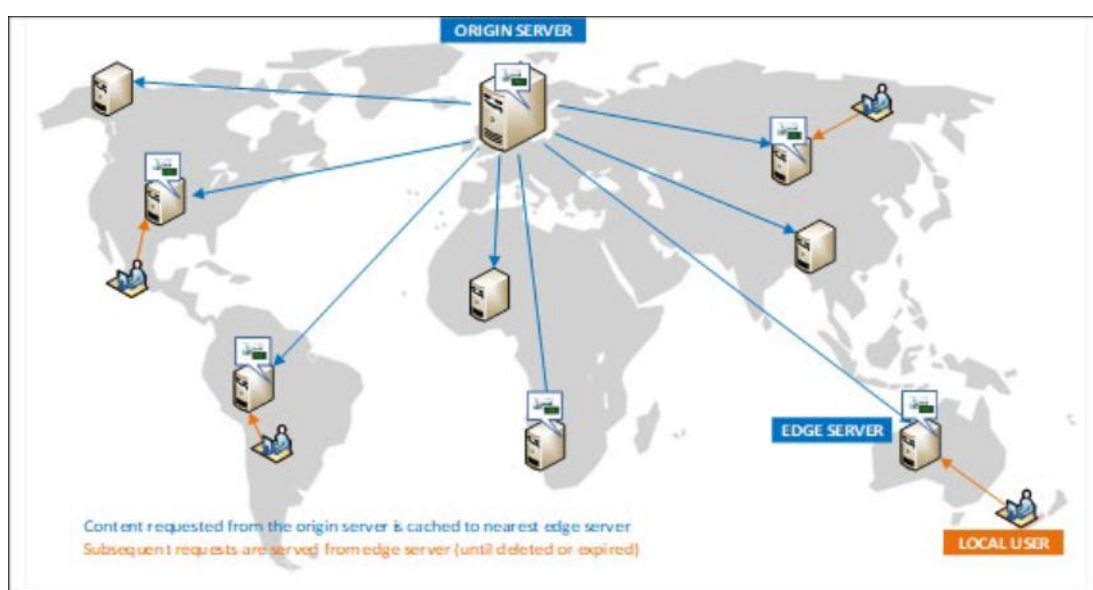


Figure 2.2: Schematic Diagram of a Typical CDN⁵³

⁵³ Source: Ofcom

2.105 In case a content provider does not employ CDNs, its content could still be available to users through the internet. However, it might require longer round-trips to fetch the content in case the content is hosted at far-off locations. CDNs solve this problem. One of the biggest benefits of CDNs is “offload”. By responding to a request for web-content with a cached version in closer physical and network proximity to the end user - instead of from the server where the content originates - a CDN offloads traffic from content servers and improves the web experience⁵⁴. The following figure depicts the functionality of a typical CDN⁵⁵.

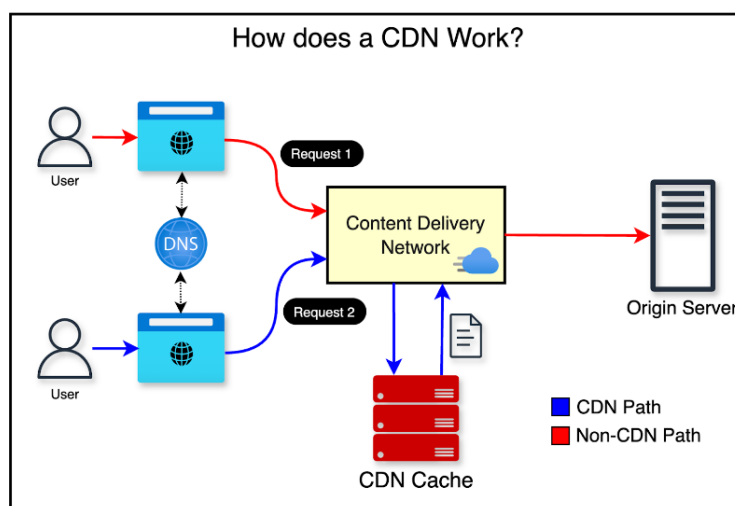


Figure 2.3: Functionality of CDNs

2.106 The relationship between CDNs and telecom service providers is a symbiotic relationship. CDNs interconnect (peer) with telecom service providers for the onward delivery of the content of content providers to end users. Telecom service providers benefit from the enhanced content delivery that CDNs

⁵⁴ Source:
<https://www.akamai.com/glossary/what-is-a-cdn#:~:text=As%20carriers%20of%20nearly%20half,insights%20into%20their%20user%20base.>

⁵⁵ <https://images.app.goo.gl/EoG5SMSib4yXKKGC8>

provide. According to Akamai⁵⁶, nearly 50% of the internet traffic globally flows through CDNs. As per a report from Mordor Intelligence⁵⁷, the global CDN market size is estimated at USD 26.47 billion in 2025, and is expected to reach USD 45.13 billion by 2030, at a CAGR of 11.26% during 2025-2030.

2.107 It is worth noting that the extant Unified License Agreement⁵⁸ defines the term 'Internet Access Service' as below:

"44. Internet Access Service is a service to access the Internet that is:

- i. generally available to the public; and*
- ii. designed to transmit data to and receive data from all or substantially all endpoints on the Internet."*

2.108 The Authority notes that when a user of telecom service intends to access the content (data) of any content provider (an end-point on the Internet), the telecom service provider of the user together with the peering CDN makes available the desired content to the user. For this reason, a telecom service provider together with its peering CDN may be seen as the conduit (transmission channel) between the content provider (transmitter of the data) and the consumer (receiver of the data). The following figure depicts a schematic diagram of the interconnectivity between the entities involved in the delivery of the content to the consumer.

⁵⁶ Source: ibid

⁵⁷ Source: <https://www-mordorintelligence-com.webpkgcache.com/doc/-/s/www.mordorintelligence.com/industry-reports/content-delivery-market>

⁵⁸ Source: <https://www.saras.gov.in/main/License%20Agreement/Unified%20Licence.pdf>

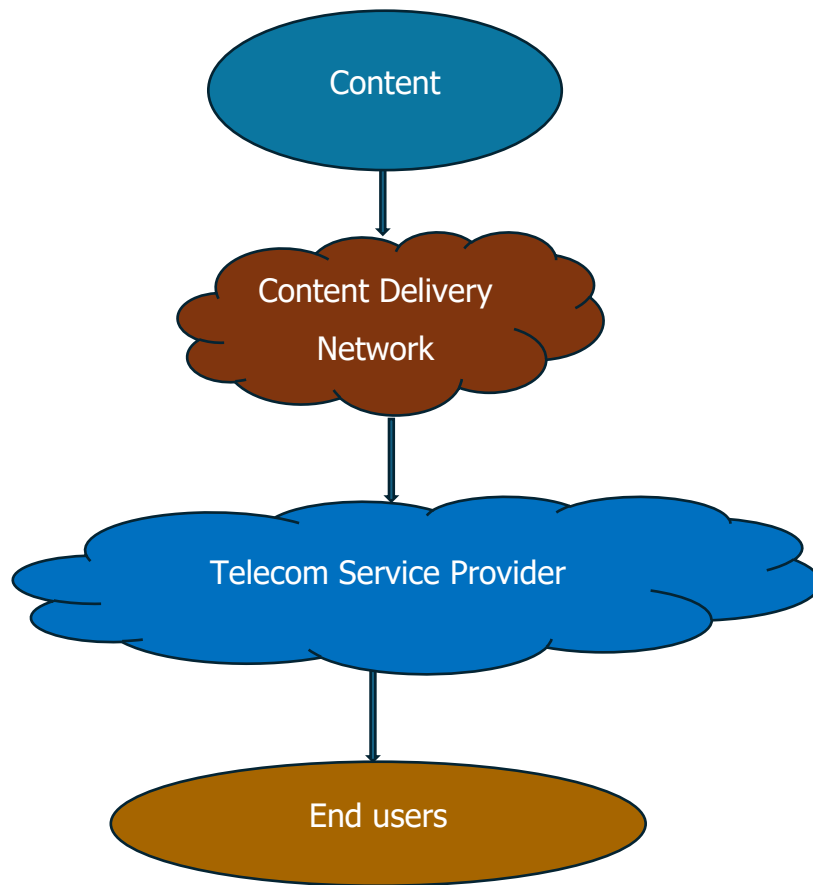


Figure 2.4: Schematic Diagram of Interconnectivity Between the Entities Involved in the Delivery of the Content to End Users

2.109 The Authority notes that in the current consultation process, a few stakeholders have contended that CDNs are not part of telecommunication networks and hence they should not be regulated through any authorisation under the Telecommunications Act, 2023. In this regard, the Authority perused the definitions of the relevant terms viz. 'message', 'telecommunication', 'telecommunication equipment', 'telecommunication service' and 'telecommunication network' given in the Telecommunications Act, 2023. The Authority notes that in case a content provider has employed a CDN provider for the delivery of its content, a user can access its content through the network of its telecom service provider coupled with the network of the CDN provider.

Essentially, a CDN is a system of telecommunication equipment, through which, the user accesses (receives) the content (message) of a content provider. In other words, the system of equipment of a CDN provider together with the network of telecom service providers is utilized for providing telecommunication services (access to the content available on internet) to end users. Clearly, a CDN becomes part of the “telecommunication network” in the scheme of the Telecommunications Act, 2023 when it is employed for the delivery of the content of a content provider to the users of telecommunication services.

2.110 Having made the above observation, the Authority proceeds to examine the need for a regulatory framework for CDNs in the following paragraphs.

2.111 In the year 2021-22, TRAI held public consultation on the matter of, *inter-alia*, promoting the establishment of CDNs in the country. After the consultation, TRAI through its recommendations on ‘Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India’ dated 18.11.2022 recommended that “***there should not be any licensing framework for the CDN players.***” TRAI, however, noted the concerns of net neutrality arising out of arrangements between telecom service providers and CDNs. The relevant extract of the afore-mentioned recommendations dated 18.11.2022 is given below:

"3.38 On the issue of Net-neutrality, the Authority in its 2017 recommendation itself has pointed out that there is need for more transparency relating to the arrangements between service providers and CDNs and knowledge of such arrangements would be useful for giving an appropriate understanding of the factors affecting the flow of traffic of the network and monitor violations of any discrimination, if any. Authority noted that there is a need for more transparency relating to the arrangements between TSPs and CDNs. Knowledge of such arrangements would be useful for gaining a proper understanding of

the factors affecting the flow of traffic on the Internet, potential for anti-competitive practices and to monitor violations of the non-discrimination requirements by TSPs.

3.39 The Authority feels that unless and until there is some sort of regulatory framework for CDN players, it will not be possible for the regulatory entities to call for such information/ agreements. Some of the stakeholders have suggested that there is no potential market failure, and, therefore, the policy should resolve to only ex-post regulation. The Authority should adopt an approach of ex-post regulation rather than ex-ante regulation. The Authority feels that it is not appropriate for any regulatory body to wait for market failure and should put in place minimum possible framework to ensure that such failures do not happen. It is imperative that certain information/ data is available with the regulator so that it can analyse the market failure as and when it happens.

3.40 Therefore, the Authority recommends that there should not be any licensing framework for the CDN players. However, to address the issues that have been brought above, Authority recommends that the CDN players should be registered with Department of Telecommunications through a simple online registration process. The suggestive draft for a Guidelines for the registration of CDN players along with the registration form and registration certificate is attached at Annexure-V."

2.112 In the Annexure-V to the afore-mentioned recommendations dated 18.11.2022, TRAI recommended, *inter-alia*, the following provisions to be made part of the guidelines for registration of CDN providers:

"8. The Content Delivery Network (CDN) Provider registered company shall submit a copy of an agreement entered into with the telecom service providers to the DOT and TRAI within 15 days of signing of such agreement.

9. Content Delivery Network (CDN) Provider registered company shall offer delivery of content to Service Providers and users in a non-discriminatory manner.”

2.113 In short, in the recommendations dated 18.11.2022, TRAI drew a conclusion that there should not be any licensing framework for CDN providers; however, with a view to address the concerns relating to potential anti-competitive practices by CDNs, and any discriminatory treatment amongst telecom service providers, TRAI recommended that CDN providers should be registered with DoT.

2.114 The Authority notes that, in the present consultation process, many stakeholders have submitted that CDNs work under mutual agreement with telecom service providers and therefore, TRAI can use its existing powers to direct telecom service providers to furnish information regarding their agreements with CDNs instead of regulating CDNs to obtain this information; there is no evidence of market failure in the CDN market; CDNs are already regulated as intermediaries through the Information Technology (Intermediary Guidelines and Digital Media Ethics) Rules, 2021; any additional regulation of CDNs would inadvertently stifle innovation and competition through the creation of barriers to market entry and business expansion, and would hurt the digital economy eco-system.

2.115 While examining the afore-mentioned comments of stakeholders, the Authority took note of the following aspects:

- (a) At the global level, the advent of CDNs can be traced back to 1980s; however, the CDNs grew in prominence in only the last two decades. In India, the deployment of CDNs gained momentum after the introduction of 4G and 5G mobile networks.
- (b) As far as the telecommunication regulation is concerned, CDNs have not been regulated so far in India.

- (c) The Government of India has a stated policy intent for promoting the establishment of CDNs in India. One of the strategies of National Digital Communication Policy, 2018⁵⁹ is reproduced below:

"Establishing India as a global hub for cloud computing, content hosting and delivery, and data communication systems and services

i. Evolving enabling regulatory frameworks and incentives for promoting the establishment of International Data Centres, Content Delivery Networks and independent interconnect exchanges in India."

- (d) CDNs provide numerous benefits for users and also for the network infrastructure. Some of the benefits of using CDNs are given below:
- (i) Improved page load speed and website performance
 - (ii) Ability to handle high traffic loads and sudden peaks
 - (iii) Localized coverage and improved availability
 - (iv) Reduced bandwidth consumption
 - (v) Load balance between multiple servers or locations, causing decreased load times and latency
 - (vi) Secure encryption and counters denial-of-service (DDoS) attacks

2.116 Considering the comments of stakeholders and its own analysis, the Authority is of the considered view that the establishment, operation, maintenance, and expansion of CDNs in the country should be authorisation-exempt under Section 3(3) of the Telecommunications Act, 2023 in the public interest. With respect to the concerns relating to potential anti-competitive practices, and discriminatory treatment among telecom service providers, the Authority is of the view that such concerns can be addressed by mandating that all mutual agreements between CDN providers and telecom service providers should be fair, non-discriminatory and compliant to net neutrality objectives; the compliance of this provision may be ascertained by way of seeking information

⁵⁹ Source: <https://dot.gov.in/sites/default/files/Final%20NDGP-2018.pdf?download=1>

from telecom service providers in respect of their agreements with CDN providers.

2.117 In view of the above, **the Authority recommends that -**

- (a) The establishment, operation, maintenance, and expansion of Content Delivery Networks (CDNs) should be authorisation-exempt under Section 3(3) of the Telecommunications Act, 2023.**
- (b) With a view to provide necessary safeguards, the authorisation-exemption to CDNs should be subject to the following provisions:**
 - (i) The mutual agreement between any entity authorised under Section 3(1) of the Telecommunications Act, 2023 and any CDN provider shall be fair, non-discriminatory, and compliant to net neutrality objectives.**
 - (ii) Central Government and TRAI may seek information related to such agreements from the concerned entities authorised under Section 3(1) of the Telecommunications Act, 2023, whenever a situation warrants so in the public interest.**

I. Internet Exchange Points

2.118 As mentioned earlier, Through the recommendations⁶⁰ on 'Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India' dated 18.11.2022 to DoT, TRAI recommended, *inter-alia*, as below:

"4.28 The Authority, therefore, recommends that a separate authorization in Unified License may be created for IXPs with terms and conditions that are much less onerous than ISP license authorization. The terms and conditions

⁶⁰ https://tra.gov.in/sites/default/files/Recommendations_18112022.pdf

including minimum equity, minimum net worth, entry fee, bank guarantees, application processing fee, and maximum amount of penalty for this light touch license authorization have been provided in Annexure

4.29 The Authority also recommends that any entity that intends to provide IXP services in India can do so either under ISP license/ UL-ISP authorization or under standalone UL-IXP authorization.

4.30 The Authority also recommends that all existing players, including, NIXI should be brought within this licensing framework in a stipulated time not exceeding six months.”

2.119 DoT, through its reference dated 26.07.2024, has requested TRAI to consider, *inter-alia*, some of its previous recommendations, which are under consideration of DoT, including those on IXP. In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments of the stakeholders on the following question:

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.

Comments of Stakeholders on Q6

2.120 In response to Q6, stakeholders have provided divergent opinions which may be broadly grouped into three sets. At one extreme, there are a few stakeholders who have averred that IXPs should not be subjected to any authorisation requirements under the Telecommunications Act, 2023. At the

middle, are a few stakeholders who have opined that IXPs should be brought under a light-touch network authorisation regime. The other extreme is occupied by a few stakeholders who have stated that IXP business should be regulated through ISP authorisation.

2.121 A broad summary of the comments of the stakeholders, who have averred that IXPs should not be subjected to any authorisation requirements under the Telecommunications Act, 2023, is given below:

- (a) An Internet Exchange Point (IXP) is not a telecommunication network. IXPs do not transmit, emit, or independently receive data; rather, they facilitate inter-change of traffic without participating in the transmission of telecommunication services. They serve as physical interconnection points, enabling autonomous networks—such as ISPs, data centers, and content providers—to exchange internet traffic locally.
- (b) In the absence of any evidenced market failure, the Government should refrain from imposing regulatory or licensing obligation on IXPs, since the core activity of such entities extends to merely providing traffic interchange points.
- (c) ISPs that are connected to IXPs are already regulated under licenses that include stringent national security obligations. As traffic passing through IXPs is encrypted, there is no risk of unauthorized access to the data, ensuring data privacy and sovereignty.
- (d) Recognizing IXPs as neutral interconnection infrastructure rather than categorizing them as networks would better reflect their operational realities and global regulatory standards. This approach would promote a robust, efficient, and resilient internet ecosystem in India, free from unnecessary regulatory constraints. Such a reclassification would also encourage investment in IXP infrastructure development across India, fostering innovation and enhancing overall internet performance for users nationwide.

- (e) TRAI's proposed licensing structure for IXPs, as per the recommendations dated 22.11.2022, would impose significant entry and compliance barriers, such as demanding technical calculations, engineering details, and network planning documents. This could impede growth for smaller players. ISPs are already regulated and all traffic that pass through IXP-node remains encrypted, so it ensures data privacy and sovereignty.

2.122 A broad summary of the comments of the stakeholders, who have opined that IXPs should be brought under a light-touch network authorisation regime, is given below:

- (a) There should be a light-touch regulatory regime for IXP service providers. However, they should not be subjected to License Fees and other burdensome licensing obligations. However, appropriate technical, operational, and security conditions relevant to the nature of the work undertaken by IXPs may be applied.
- (b) A light-touch regulatory framework for IXPs would result in a higher transparency in market operations and would support fair and non-discriminatory practices.

2.123 A broad summary of comments of the stakeholders, who have stated that IXPs should be brought under the ISP authorisation, is given below:

- (a) The activities, such as providing interconnection for Internet Services, is an inherent part of ISP services and must thus be provided only under the scope of ISP authorisation. Therefore, IXP business should be brought under the ISP authorisation. IXP services should be subject to same License/ authorisation fees as applicable under ISP authorisation.
- (b) There is no need for a separate regulatory framework for operating IXPs in India. Only valid licensed service providers having Unified License (ISP) or standalone ISP licenses should be permitted to establish and operate Internet Exchanges. Activities under IXP license are already covered under the ISP license, and since ISP license does not have any significant entry

barrier not much would be achieved by adding one more category in the list of authorisations.

Analysis of the Issues Raised Through Q6

2.124 An Internet exchange point (IXP) is a facility through which internet service providers (ISPs) and content delivery networks (CDNs) peer and exchange internet traffic with each other. IXPs consist of network switches that route traffic among the ISPs and CDN providers connected to it. The main purpose of IXPs is to facilitate the exchange of Internet traffic originated and destined within the country among ISPs without using international bandwidth. The following figure depicts the schematic diagram of an IXP:

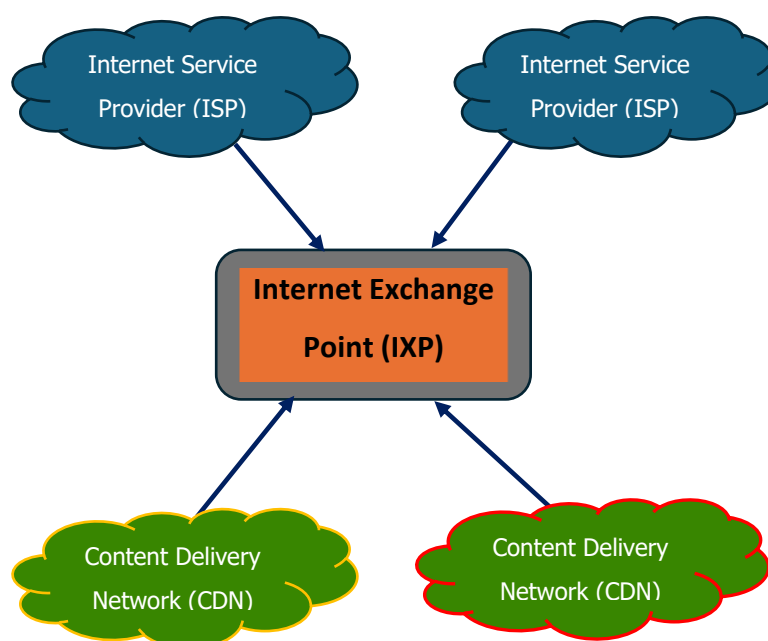


Figure 2.5: Schematic Diagram of an IXP

2.125 Until the introduction of National Internet Exchange of India (NIXI) in the year 2003, a typical ISP obtained internet bandwidth from an upstream ISP which carried its entire traffic - both domestic as well as international. The upstream ISP routed the international traffic to the international links. It routed the

domestic traffic either to other downstream ISPs connected to it or to other peering ISPs who in turn routed this traffic to their downstream ISPs.

2.126 Based on the recommendations of TRAI, NIXI⁶¹ was established in June, 2003 for peering of ISPs among themselves for the purpose of routing the domestic traffic within the country. After the launch of 'Digital India' programme and the introduction of 4G and 5G mobile networks in the country, the domestic internet traffic in India has grown significantly. Besides, the delivery of content has progressively shifted from broadcasting media to internet-based platforms in the country. As a result, content delivery networks (CDNs) have grown in the prominence in the country. This has prompted many business entities to set up IXPs for the exchange of traffic among ISPs and CDNs. Today, by connecting to an IXP, an ISP can peer and exchange its internet traffic with other ISPs and CDNs connected to the IXP. It requires internet bandwidth from an upstream ISP only for the carriage of the remaining internet traffic, and thereby, it makes a significant saving on the cost of internet bandwidth. Besides, with the help of IXPs, the latency of domestic internet traffic is substantially reduced.

2.127 Considering the important role of IXPs in the internet eco-system, TRAI, through the consultation paper on 'Issues Related to Telecommunications Infrastructure Policy' dated 14.01.2011, invited comments of stakeholders on the framework for establishing IXPs in India. Based on the stakeholders' consultation, TRAI, through the Recommendations on Telecommunications Infrastructure Policy dated 12.04.2011, recommended, *inter-alia*, that "*IXPs may be brought under Class licence.*"

⁶¹ NIXI is a not-for-profit Organization under section 8 of the Companies Act 2013. It was registered on 19.06.2003. NIXI was set up for peering of ISPs among themselves for the purpose of routing the domestic traffic within the country, instead of taking it all the way to USA/ Abroad, thereby resulting in better quality of service (reduced latency) and reduced bandwidth charges for ISPs by saving on International Bandwidth. Source: <https://nixi.in/nc-about-us/>

2.128 In the year 2018, the Government of India released National Digital Communication Policy (NDCP)-2018⁶². One of the strategies of 'Propel India Mission' (Enabling Next Generation Technologies and Services through Investments, Innovation, Indigenous Manufacturing and IPR Generation) of the NDCP-2018 is focussed on promoting, *inter-alia*, the establishment of independent IXPs in India. The relevant extract of the Propel India Mission of NDCP-2018 is given below:

"The recent past has witnessed an unprecedented transformation in the Digital Communications Infrastructure and Services sector with the emergence of new technologies, services, business models and players. There is hence an imperative need to review the existing licensing, regulatory and resource allocation frameworks to incentivize investments and innovation to optimise new technology deployments and harness their benefits.

...

2.2 Ensuring a holistic and harmonised approach for harnessing Emerging Technologies

...

(f) Establishing India as a global hub for cloud computing, content hosting and delivery, and data communication systems and services

i. Evolving enabling regulatory frameworks and incentives for promoting the establishment of International Data Centres, Content Delivery Networks and independent interconnect exchanges in India" (Emphasis supplied)

2.129 Considering the strategies of the NDCP-2018, TRAI, through the consultation paper on 'Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect

⁶² <https://dot.gov.in/sites/default/files/Final%20NDCP-2018.pdf?download=1>

Exchanges in India' dated 16.12.2021, solicited inputs of stakeholders for promoting the establishment of (i) Data Centres, (ii) Content Delivery Networks, and the (iii) Internet Exchange Points in the country. Based on the stakeholders' consultation, TRAI issued recommendations on 'Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India' dated 18.11.2022. Through these recommendations, TRAI recommended, *inter-alia*, that "*a separate authorization in Unified License may be created for IXPs with terms and conditions that are much less onerous than ISP license authorization.*" Through these recommendations, TRAI also recommended the terms and conditions including minimum equity, minimum net worth, entry fee, bank guarantees, application processing fee, and maximum amount of penalty under the license authorization for IXP.

2.130 Through Q6 of the Consultation Paper dated 22.10.2024, the Authority solicited inputs of stakeholders on the need for making any changes in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the IXP authorisation, as recommended by TRAI on 18.11.2022. In response, quite divergent inputs have been received from stakeholders. The Authority proceeds to examine the inputs of stakeholders on Q6 in the following paragraphs:

2.131 A few stakeholders have averred that IXP is not a telecommunication network. They have contended that IXPs do not transmit, emit, or independently receive data; IXPs only facilitate the inter-change of traffic without participating in the transmission of telecommunication services. The Authority examined the veracity of these arguments. The Authority notes that IXPs are built with one or many network switches interconnected together across one or more physical buildings. Each ISP connecting to the IXP connects one or more of its routers to the IXP's network switch, and they send traffic across the network switch to routers belonging to other ISPs or CDNs. Based on this description, one may

infer beyond doubt that IXPs take part in "telecommunication" in the scheme of the Telecommunications Act, 2023⁶³. Further, the network switches of IXPs together with the network elements of ISPs are used for providing "telecommunication service" (internet access service) to end users. Clearly, an IXP becomes a part of "telecommunication network" in the scheme of the Telecommunications Act, 2023⁶⁴ when an ISP connects itself to the IXP for providing telecommunication services to users.

2.132 A few other stakeholders have stated that IXPs should be regulated through the internet service provider (ISP) authorisation because the activities, such as providing interconnection for Internet Services, is an inherent part of ISP services. In this regard, it is worth mentioning that the Authority through the Recommendations on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023 dated 18.09.2022 has recommended the following scope of service under internet service authorisation:

"(1) The Authorised Entity may provide Internet access service and Internet Protocol Television (IPTV).

(2) The Authorised Entity may provide Internet Telephony through Public Internet using Personal Computers (PC) or IP based Customer Premises Equipment (CPE) connecting only the following:

(a) PC to PC; within or outside India

(b) PC/ a device/ Adapter conforming to Telecommunication Engineering centre (TEC) or International Standard in India to Public Switched Telecommunication Network (PSTN)/ Public Land Mobile Network (PLMN) abroad.

⁶³ The Telecommunications Act, 2023 defines the term "telecommunications" as below:

(p) "telecommunication" means transmission, emission or reception of any messages, by wire, radio, optical or other electro-magnetic systems, whether or not such messages have been subjected to rearrangement, computation or other processes by any means in the course of their transmission, emission or reception;

Source: <https://egazette.gov.in/WriteReadData/2023/250880.pdf>

⁶⁴ The Telecommunications Act, 2023 defines the term "telecommunication network" as below:

(s) "telecommunication network" means a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite networks or submarine networks, or a combination of such networks, used or intended to be used for providing telecommunication services, but does not include such telecommunication equipment as notified by the Central Government;

(c) Any device/ Adapter conforming to TEC or International Standard connected to Internet Service Provider (ISP) node with static Internet Protocol (IP) address to similar device/ Adapter, within or outside India.

Explanation: Internet Telephony is a different service in its scope, nature and kind from real time voice service as offered by authorised entities providing Access Services such as wireline/ wireless/ cellular mobile telephony.

(3) Internet Telephony, only as described in condition (2) above, can be provided by the Authorised Entity.

(4) Leased circuits and Virtual Private Networks (VPNs)

(5) The Authorised Entity may install, operate and commission an International Internet Gateway (IIG) in the service area using satellite or submarine cable as medium after obtaining security clearance/ approval from the Central Government.

(6) The Authorised Entity with International Internet Gateway is allowed to sell International Internet bandwidth to other authorised entity(s) providing Internet service. Provision of IPLC service is not covered under the scope of this authorisation.

(7) Except for those services permitted under the scope of this Authorisation, the Authorised Entity shall not provide any service(s) which require a separate service authorisation by the Central Government.

(8) The Authorised Entity may enter into agreements with authorised VNO entities having a valid authorisation for Internet service.

(9) The scope of Service for the Internet Service VNO Authorised Entity shall be restricted to the provision 3(1) to 3(4) of the scope of service given above.

2.133 A somewhat similar scope of service is provided under the Internet Service Authorization under the extant Unified License. Evidently, an entity requires to obtain Internet Service authorisation mainly for the purpose of providing internet access service (telecommunication service) to end users. On the other hand, an IXP provider deploys an internet exchange (a system of telecommunication equipment) only to provide peering and exchange of data

traffic to ISPs and CDNs. As IXPs are only network providers to ISPs and CDNs, and not service providers to end users, it would not be appropriate to regulate IXPs through the internet service authorisation.

2.134 A few other stakeholders have opined that IXPs should be brought under a light-touch network authorisation regime to bring higher transparency in market operations and support fair and non-discriminatory practices; however, they should not be subjected to License Fees and other burdensome licensing obligations. The Authority is of the considered view that for the orderly growth of the IXP segment of internet eco-system and to ensure fairness, and non-discriminatory treatment to ISPs, it would be appropriate to bring IXPs under a light-touch authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.

2.135 In view of the foregoing analysis, **the Authority recommends that –**

- (a) The Central Government should introduce Internet Exchange Point (IXP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) Any entity intending to establish, operate, maintain, or expand Internet Exchange Points (IXPs) in India should obtain IXP Authorisation from the Central Government.**
- (c) Main scope of IXP Authorisation: To provide peering and exchange of internet traffic, originated and destined within India, amongst the entities authorised to provide internet service under the Telecommunications Act, 2023, and content delivery networks (CDN) located in India**
- (d) The detailed terms and conditions for IXP Authorisation have been included in Annexure-2.4.**
- (e) The terms and conditions for the grant of IXP Authorisation have been included in Annexure-2.2.**

J. Satellite Earth Station Gateways (SESGs)

2.136 Earlier, DoT, through its letter dated 10.09.2021, had sought recommendations of TRAI on the licensing framework for satellite gateway(s) operations encompassing aspects like license fee, entry fee, bank guarantee, Network Operation and Coordination Center (NOCC) charges and any other issue(s) which may be relevant for the low earth orbit (LEO), medium earth orbit (MEO) and high throughput system (HTS). In this regard, after following a comprehensive consultation process, TRAI sent its recommendations on 'Licensing Framework for Establishing Satellite Earth Station Gateway (SESG)'⁶⁵ dated 29.11.2022, to DoT. The salient recommendations given by TRAI through the recommendations dated 19.11.2022 are as follows:

- (a) There should be a separate SESG License under Section 4 of Indian Telegraph Act, 1885. The SESG License will not form a part of the Unified License (UL).
- (b) The SESG Licensee may provide satellite-based resources to any entity, which holds license/ permission granted by the Department of Telecommunications (DoT) or Ministry of Information & Broadcasting (MIB) and is permitted to use satellite media for the provision of services under its license/ permission.
- (c) The SESG Licensee should not be permitted to provide any kind of telecommunication service or broadcasting service directly to the consumers, for provision of which, a separate license/ authorization/ permission is required from the Government.
- (d) The SESG license should be valid for a period of 20 years from the effective date of the license with a provision of renewal for 10 years.
- (e) Only the companies registered under the Companies Act 2013 shall be eligible to apply for the grant of SESG License.

⁶⁵ The recommendations are available at the following URL:
https://www.trai.gov.in/sites/default/files/Recommendation_29112022.pdf

- (f) The service licensees/ permission holders, being served by the SESG Licensee, should install their own baseband equipment at the SESGs established by SESG Licensee.
- (g) Frequency spectrum (gateway-side spectrum, as well as user terminal side spectrum) should be assigned to the eligible service licensees/ permission holders as per the allocation of transponder bandwidth in the concerned satellite system. No frequency spectrum should be assigned to SESG licensees.

2.137 DoT, through its reference dated 26.07.2024, has requested TRAI to consider, *inter-alia*, some of its previous recommendations, which are under consideration of DoT, including those on SESG. In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments of the stakeholders on the following question:

Q7. 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 Satellite Earth Station Gateway (SESG) authorisation, as recommended by TRAI on 29.11.2022? 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 SESG authorisation? Kindly provide a detailed response with justification.

Comments of Stakeholders on Q7

2.138 In response to Q7, many stakeholders have opined that there is no need to make any changes in the terms and condition of the SESG Authorization as recommended by TRAI on 29.11.2022. On the other hand, many other stakeholders have suggested certain changes to be made in terms and

condition of the SESG Authorization mainly in respect of - (a) installation of baseband equipment; and (b) assignment of frequency spectrum.

2.139 A broad summary of the changes suggested by stakeholders in the conditions related to the installation of baseband equipment under the proposed SESG authorization is given below:

- (a) A few stakeholders have suggested that SESG authorisation holder should be allowed to deploy baseband equipment for the NGSO operator or Indian entity (who has been assigned frequency spectrum).
- (b) A stakeholder has suggested that flexibility should be allowed in terms of who can install the baseband equipment at the SESG as some satellite systems require that the baseband equipment be owned and operated by only one entity.
- (c) A few other stakeholders have suggested that SESG operators should be allowed to install baseband equipment at the SESGs.

2.140 A broad summary of the changes suggested by stakeholders in the conditions related to the assignment of spectrum under the proposed SESG authorization is given below:

- (a) A few stakeholders have suggested that SESG operators should be allowed to acquire/ use the frequency spectrum for the operation of SESGs (for establishing the feeder link with the satellite), and the spectrum required for the operation of user terminals (UTs) should be assigned to service licensees. They have opined that the gateway spectrum must be licensed to SESG licensees; in case gateway spectrum is granted only to service licensees, multiple licensing of the same spectrum for the operation of the same antennas would need to be issued in the case of multiple service licensees using the same gateway.
- (b) A few other stakeholders have suggested that the SESG authorisation holder should not be assigned spectrum; instead, the SESG authorisation holder should utilize the spectrum (for configuration and provisioning

purposes) assigned to the service licensee who has an agreement with the satellite operator or its Indian entity for providing satellite-based services; this would be consistent with the operational set-up envisaged by TRAI for Digital Connectivity Infrastructure Providers (DCIP), wherein TRAI has recommended that while DCIPs may build, operate and maintain the equipment, they should not be permitted to own the spectrum.

2.141 A few stakeholders have also suggested that SESG operators should be permitted to connect their SESGs with their points of presence (PoPs) through a fibre/ leased line, without having to acquire any separate authorisation.

Analysis w.r.t. the Issues Raised Through Q7

(1) Installation of Baseband Equipment by SESG Operators

2.142 Through the recommendations on 'Licensing Framework for Establishing and Operating Satellite Earth Station Gateway (SESG)' dated 29.11.2022, TRAI had made, *inter-alia*, the following observations, and recommendations in respect of the installation of baseband equipment:

"2.48 ... Baseband equipment in satellite communication systems – (a) performs modulation, demodulation, and error correction of the baseband signal, (b) manages the scheme for accessing the satellite and network resources, the scheme for addressing users (through IP addresses, telephone numbers etc.), and service profile of users (user specific service plans, quality of service parameters etc.), (c) controls the user traffic (Mbps), and quantum of frequency spectrum in use, and (d) monitors integrity and security of user traffic. In essence, baseband equipment is the brain of satellite communication systems.

2.49 The Authority also took note of the fact that DoT, through its reference dated 10.09.2021, mentioned that "sharing of the gateway established by the satellite constellation operator among different TSPs, wherein the service

providers need only to deploy baseband systems at gateways to start harnessing the satellite capacity, may result in cost-effective and optimum use of resources.”

2.50 Based on the comments of stakeholders and further analysis, the Authority is of the view that in the satellite communication system, it is the baseband equipment, which provides control, visibility, and management of the satellite communication services being rendered to end users, and therefore, baseband equipment may only be installed and operated by the service licensees who will serve the customers. Accordingly, the Authority recommends that-

The service licensee/ permission holders, being served by the SESG Licensee, shall install their own baseband equipment at the SESG established by SESG Licensee.”

2.143 In short, through the afore-mentioned recommendations dated 29.11.2022, TRAI had recommended, *inter-alia*, that only service licensees should be allowed to install baseband equipment at the SESGs, i.e. SESG operators should not be permitted to install baseband equipment. The Authority notes that in the present consultation process, many stakeholders have opined in favour of the above recommendation. However, many other stakeholders have suggested for relaxing the proposed bar on the installation of the baseband equipment by SESG operators (as recommended by TRAI through the afore-mentioned recommendations dated 29.11.2022). Such stakeholders have suggested, essentially, two differing approaches in respect of the installation of the baseband equipment at SESGs viz.-

- (a) 1st approach: Both SESG operators and service providers should be permitted to deploy the baseband equipment as per the requirement.
- (b) 2nd approach: The SESG operator should be allowed to deploy baseband equipment for the service provider who interworks with the SESG operator.

- 2.144 The Authority examined the appropriateness of permitting SESG operators to deploy the baseband equipment at SESGs. The Authority notes that this aspect was deliberated in detail in the TRAI's recommendations on 'Licensing Framework for Establishing Satellite Earth Station gateway (SESG)' dated 29.11.2022; however, considering the fact that the baseband equipment provides control, visibility and management of the satellite communication services which are rendered to end users, TRAI had concluded that only the service licensees/ permission holders should be permitted to install their own baseband equipment at the SESGs. The Authority notes that the aforementioned observation and conclusion remains valid even today.
- 2.145 Based on the inputs of stakeholders in the present consultation process and further analysis, the Authority is of the considered view that as far as the ownership of the baseband equipment is concerned, it should remain only with the service authorised entities.
- 2.146 Further, the Authority examined the aspect of allowing SESG operators to deploy baseband equipment for the service providers who interwork with the SESG operators. In this regard, the Authority noted that in respect of the extant IP-I Registration (under which an entity can provide only passive assets such as dark fibers, right of way, duct space, and towers on lease/ rent/ sale basis to the licensees of telecommunication services), DoT, through the letter No. 10-40/2007-CS-III dated 28.11.2016, stated, *inter-alia*, that "*the IP-I providers are not permitted to own and share active infrastructure. The IP-I providers can only install the active elements (limited to antenna, feeder cable, Node B, Radio Access Network (RAN) and transmission media only) on behalf of Telecom licensees i.e. these elements should be owned by the companies who have been issued license under Section 4 of Telegraph Act, 1885.*"
- 2.147 The Authority is of the considered opinion that in order to facilitate operational requirements, a similar provision can be introduced in respect of installation of

baseband equipment on SESGs. Accordingly, the Authority is of the view that the following conditions should be included in the SESG Authorisation in respect of installation of the baseband equipment at SESGs:

- (a) The baseband equipment to be installed at SESGs should be owned by the eligible service authorised entities interworking with the SESG authorised entity.
- (b) The SESG authorised entity should be permitted to install the baseband equipment at SESGs on behalf of the eligible service authorised entities.

(2) Assignment of the Satellite Spectrum to SESG Operators

2.148 Through the recommendations on 'Licensing Framework for Establishing and Operating Satellite Earth Station Gateway (SESG)' dated 29.11.2022, TRAI had made, *inter-alia*, the following observations, and recommendations in respect of the assignment of frequency spectrum:

"2.66 ...the frequency spectrum is processed in the baseband equipment, and the resource allocation (in terms of frequency and timeslot) to individual users takes place in the baseband equipment.

2.67 Considering the comments received from stakeholders and further analysis, the Authority is of the view that provisioning of services to customers, and usage of frequency spectrum is tied up with the baseband equipment. Service licensees will deploy baseband equipment. As a corollary, service licensees will have to obtain frequency spectrum from the Government. The service licensees will process this frequency spectrum to deliver services to the customers. Clearly, there is no case for allocation of frequency spectrum to SESG licensees as they will not provide communication services to end customers, nor will they have to install baseband equipment.

2.68 Based on the comments of stakeholders and its further analysis on the matter, the Authority recommends that –

Frequency spectrum (gateway-side spectrum, as well as user terminal side spectrum) should be assigned to the eligible service licensees/ permission holders as per the allocation of transponder bandwidth in the concerned satellite system. No frequency spectrum should be assigned to SESG licensees.”

2.149 In short, through the afore-mentioned recommendations dated 29.11.2022, TRAI had recommended, *inter-alia*, that satellite spectrum should be assigned to only eligible service licensees and not to SESG operators. The Authority notes that in the present consultation process, many stakeholders have opined in support of the above recommendation. However, many other stakeholders have suggested that the gateway-side spectrum should be assigned to SESG operators, and the user-side spectrum should be assigned to service providers.

2.150 The Authority examined the appropriateness of permitting SESG operators to obtain the satellite spectrum to be used at SESGs. The Authority notes that this aspect was deliberated in detail in the TRAI's recommendations on 'Licensing Framework for Establishing Satellite Earth Station gateway (SESG)' dated 29.11.2022. In this regard, TRAI had taken note of the fact that the resource allocation (in terms of frequency and time-slot) to individual users takes place in the baseband equipment; therefore, the provisioning of services to customers and usage of frequency spectrum is tied up with the baseband equipment; further, it is the service licensee who would deploy baseband equipment, and therefore, TRAI had concluded that spectrum (gateway-side spectrum as well as user-side spectrum) should be assigned to the eligible service licensees/ permission holders, and not to SESG operators. The Authority notes that the above arguments remain valid even today.

2.151 Based on the inputs received from stakeholders in the present consultation process and its own analysis, the Authority is of considered view that as far as the satellite spectrum (gateway-side spectrum as well as user-side spectrum) is concerned, it should be assigned only to the eligible service authorised

entities; however, for configuration and provisioning purposes, the SESG Authorised Entity should be permitted to utilize the spectrum of its partnering service authorised entity on its SESG; such configuration and provisioning will be done on behalf of the partnering service authorised entity, and the right to use of spectrum should remain with the partnering service authorised entity.

(3) Connectivity Between SESGs and Points of Presence (PoPs) of SESG Operators

2.152 A few stakeholders have suggested that SESG operators should be permitted to connect to the points of presence (PoPs) of SESG operators through a fibre/ leased line, without having to acquire any separate authorisation. In this regard, the Authority notes that in addition to SESGs, the satellite operators deploy points of presence (PoPs), where they hand over traffic to the partnering telecom service providers. Often, the PoP is placed at a location different from the location of the SESG. In such a scenario, the SESG and the PoP require to be connected with each other through an optical fiber cable (OFC) system.

2.153 Considering the comments of stakeholders and its further analysis, the Authority is of the view that the SESG authorised entity should be permitted to connect its SESG with its points of presence (PoP) in India through an OFC system.

2.154 In view of the foregoing analysis, **the Authority recommends that –**

- (a) The Central Government should introduce Satellite Earth Station Gateway (SESG) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) Any entity intending to establish, operate, maintain, or expand satellite earth station gateway (SESG) in India should be required to obtain SESG Provider Authorisation from the Central Government.**

- (c) **Broad scope of the SESG Provider Authorisation:** To provide its SESG infrastructure to the entities which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023 and which are permitted to use satellite media under their scope of service
- (d) The baseband equipment to be installed at SESGs should be owned by the eligible service authorised entity interworking with the SESG Provider authorised entity. However, the SESG Provider authorised entity should be permitted to install the baseband equipment at its SESGs on behalf of the eligible service authorised entities.
- (e) The satellite spectrum (gateway-side spectrum as well as user-side spectrum) should be assigned only to the eligible service authorised entities and not to SESG Provider authorised entities. However, for configuration and provisioning purposes, the SESG Provider authorised entity should be permitted to utilize the spectrum of its partnering service authorised entity on its SESGs. Such configuration and provisioning should be done on behalf of the partnering service authorised entity, and the right to use of spectrum should remain with the partnering service authorised entity.
- (f) The SESG Provider authorised entity should be permitted to connect its SESGs with its points of presence (PoPs) in India through optical fiber cable (OFC) system.
- (g) The detailed terms and conditions for SESG Provider Authorisation have been included in Annexure-2.4.
- (h) The terms and conditions for the grant of SESG Provider Authorisation have been included in Annexure-2.2.

K. Satellite Communication Networks

2.155 As mentioned in Chapter I of these recommendations, DoT, through a letter dated 17.10.2024, requested the Authority to consider an authorisation for satellite communication network under Section 3(1)(b) of the Telecommunications Act 2023 alongwith the following aspects:

- (a) Terms and conditions relating to such authorisation;
- (b) Provision of assignment of spectrum for both feeder link as well as user link under such authorisation; and
- (c) Service area of such authorisation.

2.156 In the said letter dated 17.10.2024, DoT mentioned that the authorisation for satellite communication network may be used to provide services to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023. In this context, the Authority solicited comments of stakeholders on the following question:

*Q8. Whether there is a need to introduce a new authorisation for establishing, operating, maintaining or expanding satellite communication network, which may be used to provide network as a service to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023?
If yes-*

- i. What should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of such authorisation?*
- ii. Whether an entity holding such authorisation should be made eligible for the assignment of spectrum for both feeder link as well as user link?*

Kindly provide a detailed response with justification.

Comments of Stakeholders on Q8

2.157 In response to Q8, many stakeholders have opined in favour of introducing a satellite communication network authorisation which may be used to provide network as a service to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023. On the other hand, many other stakeholders have opposed the introduction of satellite communication network authorisation.

2.158 A broad summary of the comments of the stakeholders, who have supported the introduction of satellite communication network authorisation, is given below:

- (a) A couple of stakeholders have suggested that the satellite communication network authorisation may be introduced; however, no spectrum should be assigned under this authorization; any spectrum i.e. gateway-side spectrum and user terminal side spectrum, should be assigned to the eligible service licensees only.
- (b) A few other stakeholders have stated that in NGSO satellite systems, the same frequency spectrum is shared amongst multiple licensees and is assigned flexibly across various end customers belonging to different licensees; considering this, it is important to have a satellite communication network authorisation for NGSO systems which will allow network authorisation holders to put the baseband equipment and hold the spectrum which can be used to provide services to multiple service licensee. One of the stakeholders amongst them suggested that the satellite communication network authorisation can be subsumed in 'Long Distance Service Authorisation' considering satellite bandwidth as an alternate media for X-haul to cater connectivity requirements of the terrestrial networks.

2.159 A broad summary of the views expressed by the stakeholders, who have opposed the introduction of satellite communication network authorisation, is given below:

- (a) The proposed satellite communication network authorisation is not aligned with international practices. Besides, such authorisation would be redundant as both the space and ground segments of the network are already covered by other authorisations.
- (b) There is no requirement for introducing a new authorisation for satellite communication network because the scope of the proposed authorisation is analogous to the SESG authorisation already recommended by TRAI.
- (c) Such an addition to the existing licensing regime will be duplicative and strain the spectrum assignment process for the entities intending to provide satellite communication services.
- (d) TRAI has already recommended the introduction of a separate SESG authorisation for the entities who wish to provide SESG as a service to authorised telecommunication service providers. Further, through its recommendation dated 18.09.2024, TRAI has proposed allowing Virtual Network Providers (VNOs) to enter into agreements with NSO entities holding satellite-based telecommunication service authorisations. Given the similarity between these proposed authorisations, many of the activities envisaged under the satellite communication network authorisation can be conducted more efficiently by authorised telecommunication service providers, particularly at this nascent stage of expansion of satellite communication sector in India.

Analysis of the Issues Raised Through Q8

2.160 The Authority in its recommendations on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' dated 18.09.2024, has recommended, *inter-alia*, for the introduction of the 'Satellite-based Telecommunication Service' authorisation under Section 3(1)(a) of the

Telecommunications Act, 2023. The scope of Satellite-based Telecommunication Service Authorisation includes both Global Mobile Personal Communication by Satellite (GMPCS) service, and VSAT-based Fixed Satellite Service (FSS). The Authority has also recommended that any entity holding a virtual network operator (VNO) authorisation for Internet Service (Category-A/ B/ C), Satellite-based Telecommunication Service, or Machine-to-Machine (M2M) WAN Service (Category-A/ B/ C) should be allowed to enter into an agreement with an NSO entity holding Satellite-based Telecommunication Service authorisation - to provide services under the respective scopes of the services.

2.161 In the previous section of the present recommendations, the Authority has already recommended for the introduction of SESG Provider Authorisation, under which, the SESG authorised entity may establish, operate, maintain, or expand SESGs and provide its SESG infrastructure to the entities which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023 and are permitted to use satellite media under their scope of service.

2.162 In short, for satellite-based telecommunications, the Authority has already recommended a comprehensive regulatory framework for not only a service authorisation (Satellite-based Telecommunication Service Authorisation recommended through the recommendations dated 18.09.2024) but also a network authorisation (SESG Provider Authorisation through the present recommendations). In respect of the service authorisation, the Authority has also recommended an enabling VNO parenting framework for the provision of telecommunication services using satellite media.

2.163 Traditionally, a typical entity, licensed to provide satellite-based telecommunication services under the Indian Telegraph Act 1885, would obtain on lease a transponder bandwidth on a satellite system and then (a) acquire satellite spectrum (both gateway-side spectrum and user-side spectrum) from

the Central Government, and (b) establish an SESG in India, prior to onboarding subscribers.

2.164 Through the recommendations dated 18.09.2024 in respect of Satellite-based Telecommunication Service Authorisation, and the present recommendations in respect of SESG Provider Authorisation, the Authority has attempted to establish an enabling framework for the provision of telecommunication services using satellite media in which a business entity would have a sufficient degree of freedom in respect of the requirement for acquiring satellite spectrum and establishing an SESG in India. Essentially a business entity may choose any one of the following business models for the delivery of telecommunication services using satellite media:

Option	Name of the authorisation (as recommended by the Authority) to be obtained by the entity	Requirement to obtain satellite spectrum from the Central Government	Requirement to establish an SESG in India
Option-1	Satellite-based Telecommunication Service Authorisation	✓	✓
Option-2	Satellite-based Telecommunication Service Authorisation (by using the SESGs established by an SESG Provider authorised entity)	✓	✗

Option-3	VNO authorisations (Satellite-based Telecommunication Service Authorisation, or Internet Service Authorisation, or M2M WAN Service Authorisation)	X	X
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2.165 At this stage, one may contend that in case the SESG Provider authorised entity, or hypothetically the 'satellite communication network' authorised entity, is permitted to obtain satellite spectrum from the Central Government, it will enable service authorised entities to deliver telecommunication services without obtaining satellite spectrum. In this regard, it may be recalled that in the previous section of these recommendations, the Authority has already examined the prospect of assigning frequency spectrum to SESG Provider authorised entity and has concluded that the spectrum should be assigned to service authorised entities and not to SESG Provider authorised entities.

2.166 In general, towards devising a broad principle for assigning spectrum to 'network' authorised entities, it would be worthwhile to recollect the recent developments with respect to the regulatory frameworks for network authorisations.

2.167 In the year 2019, DoT, through the letter No. 20-281/2010-AS-I Vol. XII (pt) dated 08.05.2019, requested TRAI to provide recommendations on several strategies of the National Digital Communication Policy (NDCP)-2018, including *"Enabling unbundling of different layers (e.g., infrastructure, network, services, and application layer) through differential licensing."* After following a stakeholders' consultation, TRAI sent its recommendations on 'Enabling Unbundling of Different Layers Through Differential Licensing' dated 19.08.2021

to the Government. Through the said recommendations, TRAI recommended, *inter-alia*, as below:

“

- a) *A separate authorization under Unified License should be created for Access Network Provider (network layer) to provide network services on wholesale basis. Under this authorization for Network layer only, the Access network provider shall not be permitted to directly provide services to the end customers under the authorization.*
- b) *Scope of the Access Network Provider shall be to establish and maintain access network, including wireless and wireline access network, and selling the network services (capable of carrying voice and non-voice messages and data) on a wholesale basis to VNOs (service delivery operators) for retailing purpose. The Access Network Provider should be permitted to have capabilities to support all the services mentioned in the scope of Access Service authorization (Chapter VIII of UL).*
- c) *The Access Network provider should also be permitted to provide/ share its network resources to/ with the telecom service providers who are licensees under section 4 of the Indian Telegraph Act, 1885, and vice versa.*

...

- f) *Like Unified Licensee with access service authorization, the Access Network provider should also be permitted to acquire spectrum through spectrum auctions ...*”(Emphasis supplied)

2.168 In short, through the recommendations dated 19.08.2021, the Authority recommended, *inter-alia*, that the Government should introduce a new authorisation namely ‘Access Network Provider’ authorisation with the scope to establish and maintain access network, including wireless and wireline access network, and selling the network services on a wholesale basis to VNOs for retailing purpose; the Access Network provider should also be permitted to acquire spectrum. It is noteworthy that the Government did not accept the aforementioned recommendations dated 19.08.2021.

2.169 In the year 2022, through the letter No. 10-12/20212-CS-III (Pt. III) dated 11.08.2022, DoT sent a reference to TRAI and stated, *inter-alia*, that “*the competent authority has decided for creation of a new category license namely 'Telecom Infrastructure License (TIL)'. Such licensees may be permitted to establish, maintain, and work all equipment for wireline access, radio access and transmission links, except the core equipment and holding of spectrum.*” DoT requested TRAI to provide recommendations for the terms and conditions of such license. After following a consultation process with stakeholders, TRAI sent its recommendations on ‘Introduction of Digital Communication Infrastructure Provider (DCIP) Authorisation under Unified License (UL)’ dated 08.08.2023 to the Government. Through these recommendations, TRAI recommended the introduction of an authorisation named ‘Digital Communication Infrastructure Provider (DCIP)’ with the main scope to own, establish, maintain and work all such apparatus, appliance, instrument, equipment, and system which are required for establishing all wireline access network, radio access network, Wi-Fi systems and transmission links. TRAI also recommended that licensed spectrum should not be assigned to DCIPs. It is worth mentioning that in a previous section of the present recommendations in respect of DCIP Authorisation, the Authority has recommended that “*any authorised spectrum shall not be assigned to DCIP Authorised Entity.*”

2.170 The afore-mentioned observations may be summarized as below:

- (a) In August 2021, TRAI recommended the introduction of Access Network Provider (ANP) Authorization with the scope to establish and maintain access networks in the country. TRAI recommended that ANPs should be permitted to obtain spectrum from the Government. However, the Government has not yet accepted these recommendations.
- (b) In August 2022, the Government sent a reference to TRAI seeking recommendations on a new category of license viz. Telecom Infrastructure License (TIL) with the scope to establish, maintain and work all equipment for wireline access, radio access and transmission links. In the reference,

the Government envisaged that TIL holders should not be assigned spectrum.

- (c) In August 2023, TRAI sent its recommendations on DCIP. Through these recommendations, TRAI recommended that the Government should introduce a new category of authorization viz. Digital Connectivity Infrastructure (DCIP) Provider Authorization with the scope to own, establish, maintain and work all such apparatus, appliance, instrument, equipment, and system which are required for establishing all wireline access network, radio access network, Wi-Fi systems and transmission links. Through these recommendations, TRAI recommended that spectrum should not be assigned to DCIP authorized entities.

2.171 The Authority is of the opinion that on the matter of assignment of spectrum, it would not be appropriate to treat terrestrial communication network providers and satellite communication network providers differently. Accordingly, the Authority is of the view that, at the principle level, the authorised spectrum should be granted to service authorised entities only, and not to network authorised entities.

2.172 Considering the comments of stakeholders on Q8 and the foregoing analysis, the Authority is of the considered opinion that the permissible options for the delivery of satellite-based telecommunication services have been enabled through the Authority's recommendations dated 18.09.2024 in respect of Satellite-based Telecommunication Service authorisation and the present recommendations in respect of the SESG authorisation. Accordingly, the Authority is of the view that there is no need for introducing any additional authorisation for satellite communication network under the Telecommunications Act, 2023, at this stage.

L. Ground Stations for Providing GSaaS

2.173 DoT, through its reference dated 26.07.2024, has requested TRAI to consider the latest developments in the field of telecommunications, such as Ground Station as a Service (GSaaS) as envisaged under the Indian Space Policy 2023. In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments from stakeholders on the following question:

Q9. Whether there is a need to introduce an authorisation under Section 3(1) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding ground stations, which may be used to provide ground station as a service (GSaaS)? If yes, what should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) for the authorisation to establish, operate, maintain, or expand ground stations, which may be used to provide GSaaS? Kindly provide a detailed response with justifications.

Comments of Stakeholders on Q9

2.174 In response to Q9, many stakeholders have suggested that GSaaS should be regulated through an authorisation under Section 3(1) of the Telecommunications Act, 2023. On the other hand, many other stakeholders have contended that GSaaS should be kept authorisation exempt.

2.175 A broad summary of the comments of the stakeholders, who have suggested that GSaaS should be regulated through an authorisation under Section 3(1) of the Telecommunications Act, 2023, is given below:

- (a) A stakeholder has opined that since the scope of the services to be performed under GSaaS falls under the definition of 'telecommunication services' as defined in the Telecommunications Act, 2023, GSaaS needs

to be regulated through an authorisation under Section 3(1) of the Telecommunications Act, 2023; further, the GSaaS operators would be providing these services on commercial terms to customers; it is essential that these entities are made liable to follow the same conditions as applicable to access service providers.

- (b) A few stakeholders have opined that the activities under GSaaS are important for the control, operation, and management of the satellites; to stimulate the growth of the Indian space sector, the provision of Ground Station as a Service (GSaaS) should be enabled through a light-touch network authorisation.
- (c) A stakeholder has stated that there are about 18 GSaaS providers world-wide and they have their ground stations proliferated globally; however, since there is no GSaaS policy/ players in India, commercial ground station services are not being offered from the Indian region resulting in not meeting global customer requirements for real time data and satellite telemetry, tracking and command (TT&C) connectivity over Indian region; hence, there is an urgent need to introduce an authorisation under Section 3(1) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding ground stations, which may be used to provide GSaaS.

2.176 A broad summary of comments of the stakeholders, who have suggested that there is no need to bring GSaaS under any authorisation under Section 3(1) of the Telecommunications Act, 2023, is given below:

- (a) GSaaS is dissimilar to satellite communication services like VSAT or GMPCS service. GSaaS does not have a hub station and does not enable ground-to-space-to-ground communication. GSaaS enables private one-way transfer of data (space-to-ground or ground-to-space) for non-telecom purposes such as Earth observation, telemetry tracking and control (TT&C), and satellite control etc. GSaaS uniquely enables faster scaling of satellite-based services without the costs involved to set up infrastructure.

Introducing a separate and additional authorisation framework for GSaaS earth stations, over and above that of IN-SPACe, will hinder the broader aim of enabling a vibrant space sector.

- (b) Ground station as a service (GSaaS) is used mainly for data collection purposes. Since IN-SPACe is already regulating GSaaS, a separate authorisation is considered redundant and unnecessary.

Analysis of the Issues Raised Through Q9

2.177 In the year 2020, the Government of India introduced space reforms, allowing a greater participation of non-government entities (NGEs) in space activities and ensuring a level playing field. To provide regulatory clarity and to foster a thriving space ecosystem, the Government issued Indian Space Policy-2023⁶⁶. Para 5.1 of the Indian Space Policy-2023 states that Indian National Space Promotion and Authorization Center (IN-SPACe) shall act as the single window agency for the authorisation of space activities by government entities as well as NGEs, subject to relevant Government directives, keeping in mind safety, national security, international obligations and/or foreign policy considerations. The policy document also provides a list of space activities for which IN-SPACe shall accord authorization. A few space activities, which are included in the list, are mentioned below:

- "e. the establishment and operation of TT&C Earth Stations;*
- f. the establishment and operation of SCCs and/ or satellite data reception station(s).*
- g. dissemination of high resolution space-based earth observation data."*

2.178 In May 2024, the IN-SPACe issued 'Norms, Guidelines and Procedures for Implementation of Indian Space Policy-2023 in respect of Authorization of

⁶⁶ https://www.isro.gov.in/media_isro/pdf/IndianSpacePolicy2023.pdf

Space Activities (NGP)⁶⁷. A relevant extract of the Chapter IX of the NGP is reproduced below:

"

- (a) *Authorization from IN-SPACe shall be required for establishment and/ or operations of the following category of ground stations:*
 - i. *Satellite Control Centre (SCC)*
 - ii. *Telemetry, Tracking and Command (TT&C)*
 - iii. *Mission Control Centre (MCC)*
 - iv. *Remote Sensing Data reception station*
 - v. *Ground stations for supporting operations of the space-based services such as Space Situational Awareness (SSA), astronomical, space science or navigation missions, etc.*
 - vi. *Any other category, as decided by IN-SPACe.*
- (b) *Applicant shall obtain the requisite clearance/ approval/ license from the relevant Government department(s)/ ministries, as applicable and necessary for operationalization of such ground station(s), after obtaining IN-SPACe Authorization.*
- (c) *IN-SPACe Authorization is not required for setting up of gateways or hubs supporting satellite communication services such as Direct-to-Home (DTH), TV Uplink, Digital Satellite News Gathering Service (DSNG), Very Small Aperture Terminal (VSATs), broadband, Inflight and Maritime connectivity (IFMC), etc. Establishment and operations of such gateways/ hubs including those required for supporting the operations of the high throughput GSO or NGSO satellites/ constellations shall be governed by the prevailing licensing/ approvals process by the respective government departments/ ministries.*
- (d) *Indian Entities are permitted to establish and operate the ground station(s), such as TT&C, MCC, Remote Sensing data reception stations,*

⁶⁷ https://www.inspace.gov.in/sys_attachment.do?sys_id=5d532e37877102503b0f0d060cbb35cf

etc. for providing commercial services to their customers (Ground Station As A Service or GSAAS), with the Authorization of IN-SPACE.

- (e) *Indian Entities are permitted to establish and operationalize the station within or outside Indian Territory. In the latter case, the Applicant shall seek IN-SPACE Authorization by demonstrating the significant technical or business advantages gained by them for choosing the location outside the territorial jurisdiction of India, and that the desired location outside the territorial jurisdiction of India does not pose a threat to the national security, foreign relations, national intelligence and security operations in the interests of the Republic of India. Further, the Applicant shall abide by the rules, regulations and clearances of the concerned foreign land for such purpose."*

2.179 The Authority notes that a ground station, which is used for providing GSaaS, is essentially a system of telecommunication equipment (antenna, receivers, transmitters, etc.). Such a ground station is used for providing telecommunication services such as TT&C, satellite control, remote sensing data reception etc. to users. Clearly, in the scheme of the Telecommunications Act, 2023, the ground station which is used for providing GSaaS is telecommunication equipment, and the provision of GSaaS to users is a telecommunication service.

2.180 Further, a stakeholder, in the present consultation process, has opined that GSaaS operators would be providing these services on commercial terms to the customers; therefore, it is essential that these entities are made liable to follow the same conditions as applicable to 'access service' providers. The Authority notes that under the Access Service authorisation, a service provider can provide, *inter-alia*, access to the public networks viz. public switch telephone network (PSTN), public land mobile network (PLMN) and Internet. On the other hand, GSaaS operators, as envisaged under the NGP issued by IN-SPACE in May 2024, *"are permitted to establish and operate ground stations such as*

TT&C, MCC, Remote Sensing data reception stations etc. for providing commercial services to their customers (Ground Station As A Service or GSaaS), with the authorization of IN-SPACe.” A perusal of their individual scopes⁶⁸ makes it clear that the provision of GSaaS may, in no case, be likened to ‘Access Service’.

2.181 A few other stakeholders in the present consultation process have contended that GSaaS is dissimilar to satellite communication services like VSAT or GMPCS service; GSaaS does not enable ground-to-space-to-ground communication; GSaaS enables only private one-way transfer of data (space-to-ground, or

⁶⁸ The scope of Access Service Authorisation, as recommended by the Authority through recommendations on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023 dated 18.09.2024, is given below:

"3. Scope of service: The Authorised Entity may provide service as per the following scope. The services may be given on wireline or wireless media. While providing service through wireless media, the Authorised Entity may use terrestrial network and/or non-terrestrial network. Wireless services may be provided with mobility and/ or fixed wireless access.

(1) Transmission, emission or reception of voice and non-voice message, including video.

(2) Internet access service, Internet Telephony and IPTV; while providing Internet Telephony service, the Authorised Entity may interconnect Internet Telephony network with PSTN/ PLMN/ GMPCS networks.

(3) Leased circuits and Virtual Private Network

(4) Captive network as a service to enterprises

(5) Machine to Machine (M2M) WAN service

(6) Audio conferencing/ Audiotex/ Voice Mail service/ Cloud-based EPABX service

(7) For the provision of the above services, the Authorised Entity may enter into agreements for roaming facilities and the same shall be governed by the conditions relating to roaming facilities under Technical and Operating Conditions. However, any roaming arrangement shall not entitle the Authorised Entity to acquire users in the technology not deployed or for services/ facilities not offered in its network.

(8) The Authorised Entity may enter into agreement(s) with authorised VNO entities having authorisation for relevant service(s). Except for those services permitted under the scope of the Authorisation, the Authorised Entity shall not provide any service(s) which require a separate service authorisation/ license/ permission by the Central Government.”

Chapter- IX of the Norms, Guidelines and Procedures for Implementation of Indian Space Policy-2023 in respect of Authorisation of Space Activities (NGP) issued by IN-SPACe in May 2024 provides the scope of the GSaaS operators. A relevant extract of Chapter IX of the NGP is given below:

"a. Authorization from IN-SPACe shall be required for establishment and/ or operations of the following category of ground stations:

i. Satellite Control Centre (SCC)

ii. Telemetry, Tracking and Command (TT&C)

iii. Mission Control Centre (MCC)

iv. Remote Sensing Data reception station

v. Ground stations for supporting operations of the space-based services such as Space Situational Awareness (SSA), astronomical, space science or navigation missions, etc.

vi. Any other category, as decided by IN-SPACe

b. Applicant shall obtain the requisite clearance/approval/license from the relevant Government department(s)/ministries, as applicable and necessary for operationalization of such ground station(s), after obtaining IN-SPACe Authorization.

c. IN-SPACe Authorization is not required for setting up of gateways or hubs supporting satellite communication services such as Direct-to-Home (DTH), TV Uplink, Digital Satellite News Gathering Service (DSNG), Very Small Aperture Terminal (VSATs), broadband, Inflight and Maritime connectivity (IFMC), etc. Establishment and operations of such gateways/hubs including those required for supporting the operations of the high throughput GSO or NGSO satellites/constellations shall be governed by the prevailing licensing/approvals process by the respective government departments/ministries.

d. Indian Entities are permitted to establish and operate the ground station(s), such as TT&C, MCC, Remote Sensing data reception stations, etc. for providing commercial services to their customer.”

ground-to-space) for non-telecommunication purposes such as Earth observation, telemetry, tracking and control (TT&C), and satellite control etc.; GSaaS is used mainly for data collection purposes; as IN-SPACe is already regulating GSaaS under its authorisation framework, there is no need to further regulate it with any other authorisation; another authorisation would hinder the broader aim of enabling a vibrant space sector.

2.182 While examining the above comments of stakeholders, the Authority took note of the following aspects:

- (a) The NGP issued by IN-SPACe envisages that an authorization from IN-SPACe is required for establishment and/ or operations of the following category of ground stations: (i) Satellite Control Centre (SCC)⁶⁹, Telemetry, Tracking and Command (TT&C)⁷⁰, (iii) Mission Control Centre (MCC)⁷¹, (iv) Remote Sensing⁷² Data reception station, (iv) Ground stations for supporting operations of the space-based services such as Space Situational Awareness (SSA), astronomical, space science or navigation missions, etc. Further, the NGP envisages that Indian Entities are permitted to establish and operate ground stations, such as TT&C, MCC, remote sensing data reception stations, etc. for providing

⁶⁹ The NGP of IN-SPACe defines the term 'Satellite Control Centre' as "satellite control facility for monitoring and control of the satellites and which shall comprise TT&C Earth Stations and associated processing equipment referred to as Mission Control Centre (MCC)".

⁷⁰ Telemetry, Tracking and Command (TT&C) performs the following functions to ensure the successful operation of an applications satellite:

- (1) the monitoring of the health and status of the satellite through the collection, processing, and transmission of data from the various spacecraft subsystems,
- (2) the determination of the satellite's exact location through the reception, processing, and transmitting of ranging signals, and
- (3) the proper control of satellite through the reception, processing, and implementation of commands transmitted from the ground.

Source: https://link.springer.com/referenceworkentry/10.1007/978-1-4419-7671-0_69

⁷¹ The NGP of IN-SPACe defines the term 'Mission Control Centre' as "*processing equipment (hardware and software) associated with generation of telecommand to and processing the telemetry from a Space Object through TT&C Earth Station*".

⁷² The NGP of IN-SPACe defines the term 'Remote Sensing' as "*sensing the Earth's surface and atmosphere from space for any purpose including improving natural resources management, land use and the protection of the environment*".

commercial services to their customers (GSaaS), with the authorization of IN-SPACe.

- (b) Ground stations play a pivotal role in facilitating communication between space objects and their operators on Earth. Traditionally, building and maintaining ground stations has been a costly and resource-intensive endeavour, often requiring significant capital investment and specialized expertise. However, with the introduction of ground station as a service, satellite operators and other stakeholders now have an opportunity to access ground station service on a pay-per-use or subscription basis, without the need for upfront investment in infrastructure⁷³.

2.183 Considering the above, the Authority has made the following observations in respect of GSaaS:

- (a) GSaaS is quite distinct from the typical telecommunication services, which are licensed or authorised by telecom regulators internationally. While the main purpose of GSaaS is to provide the facility of satellite control, remote sensing data reception from earth observation satellite etc. to satellite operators or other stakeholders, the main purpose of typical licensed/ authorised telecommunication services is to provide connectivity to people (and sometimes to machines).
- (b) With the opening of the space sector for the private participation in the country under the Indian Space Policy-2023, the GSaaS sector has a potential to significantly contribute to the space economy.
- (c) The activity of establishment and operation of ground stations for providing GSaaS is being regulated under an authorization regime of IN-SPACe. In the year 2024, IN-SPACe has granted authorization certificates to many Indian entities for the establishment and operation of ground stations. Under Section 6 of the authorization certificate, IN-SPACe has

⁷³ Source: https://www.inspace.gov.in/inspace?id=inspace_publications

incorporated detailed 'specific regulations and terms to authorization'. The section provides a range of terms and conditions on the authorized entity including the following conditions:

- (i) Condition w.r.t. taking frequency assignment from WPC, and operating only those frequencies which are permitted by WPC;
- (ii) Condition w.r.t. adhering to the relevant provisions of ITU-RR and National Frequency Allocation Plan (NFAP)
- (iii) Condition w.r.t. mitigating harmful interference; and
- (iv) Condition w.r.t. making provision for the RF signal monitoring and providing feed to DoT, security to traffic, Lawful Interception Management (LIM) System and lawful interception by Law Enforcement Agencies (LEAs) as needed by DoT and other departments/ ministries.

2.184 Considering that the authorization regime of IN-SPACe for regulating the establishment and operation of ground stations and the provision of GSaaS to satellite operators and other stakeholders is fairly robust and provides an adequate oversight on the operation of regulated entities, the Authority is of the view that there is no need to bring GSaaS operators in an authorisation regime under Section 3(1) of the Telecommunications Act, 2023. However, the Central Government may 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. Accordingly, **the Authority recommends that –**

- (a) **The establishment, operation, maintenance, and expansion of the following categories of ground stations (as envisaged in the Norms, Guidelines and Procedures for Implementation of Indian Space Policy-2023 in respect of the Authorization of Space Activities (NGP) issued by IN-SPACe in May 2024) should be**

authorisation-exempt in the public interest in terms of Section 3(3) of the Telecommunications Act, 2023:

- (i) Satellite Control Centre (SCC);**
 - (ii) Telemetry, Tracking and Command (TT&C);**
 - (iii) Mission Control Centre (MCC);**
 - (iv) Remote Sensing Data Reception Station;**
 - (v) Ground Station for supporting operation of the space-based services such as Space Situational Awareness (SSA), Astronomical, space science or navigation missions etc.**
- (b) Any entity establishing, operating, maintaining, or expanding ground stations of the categories mentioned above shall have to obtain an authorisation from the Central Government under Section 3(1) of the Telecommunications Act, 2023, if -**
- (i) it intends to provide any telecommunication service for which an authorisation is required under Section 3(1)(a) of the Telecommunications Act, 2023; or**
 - (ii) it intends to establish, operate, maintain, or expand any telecommunication network for which an authorisation is required under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (c) 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.**

M. Cloud-hosted Telecommunication Network (CTN)

2.185 DoT, through its reference dated 26.07.2024, has requested the Authority to consider the latest developments in the field of telecommunications, such as cloud hosted telecommunication networks being used to provide Unified

Communication as a Service (UCaaS), Communication Platform as a Service (CPaaS) and virtualization of telecommunication networks. In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments from stakeholders on the following question:

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.

Comments of Stakeholders on Q10

2.186 In response to Q10, most stakeholders have opined that there is no need for separate authorisation for cloud-hosted telecommunication networks. A broad summary of their comments is given below:

- (a) Cloud-based solutions, like Unified Communications as a Service (UCaaS) and Communications Platform as a Service (CPaaS), generally provide tools to support, rather than replacing or directly becoming telecommunication networks.
- (b) As noted by the Ministry of Electronics and Information Technology (MeitY), cloud services are a “delivery model for information services”. Cloud service providers (CSPs) provide information services to customers, and these information services are entirely distinct from telecommunication services provided by TSPs.
- (c) Cloud-hosted solutions for TSPs might provide critical functions like billing, data analytics, network management, but they do not usually have direct control over the physical transmission or connectivity. TSPs operate actual

networks, while CSPs host tools or applications that support the operations of TSPs.

- (d) TSPs have a direct oversight and management of the network infrastructure, especially for compliance, security, and emergency access reasons. Cloud-hosted services, which offer managed solutions to TSPs, may share responsibility but typically cannot hold accountability in the same way a telecommunications network does.
- (e) The cloud-based solutions are independent and operate outside the core network infrastructure and are only accessed by TSPs for specific purposes such as data storage, analytics, or auxiliary processing. Therefore, they do not fall within the definition of 'telecommunication network' under the Telecommunications Act, 2023.
- (f) TSPs are regulated because they operate a bottleneck infrastructure with natural monopoly characteristics that cannot be easily replicated, creating an enormous barrier to competition. Telecommunications involve access to special privileges (right of way) and scarce resources (spectrum and telephone numbers). Such issues do not exist for the cloud sector which has always been open, competitive and free from infrastructure bottlenecks and other structural features that necessitate regulatory intervention as in the telecom sector.
- (g) The existing framework for terrestrial network authorisations is sufficient to encompass cloud-hosted telecommunication networks for providing telecommunication services. Introducing a separate authorisation for cloud hosting could lead to unnecessary regulatory complexity and duplication.
- (h) There is no restriction on virtualization under the existing licensing regime. TSPs in India have already adopted virtualization in their networks. As per their respective business and other requirements, they have moved from hardware to software and from physical infrastructure to cloud-hosted networks. The regime should continue to be flexible enough to allow both

physical and virtual layers. A separate authorisation for cloud-hosted telecom networks would not serve any purpose.

- (i) Cloud-hosted telecommunication network as a service is in a nascent stage in India right now. Imposing stringent entry and operating conditions would make it very difficult for the industry to evolve.
- (j) Cloud service providers should not be subjected to any authorisation under the Telecommunications Act, 2023, except when the entity providing cloud services engages in network services, such as offering PSTN switching and routing capabilities.
- (k) Cloud-based telecom services are essentially OTT services. Hence, these should be kept out of telecom regulations. However, security and data privacy related regulations need to be complied.

2.187 In their comments, many stakeholders have highlighted the importance of cloud-hosted telecommunication networks. A broad summary of their comments is given below:

- (l) Cloud communications is being used predominantly by enterprises in India. With technological advancements, licensed service providers also have flexibility to offer licensed communications services irrespective of technology and/ or platform (cloud computing, software defined networks, network function virtualization etc.) to achieve higher operational efficiency provided the same should be able to demonstrate Lawful Interception (LI) capability. Moreover, major telecom service providers are already availing cloud-hosted telecommunications network services using their own private cloud such as virtualized instances of appliances like billing server, key performance indicator (KPI) reporting, session border controller (SBC), soft switch etc.
- (m) Network Function Virtualization (NFV) and Software Defined Networking (SDN) are the enablers for modern 5G standalone (SA) networks. These technologies facilitate a 5G SA operator to reduce dependencies on physical equipment and also enable network slicing.

- (n) Technological developments such as virtualization of telecom infrastructure can bring flexibility and provide benefits to TSPs, especially those who operate at a smaller scale.
- (o) Cloud-hosted telecommunication networks could have a great and positive impact on the future of network architecture in India.

Analysis w.r.t. the Issues Raised Through Q10

2.188 The genesis of the “cloud” concept in technology goes back to the mid-20th century, with roots deeply embedded in the realm of computer science and network engineering⁷⁴. Back then, cloud computing was often associated with the concept of time-sharing and the utilization of shared resources and virtual machines. The late 1960s and early 1970s saw the introduction of the ARPANET, the precursor to the internet. It served as an experimental ground where the idea of remote access to computing power began to take form. During these days, the cloud was primarily a metaphor for the Internet, symbolizing the “unknown” or “network of networks” that made up the World Wide Web.

2.189 The groundwork for the modern cloud computing was laid in the mid-2000s. Now, it was no longer just about storage or shared resources; it was also about providing on-demand computing services like processing power and complex applications over the Internet. The meaning of cloud, therefore, started to encapsulate not just storage, but a host of functionalities like data analytics, machine learning, and artificial intelligence, all accessible over the internet. This transformation helped redefine the description of a cloud into a technology suite that can virtually replace an entire on-premises data centre. Today, cloud

⁷⁴ <https://www.ituonline.com/blogs/definition-of-cloud/>

offers a broad spectrum of capabilities that include but are not limited to storage, networking, databases, analytics, software, and intelligence.

2.190 Cloud deployment models can be broadly classified into public cloud and private clouds. Public clouds are accessible over the Internet and offer the convenience of easy accessibility. Because resources in a public cloud are shared among multiple users, or “tenants,” it provides a cost-effective way for individuals and organizations to use computing resources without owning physical infrastructure. In Private clouds, resources are not shared; instead, they are exclusively used by a single organization, providing a more secure and controlled environment.

2.191 Cloud infrastructure is typically delivered through “as a service” models such as Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS). In SaaS, applications are provided over the Internet, eliminating the need to install software on individual computers. PaaS goes a step further by providing not just software but also a platform allowing users to develop, run, and manage their own applications without dealing with the complexities of building and maintaining infrastructure. IaaS offers even more control, allowing businesses to rent virtual machines, servers, storage, and networking on a pay-as-you-go basis.

2.192 As per Ericsson, cloud infrastructure, driven by rapid advancements in 5G, edge computing and cloud-native technologies, presents significant opportunities for telecom service providers to enhance efficiency, support innovative services and unlock new business potential⁷⁵. Essentially, cloud infrastructure is a combination of hardware, software, storage, networking, and virtualization

⁷⁵ Source: https://www.ericsson.com/en/cloud-infrastructure?gad_source=1&gclid=CjwKCAiA2JG9BhAuEiwAH_zf3kcV9yJyU55IqSTyd-xMaEhCA6AU6X1i-1a9OboifJGO06kNbfX0IBoCO0UQAvD_BwE&qclsrc=aw.ds

technologies. At the resource level, telecommunication networks comprise *inter-alia* hardware, software, storage, and inter-networking. By using virtualization technologies, these resources may be dynamically allocated and shared across applications. Traditionally, establishment, operation and maintenance of telecommunication networks required significant capital investment and specialized expertise. However, the growth of cloud infrastructure in the country has opened an opportunity for TSPs to make use of third-party cloud-hosted telecommunication networks for providing telecommunication services to consumers more efficiently, at a scale, and at significantly lower costs. Without the need for upfront investment in infrastructure or ongoing maintenance, TSPs can use the third-party cloud-hosted telecommunication networks for implementing network functions, operations support systems (OSS), business support systems (BSS) and other IT services on a pay-per-use or subscription basis.

2.193 In short, third-party cloud-hosted telecommunication networks could play an important role in the virtualization of telecommunication networks, thereby reducing the network costs, improving network resilience and shortening the time to market telecommunication services. The third-party cloud-hosted telecommunication networks could also make available enhanced services such as Unified Communication as a Service (UCaaS)⁷⁶ and Communication Platform as a Service (CPaaS)⁷⁷.

2.194 The Authority has already recommended that the telecom service providers should be permitted to take telecommunication network resources on lease or hire from cloud service providers, which are either empaneled by the Ministry

⁷⁶ Unified communications as a service (UCaaS) brings together apps and services like call, chat, video, and audio conferencing into one cloud-based platform. [Source: <https://www.microsoft.com/en-us/microsoft-teams/unified-communications-as-a-service#:~:text=UCaaS%2C%20or%20unified%20communications%20as,a%20single%20interface%20or%20platform>]

⁷⁷ Communications Platform as a Service (CPaaS) is a cloud-based platform that connects enterprises and customers in a simple and easy-to-use way. [Source: <https://www.syniverse.com/insights/what-is-cpaas>]

of Electronics and Information Technology (MeitY), Government of India as cloud service providers, or are authorised under Section 3(1) of the Telecommunications Act, 2023. The Authority is of the opinion that introducing a light-touch network authorisation for establishing, operating, maintaining, and expanding cloud-hosted telecommunication networks will further help the proliferation of telecommunication services in the country. The entities holding such an authorisation may provide cloud-hosted telecommunication network-as-a-service (CTNaaS) to the eligible service authorised entities. The Authority is of the view that the introduction of such an authorisation will particularly be helpful for the telecom service providers which are at the start-up stage and for also the telecom service providers which are operating at a smaller scale (such entities may not have sufficient capital resources and technical expertise) to provide telecommunication services by leasing or hiring cloud-hosted telecommunication network resources from third parties. They will benefit not only in terms of reduced cost, but also in terms of faster deployment of services, easy scalability of services, and easy upgradation to newer technologies. The Authority is of the view that the authorisation may be termed as Cloud-hosted Telecom Network (CTN) Provider Authorisation.

2.195 Considering the comments of stakeholders and its own analysis, **the Authority recommends that:**

- (a) The Central Government should introduce Cloud-hosted Telecom Network (CTN) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) Any entity intending to establish, operate, maintain, or expand cloud-hosted telecommunication network should obtain CTN Provider Authorisation from the Central Government.**
- (c) Broad scope of CTN Provider Authorisation:**
To provide cloud-hosted telecommunication network-as-a-service (CTNaaS) to the eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.

Here, the term 'CTNaaS' shall cover the following activities:

- (i) Provision of physical infrastructure to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for housing its telecommunication equipment;**
 - (ii) Provision of dedicated telecommunication equipment to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for the use in its telecommunication network;**
 - (iii) Provision of virtual machine(s) to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for the use in its telecommunication network; and**
 - (iv) Provision of telecommunication network functionality to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for providing telecommunication services.**
- (d) The detailed terms and conditions for CTN Provider Authorisation have been included in Annexure-2.4.**
- (e) The terms and conditions for the grant of CTN Provider Authorisation have been included in Annexure-2.2.**

N. Mobile Number Portability

2.196 Mobile Number Portability (MNP) is the facility which allows a subscriber to retain his mobile number when he moves from one Access Provider⁷⁸ to another Access Provider.

⁷⁸ The Telecommunication Mobile Number Portability Regulations, 2009 (as amended) defines the term 'Access Provider' as below:

"Access Provider" means the holder of a Cellular Mobile Telephone Service licence or Unified Access Service licence or Unified licence (access service) or unified licence having authorization to provide access service or Unified License (Virtual Network Operator) having authorization to provide access service and includes a service provider providing fixed wireline or fixed wireless service in addition to Cellular Mobile Telephone Service;

2.197 Earlier, in August 2008, DoT established a licensing framework for MNP service through 'Guidelines for Mobile Number Portability (MNP) Service License'⁷⁹ dated 01.08.2008. For the purpose of licenses for MNP service, DoT divided the whole country into two MNP zones (Zone 1 and Zone 2) consisting of 11 Licensed Service Areas (LSAs) each⁸⁰. The Guidelines for Mobile Number Portability (MNP) Service License' dated 01.08.2008 envisaged that "[t]here shall be only one license for MNP service in each MNP Zone."

2.198 In November 2008, DoT issued a tender document⁸¹ for Mobile Number Portability (MNP) Service and invited tenders for providing MNP service. Based on the outcome of the bidding process, DoT, on 17.04.2009, signed MNP Service license agreements with M/s Syniverse Technologies (India) Private Limited and M/s MNP Interconnection Telecom Solutions India Private Limited for MNP Zone 1 and MNP Zone 2 respectively w.e.f. 20.03.2009⁸².

2.199 On 23.09.2009, TRAI issued the Telecommunication Mobile Number Portability Regulations, 2009. Through the said regulations, TRAI laid down the basic business process framework for the implementation of MNP in the country. Thereafter, the facility of MNP was launched on a pilot basis on 25.11.2010 in Haryana service area, which was extended to the whole country from 20.01.2011. Initially, the MNP facility was available within the Licensed Service Area (LSA) only. On 03.07.2015, the full mobile number portability was

⁷⁹ Source:

<https://dot.gov.in/sites/default/files/39.Guidelines%20for%20Mobile%20Number%20PortabilityService%20License.pdf?download=1>

⁸⁰ The service area of operation of MNP Zone 1 consists of Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Punjab, Rajasthan, Uttar Pradesh (E), Uttar Pradesh (W), Delhi and Mumbai LSAs. The service area of operation of MNP Zone 2 consists of Andhra Pradesh, Assam, Bihar, Karnataka, Kerala, Madhya Pradesh, North East, Orissa, Tamil Nadu including Chennai, West Bengal and Kolkata LSAs.

⁸¹ Source: <https://dot.gov.in/access-services/mobile-number-portabilitymnp?page=1>

⁸² Source: <https://dot.gov.in/accessservices/licence-agreements-mobile-number-portability-mnp-service>

implemented in the country. In April 2019, DoT entered into fresh MNP Service license agreements with M/s Syniverse Technologies (India) Private Limited and M/s MNP Interconnection Telecom Solutions India Private Limited for MNP Zone 1 and MNP Zone 2 respectively for a validity period of 10 years.

2.200 As per the extant license agreement for Mobile Number Portability (MNP) Service, the main scope of the license is as follows:

- (a) The licensee shall be permitted to provide mobile number portability services in the licensed MNP zone.
- (b) The licensee shall establish, administer and operate the Mobile Number Portability centralized clearing house (MCH) and logically centralized Number Portability DataBase (NPDB) for implementation of mobile number portability in the licensed MNP zone.
- (c) The MCH and NPDB established by the licensee shall be used by all telecommunication service providers (both existing & new) (i.e. Basic, CMTS, UAS, NLD and ILD Licensee(s)) of the licensed MNP zone for the purpose of supporting porting of mobile numbers between mobile operators.

2.201 In this background, through the Consultation Paper dated 22.10.2024, the Authority solicited comments from stakeholders on the following question:

Q11. What should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the authorisation for Mobile Number Portability Service under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.

Comments of Stakeholders on Q11

2.202 In response to Q11, most stakeholders have opined that mobile number portability operations in the country are running smoothly with no serious issues being observed; therefore, no change is required in the present terms and conditions of the MNP Service license and the same should be continued under the Telecommunications Act, 2023. A few other stakeholders have suggested inclusion of certain additional terms and conditions in the MNP Provider authorisation. One of the stakeholders has contended that a separate authorisation for MNP Provider under Section 3(1)(b) of the Telecommunications Act, 2023, is unnecessary.

2.203 A broad summary of the comments of the stakeholders, who have opined that no change is required in the terms and conditions of MNP Provider authorisation, is given below:

- (a) Mobile Number Portability (MNP) has proved to be a great success in India. The existing regulatory framework with respect to MNP is reasonable and meets the requirements of telecommunication users. Therefore, the eligibility conditions, area of operation, validity period of authorisation, scope, terms and conditions of the MNP Provider authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 do not require to be different from the existing conditions in the current MNP Service license.
- (b) The current license conditions should be replicated under any policy of authorisations to avoid sudden and dramatic shock to the MNP eco-system.

2.204 A broad summary of suggestions given by a few stakeholders in respect of terms and conditions of the MNP Provider authorisation is given below:

- (a) The scope of the MNP Service license should be expanded to include other centralized services under the public-private-partnership model with a mutually accepted business model.
- (b) Clear guidelines should be defined on data/ log retention for the specific logs and data in terms of period of storage of such data/ logs in the MNP database.
- (c) Eligibility requirements should include technical expertise in number portability, sufficient financial capacity to operate MNP infrastructure, a commitment to network neutrality, and adherence to data security and privacy standards.
- (d) The authorisation should be nationwide, with a validity period of 10-15 years to encourage sustained investment.

2.205 The stakeholder, who has contended that a separate authorisation for MNP Provider under Section 3(1)(b) of the Telecommunications Act, 2023 is unnecessary, has stated that MNP should not be restricted by individual licensing requirements, allowing for a more competitive and responsive telecom sector without administrative obstacles.

Analysis w.r.t. the Issues Raised Through Q11

2.206 The Authority examined the comments of stakeholders and is of the view that the terms and conditions under Mobile Number Portability Provider authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 may be kept largely the same as those provided for the extant MNP Service license. Further, the Authority is of the view that the following activities should be included within the scope of the Mobile Number Portability Provider authorisation:

- (a) Establishment, operation, maintenance, and expansion of a telecommunication network for providing MNP in its MNP zone to the

entities authorised to provide access service under the Telecommunications Act, 2023; and

- (b) Provision of location routing number (LRN) update to all entities authorised to provide access service, NLD service and ILD service under the Telecommunications Act, 2023.

2.207 The Authority perused the extant Guidelines for Mobile Number Portability (MNP) Service License issued by DoT. The Authority took note of the following aspects of the extant licensing regime for MNP -

- (a) There are two Mobile Number Portability (MNP) zones in the country.
- (b) Each MNP zone consists of eleven service areas (telecom circles/ Metro areas). The service area of operation of MNP Zone 1 consists of Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Punjab, Rajasthan, Uttar Pradesh (E), Uttar Pradesh (W), Delhi and Mumbai authorised service areas. The service area of operation of MNP Zone 2 consists of Andhra Pradesh, Assam, Bihar, Karnataka, Kerala, Madhya Pradesh, North East, Orissa, Tamil Nadu including Chennai, West Bengal and Kolkata authorised service areas.
- (c) At present, there is only one MNP Service licensee in each MNP zone.

2.208 The Authority is of the view that a new network authorisation viz. Mobile Number Portability (MNP) Provider Authorisation may be introduced under Section 3(1)(b) of the Telecommunications Act, 2023. As far as the broad regulatory framework in terms of number of MNP zones, composition of authorised services areas within each MNP zone, and number of MNP Provider authorised entities in each MNP zone is concerned, the position mentioned in the preceding paragraph may be continued at present considering that MNP operations in the country are running smoothly. However, in future, the Central Government may, if deemed fit, change (increase/ decrease) the number of MNP zones in the country, amend the composition of authorised services areas

within each MNP zone, and introduce more MNP Provider authorised entities in each MNP zone through a competitive bidding process.

2.209 In view of the comments of stakeholders and further analysis, **the Authority recommends that –**

- (a) The Central Government should introduce Mobile Number Portability (MNP) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) The scope of MNP Provider Authorisation should cover the following activities:**
 - (i) Establishment, operation, maintenance, and expansion of a telecommunication network for providing MNP to the entities authorised to provide Access Service under the Telecommunications Act, 2023; and**
 - (ii) Provision of location routing number (LRN) update to all entities authorised to provide Access Service, National Long Distance (NLD) Service and International Long Distance (ILD) Service under the Telecommunications Act, 2023.**
- (c) The extant policy regime of two MNP zones in the country, each comprising of 11 authorised service areas (telecom circles/ Metro areas), and only one MNP Provider authorised entity in each MNP zone should be continued at present. However, in future, the Central Government may, if deemed fit, change the number of MNP zones in the country, amend the composition of authorised services areas within each MNP zone, and introduce more MNP authorised entities in each MNP zone through a competitive bidding process.**
- (d) The detailed terms and conditions for MNP Provider Authorisation have been included in Annexure-2.4.**
- (e) The terms and conditions for the grant of MNP Provider Authorisation have been included in Annexure-2.2.**

O. Impact of Provisions of the Telecommunications Act, 2023 and Indian Space Policy, 2023 on Terms and Conditions of Network Authorised Entities

2.210 Through the background note annexed to the reference dated 26.07.2024, DoT drew attention to the provisions of Section 3(1)(a), 3(1)(b), 3(2), 3(5), and 3(6) of the Telecommunications Act, 2023 and stated that many other sections, such as Sections 4 to 9, 19 to 24, 32 to 42, 44, 45, 49, and 55 of the Telecommunications Act, 2023 may have either direct or indirect linkages with the terms and conditions of the authorisation to establish, operate, maintain or expand telecommunication network. DoT also stated that "*some of the terms and conditions may be required to be amended/ incorporated in light of certain new provisions in this Act and policy/ Act in related sectors such as Space.*"

2.211 In this context, the Authority solicited inputs of stakeholders on the following set of questions:

Q12. What provisions should be included in the terms and conditions of various network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023 considering the various sections including Sections 4 to 9, 19 to 24, 32 to 42, 44, 45, 49, and 55 of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.

Q13. What provisions should be included in the terms and conditions of various network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023 in light of the policy/ Act in the Space Sector and other relevant policies/ Acts in the related sectors? Kindly provide a detailed response with justifications.

2.212 In response to Q12, many stakeholders have opined that the sections mentioned by DoT in the background note annexed to the reference dated

26.07.2024 cover a wide range of crucial regulatory areas, including licensing, administration of licenses, infrastructure-related provisions, and telecommunication policy enforcement, dispute resolution, all of which require careful scrutiny and therefore should be thoroughly examined and addressed through a separate consultation paper; the changes should only be considered if there is a clear, demonstrated need, based on current trends and operational realities within the telecom sector. One of the stakeholders has mentioned that in order to have robust and forward-looking network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023, key terms should address network security, adaptability to technological advancements, cyber threats, disaster management and market efficiency; however, any specific terms and conditions proposed to be included in authorisations under the provisions of the Telecommunications Act, 2023 should be deliberated through a separate consultation.

2.213 In response to Q13, a stakeholder has opined that recognizing the onset and impact of convergence, TRAI should strive to lay down harmonious terms and conditions across various authorisations and ensure fair competition and level-playing field. Another stakeholder suggested that the authorisation framework must achieve seamless integration between telecommunications and space sector regulations; this requires careful harmonization with the Indian Space Policy 2023 and establishment of clear coordination mechanisms between DoT and IN-SPACe; the framework should enable streamlined processes through single-window clearance while maintaining appropriate security protocols and oversight mechanisms; security considerations should adopt a risk-based approach, recognizing the inherent security features of satellite operations including encrypted communications and secure network architectures; the framework must balance national security requirements with operational efficiency, enabling integration with global networks while protecting critical infrastructure.

Analysis of the Issues Raised Through Q12 and Q13

2.214 The Telecommunications Act, 2023 provides a comprehensive statutory base for further development of the telecommunication sector. The Act provides, *inter-alia*, that (a) rules made under the Act will specify terms and conditions under various authorisations to be granted under the Act, and (b) the terms and conditions could be different for different authorisations.

2.215 The Authority notes that Section 19 of the Telecommunications Act, 2023 grants to the Central Government the powers to notify standards. The Section 19 is reproduced below:

"19. Power to notify standards.— The Central Government may notify standards and conformity assessment measures in respect of—

(a) telecommunication equipment, telecommunication identifiers and telecommunication network;

(b) telecommunication services, in consonance with any regulations notified by the Telecom Regulatory Authority of India from time to time;

(c) manufacture, import, distribution and sale of telecommunication equipment;

(d) telecommunication security, including identification, analysis and prevention of intrusion in telecommunication services and telecommunication networks;

(e) cyber security for telecommunication services and telecommunication networks; and

(f) encryption and data processing in telecommunication."

2.216 In India, Telecom Engineering Center (TEC) is a nodal agency of the Department of Telecommunications, Ministry of Communications, which is responsible for drawing up of standards, generic requirements, interface requirements, service requirements and specifications for telecom products, services, and networks. The Authority is of the view that it should be mandated in the terms and conditions of various network authorizations that the

authorized entity will utilize any type of equipment and products that meet TEC standards, wherever made mandatory by the Government.

2.217 Section 21 of the Telecommunications Act, 2023 deals with the measures for national security, etc. The Section 21(d) and Section 21(f) of the Telecommunications Act, 2023 provide that the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of procurement of telecommunication equipment only from trusted sources, and taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof. The Authority is of the view that these aspects should be included in the terms and conditions of various network authorisations.

2.218 Section 22 of the Telecommunications Act, 2023 deals with the protection of telecommunication network and telecommunication services. It provides that (1) The Central Government may by rules provide for the measures to protect and ensure cyber security of telecommunication networks and telecommunication services. (2) The measures may include collection, analysis and dissemination of traffic data that is generated, transmitted, received or stored in telecommunication networks. (3) The Central Government may, by notification in the Official Gazette, declare any telecommunication network, or part thereof, as Critical Telecommunication Infrastructure, disruption of which shall have debilitating impact on national security, economy, public health or safety. (4) The Central Government may by rules provide for the standards, security practices, upgradation requirements and procedures to be implemented for such Critical Telecommunication Infrastructure. The Authority is of the view that the network authorised entities should be mandated to follow the measures prescribed by the Central Government under Section 22 of the

Telecommunications Act, 2023 to protect and ensure cyber security of telecommunication networks including critical telecommunication infrastructure and telecommunication services.

2.219 The Authority has made a note that as per the Telecommunications Act, 2023, any breach of the terms and conditions of authorisations granted under the Telecommunications Act, 2023 shall be dealt with as per Section 32 of the Act and the rules which may be notified thereunder. The Authority is of the view that these aspects should be included in the terms and conditions of various authorisations.

2.220 The Authority has also made a note of Section 45 of the Telecommunications Act, 2023, through which, it has been stated that the Central Government may provide for such security interest which an authorised entity may provide to lenders financing such entities on such terms and conditions of such security interest as may be prescribed. The Authority is of the view that this aspect should be included in the terms and conditions of various network authorisations.

2.221 In view of the foregoing discussion, the **Authority recommends that the following conditions should be included in the terms and conditions of the network authorisations:**

(a) Network authorised entities should be mandated to utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject

to modifications/ adaptation, if any, as may be prescribed by TEC from to time.

- (b) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.**
- (c) The network authorised entities should follow the measures notified by the Central Government under Section 21(d) of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment only from trusted sources.**
- (d) The network authorised entities Entity should follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of telecommunication networks including critical telecommunication infrastructure and telecommunication services.**
- (e) In case of breach of any of the terms and conditions of the authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation.**
- (f) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by**

the Rules on Adjudication and Appeal made under the Telecommunications Act, 2023.

- (g) The Central Government may provide for such security interest which an authorised entity may provide to lenders financing such entities on such terms and conditions of such security interest, which will be governed by the Rules notified by the Central Government under section 45 of the Telecommunications Act, 2023.**

2.222 As far as the matter relating to policy/ Act in the Space Sector is concerned, the Government of India has formulated the Indian Space Policy-2023⁸³ to implement the reforms in space domain. As per the Indian Space Policy-2023, Indian National Space Promotion and Authorisation Centre (IN-SPACe) shall function as an autonomous government organization, mandated to promote, hand-hold, guide and authorize space activities in the country. Para 5.1 of the Indian Space Policy-2023 states that IN-SPACe shall act as the single window agency for the authorisation of space activities by government entities as well as non-government entities (NGEs), subject to relevant Government directives, keeping in mind safety, national security, international obligations and/or foreign policy considerations. The policy document also provides a list of space activities for which IN-SPACe shall accord authorization. Through the present recommendations, the Authority has recommended that the Central Government should introduce Satellite Earth Station Gateway (SESG) Provider authorisation under Section 3(1)(b) of the Telecommunications Act, 2023. The Authority is of the view that the SESG Authorised Entity should be permitted to establish, operate, maintain, or expand satellite earth station gateways (SESGs) in India for only those satellite systems for which the Central Government has given its permission.

⁸³ https://www.isro.gov.in/media_isro/pdf/IndianSpacePolicy2023.pdf

2.223 In view of the above, **the Authority recommends that the SESG Authorised Entity may establish, operate, maintain, or expand satellite earth station gateways (SESGs) in India for all types of satellite systems for which the Central Government has given its permission.**

P. Framework for Merger, Demerger, Acquisition, or Other Forms of Restructuring of Network Authorised Entities

2.224 Through the background note annexed to the reference dated 26.07.2024, DoT has informed, *inter-alia*, that "*Section 3(5) of the Telecommunications Act 2023 provides that any authorised entity may undertake any merger, demerger or acquisition, or other forms of restructuring, subject to any law for the time being in force and any authorised entity that emerges pursuant to such process, shall comply with the terms and conditions, including fees and charges, applicable to the original authorised entity, and such other terms and conditions, as may be prescribed.*" In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited comments of stakeholders on the following question:

Q14. What should be the terms and conditions for the merger, demerger, acquisition, or other forms of restructuring of the entities holding network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023? Please provide a detailed response with justifications in respect of each network authorisation.

Comments of Stakeholders on Q14

2.225 In response to Q14, broadly four kinds of inputs have been received from stakeholders:

- (a) View-1: It would be preferable to devise terms and conditions for mergers and other forms of restructuring only after putting in place the network authorisation framework; the terms and conditions and process of merger, demerger, acquisition, or other forms of restructuring of the entities cannot be formulated unless such authorisations themselves are prescribed and hence, addressing the same would be a premature exercise.
- (b) View-2: As network authorised entities would be Indian companies duly registered under Companies Act 2013, the schemes of compromises, arrangements and amalgamation of companies under Companies Act, 2013 should be applicable on them; there is no need to stipulate any other conditions.
- (c) View-3: The current merger guidelines (i.e. Guidelines for Transfer/ Merger of various categories of Telecommunication service licenses/ authorisation under Unified License (UL) on compromises, arrangements and amalgamation of the companies' dated 20.02.2014) including limits on market share and spectrum caps are well defined and should continue. A somewhat similar view has been expressed by a stakeholder who has proposed that the merger of authorised entities holding Network Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 should be in line with the TRAI's recommendations on 'Reforming the Guidelines for Transfer/ Merger of Telecom Licenses' dated 12.2.2020.
- (d) View-4: The terms and conditions for merger, demerger, acquisition or other forms of restructuring of the entities holding authorisations under the Telecommunications Act, 2023 should be simple and lead to faster approvals. The stakeholders who have put forward this viewpoint have also provided detailed suggestions, particularly in respect of the simplification of the process of approval of merger by DoT.

Analysis of the Issues Raised Through Q14

2.226 The Authority notes that Section 3(5) of the Telecommunications Act, 2023 provides that *"[a]ny authorised entity may undertake any merger, demerger or acquisition, or other forms of restructuring, subject to any law for the time being in force and any authorised entity that emerges pursuant to such process, shall comply with the terms and conditions, including fees and charges, applicable to the original authorised entity, and such other terms and conditions, as may be prescribed."*

2.227 In view of the above provision of the Telecommunications Act, 2023, the terms and conditions for the merger, demerger or acquisition, or other forms of restructuring of the authorised entities will be governed by the rules which will be made under Section 3(5) of the Telecommunications Act 2023. It is worth mentioning that at present, the transfer and merger of telecommunication service licenses/ authorisations are governed through the guidelines issued by DoT on the subject 'Guidelines for Transfer/ Merger of various categories of Telecommunication service licenses/authorisation under Unified License (UL) on compromises, arrangements and amalgamation of the companies' dated 20.02.2014. Based on a reference received from DoT, TRAI has sent its recommendations on 'Reforming the Guidelines for Transfer/ Merger of Telecom Licenses' dated 21.02.2020 to DoT. The said recommendations are under consideration of DoT and are yet to be implemented by DoT.

2.228 The Authority is of the view that there could be additional or different considerations in respect of merger, demerger, acquisition and other forms of restructuring of the entities holding network authorisations as compared to the merger, demerger, acquisition and other forms of restructuring of the entities holding service authorisations. Therefore, there could be a need to devise separate terms and conditions for merger, demerger, or acquisition, or other forms of restructuring of the entities holding network authorisations. The

Authority is of the view that it would be prudent to define terms and conditions for the merger, demerger, acquisition or other forms of restructuring of the network authorised entities only after establishing an authorisation framework for telecommunication networks and determining the scope of various network authorisations. If required, the Central Government may seek recommendations of TRAI on terms and conditions for merger, demerger, acquisition or other forms of restructuring of the network authorised entities as an when the authorisation framework for telecommunication networks is established.

Q. Migration of the Existing Service Licensees and Registration Holders to the New Authorisation Regime

2.229 DoT, through the background note to the reference dated 26.07.2024, has informed, *inter-alia*, that "*Section 3(6) of the Telecommunications Act 2023 provides that a licence, registration, permission, by whatever name called, granted prior to the appointed day under the Indian Telegraph Act, 1885, in respect of provision of telecommunication services shall be entitled to continue to operate under the terms and conditions and for the duration as specified under such licence or registration or permission, or to migrate to terms and conditions of the relevant authorization as may be prescribed*". In this context, the Authority, through the Consultation Paper dated 22.10.2024, solicited the views of stakeholders on the following set of questions:

Q15. What conditions should be made applicable for the migration of existing network licenses, registrations etc. to the new network authorisation regime under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.

Q16. What procedure should be followed for the migration of existing network licenses, registrations etc. to the new network authorisation regime

under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.

Comments of Stakeholders on Q15 and Q16

2.230 A broad summary of comments of stakeholders on Q15 is given below:

- (a) Telecom operators should be encouraged to migrate to the new authorisation regime, but this transition should remain entirely voluntary. Existing licensees must have the choice to migrate, without any obligation to do so.
- (b) Eligibility conditions should be the same as that for a new applicant. However, the requirement of meeting with the net-worth criteria should not be made applicable.
- (c) Migration should not be conditional upon withdrawal of *sub-judice* matters or upon submission of bank guarantees/ undertakings regarding payment of dues in respect of such matters.
- (d) If relaxations are provided under the new framework in relation to fees and terms and conditions, similar relaxations should be provided to licensees under the extant licensing framework.
- (e) The existing licenses, registrations etc. in the old licensing regime should be surrendered by the valid license holders. They should be brought under the new network authorisation regime under the Telecommunications Act, 2023 without involving any costs to the existing license holder.
- (f) In case of migration, there should not be any requirement of application processing fee, entry fee etc.

2.231 In response to Q16, a few stakeholders opined that the procedure for migration of the existing network licensees should be broadly on the same lines as contained in the guidelines for grant of Unified License.

Analysis of the Issues Raised Through Q15 and Q16

2.232 Sub section (1) and (2) of Section 60 of the Telecommunications Act, 2023 are reproduced below:

"60. (1) Subject to the other provisions of this section, the enactments namely, the Indian Telegraph Act, 1885, and the Indian Wireless Telegraphy Act, 1933, are hereby repealed.

(2) Notwithstanding the repeal of the provisions aforesaid, anything done or any action taken including any grant of license, registration or assignment, any order, or proceeding, pending or ongoing, under the repealed provisions shall be deemed to have been done or taken under this Act, and the provisions of this Act shall have effect in relation thereto."

2.233 In essence, Section 60(2) of the Telecommunications Act, 2023 provides that all licenses, registration etc. which were granted under the Indian Telegraph Act, 1885 shall be deemed to have been granted under the Telecommunications Act, 2023 and the provisions of the Telecommunications Act, 2023 shall have effect in relation thereto.

2.234 With respect to the submission of some stakeholders that telecom operators should be encouraged to migrate to the new authorisation regime on voluntary basis, the Authority notes that Section 3(6) of the Telecommunications Act 2023 provides as below:

"(6) A licence, registration, permission, by whatever name called, granted prior to the appointed day under the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933, in respect of provision of telecommunication services or telecommunication network—

(a) where a definite validity period is given, shall be entitled to continue to operate under the terms and conditions and for the duration as specified under such licence or registration or permission, or to migrate to such terms and conditions of the relevant authorisation, as may be prescribed; or

(b) 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.”

2.235 In essence, Section 3(6) of the Telecommunications Act, 2023 provides, *inter-alia*, that a license, registration or permission granted under the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933, in respect of the provision of telecommunication network shall be entitled to continue to operate under the terms and conditions under such license or registration or permission for a stipulated period. Alternatively, it will also be entitled to migrate to such terms and conditions of the relevant authorisation, as may be prescribed.

2.236 Considering the provisions of Section 60 read with Section 3(6) of the Telecommunications Act, 2023, all conditions involving two or more authorised entities such as cross-holding restrictions, infrastructure sharing, etc. will apply on both types of entities viz. –

- (a) the entities which will be granted authorisations under the Telecommunications Act, 2023, and
- (b) the entity holding a license, registration, etc. granted under the old regime.

2.237 The Authority is of the view that the eligibility conditions, which are being recommended for the grant of network authorisations to new applicants, should also be made applicable to the existing entities which intend to migrate to the network authorisation framework under the Telecommunications Act, 2023.

However, at the time of migration to the network authorisation framework, the requirement of meeting with the net-worth criteria should not be made applicable, in line with the scheme under the extant licensing regime.

2.238 The Authority is of the view that for the network authorisations under the Telecommunications Act, 2023, which correspond to the existing license, registration etc. under the extant licensing regime, the entities holding the license, registration etc. under the extant regime should be allowed to migrate to the corresponding network authorisation under the Telecommunications Act, 2023. The Authority notes that at present, there are two types of entities viz. IP-I registration holders and MNP Service licensees under the extant regime. The Authority is of the view that the entities holding IP-I Registration may be permitted to migrate to either of the two authorisations viz. IP Authorisation and DCIP Authorisation under Section 3(1)(b) of the Telecommunication Act, 2023, as DCIP Authorisation is essentially a super-set of IP Authorisation. Further, MNP Service licensees in an MNP zone may be permitted to migrate to MNP Provider Authorisation under Section 3(1)(b) of the Telecommunication Act, 2023.

2.239 The following table presents all permissible options for migration from the extant regime to the fresh network authorisation regime under the Telecommunications Act, 2023:

S. No.	Network authorisation under the Telecommunication Act, 2023	Existing licensees, registration holders which are eligible to migrate
1.	Infrastructure Provider (IP) Authorisation	Entities holding IP-I Registration
2.	Digital Connectivity Infrastructure Provider (DCIP) Authorisation	Entities holding IP-I Registration
3.	Mobile Number Portability (MNP) Provider Authorisation for an MNP zone	Entities holding Mobile Number Portability (MNP) Service License for the respective MNP zone

2.240 The Authority is of the view that an authorised entity should not be permitted to hold more than one network authorisation of the same type under Section 3(1)(b) of the Telecommunication Act, 2023 or under the extant regime. For example, an entity holding IP-I Registration of the extant regime should not be permitted to obtain IP Authorisation under Section 3(1)(b) of the Telecommunication Act, 2023.

2.241 The Authority is of the view that in case an entity which already holds a network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 or a license/ registration etc. under the extant regime, decides to obtain another network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 whose scope of operation includes the scope of operation under the network authorisation/ license/ registration already held by such entity, in entirety, then such network authorisation/ license/ registration already held by the authorised entity should be treated as subsumed in the new network authorisation and it should cease to exist. For example, if an entity holding IP-I Registration under the extant regime obtains DCIP Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023, then IP-I Registration

held by the authorised entity should be treated as subsumed in the DCIP Authorisation and it should cease to exist.

2.242 The Authority notes that the extant IP-I Registration does not have a prescribed validity period. In an earlier section of these recommendations, the Authority has recommended a validity period of 20 years under IP Authorisation. The Authority is of the view that upon migration from IP-I Registration under the extant regime to IP Authorisation under the Telecommunications Act, 2023, the IP Authorisation should be valid for a period of 20 years from the effective date of the Authorisation. Similarly, upon migration from IP-I Registration to the DCIP Authorisation under the Telecommunications Act, 2023, the DCIP Authorisation should be valid for a period of 20 years from the effective date of the Authorisation.

2.243 The Authority notes that the extant MNP Service License under the Indian Telegraph Act, 1885 has a validity period of 10 years. The Authority is of the view that upon migration from MNP Service License under the Indian Telegraph Act, 1885 to the MNP Provider Authorisation under the Telecommunications Act, 2023, the MNP Provider Authorisation should be valid for the balance period of the validity of the MNP Provider License.

2.244 The Authority is of the view that after the migration of an entity from - (a) IP-I Registration to IP/ DCIP Authorisation, or (b) MNP Service License to MNP provider authorisation, the terms and conditions of the network authorisation granted under the Telecommunications Act, 2023 should be made applicable on the entity.

2.245 The issues with respect to the processing fee and treatment of entry fee on migration to the network authorisations under the Telecommunications Act, 2023, have been examined in the following chapter which deals with financial conditions of the authorisations.

2.246 Considering the foregoing discussion, **the Authority recommends that-**

- (a) The eligibility conditions for the grant of network authorisations to new applicants should also be made applicable to the existing entities which intend to migrate to the network authorisation framework under the Telecommunications Act, 2023. However, at the time of migration to the network authorisation framework, the requirement of meeting with the net-worth criteria should not be made applicable.**
- (b) An authorised entity should not be permitted to hold more than one network authorisation of the same type under Section 3(1)(b) of the Telecommunication Act, 2023 or under the extant regime.**
- (c) An authorised entity which already holds a network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 or a license/ registration etc. under the extant regime, decides to obtain another network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 whose scope of operation includes the scope of operation under the network authorisation/ license/ registration already held by such entity, in entirety, then such network authorisation/ license/ registration already held by the authorised entity should be treated as subsumed in the new network authorisation and it should cease to exist.**
- (d) Upon migration from IP-I Registration under the extant regime to IP Authorisation under the Telecommunications Act, 2023, the IP Authorisation should be valid for a period of 20 years from the effective date of the IP Authorisation.**
- (e) Similarly, upon migration from IP-I Registration under the extant regime to DCIP Authorisation under the**

Telecommunications Act, 2023, the DCIP Authorisation should be valid for a period of 20 years from the effective date of the DCIP Authorisation.

- (f) Upon migration from MNP Service License under the Indian Telegraph Act, 1885 to MNP Provider Authorisation under the Telecommunications Act, 2023, the MNP Provider Authorisation should be valid for the balance period of the validity of the MNP Service License.**
- (g) Detailed terms and conditions for the migration to network authorisations to be granted under the Telecommunications Act, 2023 have been included in Annexure-2.2.**

R. Reducing the Number of Authorisations and Simplification/ Merger/ Rationalization of the Terms and Conditions to Improve Ease of Doing Business

2.247 Through the background note to the reference dated 26.07.2024, DoT has stated that "[t]he possibility of reducing the number of authorisations and simplification/ merger/ rationalization of the terms and conditions to improve Ease of Doing Business, may also be examined." In this context, the Authority solicited comments of stakeholders on the following set of questions:

Q17. Whether there is a need to introduce certain new authorisations (other than the authorisations discussed above) to establish, operate, maintain or expand telecommunication networks under Section 3(1)(b) of the Telecommunications Act, 2023? If yes, -

- (a) For which type of telecommunication networks, new authorisations should be introduced?*
- (b) What should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of such authorisations?*

Kindly provide a detailed response with justifications.

Q18. Whether there is a need to remove certain existing authorisations to establish, operate, maintain or expand telecommunication networks, which may have become redundant with technological advancements? If yes, kindly provide a detailed response with justifications.

Q19. Whether there is a need to club the scopes of certain authorisations to establish, operate, maintain or expand telecommunication networks into a single network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 for bringing more efficiency in the telecommunication networks? If yes, kindly provide a detailed response with justifications.

Q20. What provisions should be included in the terms and conditions of various network authorisations under Section 3(1)(b) of the Telecommunications Act 2023 to improve the ease of doing business? Kindly provide a detailed response with justifications.

Comments of Stakeholders on Q17

2.248 In response to Q17, many stakeholders have opined that there is no need for introducing new network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023. On the other hand, many other stakeholders have suggested that certain new network authorisation need to be introduced as given below:

- (a) An authorisation for neutral host network
- (b) An authorisation for wireless access network sharing
- (c) An authorisation to own, establish and manage private enterprise networks (subsea or terrestrial fibers) to interconnect various entities globally for their captive use

- (d) An authorisation for private 5G network
- (e) An authorisation for captive non-public network (CNPN) provider which may deploy CNPN for enterprises
- (f) An authorisation for submarine cable landing station

Analysis w.r.t. the Issues Raised Through Q17

2.249 While examining the suggestions of stakeholders for the introduction of certain new authorisations under Section 3(1)(b) of the Telecommunications Act, 2023, the Authority took note of the following aspects:

- (a) With respect to the suggestion for introducing an authorisation for neutral host network authorisation: Through the present recommendations, the Authority has already recommended several neutral host network authorisations such as IP Authorisation, DCIP Authorisation, SESG Provider Authorisation, and CTN Provider Authorisation.
- (b) With respect to the suggestion for introducing an authorisation for wireless access network sharing: Under the DCIP authorisation recommended by the Authority through the present recommendations, an authorised entity will be permitted to provide radio access network to service authorised entities on shared basis.
- (c) With respect to the suggestion for introducing an authorisation for owning, establishing, and managing private enterprise networks (subsea or terrestrial fibers) to interconnect various entities globally for their captive use: The usage of telecommunication networks by any entity for captive use is, essentially, the provision of telecommunication **service** to itself. Such an authorisation is out of scope of the present consultation process on network authorisations.
- (d) With respect to the suggestion for introducing an authorisation for private 5G network: Based on the TRAI's recommendations dated

11.04.2022, DoT established a framework for the grant of Captive Non-Public Network (CNPN) License in June 2022. Under CNPN License, any enterprise may set up, *inter-alia*, a private 5G network. Further, through the recommendations on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023 dated 18.09.2024, the Authority has recommended the introduction of Captive Non-Public Network (CNPN) Authorisation under Section 3(1)(a) of the Telecommunications Act, 2023 with detailed terms and conditions thereof.

- (e) With respect to the suggestion for introducing an authorisation for captive non-public network (CNPN) provider which may deploy CNPN for enterprises: Through the licensing framework for CNPN was put in place in June 2022, the CNPN services have not picked up. The Authority is of the view that in case a CNPN Provider Authorisation is introduced under Section 3(1)(b) of the Telecommunications Act, 2023, it would enable third-party entities to establish, maintain, operate and expand CNPN networks for enterprises. The Authority is of the view that the introduction of such a regulatory framework would facilitate the growth of CNPNs in India.
- (f) With respect to the suggestion for introducing an authorisation for submarine cable landing station: DoT, through a reference letter dated 12.08.2022, requested TRAI to provide recommendations on the licensing framework and mechanism for submarine cables landing in India under existing UL-ILD/ Standalone ILD-License. In this regard, after following a comprehensive consultation with stakeholders, TRAI sent its recommendations on 'Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India' dated 19.06.2023. Through the recommendations dated 19.06.2023, TRAI made recommendations, *inter-alia*, on streamlining the process of setting up of Cable Landing Station (CLS) and CLS-Point of Presence by ILD service

providers. TRAI also recommended to permit NLD service providers to establish domestic submarine cables connecting two or more cities on the Indian coastline and to set up CLS for landing of such domestic submarine cables. The recommendations dated 19.06.2023 are under consideration of the Government and are yet to be implemented. It is worth mentioning that the salient points of the said recommendations were duly incorporated in the scope of 'Long Distance' Authorisation recommended by the Authority through the Recommendations on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023 dated 18.09.2024⁸⁴. At this stage, the Authority is of the *prima facie* view that there could be a need for introducing a Cable Landing Station (CLS) Provider authorisation with a broad scope of providing access facilitation to the essential facilities at cable landing station, and co-location to facilitate access to the cable landing station to the eligible service authorised entities. In case the Central Government deems it fit, it may send a reference to the Authority for exploring the need for CLS Provider authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 and the terms and conditions thereof.

⁸⁴ The following salient points have been included in the scope of the Long Distance Authorisation for establishment of Cable Landing Station for Submarine Cable System:

- (a) The Authorized Entity may establish Cable Landing Station (CLS) for submarine cable for both national and international long-distance services.
- (b) Domestic submarine cables shall connect two or more cities on the Indian coastline for carrying domestic traffic.
- (c) Prior permission shall be obtained by the Authorized Entity for establishing CLS for which an application is to be submitted in the prescribed proforma.
- (d) There can be two categories of CLS locations – (i) Main CLS and (ii) CLS-PoP (CLS- Point of Presence).
- (e) Authorized Entity can extend their owned or leased dark fiber pair(s) in the submarine cable from the main CLS to their respective CLS-PoP location.
- (f) The Authorised Entity is also permitted to lay stub-cable.
- (g) CLS where international cables or both domestic and international cables are terminated, should be owned and operated by Authorised entity providing International long distance services.
- (h) International Submarine Cable can carry domestic traffic on dedicated fiber pairs that are provisioned between two Indian cities.
- (i) Domestic Submarine cables should be permitted to go beyond Indian Territorial Waters (ITW) or Exclusive Economic Zone (EEZ) of India, if required for technical and safe operations.

- (g) With respect to the suggestion for introducing unified network authorisation: The Authority is of the view that the network authorisations (IP, DCIP, IXP, SESG Provider, CTN Provider, and MNP Provider) recommended by the Authority through these recommendations are quite distinct and have little commonality amongst them (leaving aside IP Authorisation and DCIP Authorisation) and therefore, at this stage, there appears no need for introducing unified network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.

2.250 Considering the foregoing analysis, **the Authority recommends that-**

- (a) **There is a need for introducing Captive Non-Public Network (CNPN) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 with the scope of establishing, maintaining, operating, and expanding CNPN networks for enterprises. In case the Central Government accepts this recommendation, it may seek the recommendations of TRAI on detailed terms and conditions for such an authorisation.**
- (b) ***Prima facie*, there is a need for introducing Cable Landing Station (CLS) Provider Authorisation with a broad scope of providing access facilitation to the essential facilities at cable landing station, and co-location to facilitate access to the cable landing station to the eligible service authorised entities. In case the Central Government deems it fit, it may send a reference to the Authority for exploring the need for CLS Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 and the terms and conditions thereof.**

Comments of Stakeholders on Q18 and Q19

2.251 In response to Q18, a few stakeholders have opined that there is no requirement for IP-I authorisation if the proposed DCIP authorisation is introduced under Section 3(1)(b) of the Telecommunications Act, 2023. In response to Q19, most of the stakeholders have suggested that there is no need for clubbing the scopes of network authorisations.

Analysis w.r.t. the Issues Raised Through Q18 and Q19

2.252 In the extant regime, there are only two licenses/ registrations for providing telecommunication network to telecom service providers viz. IP-I Registration and MNPSP License. Considering the success of the policy framework on infrastructure provider in the country and the consequent need to preserve the focus of infrastructure provider companies on the provisioning of passive telecommunication infrastructure, the Authority, in the present recommendations, has concluded that – (a) IP-I Registration of the extant regime should not be merged with the DCIP Authorisation, and (b) IP Authorisation should be introduced under Section 3(1)(b) of the Telecommunications Act, 2023 with the scope of authorisation largely the same as the scope of IP-I Registration under the extant regime. Further, considering the crucial role played by MNP providers in facilitating mobile number portability in the country, the Authority has recommended MNP Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 on broadly the same terms and conditions as those applicable for the extant MNP Service License.

2.253 Considering the comments of stakeholders and its own analysis, the Authority is of the view that there is no need for any further reduction or clubbing of network authorisations at this stage.

Comments of Stakeholders on Q20

2.254 In response to Q20, stakeholders have provided a range of suggestions for improving the ease of doing business (EODB). A broad summary of the comments of stakeholders is given below:

- (a) Grant of various Network service authorisations should be systematic, time-bound and based on a single window clearance approach.
- (b) The process for the grant of authorisations, assignment of numbering resources, approval or rejection of test reports for the purpose of roll out obligations, and submission for electronic bank guarantees should be automated.
- (c) There should be seamless integration with other concerned ministries/ department/ agencies.
- (d) The in-principle clearance of IMC-SNC for establishing and modifying satellite-based communication networks should be done away with.
- (e) The requirement of carrier plan approval from NOCC (now SATCOM Monitoring Center) for satellite communication services should be done away with and replaced with a simple intimation-based process.

Analysis w.r.t. the Issues Raised Through Q20

2.255 Improving the Ease of Doing Business (EODB) requires a thorough review of end-to-end processes, ensuring that stakeholders do not have to approach multiple agencies or departments. A single application through a single window should be sufficient to obtain all inter-ministerial approvals.

2.256 After extensive consultation with stakeholders, TRAI has already recommended several measures for promoting ease of doing business in telecom and broadcasting sectors. In its recommendations on Ease of Doing Telecom Business dated 30.11.2017, as well as Recommendations on Ease of Doing Business in Broadcasting Sector dated 26.02.2018, TRAI had recommended,

inter-alia, that the entire process of clearances, be it Standing Advisory Committee on Frequency Allocation (SACFA) clearance or other approvals, and grant of all licenses and approvals, that are issued by Wireless Planning and Coordination (WPC) Wing of DoT and various other agencies, should be made paper-less. There should be a single-window clearance system available and executed end-to-end through an online portal. Thereafter, the Authority through its recommendations on 'Licensing Framework for Satellite-based connectivity for Low Bit Rate Applications' dated 26.08.2021 recommended that *"DoT should put in place a comprehensive, simplified, integrated, end-to-end coordinated, single-window online common portal, having inter-departmental linkages for transfer of application and information for parallel processing, for all the agencies involved in grant of various approvals/permissions/allocations, etc., like DoS, DOT, WPC and NOCC, wherein the service licensees can place their request and the agencies respond online in a transparent and time-bound manner and all the guidelines, applications forms, fee details, processes, timelines and application status should be made transparently available on the portal."*

2.257 Thereafter, through the Recommendations on Ease of Doing Business in Telecom and Broadcasting Sectors dated 02.05.2023, TRAI recommended, *inter-alia*, that a user-friendly, transparent and responsive digital single window based portal involving multiple ministries/ Departments (i.e. DoT/ MIB/ Ministry of Power/ MeitY/ Department of Space (DOS)/ Inter-Ministerial Committee for Satellite Network Clearance (IMC-SNC) etc. should be established.

2.258 Some of the recommendations on Ease of Doing Business in Telecom and Broadcasting Sectors dated 02.05.2023 have already been accepted and implemented by the Central Government. However, more simplification and transformation of the extant processes to simpler process are required to be done to attract more investments, foster innovation, and accelerate digital growth in India.

2.259 In view of the above, **the Authority recommends that the Central Government should take an early decision on the TRAI's Recommendations on Ease of Doing Business in Telecom and Broadcasting Sectors dated 02.05.2023.**

S. Need for a Mandatory Reference Agreement

2.260 In the background note attached to their reference dated 26.07.2024, DoT had stated that the aspect of a *"reference agreement between authorized entities establishing, operating, maintaining or expanding telecommunication networks and authorized entities providing telecommunication services"* should also be considered while formulating recommendations on the terms and conditions of network authorisations. In this context, the Authority sought the comments of stakeholders on the following question through the Consultation Paper dated 22.10.2024:

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.

Comments of Stakeholders on Q21

2.261 In response to Q21, most of the stakeholders have suggested that there is a no need to mandate a reference agreement between authorised entities establishing, operating, maintaining or expanding the telecommunication

network, and authorised entities providing telecommunication services. On the other hand, a few stakeholders have opined in favour of mandating a reference agreement.

2.262 A broad summary of the comments of the stakeholders, who have opined against mandating a reference agreement, is given below:

- (a) Agreements should be based on mutually agreed terms tailored to the needs of the entities involved.
- (b) It should be left to the market forces and in case of market failure, TRAI may consider the same for consultation in future.
- (c) The distinction between the facility based authorised entities that will be solely involved in establishing, operating, maintaining or expanding the telecommunication networks and the telecommunication services-based entities that will be offering the telecommunication services to the end users is quite distinct and unambiguous. If this distinction is maintained, then there would be no possibility of these entities offering substitutable services and the interconnection between these entities can be left to mutual agreements between the entities.

2.263 The stakeholders, who have suggested that there is a need to mandate a reference agreement, have opined that a reference agreement is required for the uniformity of the agreement among different entities. They have suggested that the reference agreement should be in line with the reference agreement provided by TRAI for interconnect agreement.

Analysis w.r.t. the Issues Raised Through Q21

2.264 Worldwide, in many countries, regulators have prescribed reference agreements in case of telecommunication interconnection between various service providers engaged in the delivery of telecommunication services through public switched telephone network (PSTN) and public land mobile

network (PLMN). In India, in the year 2002, TRAI issued the Telecommunication Interconnection (Reference Interconnect Offer) Regulation, 2002³⁹. As per the said regulation, any telecom service provider, which is enjoying Significant Market Power (SMP) status, is required to submit its proposed Reference Interconnect Offer (RIO), describing, *inter-alia*, the technical and commercial conditions for interconnection based on the model RIO as annexed to the regulation to the Authority for approval and then to publish the approved RIO on its website. Such RIO, thereafter, forms the basis of all interconnection agreements to be entered into by/ and with the issuer of the RIO.

- 2.265 Besides, through the International Telecommunication Access to Essential Facilities at Cable Landing Stations Regulations, 2007, TRAI has mandated that every owner of cable landing station shall, in respect of its each cable landing station, submit to the Authority, a document containing the terms and conditions of Access Facilitation and Co-location facilities including landing facilities for submarine cables at its cable landing stations for specified international submarine cable capacity in accordance with the provisions of the regulations ("Cable Landing Station-Reference Interconnect Offer") for approval of Authority. Every owner of a cable landing station⁸⁵ shall publish, on its website and in such other manner as the Authority may specify, within fifteen days from the date of approval of the Cable Landing Station-Reference Interconnect Offer by the Authority, the Cable Landing Station-Reference Interconnect Offer so approved by the Authority and forward a copy thereof to the Authority along with a confirmation to the effect that such offer had been published in accordance with the offer so approved by the Authority and in the manner specified in the regulation.

⁸⁵ International Telecommunication Access to Essential Facilities at Cable Landing Stations Regulations, 2007 issued by TRAI on 07.06.2007 defines the term 'owner of cable landing station' as below:
"owner of cable landing station" means a service provider who owns and manages submarine cable landing station in India and has been granted licence to provide international long distance service or Internet service provider;

2.266 In this context, the Authority notes that a stakeholder in the present consultation process has opined that interconnection between entities offering non-substitutable services can be left to the mutual agreement between them.

2.267 The Authority is cognizant that in case two networks offer substitutable services, i.e., share a horizontal relationship between them, a network operator has the incentive to foreclose or marginalize its opponent network through various methods including high interconnection fees. Such conduct may result in scant supply or high prices of services, to the detriment of consumers. In such situations, regulators often mandate the network operators to publish a regulator-approved reference interconnection offer (RIO) on their websites, which forms the basis of all interconnection agreements with other network operators. On the other hand, in case two networks are vertically related, interconnection between them is mutually profitable and therefore, generally, does not require any regulatory intervention.

2.268 The Authority notes that the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023 would share a vertical relationship with the authorised entities under Section 3(1)(b) of the Telecommunications Act 2023 and avail telecommunication-network-as-a-service from them. Accordingly, the Authority is of the view that there is no need to mandate a reference agreement between authorised entities establishing, operating, maintaining or expanding the telecommunication network, and authorised entities providing telecommunication services, at this stage.

2.269 Considering the comments of stakeholders and its own analysis, **the Authority recommends that the interconnection between authorised entities establishing, operating, maintaining, or expanding the telecommunication network under section 3(1)(b) of the Telecommunications Act 2023, and the authorised entities providing telecommunication services under section 3(1)(a) of the**

Telecommunications Act 2023 should be left to mutually agreed terms between them, at this stage.

T. Need for service authorised entities to obtain separate network authorisations for establishing telecommunications networks

2.270 Under the service authorisation framework recommended by the Authority through the 'Recommendations on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023', any entity holding a service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023 is permitted to establish, operate, maintain, and expand such telecommunication network as is required for providing telecommunication services under the scope of the service authorisation held by it. In other words, a service authorised entity would not need to obtain separate network authorisation(s) for establishing, operating, maintaining, and expanding telecommunication networks which are required for providing telecommunication services under the scope of the service authorisation held by it. However, if such an entity intends to establish, operate, maintain, and expand any telecommunication network which is not required for providing telecommunication services under the scope of its service authorisation(s), it would require to obtain a separate (applicable) network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.

2.271 The following chapter examines financial aspects and provides analysis and recommendations on the financial aspects of various network authorisations.

Chapter III: Examination of Financial issues

3.1 As the telecommunications industry continues to evolve with rapid technological advancements, there is a need to establish robust financial conditions for the development of the telecom sector. Financial requirements such as application fees, entry fees, and bank guarantees help ensure that only serious entities enter the market, fostering innovation, investment, and long-term stability. Thus, a well-balanced financial structure is crucial to maintaining fair competition—high financial barriers may discourage new entrants, particularly startups and smaller operators, while excessively lenient conditions could lead to market oversaturation. To prevent these challenges, foster competition, and drive innovation, it is essential to establish a financial framework that is both sustainable and adaptable.

3.2 This chapter outlines key financial provisions, including the application processing fee, entry fee, bank guarantee designed to support growth of the telecom sector, promote fair competition, and maintain a level playing field amongst network providers.

A. Digital Connectivity Infrastructure Provider (DCIP) and Infrastructure Provider (IP)

3.3 The questions 23 and 24 were raised in the consultation paper to seek comments from stakeholders on the financial conditions in case the scopes of the extant IP-I and DCIP authorisation are merged into a single authorisation under the Telecommunications Act, 2023 or in case the two authorisations are not merged.

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.

Q24: In case it is decided not to merge the scopes of IP-I and DCIP, what changes/ modifications are required to be made in the financial conditions of

- (a) DCIP authorisation as recommended by TRAI in August 2023*
- (b) IP-I authorisation under the Telecommunications Act, 2023 with respect to the extant IP-I registration?*

Please provide a detailed response with justification.

Comments of Stakeholders on Q23 and Q24

- 3.4 Majority of stakeholders are of the same opinion that financial conditions for the merged Infrastructure Provider-I (IP-I) and Digital Connectivity Infrastructure Provider (DCIP) authorisation should be in accordance with TRAI's recommendations on 'Introduction of Digital Connectivity Infrastructure Provider (DCIP) Authorisation under Unified License (UL)' dated 8.8.2023.
- 3.5 One stakeholder suggested that a light-touch regulatory approach may be followed.
- 3.6 In support of non-merging the scopes of DCIP and IP-I, some stakeholders mentioned that IP-I authorisation providers, which are primarily concerned with passive infrastructure, should not be subjected to strict financial requirements.

- 3.7 Another stakeholder stated that the License Fee should not be imposed on DCIP licensees, who are only facility providers, since this would raise expenses and negate the benefits of infrastructure sharing.
- 3.8 One stakeholder suggested streamlining the licensing procedure and requiring regulatory payments to solely cover actual administrative expenses.

Analysis w.r.t. Q23 and Q24

Digital Connectivity Infrastructure Provider (DCIP) Authorisation

- 3.9 As it has already been concluded in the preceding chapter that the scope of the extant IP-I Registration should not be merged with the scope of DCIP Authorisation (as recommended by TRAI in August 2023), the Authority is of the view that Q23 of the Consultation Paper dated 22.10.2024, which was related to the financial conditions of the merged authorisation of IP-I and DCIP, no longer requires to be deliberated. Further, the Authority has recommended that the Central Government should introduce Digital Connectivity Infrastructure Provider (DCIP) Authorisation and Infrastructure Provider (IP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023. Accordingly, the Authority examines the financial conditions pertaining to DCIP Authorisation and IP Authorisation separately under Section 3(1)(b) of the Telecommunications Act, 2023.
- 3.10 The Authority vide its Recommendations on 'Introduction of Digital Connectivity Infrastructure Provider (DCIP) Authorisation under Unified License (UL)' dated 8th August, 2023 recommended that there should not be any license fee applicable to DCIP authorisation. Further, the Authority recommended an entry fee of Rs 2 Lakh and application processing fee of ₹15,000 for DCIP authorisation.

- 3.11 However, as mentioned in para 2.65 of Chapter-II, the scope of DCIP includes provision of wireline access network, radio access network, transmission links, Wi-Fi systems, In-Building Solution, dark fibers, right of way, duct space, towers etc. to service authorised entities. Hence, the entry fee recommended earlier needs to be revisited. Besides, the entry of non-serious players is also to be discouraged. Considering this, the Authority is of the view that it is reasonable that an entry fee of ₹10 Lakh may be levied for this authorisation.
- 3.12 Further, in its recommendations dated 18.09.2024, the Authority recommended a uniform application processing fee of ₹ 10,000 across various authorizations. Accordingly, the Authority is of the view that the same application processing fee should be applicable for DCIP as well.
- 3.13 Considering the scope of work associated with this authorisation, the Authority notes that it does not involve the provision of services directly to end customers. Instead, the provision of networks under this authorisation is intended only for telecom service providers (TSPs). Therefore, the Authority is of the view that it is appropriate not to levy any authorisation fee for this authorisation.
- 3.14 Furthermore, since no authorisation fee is being imposed, the Authority considers it reasonable that there should not be any additional requirements related to Bank Guarantees.
- 3.15 In view of the above, **the Authority recommends that:**
- (a) Application Processing Fee for DCIP Authorisation should be Rupees Ten Thousand.**
 - (b) Entry Fee for DCIP Authorisation should be Rupees Ten Lakh.**
 - (c) Entry fee should be levied only at the time of entry and not at the time of renewal of DCIP Authorisation.**
 - (d) No Bank guarantee is required for DCIP Authorisation.**

Infrastructure Provider (IP) Authorisation

- 3.16 As per the existing Guidelines for Registration of Infrastructure Provider-I (IP-I), the applicant company is required to pay a processing fee of ₹5,000/- along with the application.
- 3.17 The Authority at para 2.58 of Chapter II has recommended that the scope of IP authorisation should be broadened, and IP authorised entities may also be permitted to provide In Building Solutions (IBS) to the eligible authorised entities. In view of para 3.15 above and the enhanced scope of IP Authorisation, the Authority feels that the application processing fees should also be enhanced and the same should be made uniform at ₹10,000 and no entry fee should be imposed on IP Authorisation.
- 3.18 Considering the scope of IP Authorisation, the Authority notes that it does not involve the provision of services directly to end customers. Instead, the provision of networks under this authorisation is intended only for telecom service providers. Therefore, the Authority is of the view that it is appropriate not to levy any authorisation fee for this authorisation.
- 3.19 Furthermore, since no authorisation fee is being imposed, the Authority considers it reasonable that there should not be any additional requirements related to bank guarantees.
- 3.20 Accordingly, **the Authority recommends that:**
- (a) Application Processing Fee for IP Authorisation should be Rupees Ten Thousand.**
 - (b) Neither any Entry Fee nor any Bank guarantee is required for IP Authorisation.**

B. In-Building Solution (IBS)

- 3.21 The question 25 was raised in the consultation paper to solicit comments of stakeholders on the financial conditions if in case it is decided 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.

Q25. In case it is decided 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, then-

- (a) Whether there is a need to have financial conditions associated with such an authorisation?*
- (b) In case your response to the above is in the affirmative, then what should be financial conditions for such an authorisation?*

Please provide detailed response with justification.

Comments of Stakeholders on Q25

- 3.22 A few stakeholders are of the opinion that a light touch authorisation should be introduced and the financial conditions applicable to any property manager establishing, operating, maintaining or expanding in-building solution (IBS) within the limits of a single building, compound or estate controlled, owned, or managed by it should be kept the same as applicable for DCIP authorisation.

- 3.23 Another stakeholder suggested that the financial conditions for small-scale in-building solutions (IBS) deployed by property managers within a single building or estate should be proportionate to the limited scope of such deployments.

Analysis w.r.t. Q25

- 3.24 In the section on IBS in Chapter II, the Authority has concluded that the establishment, maintenance, and expansion of in-building solution (IBS) by property managers may be exempted from the requirement of obtaining authorisation from the Central Government in the public interest
- 3.25 Accordingly, the Authority at para 2.96 of Chapter II has recommended that the property manager should be permitted to establish, operate, maintain, and expand the in-building solution (IBS) within the limits of a single building, compound, or estate, managed by it. For this purpose, there should be no requirement to obtain any authorisation from the Central Government under Section 3(1)(b) of the Telecommunications Act, 2023.
- 3.26 Therefore, the Authority is of the view that the question regarding financial conditions for establishing, operating, maintaining or expanding IBS by any property manager within the limits of a single building, compound or estate controlled, owned, or managed by it, does not require any further deliberation.

C. Content Delivery Network (CDN) and Interconnect Exchange Providers (IXP)

- 3.27 Question 26 was raised in the consultation paper to seek comments of the stakeholders on the financial conditions pertaining to IXP and CDN authorisations:

Q26. Whether there is a need to change/ modify any of the financial conditions of the IXP and CDN authorisations from those recommended by TRAI on 18.11.2022? If yes, please provide a detailed response with justification(s).

- 3.28 One of the stakeholders stated that there is no need to change/modify any of the financial conditions for IXP and CDN authorisations. So, the same financial conditions should be made applicable for both the authorisations as recommended by TRAI in the recommendation dated 18.11.2022. However, some stakeholders were of the view that no financial burden should be imposed on either CDNs or IXPs.
- 3.29 One of the stakeholders has opined that CDNs should be exempt from licensing fees. IXPs should be exempt from any authorisation requirements, if not then, minimal light touch conditions may be applied for IXPs.
- 3.30 One stakeholder stated that CDNs should be kept out of the purview of the authorisation regime. IXPs business must be brought within the ISP authorisation.

Analysis w.r.t. Q26

Content Delivery Network (CDN)

- 3.31 In the preceding para 2.115 of Chapter II, the Authority has recommended that the establishment, operation, maintenance, and expansion of Content Delivery Networks (CDNs) should be authorisation-exempt under Section 3(3) of the Telecommunications Act, 2023.
- 3.32 Accordingly, the Authority is of the view that stipulating financial conditions for CDN does not require any further deliberation.

Interconnect Exchange Provider (IXP) Authorisation

- 3.33 The Authority vide its recommendations on 'Regulatory Framework for Promoting Data Economy Through Establishment of Data Centres, Content Delivery Networks, and Interconnect Exchanges in India' dated 18.11.2022 had recommended the entry fee of ₹ 20,000, FBG of ₹ 2,000, PBG of ₹ 10,000 and application processing fee of ₹ 10,000 similar to ISP 'C' category license. The Authority was of the view that IXPs merely provide interconnection to various ISPs/TSPs/CDNs and subjecting them to onerous license conditions will impact the growth of the IXP market and will create barriers for entry of smaller players and start-ups.
- 3.34 It is worth mentioning that in its recommendations dated 18.09.2024, the Authority recommended an application processing fee of ₹ 10,000 and no entry fee for the ISP 'C' category. Accordingly, the Authority is of the view that similar entry fee and application processing fees should be adopted for IXP authorisation.
- 3.35 Regarding bank guarantee, the Authority in its recommendation dated 18.11.2022, recommended FBG of ₹ 2,000 and PBG of ₹ 10,000 for IXP authorization. However, it is pertinent to note that the Authority vide its recommendation dated 18.09.2024 has recommended that FBG and PBG should be merged into a single Bank Guarantee and this Bank Guarantee should be submitted to securitize the authorisation fee and other dues not otherwise securitized, to cover the violation of conditions of authorisation and to ensure the performance under authorisation/regulations including compliance of instructions issued by the Central Government /TRAI from time to time.
- 3.36 As mentioned earlier, the scope of IXP Authorisation is quite limited, as IXPs are meant to provide interconnection to various internet service providers and CDNs. In this context, enforcing performance bank guarantee may prove to be

insignificant. Additionally, since IXPs are not subject to any authorization fees, imposing a bank guarantee appears to be of little relevance. Therefore, the Authority is of the view that no bank guarantee is required for IXP authorisation.

3.37 Thus, **the Authority recommends that:**

- (a) Application Processing Fee for IXP Authorisation should be Rupees Ten Thousand.**
- (b) No Entry fee should be levied for IXP Authorisation.**
- (c) No Bank guarantee to be submitted for IXP Authorisation.**

D. Satellite Earth Station Gateway (SESG) Provider

3.38 To seek comments of stakeholders on the financial conditions of the Satellite Earth Station Gateway (SESG) authorisation, the question 27 was raised in the consultation paper:

Q27. Whether there is a need to change/ modify any of the financial conditions of the Satellite Earth Station Gateway (SESG) authorization from those recommended by TRAI on 29.11.2022? If yes, please provide a detailed response with justification(s).

Comments of Stakeholders on Q27

3.39 One of the stakeholders has stated that nominal entry fees and administrative charges should be maintained and the burdensome requirements like bank guarantees should be eliminated.

3.40 Some of the stakeholders have stated a separate light touch registration for SESG operators and they should not be required to obtain any license/ authorisation.

- 3.41 Majority of the stakeholders have suggested that there is no need to change/modify any of the financial conditions of the 'Licensing Framework for Establishing and Operating Satellite Earth Station Gateway (SESG)' dated 29.11.2022.

Analysis w.r.t. Q27

- 3.42 For the grant of SESG license, the Authority in 29.11.2022 recommended an entry fee of ₹ 10,00,000, a token license fee of ₹1 per annum, an application processing fee of ₹5,000 and further processing fee of ₹5,000 in respect of every application for the grant of permission to establish an additional SESG.
- 3.43 The Authority is of the view that the entry fee may be kept as earlier recommended by the Authority to discourage non-serious bidders.
- 3.44 In its recommendation dated 18.09.2024, the Authority also recommended a uniform application fee of ₹ 10,000 across various authorizations. Accordingly, the Authority is of the view that the same processing fee should be applicable for SESG provider authorisation also.
- 3.45 Considering the scope associated with SESG Provider Authorisation, the Authority notes that it does not involve the provision of services directly to end customers. Instead, the provision of networks under this authorisation are intended only for telecom service providers. Therefore, the Authority is of the view that it is appropriate not to levy any authorisation fee for SESG Provider Authorisation.
- 3.46 Furthermore, since no authorisation fee is being imposed, the Authority considers it reasonable that there should not be any additional requirements related to bank guarantees under SESG Provider Authorisation.

3.47 In view of the above, **the Authority recommends the following: -**

- (a) Application Processing Fee for SESG Provider Authorisation should be Rupees Ten Thousand.**
- (b) Entry Fee for SESG Provider Authorisation should be Rupees Ten Lakh.**
- (c) Entry fee should be levied only at the time of entry and not at the time of renewal of SESG Provider Authorisation.**
- (d) No Bank guarantee to be submitted for SESG Provider Authorisation.**

E. Satellite Communication Network

Q28. In case it is decided to introduce a new authorisation for establishing, operating, maintaining or expanding satellite communication network under Section 3(1)(b) of the Telecommunications Act, 2023, then, what should be the financial conditions for such authorisation?

Comments of Stakeholders on Q28

- 3.48 Some of the stakeholders have suggested that there should be no entry barriers, and regulatory levies should be kept the minimum possible.
- 3.49 One of the stakeholders is of the opinion that given the scope of the satellite communication network authorisation envisaged by the DoT is analogous to the SESG authorisation recommended by the TRAI, the same financial conditions as recommended by the TRAI for the SESG authorisation in 'Recommendation on Licensing Framework for Establishing and Operating Satellite Earth Station Gateway (SESG)' dated 29.11.2022 may be reiterated.

- 3.50 One of the stakeholders suggested maintaining nominal entry fees and administrative charges while eliminating burdensome requirements like bank guarantees.

Analysis

- 3.51 As discussed at para 2.170 of Chapter II, the Authority is of the view that the permissible options for the delivery of satellite-based telecommunication services have been enabled through the Authority's recommendations dated 18.09.2024 in respect of Satellite-based Telecommunication Service authorisation and the present recommendations in respect of the SESG authorisation.
- 3.52 Accordingly, the Authority is of the view that there is no need for introducing any additional authorisation for satellite communication network under the Telecommunications Act, 2023, at this stage and hence the question regarding financial conditions does not require any further deliberation.

F. Ground Station as a Service (GSaaS)

- 3.53 Question 29 was raised in the consultation paper for seeking comments of stakeholders on the financial aspects in case it is decided to introduce an authorisation under Section 3(1) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding ground stations, which may be used to provide Ground Station as a Service (GSaaS).

Q29. In case it is decided to introduce an authorisation under Section 3(1) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding ground stations, which may be used to provide Ground Station as a Service (GSaaS), then:

(a) Whether there is a need to have financial conditions associated with such an authorisation?

(b) In case your response to the above is in the affirmative, then what should be financial conditions for such an authorisation?

Please provide detailed response with justification.

Comments of Stakeholders on Q29

3.54 One of the stakeholders has stated that nominal entry fees and administrative charges should be maintained and the burdensome requirements like bank guarantees should be eliminated.

3.55 Some of the stakeholders have suggested that there is no need to have financial condition associated with such authorisation.

Analysis

3.56 The Authority in para 2.182 of Chapter II has already taken a view that there is no requirement of any new authorisation under Section 3(1) of Telecommunications Act, 2023 for establishing Ground Station as a Service (GSaaS).

3.57 Accordingly, the question regarding financial conditions does not require any further deliberation.

G. Cloud-hosted Telecommunication Network

3.58 Question 30 was raised for seeking comments of stakeholders on the financial aspects in case cloud-hosted telecommunication networks authorisation is introduced.

Q30. In case it is decided 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, then:

(a) Whether there is a need to have financial conditions associated with such an authorisation?

(b) In case your response to the above is in the affirmative, then what should be financial conditions for such an authorisation?

Please provide detailed response with justification.

Comments of Stakeholders on Q30

3.59 One of the stakeholders has suggested that cloud-hosted services should not be subjected to regulatory or licensing authorisation. It should be kept out of the purview of Licensing framework.

3.60 Some of the stakeholders suggested that no financial conditions should be imposed on such authorisation. Further, they stated that minimal fees should be charged to cover administrative charges only.

Analysis w.r.t. Q30

3.61 As stated in para 2.191 of Chapter-II, the Authority is of the opinion that introducing a light-touch network authorization for establishing, operating, maintaining, and expanding cloud-hosted telecommunication networks will further promote the proliferation of telecommunication services in the country.

3.62 Such a framework is expected to particularly benefit telecom service providers at the start-up stage as well as those operating on a smaller scale, by enabling

them to provide telecommunication services through the leasing or hiring of cloud-hosted telecommunication network resources from third parties. This would not only reduce costs but also facilitate faster deployment of services, seamless scalability, and easy upgrades to newer technologies.

3.63 In the light of these considerations, the Authority is of the view that a separate light-touch network authorisation for establishing, operating, maintaining, and expanding Cloud-Hosted Telecommunication Networks may be introduced. Accordingly, the Authority recommends that a uniform application processing fee of ₹10,000 and an entry fee of ₹10 lakh should be levied for Cloud-Hosted Telecommunication Network Authorization, with no other financial conditions imposed. This approach is expected to incentivize the entry of serious players, encourage competition, and promote the orderly growth of the sector.

3.64 Considering the scope of work associated with this authorisation, the Authority notes that it does not involve the provision of services directly to end customers. Instead, the provision of networks under this authorisation is intended only for telecom service providers. Therefore, the Authority is of the view that it is appropriate not to levy any authorisation fee for this authorisation.

3.65 Furthermore, since no authorization fee is being imposed, the Authority considers it reasonable that there should not be any additional requirements related to Bank Guarantees

3.66 In view of the above, **the Authority recommends that:**

(a) Application Processing Fee for Cloud Hosted Telecommunication Network Authorisation should be Rupees Ten Thousand.

(b) Entry Fee for Cloud Hosted Telecommunication Network Authorisation should be Rupees Ten Lakh.

- (c) Entry fee should be levied only at the time of entry and not at the time of renewal of Cloud Hosted Telecommunication Network Authorisation.**
- (d) No Bank Guarantee is to be submitted for Cloud-Hosted Telecommunication Network Authorisation.**

H. Mobile Number Portability (MNP) Provider

Q31. For Mobile Number Portability Service authorisation under Section 3(1)(b) of the Telecommunications Act, 2023, should the amount of entry fee and provisions of bank guarantees be:

- (a) kept same as per existing MNP Authorisation.*
- (b) kept the same as recommended by the Authority vide its Recommendations dated 19.09.2023*
- (c) or some other amount/ provisions may be made for the purpose of Entry Fee and Bank Guarantees.*

Please support your response with proper justification.

Q32. For Mobile Number Portability Service authorisation under Section 3(1)(b) of the Telecommunications Act, 2023, whether there is a need to review/ modify:

- (a) Definition of GR, AGR, ApGR*
- (b) Rate of authorisation fee*
- (c) Format of Statement of Revenue Share and Authorisation Fee*
- (d) Norms for the preparation of annual financial statements*
- (e) Requirement of Affidavit*

Please provide your response with detailed justification.

Comments of Stakeholders on Q31 and Q32

- 3.67 One stakeholder is against reducing the entry fee stating that it could create an uneven playing field. Therefore, the stakeholder has suggested introducing higher bank guarantees for new entrants to safeguard the porting ecosystem. No additional entry fee should be required for Authorisation transfers.
- 3.68 One of the stakeholders has stated that there is no need to change the existing terms and conditions for MNP Authorisation.
- 3.69 Some of the stakeholders were of the view that the amount of entry fee and provisions of bank guarantees be kept the same as recommended by the Authority vide its Recommendations on 'Rationalization of Entry Fees & Bank Guarantee' dated 19.09.2023.
- 3.70 One stakeholder has stated to review the definitions of GR, AGR, and ApGR to ensure that they are consistent with the Act and facilitate transparent financial calculations. The rate of authorisation fees should also be reviewed to reflect current market dynamics and encourage competition while ensuring the financial sustainability of MNP providers.
- 3.71 Majority of the stakeholders were of the view that there is no need to review/change the financial conditions and the formats of Statement of Revenue Share and Authorisation Fee and norms for preparation of statements in case of MNPS. However, they suggested that affidavit should be replaced by self- certificate for ease of doing business.

Analysis w.r.t. Q31 and Q32

i. Application processing fee for MNP Provider Authorisation:

3.72 Presently, application processing fee is not levied for MNP Service License. The Authority further is of the view that, like other authorisations, an application processing fee of ₹10,000 may also be charged for MNP Provider Authorisation.

3.73 Accordingly, **the Authority recommends that the Application Processing Fee for MNP Provider Authorisation should be Rupees Ten Thousand.**

ii. Entry fee for MNP Provider Authorisation:

3.74 Presently, an entry fee of ₹1 crore is levied on MNP License. Currently, the MNP segment consists only two players. The Authority in its Recommendations dated 19.9.2023 has stated that more service providers must be incentivized to enter this segment and reduction in Entry Fee will be a positive step in this regard. Accordingly, the Authority recommended that to increase competition in this segment, the entry fee for MNP license should be reduced from ₹1 crore to ₹50 lakh.

3.75 In view of its earlier Recommendations dated 19.9.2023, **the Authority recommends that:**

(a) Entry Fee for MNP Provider Authorisation should be Rupees Fifty Lakh.

(b) Entry Fee should be levied only at the time of entry and not at the time of renewal of MNP Provider Authorisation.

iii. Bank Guarantee for MNP Provider Authorisation:

- 3.76 As per the current licensing regime, the MNP operators are required to submit PBG of ₹ 20 lakhs valid for two years. After completion of one year from the successful commencement of operation, the amount of PBG is reduced by 50%, i.e. PBG is equal to ₹10 Lakhs, and this 50% amount of PBG shall be released after the expiry of license period. On the other hand, initially the MNP licensee shall submit the FBG of 40 lakhs, valid for three years and subsequently the amount is equivalent to 20% of the estimated sum payable (of License fee for two quarters and other dues not otherwise securitized).
- 3.77 The Authority vide its recommendations dated 19.9.2023 recommended that Financial Bank Guarantee and Performance Bank Guarantee should be merged into a single Bank Guarantee. For the initial year, the amount of Bank Guarantee (BG) should be ₹40 lakh and for the subsequent years, the amount of Bank Guarantee should be higher of ₹10 lakh or 20% of the estimated sum payable (of license fee for two quarters and other dues not otherwise securitized).
- 3.78 As such, according to TRAI's recommendations, the initial BG is generally relevant only for the first year. In subsequent years, the BG to be submitted depends on license fees and, consequently, the Adjusted Gross Revenue (AGR) of the service provider. The initial year BG serves as a "floor" BG in the subsequent years. The bank guarantee depends mainly on the revenue potential of the authorisation. In this scenario, the bank guarantee in subsequent years is expected to reflect the revenue potential of a particular authorisation.
- 3.79 In view of the above, **the Authority recommends the following in respect of MNP Provider Authorisation:**
- (a) For the initial year, the amount of Bank Guarantee should be Rupees Forty Lakh.**

- (b) For the subsequent years, the amount of Bank Guarantee should be higher of Rupees Ten Lakh or 20% of the estimated sum payable (of Authorisation fee for two quarters and other dues not otherwise securitized).**
- (c) Bank Guarantee should be submitted to securitize the authorisation fee and other dues not otherwise securitized, to cover the violation of conditions of authorisation and to ensure the performance under authorisation/regulations including compliance of instructions issued by the Central Government/ TRAI from time to time.**
- (d) Bank Guarantee should be subject to the detailed provisions/ conditions that have been included in the Financial Conditions of MNP Provider Authorisation.**

iv. Definition of GR, ApGR, AGR and Authorisation Fee

Definitions of Gross Revenue, Applicable Gross Revenue and Adjusted Gross Revenue

- 3.80 Based on TRAI's recommendation dated 06.01.2015, the Adjusted Gross Revenue (AGR) reforms were introduced in the Telecom sector in the year 2021 wherein changes in the definitions of AGR for various licenses under UL, UL (VNO) and other licenses have been incorporated. Consequently, amendments in MNP License Agreement for Adjusted Gross Revenue (AGR) were also issued in 2022.
- 3.81 Further, Department of Telecommunications (DoT) issued a clarification in July, 2023 in response to the issue raised by the stakeholders regarding "revenue from operations other than telecom activities/ operations stating that:-

"Scope of Authorisation clause in the Authorisation agreement defines services which can be offered under the Authorisation. All activities covered under scope of Authorisation will be classified as Telecom activities.

As the nature of non telecom activities will vary between different companies it is not possible to list out non telecom activities."

Authorisation Fee

3.82 As per the current licensing regime, the license fee for MNP License is levied at the rate of 1% of AGR. There is a moratorium of License fee payment for first two years from effective date of the License.

3.83 The Authority takes note of the fact that presently the MNP segment comprise of only two operators and the definitions of GR, ApGR and AGR have recently been amended by the Government. Hence, the Authority is of the view that the extant definitions of GR, ApGR, AGR and the rate of authorisation fee to continue for MNP Provider Authorisation.

3.84 In view of the above, **the Authority recommends the following:**

- (a) The extant definitions of Gross Revenue (GR), Applicable Gross Revenue (ApGR) and Adjusted Gross Revenue (AGR) for the MNP Provider Authorisation should continue.**
- (b) The applicable definitions for GR, ApGR and AGR have been given under the MNP Provider Authorisation.**
- (c) Any further orders/instructions/clarifications on the definitions of Gross Revenue, Applicable Gross Revenue and Adjusted Gross Revenue may be issued by DOT after obtaining recommendations from TRAI.**
- (d) The rate of Authorisation Fee for MNP Provider Authorisation should be the same as the existing rate of License Fee for MNP Service License.**

v. Requirement of Affidavit

- 3.85 Presently, the MNPSPs are required to submit a Statement of Revenue and License Fee alongwith quarterly payment of License fee, duly certified with an affidavit by the authorised representative of the Licensee while making the payment of license fee.

Analysis

- 3.86 In line with its earlier recommendations, the Authority is of the view that replacing the Affidavit with a Self-Certificate will promote ease of doing business.
- 3.87 The adoption of e-signed/ digitally signed self-declaration mechanism will expedite the submission process and reduce the time and effort currently expended in obtaining notarized affidavits. The Self-Certificate shall be e-verified by the authorised representative of the company through e-sign/ digitally signed. The format for Self-Certificate will be as prescribed under financial conditions of MNP Provider authorisation.
- 3.88 Thus, **the Authority recommends that:**
- (a) The MNP Provider Authorised Entity should submit a Self-Certificate duly e-signed/digitally signed, by the authorised representative of the company.**
 - (b) The proforma for the Self-Certificate has been prescribed under MNP Provider Authorisation.**

**vi. Norms for the preparation of annual financial statements and
Format of Statement of Revenue Share**

- 3.89 Presently, the MNP service providers are required to submit a Statement of Revenue and License Fee along with quarterly payment of License fee, duly certified with an affidavit by the representative of the licensor. The proforma for the Statement of Revenue and License fee has been prescribed under the MNP License agreement.
- 3.90 A reconciliation between the figures appearing in the quarterly statements with those appearing in annual accounts shall be submitted along with a copy of the published annual accounts audit report and duly audited quarterly statements, within 7 (seven) calendar days of the date of signing of the audit report. The annual financial account and the statement are required to be prepared following the norms as prescribed under the MNP Service license agreement.

Analysis

- 3.91 As per MNP Service license agreement, the quarterly financial statements i.e. the Statement of Revenue are required to be prepared following certain norms. DoT has prescribed separate norms for MNP Service license agreement. The Authority is of the view that adoption of uniform set of financial reporting norms will foster consistency in financial reporting and bring clarity.
- 3.92 The Authority considers revision/ simplification of the formats of Statement of Revenue. The Goods and Services Tax (GST) being billed, collected, and remitted to the Government has been excluded from the Statement of Revenue. This change is intended to simplify the reporting process. Further, considering the online submission of Statement of Revenue through SARAS portal, the

requirement for filing previous and cumulative amount of Revenue has also been deleted from the formats.

3.93 The revised formats of Statement of Revenue have been Annexed to the MNP Provider Authorisation.

3.94 In view of the above, **the Authority recommends that the Statement of Revenue are required to be submitted by the Authorised Entities, as per the revised Format of Statement of Revenue, specified under the MNP Provider Authorisation.**

I. Other Related Matters

Q33. What financial conditions should be made applicable for the migration of the existing licensees/ registration holders to the relevant new authorisations under section 3(1) (b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.

Comments of Stakeholders on Q33

3.95 Some of the stakeholders suggested that no additional financial conditions should be imposed during the process of migration.

3.96 One of the stakeholders stated that differential entry fee should apply, i.e., the difference between the old and new regime entry fees, without any refund if the old fee is higher. Minimum authorisation fee for old licensees is to be calculated based on new regime's entry fee.

3.97 Few stakeholders stated that migration should be voluntary, with no negative impact on existing terms. "No worse off" principle to apply.

Analysis w.r.t. Q33

- 3.98 In its Recommendations on the Rationalization of Entry Fees and Bank Guarantees dated September 19, 2023, the Authority stated that an entry fee is a fixed, one-time payment that prospective entrants must make to enter the market. These fees are typically non-refundable.
- 3.99 It was also recommended that entry fees should be charged only at the time of entry and not at the time of license renewal.
- 3.100 Considering this, the Authority is of the view that the same condition should apply to migration as well. Existing operators should not be required to pay the full entry fee. If the entry fee for an authorisation exceeds the amount already paid by the operator, only the balance amount should be levied. Moreover, since the operators have already paid the application processing fee at the time of entry, Existing operators should not be required to repay the application processing fee while migrating.
- 3.101 Accordingly, **in case of migration of the licensees of the old regime to the new authorisation framework, the Authority recommends the following:-**
- (a) There should be no requirement of application processing fee**
 - (b) In case of migration to the new Network Authorisation, the differential Entry Fee i.e. the Entry Fee applicable for the Network Authorisation in which the Authorised Entity is getting migrated minus the Entry fee already paid by the Licensee in the old regime for the Network Authorisation getting migrated shall be levied.**
 - (c) In cases where the Entry Fee already paid by the Licensees of the old regime exceeds the Entry Fee to be paid now for**

migration to new authorisation framework, there will be no refund of the Entry Fee.

3.102 The following chapter provides a summary of recommendations.

Chapter IV: Summary of Recommendations

4.1 The Authority recommends that -

- (a) The Central Government should grant network authorisations under section 3(1)(b) of the Telecommunications Act, 2023 instead of entering into an agreement with the entity.**
- (b) Detailed terms and conditions of each network authorisation should be prescribed through the rules notified under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (c) For making any change(s) in the terms and conditions of the network authorisations emanating from these recommendations, except for the reason of the interest of the security of the State, the Central Government should seek TRAI's recommendations.**
- (d) The Rules under Section 3(1)(b) of the Telecommunications Act, 2023 should be organized in the manner given below:**
 - (i) Telecommunications (Grant of Network Authorisations) Rules; and**
 - (ii) Separate rules for each network authorisation**
- (e) The Telecommunications (Grant of Network Authorisations) Rules should contain terms and conditions for the grant of various network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023. In this regard, the Authority recommends the terms and conditions which should be included in the Telecommunications (Grant of Network Authorisations) Rules, enclosed as Annexure-2.2.**
- (f) Each network authorisation to be granted by the Central Government under Section 3(1)(b) of the Telecommunications Act, 2023 should be in the form of an authorisation document, containing the essential elements of the network authorisation.**

The format for the authorisation document is included in Annexure-2.3.

(Para 2.14)

4.2 The Authority recommends that-

- (a) The Central Government should introduce Infrastructure Provider (IP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) Any entity intending to establish, operate, maintain, or expand dark fibers, right of way, duct space, and towers should obtain IP Authorisation from the Central Government.**

(Para 2.50)

4.3 The Authority recommends the following in respect of Infrastructure Provider (IP) Authorisation:

- (a) Main scope of IP Authorisation: To provide dark fibres, right of way, duct space, towers, and in-building solution (IBS) to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023**
- (b) Period of validity of IP Authorisation: 20 years**
- (c) The detailed terms and conditions for IP Authorisation have been included in Annexure-2.4.**
- (d) The terms and conditions for the grant of IP Authorisation have been included in Annexure-2.2.**

[Para 2.60]

4.4 The Authority recommends that –

- (a) The Central Government should introduce Digital Connectivity Infrastructure Provider (DCIP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**

- (b) Any entity intending to establish, operate, maintain, or expand wireline access network, radio access network (RAN), transmission links, and Wi-Fi systems should obtain DCIP Authorisation from the Central Government.
- (c) **Main scope of DCIP Authorisation:**
- (i) DCIP authorised entities may provide wireline access network, radio access network (RAN), transmission links, Wi-Fi systems, and In-Building Solution (IBS) to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.
 - (ii) DCIP authorised entities may also provide dark fibers, right of way, duct space, and towers to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.
 - (iii) DCIP authorised entities shall not establish, operate, maintain or expand core network elements such as Mobile Switching Center (MSC), Home Location Register (HLR), Intelligent Network (IN) etc.
 - (iv) DCIP authorised entities shall not provide end-to-end bandwidth using transmission systems to any authorised entity, or any user, or for their captive use.
 - (v) Spectrum shall not be assigned to DCIP authorised entities. However, for configuration, provisioning, operation and maintenance of its radio access network equipment, a DCIP authorised entity may use spectrum resources of its partnering service authorised entities.
 - (vi) The usage of access spectrum of a partnering service authorised entity on a radio access network (established by the DCIP authorised entity) by any other partnering service authorised entity will be permitted only if such

service authorised entities have access spectrum sharing arrangement between them.

- (d) The detailed terms and conditions for DCIP Authorisation have been included in Annexure-2.4.**
- (e) The terms and conditions for the grant of DCIP Authorisation have been included in Annexure-2.2.**

[Para 2.67]

4.5 The Authority recommends that any person, without network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 should be permitted to establish, operate, maintain, and expand telecommunication network (not being a wireless telecommunication network) within the limits of a single building, compound or estate, provided that no part of such telecommunication network passes over or under a public road.

[Para 2.77]

4.6 The Authority recommends that-

- (a) The following telecommunication equipment should be included within the ambit of in-building solution (IBS):**
 - (i) Distributed antenna system (DAS) comprising of antennas, radio frequency (RF) couplers, RF splitters, RF combiners, RF repeaters and RF feeder cables and other accessories for setting up DAS**
 - (ii) Telecommunication cables such as coaxial cable, optical fiber cable (OFC) and ethernet cables**
 - (iii) Optical fiber equipment comprising of Master Optical Units (MOU), Remote Optical Units (ROU), Fiber Distribution Units, Optical Networking Units (ONU),**

Optical Line Terminals (OLT), and Fiber Access Terminals (FAT)

- (b) The property manager should be permitted to establish, operate, maintain, and expand in-building solution (IBS) within the limits of a single building, compound, or estate, managed by it. For this purpose, there should be no requirement of obtaining any authorisation from the Central Government under Section 3(1)(b) of the Telecommunications Act, 2023. Here, the term “property manager” means the person who is either the owner of the property or has any legal right to control or manage the property.**
- (c) A property manager should provide access to the IBS established by it in its property to the eligible service authorised entities and DCIP authorised entities in fair and non-discriminatory manner.**
- (d) Telecom Engineering Centre (TEC), Department of Telecommunications, should issue guidelines for design, installation, maintenance and operation of IBS equipment.**
- (e) Telecom Engineering Centre (TEC), Department of Telecommunications, should identify critical components of IBS and bring such components under Mandatory Testing and Certification of Telecommunication Equipment (MTCTE) regime.**
- (f) Once the Central Government introduces the regime of MTCTE certification, any IBS equipment established by the property managers should be mandatorily MTCTE certified from TEC.**
- (g) A condition must be imposed on all relevant service authorised entities and DCIP authorised entities prohibiting them to enter into any exclusive contract for right of way with property managers.**

[Para 2.98]

4.7 The Authority recommends that -

- (a) The establishment, operation, maintenance, and expansion of Content Delivery Networks (CDNs) should be authorisation-exempt under Section 3(3) of the Telecommunications Act, 2023.**
- (b) With a view to provide necessary safeguards, the authorisation-exemption to CDNs should be subject to the following provisions:**
 - (i) The mutual agreement between any entity authorised under Section 3(1) of the Telecommunications Act, 2023 and any CDN provider shall be fair, non-discriminatory, and compliant to net neutrality objectives.**
 - (ii) Central Government and TRAI may seek information related to such agreements from the concerned entities authorised under Section 3(1) of the Telecommunications Act, 2023, whenever a situation warrants so in the public interest.**

[Para 2.117]

4.8 The Authority recommends that –

- (a) The Central Government should introduce Internet Exchange Point (IXP) Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) Any entity intending to establish, operate, maintain, or expand Internet Exchange Points (IXPs) in India should obtain IXP Authorisation from the Central Government.**
- (c) Main scope of IXP Authorisation: To provide peering and exchange of internet traffic, originated and destined within India, amongst the entities authorised to provide internet**

service under the Telecommunications Act, 2023, and content delivery networks (CDN) located in India

- (d) The detailed terms and conditions for IXP Authorisation have been included in Annexure-2.4.
- (e) The terms and conditions for the grant of IXP Authorisation have been included in Annexure-2.2.

[Para 2.135]

4.9 The Authority recommends that –

- (a) The Central Government should introduce Satellite Earth Station Gateway (SESG) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (b) Any entity intending to establish, operate, maintain, or expand satellite earth station gateway (SESG) in India should be required to obtain SESG Provider Authorisation from the Central Government.
- (c) **Broad scope of the SESG Provider Authorisation:** To provide its SESG infrastructure to the entities which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023 and which are permitted to use satellite media under their scope of service
- (d) The baseband equipment to be installed at SESGs should be owned by the eligible service authorised entity interworking with the SESG Provider authorised entity. However, the SESG Provider authorised entity should be permitted to install the baseband equipment at its SESGs on behalf of the eligible service authorised entities.
- (e) The satellite spectrum (gateway-side spectrum as well as user-side spectrum) should be assigned only to the eligible service authorised entities and not to SESG Provider authorised entities. However, for configuration and provisioning purposes, the SESG Provider authorised entity should be permitted to

utilize the spectrum of its partnering service authorised entity on its SESGs. Such configuration and provisioning should be done on behalf of the partnering service authorised entity, and the right to use of spectrum should remain with the partnering service authorised entity.

- (f) The SESG Provider authorised entity should be permitted to connect its SESGs with its points of presence (PoPs) in India through optical fiber cable (OFC) system.
- (g) The detailed terms and conditions for SESG Provider Authorisation have been included in Annexure-2.4.
- (h) The terms and conditions for the grant of SESG Provider Authorisation have been included in Annexure-2.2.

[Para 2.154]

4.10 the Authority recommends that –

- (a) The establishment, operation, maintenance, and expansion of the following categories of ground stations (as envisaged in the Norms, Guidelines and Procedures for Implementation of Indian Space Policy-2023 in respect of the Authorization of Space Activities (NGP) issued by IN-SPACe in May 2024) should be authorisation-exempt in the public interest in terms of Section 3(3) of the Telecommunications Act, 2023:
 - (i) Satellite Control Centre (SCC);
 - (ii) Telemetry, Tracking and Command (TT&C);
 - (iii) Mission Control Centre (MCC);
 - (iv) Remote Sensing Data Reception Station;
 - (v) Ground Station for supporting operation of the space-based services such as Space Situational Awareness (SSA), Astronomical, space science or navigation missions etc.

- (b) Any entity establishing, operating, maintaining, or expanding ground stations of the categories mentioned above shall have to obtain an authorisation from the Central Government under Section 3(1) of the Telecommunications Act, 2023, if -
 - (i) it intends to provide any telecommunication service for which an authorisation is required under Section 3(1)(a) of the Telecommunications Act, 2023; or
 - (ii) it intends to establish, operate, maintain, or expand any telecommunication network for which an authorisation is required under Section 3(1)(b) of the Telecommunications Act, 2023.
- (c) 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.

[Para 2.184]

4.11 The Authority recommends that:

- (f) The Central Government should introduce Cloud-hosted Telecom Network (CTN) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (g) Any entity intending to establish, operate, maintain, or expand cloud-hosted telecommunication network should obtain CTN Provider Authorisation from the Central Government.
- (h) **Broad scope of CTN Provider Authorisation:**
 To provide cloud-hosted telecommunication network-as-a-service (CTNaaS) to the eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.
 Here, the term 'CTNaaS' shall cover the following activities:

- (i) **Provision of physical infrastructure to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for housing its telecommunication equipment;**
 - (ii) **Provision of dedicated telecommunication equipment to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for the use in its telecommunication network;**
 - (iii) **Provision of virtual machine(s) to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for the use in its telecommunication network; and**
 - (iv) **Provision of telecommunication network functionality to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for providing telecommunication services.**
- (i) **The detailed terms and conditions for CTN Provider Authorisation have been included in Annexure-2.4.**
 - (j) **The terms and conditions for the grant of CTN Provider Authorisation have been included in Annexure-2.2.**

[Para 2.195]

4.12 The Authority recommends that –

- (a) **The Central Government should introduce Mobile Number Portability (MNP) Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.**
- (b) **The scope of MNP Provider Authorisation should cover the following activities:**
 - (i) **Establishment, operation, maintenance, and expansion of a telecommunication network for providing MNP to the entities authorised to provide Access Service under the Telecommunications Act, 2023; and**

- (ii) **Provision of location routing number (LRN) update to all entities authorised to provide Access Service, National Long Distance (NLD) Service and International Long Distance (ILD) Service under the Telecommunications Act, 2023.**
- (c) **The extant policy regime of two MNP zones in the country, each comprising of 11 authorised service areas (telecom circles/ Metro areas), and only one MNP Provider authorised entity in each MNP zone should be continued at present. However, in future, the Central Government may, if deemed fit, change the number of MNP zones in the country, amend the composition of authorised services areas within each MNP zone, and introduce more MNP authorised entities in each MNP zone through a competitive bidding process.**
- (d) **The detailed terms and conditions for MNP Provider Authorisation have been included in Annexure-2.4.**
- (e) **The terms and conditions for the grant of MNP Provider Authorisation have been included in Annexure-2.2.**

[Para 2.209]

4.13 Authority recommends that the following conditions should be included in the terms and conditions of the network authorisations:

- (a) **Network authorised entities should be mandated to utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by**

TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from to time.

- (b) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.**
- (c) The network authorised entities should follow the measures notified by the Central Government under Section 21(d) of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment only from trusted sources.**
- (d) The network authorised entities Entity should follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of telecommunication networks including critical telecommunication infrastructure and telecommunication services.**
- (e) In case of breach of any of the terms and conditions of the authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation.**
- (f) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by**

the Rules on Adjudication and Appeal made under the Telecommunications Act, 2023.

- (g) The Central Government may provide for such security interest which an authorised entity may provide to lenders financing such entities on such terms and conditions of such security interest, which will be governed by the Rules notified by the Central Government under section 45 of the Telecommunications Act, 2023.**

[Para 2.221]

4.14 The Authority recommends that the SESG Authorised Entity may establish, operate, maintain, or expand satellite earth station gateways (SESGs) in India for all types of satellite systems for which the Central Government has given its permission.

[Para 2.223]

4.15 The Authority recommends that-

- (a) The eligibility conditions for the grant of network authorisations to new applicants should also be made applicable to the existing entities which intend to migrate to the network authorisation framework under the Telecommunications Act, 2023. However, at the time of migration to the network authorisation framework, the requirement of meeting with the net-worth criteria should not be made applicable.**
- (b) An authorised entity should not be permitted to hold more than one network authorisation of the same type under Section 3(1)(b) of the Telecommunication Act, 2023 or under the extant regime.**
- (c) An authorised entity which already holds a network authorisation under Section 3(1)(b) of the Telecommunications**

Act, 2023 or a license/ registration etc. under the extant regime, decides to obtain another network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 whose scope of operation includes the scope of operation under the network authorisation/ license/ registration already held by such entity, in entirety, then such network authorisation/ license/ registration already held by the authorised entity should be treated as subsumed in the new network authorisation and it should cease to exist.

- (d) Upon migration from IP-I Registration under the extant regime to IP Authorisation under the Telecommunications Act, 2023, the IP Authorisation should be valid for a period of 20 years from the effective date of the IP Authorisation.**
- (e) Similarly, upon migration from IP-I Registration under the extant regime to DCIP Authorisation under the Telecommunications Act, 2023, the DCIP Authorisation should be valid for a period of 20 years from the effective date of the DCIP Authorisation.**
- (f) Upon migration from MNP Service License under the Indian Telegraph Act, 1885 to MNP Provider Authorisation under the Telecommunications Act, 2023, the MNP Provider Authorisation should be valid for the balance period of the validity of the MNP Service License.**
- (g) Detailed terms and conditions for the migration to network authorisations to be granted under the Telecommunications Act, 2023 have been included in Annexure-2.2.**

[Para 2.246]

4.16 The Authority recommends that-

- (a) There is a need for introducing Captive Non-Public Network (CNPN) Provider Authorisation under Section 3(1)(b) of the**

Telecommunications Act, 2023 with the scope of establishing, maintaining, operating, and expanding CNPN networks for enterprises. In case the Central Government accepts this recommendation, it may seek the recommendations of TRAI on detailed terms and conditions for such an authorisation.

- (b) *Prima facie*, there is a need for introducing Cable Landing Station (CLS) Provider Authorisation with a broad scope of providing access facilitation to the essential facilities at cable landing station, and co-location to facilitate access to the cable landing station to the eligible service authorised entities. In case the Central Government deems it fit, it may send a reference to the Authority for exploring the need for CLS Provider Authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 and the terms and conditions thereof.**

[Para 2.250]

- 4.17 The Authority recommends that the Central Government should take an early decision on the TRAI's Recommendations on Ease of Doing Business in Telecom and Broadcasting Sectors dated 02.05.2023.**

[Para 2.259]

- 4.18 The Authority recommends that the interconnection between authorised entities establishing, operating, maintaining, or expanding the telecommunication network under section 3(1)(b) of the Telecommunications Act 2023, and the authorised entities providing telecommunication services under section 3(1)(a) of the Telecommunications Act 2023 should be left to mutually agreed terms between them, at this stage.**

[Para 2.269]

4.19 The Authority recommends that:

- (a) Application Processing Fee for DCIP Authorisation should be Rupees Ten Thousand.**
- (b) Entry Fee for DCIP Authorisation should be Rupees Ten Lakh.**
- (c) Entry fee should be levied only at the time of entry and not at the time of renewal of DCIP Authorisation.**
- (d) No Bank guarantee is required for DCIP Authorisation.**

[Para 3.15]

4.20 The Authority recommends that:

- (a) Application Processing Fee for IP Authorisation should be Rupees Ten Thousand.**
- (b) Neither any Entry Fee nor any Bank guarantee is required for IP Authorisation.**

[Para 3.20]

4.21 The Authority recommends that:

- (a) Application Processing Fee for IXP Authorisation should be Rupees Ten Thousand.**
- (b) No Entry fee should be levied for IXP Authorisation.**
- (c) No Bank guarantee to be submitted for IXP Authorisation.**

[Para 3.37]

4.22 The Authority recommends the following: -

- (a) Application Processing Fee for SESG Provider Authorisation should be Rupees Ten Thousand.**
- (b) Entry Fee for SESG Provider Authorisation should be Rupees Ten Lakh.**
- (c) Entry fee should be levied only at the time of entry and not at the time of renewal of SESG Provider Authorisation.**

- (d) No Bank guarantee to be submitted for SESG Provider Authorisation.**

[Para 3.47]

4.23 The Authority recommends that:

- (a) Application Processing Fee for Cloud Hosted Telecommunication Network Authorisation should be Rupees Ten Thousand.**
- (b) Entry Fee for Cloud Hosted Telecommunication Network Authorisation should be Rupees Ten Lakh.**
- (c) Entry fee should be levied only at the time of entry and not at the time of renewal of Cloud Hosted Telecommunication Network Authorisation.**
- (d) No Bank Guarantee is to be submitted for Cloud-Hosted Telecommunication Network Authorisation.**

[Para 3.66]

4.24 The Authority recommends that the Application Processing Fee for MNP Provider Authorisation should be Rupees Ten Thousand.

[Para 3.73]

4.25 The Authority recommends that:

- (a) Entry Fee for MNP Provider Authorisation should be Rupees Fifty Lakh.**
- (b) Entry Fee should be levied only at the time of entry and not at the time of renewal of MNP Provider Authorisation.**

[Para 3.75]

4.26 The Authority recommends the following in respect of MNP Provider Authorisation:

- (a) For the initial year, the amount of Bank Guarantee should be Rupees Forty Lakh.**
- (b) For the subsequent years, the amount of Bank Guarantee should be higher of Rupees Ten Lakh or 20% of the estimated sum payable (of Authorisation fee for two quarters and other dues not otherwise securitized).**
- (c) Bank Guarantee should be submitted to securitize the authorisation fee and other dues not otherwise securitized, to cover the violation of conditions of authorisation and to ensure the performance under authorisation/regulations including compliance of instructions issued by the Central Government/ TRAI from time to time.**
- (d) Bank Guarantee should be subject to the detailed provisions/ conditions that have been included in the Financial Conditions of MNP Provider Authorisation.**

[Para 3.79]

4.27 The Authority recommends the following:

- (a) The extant definitions of Gross Revenue (GR), Applicable Gross Revenue (ApGR) and Adjusted Gross Revenue (AGR) for the MNP Provider Authorisation should continue.**
- (b) The applicable definitions for GR, ApGR and AGR have been given under the MNP Provider Authorisation.**
- (c) Any further orders/instructions/clarifications on the definitions of Gross Revenue, Applicable Gross Revenue and Adjusted Gross Revenue may be issued by DOT after obtaining recommendations from TRAI.**

- (d) The rate of Authorisation Fee for MNP Provider Authorisation should be the same as the existing rate of License Fee for MNP Service License.**

[Para 3.84]

4.28 The Authority recommends that:

- (a) The MNP Provider Authorised Entity should submit a Self-Certificate duly e-signed/ digitally signed, by the authorised representative of the company.**
- (b) The proforma for the Self-Certificate has been prescribed under MNP Provider Authorisation.**

[Para 3.88]

4.29 the Authority recommends that the Statement of Revenue are required to be submitted by the Authorised Entities, as per the revised Format of Statement of Revenue, specified under the MNP Provider Authorisation.

[Para 3.94]

4.30 In case of migration of the licensees of the old regime to the new authorisation framework, the Authority recommends the following:-

- (a) There should be no requirement of application processing fee**
- (b) In case of migration to the new Network Authorisation, the differential Entry Fee i.e. the Entry Fee applicable for the Network Authorisation in which the Authorised Entity is getting migrated minus the Entry fee already paid by the Licensee in the old regime for the Network Authorisation getting migrated shall be levied.**
- (c) In cases where the Entry Fee already paid by the Licensees of the old regime exceeds the Entry Fee to be paid now for**

migration to new authorisation framework, there will be no refund of the Entry Fee.

[Para 3.101]

Annexure 1.1

DoT's Reference Dated 26.07.2024

F. No. 20-1350/2024 AS-I (Vol.-II)
Government of India
Ministry of Communications
Department of Telecommunications
(Licensing Policy Division)
20-Ashoka Road, New Delhi-110001

Dated: 26.07.2024

Subject: Seeking 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 - regarding

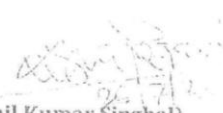
Reference: Reference vide F. No. 20-1350/2024 AS-I (Vol.-II) dated 21.06.2024 for seeking recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to provide telecommunication services as per the provisions of the Telecommunications Act 2023 (enclosed)

The Telecommunications Act, 2023 has been published in the Official Gazette of India. It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint and different dates may be appointed for different provisions of this Act. Section 3(1)(b) of the Act provides for obtaining an authorisation by any person intending to establish, operate, maintain or expand telecommunication network, subject to such terms and conditions, including fees or charges, as may be prescribed. A background note on related aspects in this regard including relevant sections of the Telecommunications Act, 2023 that may have bearing on the terms and conditions of authorisations is attached as Annexure to this reference.

2. In this regard, under Section 11(1)(a) of the TRAI Act, 1997 (as amended), TRAI is requested to provide its recommendations within 60 days of receipt of this reference 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.

3. This has the approval of the competent authority.

Encl: As above


(Sunil Kumar Singhal)
Deputy Director General (LP)
Phone: 23036836

To,
The Secretary
Telecom Regulatory Authority of India
7th Floor, Tower-F,
World Trade Centre, Nauroji Nagar,
New Delhi: 110029

Background Note

1. Section 3(1)(a) and 3(1)(b) of the Telecommunications Act 2023 provide for authorizations to provide telecommunication services and to establish, operate, maintain or expand telecommunication network respectively. As per Section 2 of the Telecommunications Act 2023, telecommunication, telecommunication network and telecommunication service are defined as follows:

(p) "telecommunication" means transmission, emission or reception of any messages, by wire, radio, optical or other electro-magnetic systems, whether or not such messages have been subjected to rearrangement, computation or other processes by any means in the course of their transmission, emission or reception;

(s) "telecommunication network" means a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite networks or submarine networks, or a combination of such networks, used or intended to be used for providing telecommunication services, but does not include such telecommunication equipment as notified by the Central Government;

(t) "telecommunication service" means any service for telecommunication;

2. A reference dated 21.06.2024, to TRAI, has been sent for seeking its recommendations on terms and conditions, including fees or charges, for authorisation to provide telecommunication services under section 3(1)(a) of the Telecommunications Act 2023. List of the extant licenses, registrations, and permissions being granted under the Indian Telegraph Act 1885 is provided in this reference.
3. Section 3(2) of the Telecommunications Act 2023 provides for different terms and conditions of authorisation for different types of telecommunication services and telecommunication network.
4. Section 3(5) of the Telecommunications Act 2023 provides that any authorised entity may undertake any merger, demerger or acquisition, or other forms of restructuring, subject to any law for the time being in force and any authorised entity that emerges pursuant to such process, shall comply with the terms and conditions, including fees and charges, applicable to the original authorised entity, and such other terms and conditions, as may be prescribed.
5. Section 3(6) of the Telecommunications Act 2023 provides that a licence, registration, permission, by whatever name called, granted prior to the appointed day under the Indian Telegraph Act, 1885, in respect of provision of telecommunication services shall be entitled to continue to operate under the terms and conditions and for the duration as specified under such licence or registration or

permission, or to migrate to such terms and conditions of the relevant authorisation, as may be prescribed.

6. TRAI Recommendations on 'Rationalization of Entry Fee and Bank Guarantees' dated 19.09.2023 have been received and same are under consideration of the Government. Meanwhile, a reference dated 21.06.2024, to TRAI, has been sent for seeking its recommendations on terms and conditions, including fees or charges, for authorisation to provide telecommunication services under section 3(1)(a) of the Telecommunications Act 2023.

Another reference for seeking recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to establish, operate, maintain or expand telecommunication network under section 3(1)(b) of the Telecommunications Act 2023, is being sent along with this note.

Accordingly, the issues relating to Entry Fee and Bank Guarantees may also be revisited along with the fee or charges for different types of authorizations

- 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.
 - iii. Reference agreement between authorized entities establishing, operating, maintaining or expanding the telecommunication network and authorized entities providing telecommunication services.
 - iv. Latest developments in the field of telecommunications such as cloud hosted telecommunication networks being used to provide Unified Communications as a Service (UCaaS) & Communications Platform as a Service (CPaaS), virtualisation of telecommunication networks, Ground Station as a Service (GSaaS) as envisaged under the Indian Space Policy 2023, etc.
 - v. Rationalization of Entry Fee and Bank Guarantees for various authorizations in view of the provisions of the Telecommunications Act 2023.
8. Many other Sections of the Telecommunications Act 2023 may have, either direct or indirect, linkages with the terms and conditions of the authorisation to establish, operate, maintain or expand telecommunication network. Some of these Sections of the Telecommunications Act 2023 are 4 to 9, 19 to 24, 32 to 42, 44, 45, 49, and 55. Many terms and conditions of the extant licensing and regulatory framework relates to different Sections of the Telecommunications Act 2023. Further, some of the terms and conditions may be required to be amended/incorporated in light of certain new provisions in this Act and policy/Act in related sectors such as Space. The possibility of reducing the number of authorisations and simplification/merger/rationalization of the terms and conditions to improve Ease of Doing Business, may also be examined.

Annexure 1.2

DoT's letter dated 17.10.2024

**F. No. 20-1350/2024 AS-I (Vol.-II)
Government of India
Ministry of Communications
Department of Telecommunications
(Licensing Policy Division)
20-Ashoka Road, New Delhi-110001**

Dated: 17.10.2024

Subject: Seeking 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 – regarding

Reference: Reference vide F. No. 20-1350/2024 AS-I (Vol.-II) dated 26.07.2024 for seeking 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 (enclosed)

1. As per the background note of the reference dated 26.07.2024, in para 7(ii), TRAI has been requested to consider its earlier recommendations on Satellite Earth Station Gateway (SESG) also, while formulating the recommendations sought vide reference dated 26.07.2024.
2. In this regard, keeping in view the increasing use of NTN (Non terrestrial networks) including satellite communication networks in provisioning of FSS (Fixed Satellite Services) including VSAT services and MSS (Mobile Satellite Services), TRAI may consider an authorisation for satellite communication network under section 3(1)(b) of the Telecommunications Act 2023 along with the following:
 - a. Terms and conditions relating to such authorisation
 - b. Provision of assignment of spectrum for both feeder link as well as user link under such authorisation
 - c. Service area of such authorisation
3. This authorisation for satellite communication network under section 3(1)(b) of the Telecommunications Act 2023 may be used to provide services to entities authorised under section 3(1)(a) of the Telecommunications Act 2023.

4. It is also requested to expedite the recommendations sought vide reference dated 26.07.2024 as the statutory 60 days period has already expired.
5. This issues with the approval of competent authority.

Encl: As above


(Sunil Kumar Singhal)
Deputy Director General (LP)
Phone: 23036836

To,
The Secretary
Telecom Regulatory Authority of India
7th Floor, Tower-F,
World Trade Centre, Nauroji Nagar,
New Delhi: 110029

Annexure 2.1

The Telecommunications Act, 2023

रजिस्ट्री सं० डी० एल—(एन)04/0007/2003—23

REGISTERED NO. DL—(N)04/0007/2003—23



सी.जी.-डी.एल.-अ.-24122023-250880
CG-DL-E-24122023-250880

असाधारण
EXTRAORDINARY
भाग II — खण्ड 1
PART II — Section 1
प्राधिकार से प्रकाशित
PUBLISHED BY AUTHORITY

सं० 52] नई दिल्ली, रविवार, दिसम्बर 24, 2023/पौष 3, 1945 (शक)
No. 52] NEW DELHI, SUNDAY, DECEMBER 24, 2023/PAUSHA 3, 1945 (SAKA)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके।
Separate paging is given to this Part in order that it may be filed as a separate compilation.

MINISTRY OF LAW AND JUSTICE (Legislative Department)

New Delhi, the 24th December, 2023/Pausha 3, 1945 (Saka)

The following Act of Parliament received the assent of the President on the 24th December, 2023 and is hereby published for general information:—

THE TELECOMMUNICATIONS ACT, 2023

No. 44 OF 2023

[24th December, 2023.]

An Act to amend and consolidate the law relating to development, expansion and operation of telecommunication services and telecommunication networks; assignment of spectrum; and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Seventy-fourth Year of the Republic of India as follows:—

CHAPTER I

PRELIMINARY

1. (1) This Act may be called the Telecommunications Act, 2023.

(2) It extends to,—

(i) the whole of India; and

(ii) to any offence committed or contravention made outside India by any person, as provided in this Act.

(3) It shall come into force on such date as the Central Government may, by notification in the Official Gazette, appoint and different dates may be appointed for different provisions of this Act and any reference in any such provision to the commencement of this Act shall be construed as a reference to the commencement of that provision.

Short title,
extent and
commencement.

Definitions.

2. In this Act, unless the context otherwise requires,—

(a) "appointed day" means such date as the Central Government may, by notification appoint under sub-section (3) of section 1;

(b) "assignment" of a radio frequency or radio frequency channel means the permission for a radio station to use a radio frequency or radio frequency channel under specified conditions;

(c) "assignee" means a person holding an assignment of a radio frequency or radio frequency channel under section 4;

(d) "authorisation" means a permission, by whatever name called, granted under this Act for—

(i) providing telecommunication services;

(ii) establishing, operating, maintaining or expanding telecommunication networks; or

(iii) possessing radio equipment;

(e) "authorised entity" means a person holding an authorisation under section 3;

(f) "critical telecommunication infrastructure" means telecommunication networks notified under sub-section (3) of section 22;

(g) "message" means any sign, signal, writing, text, image, sound, video, data stream, intelligence or information sent through telecommunication;

(h) "National Frequency Allocation Plan" means guidelines issued from time to time by the Central Government for the use of the spectrum;

(i) "notification" means a notification published in the Official Gazette and the expression "notified" shall be construed accordingly;

(j) "person" shall include an individual, any company or association or body of individuals, whether incorporated or not, by whatsoever name called or referred to;

(k) "prescribed" means prescribed by rules made under this Act;

(l) "radio equipment" means telecommunication equipment used or capable of use for telecommunication by means of Hertzian or radio waves;

(m) "radio waves" means electromagnetic waves of frequencies propagated in space without any artificial guide;

(n) "Schedule" means a schedule to this Act;

(o) "spectrum" means the range of frequencies of Hertzian or radio waves;

(p) "telecommunication" means transmission, emission or reception of any messages, by wire, radio, optical or other electro-magnetic systems, whether or not such messages have been subjected to rearrangement, computation or other processes by any means in the course of their transmission, emission or reception;

(q) "telecommunication equipment" means any equipment, appliance, instrument, device, radio station, radio equipment, material, apparatus, or user equipment, that may be or is being used for telecommunication, including software and intelligence integral to such telecommunication equipment; and excludes such equipment as may be notified by the Central Government;

(r) "telecommunication identifier" means a series of digits, characters and symbols, or a combination thereof, used to identify uniquely a user, a

telecommunication service, a telecommunication network, elements of a telecommunication network, telecommunication equipment, or an authorised entity;

(s) "telecommunication network" means a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite networks or submarine networks, or a combination of such networks, used or intended to be used for providing telecommunication services, but does not include such telecommunication equipment as notified by the Central Government;

(t) "telecommunication service" means any service for telecommunication;

(u) "user" means a natural or legal person using or requesting a telecommunication service, but does not include person providing such telecommunication service or telecommunication network.

CHAPTER II

POWERS OF AUTHORISATION AND ASSIGNMENT

3. (1) Any person intending to—

Authorisation.

(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.

(2) The Central Government may while making rules under sub-section (1) provide for different terms and conditions of authorisation for different types of telecommunication services, telecommunication network or radio equipment.

(3) The Central Government, if it determines that it is necessary in the public interest so to do, may provide exemption from the requirement of authorisation under sub-section (1), in such manner as may be prescribed.

13 of 1885.
17 of 1933. (4) Any exemption granted prior to the appointed day under the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933 shall continue under this Act, unless otherwise notified by the Central Government.

(5) Any authorised entity may undertake any merger, demerger or acquisition, or other forms of restructuring, subject to any law for the time being in force and any authorised entity that emerges pursuant to such process, shall comply with the terms and conditions, including fees and charges, applicable to the original authorised entity, and such other terms and conditions, as may be prescribed.

13 of 1885.
17 of 1933. (6) A licence, registration, permission, by whatever name called, granted prior to the appointed day under the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933, in respect of provision of telecommunication services or telecommunication network—

(a) where a definite validity period is given, shall be entitled to continue to operate under the terms and conditions and for the duration as specified under such licence or registration or permission, or to migrate to such terms and conditions of the relevant authorisation, as may be prescribed; or

(b) 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.

(7) Any authorised entity which provides such telecommunication services as may be notified by the Central Government, shall identify the person to whom it provides telecommunication services through use of any verifiable biometric based identification as may be prescribed.

(8) The Central Government may, subject to such terms and conditions, including fees or charges as may be prescribed, allot telecommunication identifiers for use by authorised entities.

(9) The Central Government may allow use of telecommunication identifiers allotted by international bodies which are recognised by the Central Government from time to time.

Assignment
of spectrum.

4. (1) The Central Government, being the owner of the spectrum on behalf of the people, shall assign the spectrum in accordance with this Act, and may notify a National Frequency Allocation Plan from time to time.

(2) Any person intending to use spectrum shall require an assignment from the Central Government.

(3) The Central Government may prescribe such terms and conditions as may be applicable, for such assignment of spectrum, including the frequency range, methodology for pricing, price, fees and charges, payment mechanism, duration and procedure for the same.

(4) The Central Government shall assign spectrum for telecommunication through auction except for entries listed in the First Schedule for which assignment shall be done by administrative process.

Explanation.—For the purposes of this sub-section,—

(a) "administrative process" means assignment of spectrum without holding an auction;

(b) "auction" means a bid process for assignment of spectrum.

(5) (a) The Central Government may, by notification, amend the First Schedule for assignment of spectrum—

(i) in order to serve public interest; or

(ii) in order to perform government function; or

(iii) in cases where auction of spectrum is not the preferred mode of assignment due to technical or economic reasons.

(b) The notification referred to in clause (a) shall be laid before each House of Parliament.

(6) The Central Government, if it determines that it is necessary in the public interest so to do, may exempt,—

(a) from the requirement of assignment under sub-section (2), in such manner as may be prescribed; and

(b) by notification, specific usages within specified frequencies and parameters, from the requirements of sub-section (2).

(7) Any exemption with respect to use of spectrum granted under the Indian Telegraph Act, 1885 and the Indian Wireless Telegraphy Act, 1933 prior to the appointed day, shall continue under this Act, unless otherwise notified by the Central Government. 13 of 1885.
17 of 1933.

(8) Any spectrum assigned through the administrative process prior to the appointed day, shall continue to be valid on the terms and conditions on which it had been assigned, for a period of five years from the appointed day, or the date of expiry of such assignment, whichever is earlier.

(9) Any spectrum assigned through auction prior to the appointed day, shall continue to be valid on the terms and conditions on which it had been assigned.

5. The Central Government may, to enable more efficient use of spectrum, re-farm or harmonise any frequency range assigned under section 4, subject to such terms and conditions, as may be prescribed.

Re-farming
and
harmonisation.

Explanation.—For the purposes of this section,—

(a) "harmonisation" means rearrangement of a frequency range;

(b) "re-farming" means repurposing of a frequency range for a different use, other than that for which it is used by an existing assignee.

6. 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.

Technologically
neutral use of
spectrum.

7. (1) The Central Government may, to promote optimal use of the available spectrum, assign a particular part of a spectrum that has already been assigned to an entity, known as the primary assignee, to one or more additional entities, known as the secondary assignees, where such secondary assignment does not cause harmful interference in the use of the relevant part of the spectrum by the primary assignee, subject to such terms and conditions as may be prescribed.

Optimal
utilisation of
spectrum.

(2) The Central Government may, notwithstanding anything contained in any other law for the time being in force, after providing a reasonable opportunity of being heard to the assignee concerned, determine that any assigned spectrum has remained unutilised for insufficient reasons for such period as may be prescribed, terminate such assignment, or a part of such assignment, or prescribe further terms and conditions relating to spectrum utilisation.

8. (1) The Central Government may establish by notification, such monitoring and enforcement mechanism as it may deem fit to ensure adherence to terms and conditions of spectrum utilisation and enable interference-free use of the assigned spectrum.

Establishment
of monitoring
and
enforcement
mechanism.

(2) The Central Government may permit the sharing, trading, leasing and surrender of assigned spectrum, subject to the terms and conditions, including applicable fees or charges, as may be prescribed.

9. No person shall be entitled to the refund of any fees or charges paid in respect of or under an authorisation or assignment granted under this Act, if such authorisation or assignment is suspended, curtailed, revoked or varied.

No refund of
fees.

CHAPTER III

RIGHT OF WAY FOR TELECOMMUNICATION NETWORK

10. For the purpose of this Chapter,—

Definition of
terms used in
this Chapter.

(a) "facility provider" means the Central Government or any authorised entity, including any contractor or sub-contractor or agent working for the Central Government or authorised entity, and shall include their successor or assignee;

(b) "public entity" means,—

(i) the Central Government;

(ii) the State Government;

(iii) local authority;

(iv) any authority, body, company or institution incorporated or established by the Central Government or the State Government, or under any statute; or

(v) any non-government entity vested with the ownership, control or management of any public facility or class of public facilities, as may be notified by the Central Government;

(c) "public property" means any property, whether movable or immovable including any machinery, which is owned by, or in the possession of, or under the control or management of any public entity.

Right of way
for
telecommunication
network in
public property.

11. (1) Any facility provider may submit an application to a public entity under whose ownership, control or management, the public property is vested, to seek permissions for right of way for telecommunication network under, over, along, across, in or upon such public property.

(2) On receipt of an application from a facility provider under sub-section (1), the public entity shall, subject to the provisions of sub-section (4), grant permission for all or any of the following acts, namely:—

(a) survey such property for the purpose of assessing the feasibility for establishing telecommunication network; or

(b) enter the property from time to time to establish, operate, maintain, repair, replace, augment, remove or relocate any telecommunication network.

(3) The public entity shall grant permission under sub-section (2) in an expeditious manner and within such timelines as may be prescribed, and subject to such administrative expenses and compensation for right of way, which shall not exceed such amount as may be prescribed.

(4) Any rejection of an application under sub-section (1) shall be based on reasonable grounds to be recorded in writing.

(5) The facility provider shall do as little damage as possible to the public property, and ensure that the functionality and continuity of operations over such public property is not adversely affected, while undertaking any of the activities for which permission has been granted under sub-section (2).

(6) If any damage is caused to the property, the facility provider shall, at the option of the public entity, either,—

(a) restore such property to its state as existed prior to the undertaking of such activities; or

(b) pay compensation for such damage as may be mutually agreed.

(7) The provisions of this section shall be applicable to any public property vested for such projects or class of projects as notified by the Central Government, in respect of which, applications under sub-section (1) shall be made to the public entity granting the concession, contract or permission for such projects.

Right of way
for
telecommunication
network on
property not
covered under
section 11.

12. (1) Any facility provider may submit an application to the person under whose ownership, control or management of property not covered under section 11 is vested, to seek right of way for telecommunication network under, over, along, across, in or upon such property.

(2) On receipt of an application from a facility provider, the person receiving the application may enter into an agreement, specifying consideration as mutually agreed, for—

(a) undertaking surveys as may be required by the facility provider for the purpose of assessing the feasibility for establishing telecommunication network; or

(b) establishing, operating, maintaining, repairing, replacing, augmenting, removing or relocating any telecommunication network by the facility provider.

(3) The facility provider shall do as little damage as possible to the property when undertaking any of the activities for which permission has been granted under sub-section (2).

(4) In case of any damage to the property, the facility provider shall restore such property to its state as existed prior to the undertaking of such activities, failing which the person granting permission under sub-section (2), shall be entitled to compensation as may be mutually agreed, for any such damage.

(5) The Central Government may by rules provide for the procedure to be followed by a facility provider to enter, survey, establish, operate, maintain, repair, replace or relocate the telecommunication network, including the notice period, the manner of issuance of notice, the framework governing objections by owner or occupier of the property, the manner in which such objections would be resolved, and matters relating to the compensation payable for any damage.

(6) If the person under sub-section (2) fails to provide the right of way requested, and the Central Government determines that it is necessary so to do in the public interest, it may, either by itself or through any other authority designated by the Central Government for this purpose, determine that such facility provider shall be permitted the right of way to establish, operate, maintain such telecommunication network, subject to such terms and conditions, including charges for the right of way, and compensation for damage to the property, if any, to be payable to such person as may be prescribed.

13. Any person providing right of way under section 11 or section 12, shall ensure grant of right of way to the facility providers in a non-discriminatory manner and, as far as practicable, on a non-exclusive basis.

Non-discriminatory and non-exclusive grant of right of way.

14. (1) A facility provider shall not have any right, title or interest in the property on which telecommunication network is established, except the right to use the property as provided under section 11 or section 12.

Telecommunication network distinct from property on which it is installed.

(2) The telecommunication network installed on any property, shall not be subject to any claims, encumbrances, liquidation or the like, relating to such property.

(3) The telecommunication network installed on any property, shall not be considered as part of such property, including for the purposes of any transaction related to that property, or any property tax, levy, cess, fees or duties as may be applicable on that property.

(4) Notwithstanding anything contained in any other law for the time being in force, no public entity, except with the permission of an officer authorised by the Central Government for this purpose, shall have the authority to take any coercive action, such as sealing, preventing access, or forcible shutdown of the telecommunication network established by an authorised entity, except where such actions may be necessary to deal with any natural disaster or public emergency.

15. (1) The Central Government may notify infrastructure projects or class of infrastructure projects, whether being developed by a public entity by itself, through a public private partnership or by any other person, that may require establishment of common ducts or conduits or cable corridors, for installation of telecommunication network.

Power of Central Government to establish common ducts and cable corridors.

(2) The telecommunication network referred to in sub-section (1) shall be made available on open access basis to facility providers, subject to such terms and conditions, including fees and charges, as may be prescribed.

Removal,
relocation or
alteration of
telecommunication
network.

16. (1) Where, under section 11 or section 12, telecommunication network has been placed by the facility provider, under, over, along, across, in or upon any property, and any person entitled to do so desires to deal with that property in such a manner so as to render it necessary or convenient that the telecommunication network should be removed or relocated to another part thereof or to a higher or lower level or altered in form, he may require the facility provider to remove, relocate or alter the telecommunication network accordingly.

(2) If compensation has been paid under sub-section (6) of section 11, or sub-section (4) of section 12, such person shall, when making the requisition under sub-section (1), tender to the facility provider the amount requisite to defray the expense of the removal, relocation or alteration on such terms as may be mutually agreed.

(3) If any dispute arises under this Chapter, the matter shall be determined by the authority referred to in sub-section (2) of section 18.

(4) If the facility provider omits to comply with the requisition, the person making such requisition, may apply to the District Magistrate within whose jurisdiction the property is situated, to order the relocation or alteration.

(5) The District Magistrate receiving the application may, at its discretion and for reasons to be recorded in writing, approve or reject such relocation or alteration, subject to such conditions as it determines fit, including the relocation of the telecommunication network to any other part of the property or to a higher or lower level or for the alteration of its form, and the order so made shall be final.

Notice to
facility
provider.

17. (1) Any person desiring to exercise his right to deal with his property in such a manner as is likely to cause damage or to interrupt or interfere with the telecommunication network established under the provisions of this Act, or to interrupt or interfere with telecommunication services, shall give prior notice of such duration and in such manner, as may be prescribed, to the facility provider, the Central Government or to any authority that may be notified by the Central Government.

(2) The facility provider shall respond to such notice with details of such telecommunication network and precautionary measures to be undertaken, within such timelines as may be prescribed.

(3) Where a person referred to in sub-section (1) gives a notice of his exercise of the right relating to his property with the *bona fide* intention of averting imminent danger of personal injury to himself or any other person, such person shall be deemed to have complied with the provisions of the said sub-section.

(4) Any person who fails to comply with the provisions of sub-section (1), or deals with any property in such a manner as is likely to cause, or causes, damage to any telecommunication network, or is likely to interrupt or interfere, or interrupts or interferes with telecommunication services, a District Magistrate may, on the application of the facility provider, order such person to abstain from dealing with such property in such manner for a period not exceeding one month from the date of his order and forthwith to take such action with regard to such property as may be in the opinion of the District Magistrate necessary to remedy or prevent such damage, interruption or interference during such period.

(5) If any dispute arises relating to damages, the matter shall be determined by the authority referred to under sub-section (2) of section 18.

Dispute
resolution
relating to this
Chapter.

18. (1) The District Magistrate, or any other authority as notified by the Central Government, within whose jurisdiction the property is situated, shall have the exclusive powers to resolve any disputes under this Chapter, except for disputes referred to under sub-section (2) of this section.

(2) If any dispute arises relating to compensation under sub-section (6) of section 11, sub-section (2) and sub-section (4) of section 12, and sub-section (5) of section 17, it shall, on an application made for that purpose by either of the disputing parties to the District Judge within whose jurisdiction the property is situated, be determined by him.

(3) Every determination of a dispute by a District Magistrate or District Judge under this section, shall be final.

(4) Nothing in sub-section (3) shall affect the right of any person to recover by suit the whole or any part of any compensation paid by the facility provider, from the person who has received the same.

CHAPTER IV

STANDARDS, PUBLIC SAFETY, NATIONAL SECURITY AND PROTECTION OF TELECOMMUNICATION NETWORKS

19. The Central Government may notify standards and conformity assessment measures in respect of—

Power to notify standards.

(a) telecommunication equipment, telecommunication identifiers and telecommunication network;

(b) telecommunication services, in consonance with any regulations notified by the Telecom Regulatory Authority of India from time to time;

(c) manufacture, import, distribution and sale of telecommunication equipment;

(d) telecommunication security, including identification, analysis and prevention of intrusion in telecommunication services and telecommunication networks;

(e) cyber security for telecommunication services and telecommunication networks; and

(f) encryption and data processing in telecommunication.

20. (1) On the occurrence of any public emergency, including disaster management, or in the interest of public safety, the Central Government or a State Government or any officer specially authorised in this behalf by the Central Government or a State Government, if satisfied that it is necessary or expedient so to do, by notification—

Provisions for public emergency or public safety.

(a) take temporary possession of any telecommunication service or telecommunication network from an authorised entity; or

(b) provide for appropriate mechanism to ensure that messages of a user or group of users authorised for response and recovery during public emergency are routed on priority.

(2) On the occurrence of any public emergency or in the interest of public safety, the Central Government or a State Government or any officer specially authorised in this behalf by the Central Government or a State Government, may, if satisfied that it is necessary or expedient so to do, in the interest of the sovereignty and integrity of India, defence and security of the State, friendly relations with foreign States, public order, or for preventing incitement to the commission of any offence, subject to such procedure and safeguards as may be prescribed, and for reasons to be recorded in writing, by order—

(a) direct that any message or class of messages, to or from any person or class of persons, to or from any telecommunication equipment or class of telecommunication equipment, or relating to any particular subject, brought for

transmission by, or transmitted or received by any telecommunication service or telecommunication network, shall not be transmitted, or shall be intercepted or detained, or shall be disclosed in intelligible format to the officer mentioned in such order; or

(b) direct that any telecommunication service or class of telecommunication services to or from any person or class of persons, to or from any telecommunication equipment or class of telecommunication equipment, or relating to any particular subject, transmitted or received by any telecommunication service or telecommunication network, shall be suspended.

(3) The press messages, intended to be published in India, of correspondents accredited to the Central Government or a State Government shall not be intercepted or detained, unless their transmission has been prohibited under clause (a) of sub-section (2).

(4) The action specified under sub-section (1), sub-section (2) and sub-section (3) shall be for such duration and in such manner as may be prescribed.

Measures for
national
security, etc.

21. The Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of the following, namely:—

(a) use of telecommunication equipment, telecommunication services, telecommunication network and telecommunication identifiers;

(b) standards applicable to manufacture, import and distribution of telecommunication equipment;

(c) standards to be adopted by authorised entities or assignees;

(d) procurement of telecommunication equipment and telecommunication services only from trusted sources;

(e) suspension, removal or prohibition of the use of specified telecommunication equipment and telecommunication services from countries or person as may be notified; or

(f) taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any or all of any telecommunication services, or any telecommunication network or part thereof, connected with such telecommunication services.

Protection of
telecommunication
network and
telecommunication
services.

22. (1) The Central Government may by rules provide for the measures to protect and ensure cyber security of telecommunication networks and telecommunication services.

(2) The measures may include collection, analysis and dissemination of traffic data that is generated, transmitted, received or stored in telecommunication networks.

Explanation.—For the purposes of this sub-section, the expression "traffic data" means any data generated, transmitted, received or stored in telecommunication networks including data relating to the type, routing, duration or time of a telecommunication.

(3) The Central Government may, by notification in the Official Gazette, declare any telecommunication network, or part thereof, as Critical Telecommunication Infrastructure, disruption of which shall have debilitating impact on national security, economy, public health or safety.

(4) The Central Government may by rules provide for the standards, security practices, upgradation requirements and procedures to be implemented for such Critical Telecommunication Infrastructure.

23. If it appears necessary or expedient so to do in the public interest, the Central Government may direct any authorised entity to transmit in its telecommunication services or telecommunication network, specific messages, in such manner as may be specified.

Power to give directions.

CHAPTER V

DIGITAL BHARAT NIDHI

13 of 1885. 24. (1) The Universal Service Obligation Fund created under the Indian Telegraph Act, 1885, shall, from the appointed day, be the "Digital Bharat Nidhi", under the control of the Central Government, and shall be used to discharge functions as set forth in this Act.

Establishment of Digital Bharat Nidhi.

(2) Any sums of money attributable to the Digital Bharat Nidhi that is paid pursuant to an authorisation under section 3, shall be credited to the Digital Bharat Nidhi.

(3) The balance to the credit of the Digital Bharat Nidhi shall not lapse at the end of the financial year.

(4) All amounts payable under licences granted prior to the appointed day towards the Universal Service Obligation, shall be deemed to be the amounts payable towards the Digital Bharat Nidhi.

25. The sums of money received towards the Digital Bharat Nidhi under section 24, shall first be credited to the Consolidated Fund of India, and the Central Government may, if Parliament by appropriation made by law in this behalf so provides, credit such proceeds to the Digital Bharat Nidhi from time to time for being utilised exclusively to meet any or all of the following objectives, namely:—

Crediting of sum to Consolidated Fund of India.

(a) support universal service through promoting access to and delivery of telecommunication services in underserved rural, remote and urban areas;

(b) support research and development of telecommunication services, technologies, and products;

(c) support pilot projects, consultancy assistance and advisory support towards provision of service under clause (a) of this section;

(d) support introduction of telecommunication services, technologies, and products.

26. The Digital Bharat Nidhi shall be administered in a manner, as may be prescribed.

Administration of Digital Bharat Nidhi.

CHAPTER VI

INNOVATION AND TECHNOLOGY DEVELOPMENT

27. The Central Government may, for the purposes of encouraging and facilitating innovation and technological development in telecommunication, create one or more regulatory sandboxes, in such manner, and for such duration, as may be prescribed.

Regulatory sandbox.

Explanation.—For the purposes of this section, the expression "regulatory sandbox" refers to a live testing environment where new products, services, processes and business models which may be deployed, on a limited set of users, for a specified period of time, with certain relaxations from the provisions of this Act.

CHAPTER VII

PROTECTION OF USERS

Measures for protection of users.

28. (1) For the purposes of this section, "specified message" means any message offering, advertising or promoting goods, services, interest in property, business opportunity, employment opportunity or investment opportunity, whether or not—

(a) the goods, services, interest, or opportunity are real; or

(b) it is lawful to acquire such goods, services, property, interest or take up the opportunity.

(2) The Central Government may by rules provide for measures for protection of users, in consonance with any regulations notified by the Telecom Regulatory Authority of India from time to time, including measures such as—

(a) the prior consent of users for receiving certain specified messages or class of specified messages;

(b) the preparation and maintenance of one or more registers, to be called as "Do Not Disturb" register, to ensure that users do not receive specified messages or class of specified messages without prior consent; or

(c) the mechanism to enable users to report any malware or specified messages received in contravention of this section.

(3) An authorised entity providing telecommunication services shall establish an online mechanism to enable users to register any grievance pertaining to the telecommunication service, and redressal of such grievances, in such manner as may be prescribed.

Duty of users.

29. No user shall—

(a) furnish any false particulars, suppress any material information, or impersonate another person, while establishing his identity for availing of telecommunication services; or

(b) fail to share information as required under this Act.

Dispute resolution mechanism to redress user grievances.

30. (1) The Central Government may establish or approve one or more online dispute resolution mechanisms for the resolution of disputes between users and authorised entities providing telecommunication services.

(2) Every authorised entity providing telecommunication services shall participate in the dispute resolution mechanism established under sub-section (1), and shall comply with such terms and conditions of participation in such mechanism as may be prescribed.

(3) This section shall not affect the rights of consumers under the Consumer Protection Act, 2019.

35 of 2019.

CHAPTER VIII

ADJUDICATION OF CERTAIN CONTRAVENTIONS

Definitions of terms used in this Chapter.

31. For the purposes of this Chapter,—

(a) "Adjudicating Officer" means an officer appointed under section 35; and

(b) "Designated Appeals Committee" means the committee appointed under section 36.

Breach of terms and conditions of authorisation or assignment.

32. (1) In case of breach of any of the terms and conditions of authorisation or assignment granted under this Act, the Adjudicating Officer shall, pursuant to an inquiry under the provisions of this Chapter—

(a) pass an order in writing in respect of one or both of the following, namely:—

(i) direct such authorised entity, or assignee to do or abstain from doing any act or thing to prevent such breach or for such compliance;

(ii) impose civil penalties as specified in the Second Schedule; and

(b) make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation or assignment.

(2) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer under clause (b) of sub-section (1), suspend, curtail or revoke the authorisation or assignment, as the case may be, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.

(3) While imposing penalties specified in the Second Schedule under this section and section 33, the Adjudicating Officer shall have due regard to the following factors, namely:—

(a) nature, gravity and duration of the contravention, taking into account the scope of the contravention;

(b) number of persons affected by such contravention, and the level of harm suffered by them;

(c) intentional or negligent character of the contravention;

(d) repetitive nature of the contravention;

(e) action taken by the concerned person to mitigate the contravention, including by providing a voluntary undertaking under sub-section (1) or sub-section (2) of section 34;

(f) revenue loss caused to the Central Government;

(g) any aggravating factors relevant to the circumstances of the case, such as the amount of disproportionate gain or unfair advantage, wherever quantifiable, made as a result of the contravention; and

(h) any mitigating factors relevant to the circumstances of the case, such as the timely rectification of the contravention, or steps taken for the avoidance of loss as a result of the contravention.

33. (1) The Adjudicating Officer shall, upon receipt of a complaint in such form, manner and accompanied by such fees as may be prescribed, relating to contravention of this Act as specified in the Third Schedule, or *suo motu*, conduct an inquiry under the provisions of this Chapter, pass an order in writing specifying the civil penalty up to an amount as specified in the Third Schedule, payable by the person committing such contravention.

Contraventions
of Act.

(2) The provisions of the Third Schedule shall apply to the abetment of, or attempt to commit, or conspiracy to commit such contravention, as they apply to such contravention.

34. (1) Any authorised entity or assignee committing the contravention as provided under section 32 or under serial No. 4 of the Third Schedule may, prior to any notice or initiation of process of determination of such contravention, submit a voluntary undertaking to the Adjudicating Officer, disclosing such contravention and measures taken or to be taken to mitigate such contravention.

Voluntary
undertaking
for
contraventions.

(2) The acceptance of voluntary undertaking given under sub-section (1), subject to the provisions of sub-section (6), shall constitute a bar on proceedings under this Chapter.

(3) Where the Adjudicating Officer has reasonable grounds to believe that a contravention as provided under section 32 or under serial No. 4 of the Third Schedule may have occurred, then it shall serve a notice to the authorised entity or assignee concerned under the relevant section.

(4) At any time during the process of hearing under sub-section (3), the authorised entity or assignee, may, submit a voluntary undertaking specifying the mitigation measures it proposes to take in respect of such contravention.

(5) The acceptance of the voluntary undertaking submitted under sub-section (4), subject to the provisions of sub-section (6), shall be construed as a mitigation measure and shall be duly considered for the purpose of determination of civil penalties under clause (a) of sub-section (1) of section 32, or under serial No. 4 of the Third Schedule.

(6) The voluntary undertaking under sub-section (1) or sub-section (4) of this section, may include an undertaking to take a specified action within a specified time; an undertaking to refrain from taking a specified action; and an undertaking to publicise the voluntary undertaking.

(7) The Adjudicating Officer may accept the voluntary undertaking under sub-section (1) or sub-section (4), or with the agreement of the authorised entity or assignee providing the voluntary undertaking, vary the terms included in such voluntary undertaking.

(8) When the authorised entity or assignee providing a voluntary undertaking fails to comply with any terms of such undertaking, the Adjudicating Officer may, after giving such authorised entity or assignee a reasonable opportunity of being heard, proceed with imposition of civil penalties specified under the Second Schedule or the Third Schedule, as applicable.

Adjudicating
Officer.

35. (1) For the purposes of this Chapter, the Central Government shall, by an order published in the Official Gazette, appoint any officer of the Central Government not below the rank of Joint Secretary as one or more Adjudicating Officers for holding an inquiry in such manner as may be prescribed.

(2) The Adjudicating Officer may, upon the holding of such inquiry, pass such order as he deems fit in accordance with the provisions of section 32 or section 33.

Designated
Appeals
Committee.

36. (1) The Central Government may, by an order published in the Official Gazette, appoint officers of the Central Government not below the rank of Additional Secretary, as members of one or more Designated Appeals Committee to which any person aggrieved by an order made by the Adjudicating Officer under sub-section (1) of section 32 or under section 33, may prefer an appeal.

(2) Every appeal under sub-section (1) shall be filed within a period of thirty days from the date on which the copy of the order made by the Adjudicating Officer is received by the aggrieved person, and shall be in such form, manner and be accompanied by such fees as may be prescribed.

Process to be
followed by
Adjudicating
Officer and
Designated
Appeals
Committee.

37. (1) The functioning of the Adjudicating Officer and the Designated Appeals Committee shall, as far as possible, be digital by design and they shall function as digital offices and deploy such techno-legal measures as may be prescribed, to enable online process for their functioning.

(2) The Adjudicating Officer and Designated Appeals Committee shall have the same powers as a civil court, and all proceedings before it shall be deemed to be judicial proceedings within the meaning of sections 193 and 228 of the Indian Penal Code.

Enforcement.

38. Any order made by the Adjudicating Officer or the Designated Appeals Committee shall be executable in the same manner as if it were a decree of civil court; and such orders shall be deemed to be final decrees under this section on the expiry of the period allowed for preferring an appeal against such orders as provided in section 36 and section 39.

45 of 1860.

- 24 of 1997. 39. Any person aggrieved by an order of the Designated Appeals Committee under section 36, in so far as it pertains to matters under sub-section (1) of section 32, or an order of the Central Government under sub-section (2) of section 32, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by such authorised entity or assignee. Appeals on matters relating to section 32.
40. Any person aggrieved by an order of the Designated Appeals Committee under section 36, in so far as it pertains to matters under section 33, may prefer an appeal to any civil court having jurisdiction over the matter. Appeals on matters relating to section 33.
41. No civil court shall have jurisdiction in respect of any matter which the Adjudicating Officer, the Designated Appeals Committee, the Central Government or the Telecom Disputes Settlement and Appellate Tribunal are empowered by or under this Chapter to determine. Jurisdiction of civil court barred.

CHAPTER IX

OFFENCES

42. (1) Whoever provides telecommunication services or establishes telecommunication network without authorisation under sub-section (1) of section 3, or causes damage to critical telecommunication infrastructure shall be punishable with imprisonment for a term which may extend to three years, or with fine which may extend up to two crore rupees, or with both. General provisions relating to offences.
- (2) Whoever directly or indirectly or through personation—
- (a) gains or attempts to gain unauthorised access to a telecommunication network or to data of an authorised entity or transfers data of an authorised entity; or
- (b) intercepts a message unlawfully,
- shall be punishable with imprisonment for a term which may extend to three years, or with fine which may extend up to two crore rupees, or with both.
- Explanation.*—For the purposes of this sub-section,—
- (i) the expression "personation" shall have the same meaning as assigned to it under section 416 of the Indian Penal Code;
- (ii) data of an authorised entity includes call data records, internet protocol data records, traffic data, subscriber data records and the like.
- (3) Whoever,—
- (a) possesses or uses without an authorisation, any equipment that blocks telecommunication;
- (b) uses telecommunication identifiers not allotted or permitted in accordance with sub-sections (8) and (9) of section 3;
- (c) tampers with telecommunication identifiers;
- (d) possesses radio equipment without an authorisation or an exemption that can accommodate more than specified number of subscriber identity modules;
- (e) obtains subscriber identity modules or other telecommunication identifiers through fraud, cheating or personation;
- (f) wilfully possesses radio equipment knowing that it uses unauthorised or tampered telecommunication identifiers,
- 45 of 1860.

shall be punishable with imprisonment for a term which may extend to three years, or with fine which may extend up to fifty lakh rupees, or with both.

(4) Whoever wilfully contravenes any measures specified in the notification on national security under section 21 shall be punishable with imprisonment for a term which may extend to three years, or with fine which may extend up to two crore rupees, or with both and the Central Government may, if it deems fit, also suspend or terminate the telecommunication service of such person.

(5) Whoever causes damage to telecommunication network, other than critical telecommunication infrastructure shall be liable for compensation for the damage caused and fine which may extend up to fifty lakh rupees.

(6) Whoever abets any offence, or attempts to commit, or conspires to commit an offence under this Act, shall if the act abetted or conspired is committed in consequence of such abetment or conspiracy, be punished with the punishment provided for the offence.

(7) Notwithstanding anything contained in the Code of Criminal Procedure, 1973, all offences specified under this section shall be cognizable and non-bailable.

2 of 1974.

(8) No court inferior to that of a Chief Metropolitan Magistrate or a Chief Judicial Magistrate of first class shall try any offence punishable under this Act.

Power to search.

43. Any officer authorised by the Central Government in this behalf, may search any building, vehicle, vessel, aircraft or place in which he has reason to believe that any unauthorised telecommunication network or telecommunication equipment or radio equipment in respect of which an offence punishable under section 42 has been committed, is kept or concealed and take possession thereof.

Supply of information to authorised officers.

44. Notwithstanding anything contained in any law for the time being in force, where the Central Government is satisfied that any information, document or record in possession or control of any authorised entity or assignee relating to any telecommunication service, telecommunication network or use of spectrum, availed by any entity or consumer or subscriber is necessary to be furnished in relation to any pending or apprehended civil or criminal proceedings, an officer, specially authorised in writing by the Central Government in this behalf, shall direct such authorised entity or assignee to furnish such information, document or record to him and the authorised entity or assignee shall comply with the direction of such officer.

CHAPTER X

MISCELLANEOUS

Creation of security interests.

45. The Central Government may provide for such security interest which an authorised entity may provide to lenders financing such entities on such terms and conditions of such security interest as may be prescribed.

Certification of person for operation of radio equipment on a vessel or aircraft.

46. The Central Government may grant certification to any person to operate a radio equipment on such class of vessels registered under the Merchant Shipping Act, 1958, aircrafts registered under the Aircraft Act, 1934 and any other category of vessels or vehicles as may be notified by the Central Government, in accordance with such terms and conditions, including applicable fees and charges, as may be prescribed.

44 of 1958.
22 of 1934.

Certification for amateur station operator.

47. The Central Government may by rules provide for the manner of certification of person to install and operate an amateur station and such rules may specify the qualifications and terms and conditions subject to which, a certification for operating an amateur station may be granted, including through conduct of examinations for granting such certification, the fees and charges to be paid thereof, and other connected matters.

Explanation.—For the purposes of this section,—

(a) "amateur services" means radio communication services for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorised person interested in radio technique solely with a personal aim and without any pecuniary interest;

(b) "amateur station" means a radio station operated by an amateur for amateur services.

48. No person shall possess or use any equipment that blocks telecommunication unless permitted by the Central Government, or any authority authorised for specific purpose by the Central Government.

Prohibition of use of equipment which blocks telecommunication.

49. (1) The penalties imposed pursuant to the provisions of Chapter VIII or Chapter IX, shall be in addition to, and not in derogation of, any liability in respect of payment of compensation or payment of any fees or charges due by an authorised entity or assignee.

Penalties not to affect other liabilities.

(2) The provisions of this Act are in addition to and without prejudice to any other liability which a person may have incurred under any other law for the time being in force.

50. This Act shall apply to any offence committed or contravention made outside India by any person if the act or conduct constituting such offence or contravention involves a telecommunication service provided in India, or telecommunication equipment or telecommunication network located in India.

Act to apply for offence or contravention committed outside India.

51. No suit, prosecution or other legal proceeding shall lie against the Central Government, the State Government, or any other authority under this Act or any person acting on their behalf, as the case may be, for anything which is done in good faith, or intended to be done in pursuance of this Act or any rule, regulation or order made thereunder.

Protection of action taken in good faith.

52. (1) The provisions of this Act shall be in addition to, and not be construed in derogation of the provisions of any other law, and shall be construed as consistent with such law, for the time being in force.

Consistency with other laws.

(2) If any conflict arises between a provision of this Act and a provision of any other law for the time being in force in the whole of India or restricted to the application within the territory of any State, the provision of this Act shall prevail to the extent of such conflict.

53. The implementation of the Act shall be digital by design and the Central Government shall take any such measures as necessary to enable the digital implementation of the Act.

Implementation of Act.

54. No employee of an authorised entity shall, in any legal proceeding to which such authorised entity is not a party, be compelled to appear as a witness to prove the information contained in any electronic records submitted under sub-section (4) of section 65B of the Indian Evidence Act, 1872, except as required by order of the Court or a Judge made for special cause.

Employee of authorised entity not to be compelled to appear as witness.

55. The privilege of the Central Government to grant authorisations or assignment under this Act in the Continental Shelf and the Exclusive Economic Zone of India and the rights of an authorised entity or assignee, as the case may be, shall be subject to the Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, and applicable international laws as accepted and ratified by India.

Rights in Continental Shelf and Exclusive Economic Zone.

56. (1) The Central Government may, by notification, and subject to the condition of previous publication, make rules not inconsistent with the provisions of this Act, to carry out the purposes of this Act.

Power of Central Government to make rules.

1 of 1872.

80 of 1976.

(2) In particular and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:—

(a) the terms and conditions, including fees or charges for obtaining authorisation under sub-section (1) of section 3;

(b) the manner of exemption for providing authorisation under sub-section (3) of section 3;

(c) the terms and conditions, including fees and charges, applicable to the original authorised entity that emerges pursuant to any merger, demerger, acquisition, or other forms of restructuring, under sub-section (5) of section 3;

(d) the terms and conditions for migration under sub-section (6) of section 3;

(e) the verifiable biometric based identification to be used by an authorised entity of telecommunication services under sub-section (7) of section 3;

(f) the terms and conditions, including fees or charges for allotment of telecommunication identifiers for use by authorised entities under sub-section (8) of section 3;

(g) the terms and conditions for the assignment of spectrum, including the frequency range, methodology for pricing, price, fees and charges, payment mechanism, duration and procedure under sub-section (3) of section 4;

(h) the manner of exemptions for assignment of spectrum under sub-section (7) of section 4;

(i) the terms and conditions for re-farming and harmonisation under section 5;

(j) the terms and conditions, including applicable fees and charges, and any other relevant condition subject to which the utilisation of the spectrum in a flexible, liberalised and technologically neutral manner under section 6;

(k) the terms and conditions for optimal utilisation of spectrum under sub-section (1) of section 7;

(l) the period of unutilised spectrum for insufficient reasons and further terms and conditions relating to spectrum utilisation under sub-section (2) of section 7;

(m) the terms and conditions, including applicable fees or charges for sharing, trading, leasing and surrender of assigned spectrum, under sub-section (2) of section 8;

(n) the timeline for granting permission for right of way for telecommunication network in public property; and the amount for administrative expenses and compensation for right of way under sub-section (3) of section 11;

(o) the procedure to be followed by a facility provider to enter, survey, establish, operate, maintain, repair, replace or relocate the telecommunication network, including the notice period, the manner of issuance of notice, the framework governing objections by owner or occupier of the property, the manner in which such objections would be resolved, and matters relating to the compensation payable for any damage under sub-section (5) of section 12;

(p) the terms and conditions, including charges for right of way, and compensation for damage to the property, under sub-section (6) of section 12;

(q) the terms and conditions, including fees and charges subject to which the telecommunication network to be made available on open access basis to facility providers under sub-section (2) of section 15;

(r) the procedure and manner for giving prior notice under sub-section (1) of section 17;

(s) the timeline for responding the notice with details of telecommunication network and precautionary measures to be undertaken by the facility provider under sub-section (2) of section 17;

(t) the procedure and safeguards for public emergency or public safety under sub-section (2) of section 20;

(u) the duration and manner of taking action for public emergency or public safety under sub-section (4) of section 20;

(v) the measures to protect and ensure cyber security of, telecommunication networks and telecommunication services under sub-section (1) of section 22;

(w) the standards, security practices, upgradation requirements and procedures to be implemented for the Critical Telecommunication Infrastructure under sub-section (4) of section 22;

(x) the manner for administration of Digital *Bharat Nidhi* under section 26;

(y) the manner and duration for creating Regulatory Sandbox under section 27;

(z) the measures for protection of users under sub-section (2) of section 28;

(za) the manner for registration of any grievance and redressal of such grievances pertaining to the telecommunication service under sub-section (3) of section 28;

(zb) the terms and conditions for participating in the dispute resolution mechanism under sub-section (2) of section 30;

(zc) the form, manner and fees to be accompanied with the complaint under sub-section (1) of section 33;

(zd) the manner for holding inquiry by the Adjudicating Officer under sub-section (1) of section 35;

(ze) the form, manner and fees for filing an appeal before the Designated Appeals Committee under sub-section (2) of section 36;

(zf) the techno-legal measures for functioning of the Adjudicating Officer and the Designated Appeals Committee under sub-section (1) of section 37;

(zg) the terms and conditions of security interest under section 45;

(zh) the terms and conditions, including applicable fees and charges for granting certificates under section 46;

(zi) the manner of certification, qualification, and terms and conditions, including fees and charges for the examination for amateur station operator under section 47;

(zj) any other matter which is to be, or may be, prescribed, or in respect of which provision is to be made by rules.

(3) Every rule made under this Act and amendment to the Schedule made under section 57 shall be laid, as soon as may be after it is made, before each House of Parliament, while it is in session, for a total period of thirty days which may be comprised in one session or in two or more successive sessions, and if, before the expiry of the session immediately following the session or the successive sessions aforesaid, both

Houses agree in making any modification in the rule or amendment to the Schedule or both Houses agree that the rule or amendment to the Schedule should not be made, the rule or amendment to the Schedule shall thereafter have effect only in such modified form or be of no effect, as the case may be; so, however, any such modification or annulment shall be without prejudice to the validity of anything previously done under that rule or amendment to the Schedule.

Power of
Central
Government
to amend
Schedules.

57. (1) Subject to the provisions of this section, the Central Government may, by notification,—

(a) amend the First Schedule;

(b) amend the Second Schedule or the Third Schedule:

Provided that penalty or civil penalty specified in such Schedules shall be not exceeding ten crore rupees.

(2) Any amendment made under sub-section (1) shall have effect as if enacted in this Act and shall come into force on the date of the notification, unless the notification otherwise directs.

Power to
remove
difficulties.

58. (1) If any difficulty arises in giving effect to the provisions of this Act, the Central Government may, by order published in the Official Gazette, make such provisions, not inconsistent with the provisions of this Act, as may be necessary or expedient, for removing the difficulty:

Provided that no order shall be made under this section after the expiration of three years from the date of commencement of this Act.

(2) Every order made under this section shall be laid, as soon as may be after it is made, before each House of Parliament.

Amendment
to Act 24 of
1997.

59. In the Telecom Regulatory Authority of India Act, 1997,—

(a) in section 2,—

(i) in sub-section (1),—

(A) for clause (e), the following clause shall be substituted, namely:—

'(e) "licensee" means an authorised entity providing telecommunication services under the Telecommunications Act, 2023, or registered for providing cable television network under the Cable Television Networks (Regulation) Act, 1995 or any other Act for the time being in force;'

7 of 1995.

(B) for clause (ea), the following clause shall be substituted, namely:—

'(ea) "licensor" means the Central Government which grants an authorisation for telecommunication services under the Telecommunications Act, 2023, or registration under the Cable Television Networks (Regulation) Act, 1995 or any other Act for the time being in force;'

7 of 1995.

(C) after clause (j), the following clause shall be inserted, namely:—

'(ja) "telecommunication" shall have the meaning as assigned to it in the Telecommunications Act, 2023;'

(D) for clause (k), the following clause shall be substituted, namely:—

'(k) "telecommunication services" means any service for telecommunication;'

13 of 1885.
17 of 1933.
7 of 1995.

(ii) in sub-section (2), for the words and figures "the Indian Telegraph Act, 1885 or the Indian Wireless Telegraphy Act, 1933", the words, figures and brackets "the Telecommunications Act, 2023 or the Cable Television Networks (Regulation) Act, 1995" shall be substituted;

(b) in section 4, for the proviso, the following provisos shall be substituted, namely:—

"Provided that a person who is, or has been, in the service of Government shall not be appointed—

(a) as a Chairperson unless such person has held the post of Secretary to the Government of India or any equivalent post in the Central Government or the State Government; or

(b) as a member unless such person has held the post of Additional Secretary to the Government of India or any equivalent post in the Central Government or the State Government:

Provided further that a person who is, or has been, in a service other than that of Government, shall be appointed—

(a) as a Chairperson if such person has at least thirty years of professional experience and has served as a member of the board of directors or a chief executive of a company in the areas as specified in this section; or

(b) as a Member if such person has at least twenty-five years of professional experience and has served as a member of the board of directors or chief executive of a company in the areas as specified in this section.";

(c) in section 11,—

(i) in sub-section (1),—

13 of 1885.
7 of 1995.

(A) for the words and figures "Indian Telegraph Act, 1885", the words, figures and brackets "Telecommunications Act, 2023 or the Cable Television Networks (Regulation) Act, 1995" shall be substituted;

(B) in the fifth proviso, for the portion beginning with the words "may, within fifteen days from the date of receipt" and ending with the words "take a final decision", the following shall be substituted, namely:—

"shall, within thirty days from the date of receipt of such reference communicate to the Central Government any further recommendations that it may have, after considering the reference made by the Central Government and after receipt of further recommendation if any, the Central Government shall take a final decision.";

(ii) in sub-section (2),—

13 of 1885.
7 of 1995.

(A) for the words and figures "Indian Telegraph Act, 1885", the words, figures and brackets "Telecommunications Act, 2023 or the Cable Television Networks (Regulation) Act, 1995" shall be substituted;

(B) after the proviso, the following proviso shall be inserted, namely:—

"Provided further that the Authority may direct an authorised entity or class of authorised entities providing telecommunication services, to abstain from predatory pricing that is harmful to competition, long term development and the overall health of the telecommunication sector.";

(d) in section 14, in clause (a),—

(i) sub-clause (i) shall be omitted;

(ii) for paragraph (C), the following shall be substituted, namely:—

"(C) any disputes to be adjudicated by the Adjudicating Officer or the Designated Appeals Committee under the Telecommunications Act, 2023;

(iii) after clause (c), the following clause shall be inserted, namely:—

"(d) hear and dispose of appeals under section 39 of the Telecommunications Act, 2023.

Any action instituted under the Telecom Regulatory Authority of India Act, 1997 and pending immediately before the appointed day in the Telecom Disputes Settlement and Appellate Tribunal, shall continue to be heard and disposed of by the Telecom Disputes Settlement and Appellate Tribunal as if this Act had not been passed;"

24 of 1997.

(e) for section 38, the following section shall be substituted, namely:—

"38. The provisions of this Act shall be in addition to the provisions of the Telecommunications Act, 2023 and, in particular, nothing in this Act shall affect any jurisdiction, powers and functions required to be exercised or performed by the appropriate authority in relation to any area falling within the jurisdiction of such authority."

Application of
certain laws.

CHAPTER XI

REPEAL AND SAVINGS

Repeal of
certain Acts
and savings.

60. (1) Subject to the other provisions of this section, the enactments namely, the Indian Telegraph Act, 1885, and the Indian Wireless Telegraphy Act, 1933, are hereby repealed.

13 of 1885.
17 of 1933.

(2) Notwithstanding the repeal of the provisions aforesaid, anything done or any action taken including any grant of license, registration or assignment, any order, or proceeding, pending or ongoing, under the repealed provisions shall be deemed to have been done or taken under this Act, and the provisions of this Act shall have effect in relation thereto.

(3) The provisions of Part-III of the Indian Telegraph Act, 1885 shall continue to apply to all cases pertaining to laying down of transmission lines under section 164 of the Electricity Act, 2003 as if the Indian Telegraph Act, 1885 has not been repealed, and the provisions of Part-III of the Indian Telegraph Act, 1885 shall continue in force with reference to section 164 of the Electricity Act, 2003 till such time as section 164 of the Electricity Act, 2003 is amended.

13 of 1885.
36 of 2003.

- 13 of 1885.
17 of 1933.
- 61.** All rules, orders, made or purported to have been made under the Indian Telegraph Act, 1885 or under the Indian Wireless Telegraphy Act, 1933, shall, in so far as they relate to matters for which provision is made in this Act and are not inconsistent therewith, be deemed to have been made under this Act as if this Act had been in force on the date on which such rules, orders were made, and shall continue in force unless and until they are superseded by any rules made under this Act.
- Existing rules to continue.
- 13 of 1885.
17 of 1933.
- 62.** All acts of executive actions done, decisions taken, actions done, proceedings taken and orders passed, prior to the appointed day, by the Central Government, by any officer of the Central Government, or by any other authority, with respect to assignment of spectrum or provision of telecommunication services, or telecommunication network or establishment of telecommunication infrastructure, in the belief or purported belief that the acts done, decisions taken, actions done, and proceedings taken, were being done, taken or passed under the Indian Telegraph Act, 1885, or the Indian Wireless Telegraphy Act, 1933, shall be as valid and operative as if they had been done, taken or passed in accordance with law; and no suit or other legal proceeding shall be maintained or continued against any person whatsoever, on the ground that any such acts, decisions, proceedings taken were not done or taken in accordance with law.
- Validation of certain acts and indemnity.

THE FIRST SCHEDULE

[See sections 4 (4), (5) and 57 (1)]

ASSIGNMENT OF SPECTRUM THROUGH ADMINISTRATIVE PROCESS

1. National security and defence.
2. Law enforcement and crime prevention.
3. Public broadcasting services.
4. Disaster management, safeguarding life and property.
5. Promoting scientific research, resource development, and exploration.
6. Safety and operation of roads, railways, metro, regional rail, inland waterways, airports, ports, pipelines, shipping, and other transport systems.
7. Conservation of natural resources and wildlife.
8. Meteorological department and weather forecasting.
9. Internationally recognised dedicated bands for amateur stations, navigation, telemetry, and other like usages.
10. Use by Central Government, State Governments, or their entities or other authorised entities for safety and operations of mines, ports and oil exploration and such other activities where the use of spectrum is primarily for supporting the safety and operations.
11. Public Mobile Radio Trunking Services.
12. Radio backhaul for telecommunication services.
Explanation.—The term "radio backhaul" shall mean the use of radio frequency only to interconnect telecommunication equipment, other than the customer equipment in telecommunication networks.
13. Community Radio Stations.
14. In-flight and maritime connectivity.
15. Space research and application, launch vehicle operations and ground station for satellite control.
16. Certain satellite-based services such as: Teleports, Television channels, Direct To Home, Headend In The Sky, Digital Satellite News Gathering, Very Small Aperture Terminal, Global Mobile Personal Communication by Satellites, National Long Distance, International Long Distance, Mobile Satellite Service in L and S bands.
17. Use by Central Government, State Governments or their authorised agencies for telecommunication services.
18. Bharat Sanchar Nigam Limited (BSNL) and Mahanagar Telephone Nigam Limited (MTNL).
19. Testing, trial, experimental, demonstration purposes for enabling implementation of new technologies, including for creation of one or more Regulatory Sandboxes.

THE SECOND SCHEDULE

[See sections 32(1) (a) and 34 (8)]

CIVIL PENALTIES FOR BREACH OF TERMS AND CONDITIONS UNDER SECTIONS 32 AND 34.

Categorisation	Civil Penalty
Severe	Up to Rs. 5 Crore
Major	Up to Rs. 1 Crore
Moderate	Up to Rs. 10 lakh
Minor	Up to Rs. 1 lakh
Non-severe	Written warning.

THE THIRD SCHEDULE

[See sections 33(1), (2), 34(1), (3), (5) and 34(8)]

CIVIL PENALTIES FOR CERTAIN CONTRAVENTIONS

Sl. No.	Contravention under the Act	Civil Penalty
1.	(a) Possessing radio equipment without an authorisation or an exemption, except for the offence under clauses (d) and (f) of sub-section (3) of section 42; (b) Use of subscriber identity modules in excess of number notified.	First Offence: Civil penalty up to fifty thousand rupees. Each subsequent offence: Civil penalty up to two lakh rupees for each such instance.
2.	Use by any person or entity of a telecommunication service or telecommunication network knowing or having reason to believe that such telecommunication service or telecommunication network does not have the required authorisation under this Act.	Civil penalty up to ten lakh rupees.
3.	Contravention of the provisions of section 28 (Measures for protection of users).	First Offence: Civil penalty up to fifty thousand rupees. Each subsequent offence: Civil penalty up to two lakh rupees for each such instance, or suspension of telecommunication service, or a combination thereof.
4.	Contravention of any provision of this Act or rules, or any terms or conditions of an assignment or authorisation in relation to any matter under this Act, for which no penalty or punishment is provided elsewhere in this Act.	First Offence: Civil penalty up to twenty-five thousand rupees. Second or subsequent offence: Further Civil penalty up to fifty thousand rupees for every day after the first during which the contravention continues.

S.K.G. RAHATE,
Secretary to the Govt. of India.

Annexure 2.2

Terms and Conditions to be Included in the Telecommunication (Grant of network Authorisations) Rules

Index:

Chapter – I	Network Authorisation Framework
Chapter – II	Terms and Conditions for the Grant of Network Authorisations

Chapter – I:

Network Authorisation Framework

1. Network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023 shall be granted to establish, maintain, operate or expand telecommunication network as per the scope of the respective network authorisations in the applicable area of operation.
2. The network authorisations to be granted under the Telecommunications Act 2023 alongwith their broad scopes are given below:

Table 1.1: Network authorisations and their broad scopes

S. No.	Network authorisation under the Telecommunication Act, 2023	Broad scope (For details, terms and conditions for the specific network authorisation may be referred to.)
1.	Infrastructure Provider (IP) Authorisation	To provide dark fibres, right of way (RoW), duct space, towers, and in-building solution (IBS) to the entities authorised under Section 3(1)(a) of Telecommunications Act, 2023
2.	Digital Connectivity Infrastructure Provider (DCIP) Authorisation	To provide wireline access network, radio access network (RAN), transmission links, Wi-Fi systems, In-Building Solution (IBS), dark fibers, right of way (RoW), duct space, and towers to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023

3.	Internet Exchange Point (IXP) Provider Authorisation	To provide peering and exchange of internet traffic, originated and destined within India, amongst the entities authorised to provide internet service under Section (3)(1)(a) of the Telecommunications Act, 2023, and Content Delivery Networks (CDNs) located in India
4.	Satellite Earth Station Gateway (SESG) Provider Authorisation	<ul style="list-style-type: none"> • To establish, operate, maintain, and expand satellite earth station gateways (SESGs) in India for all types of satellite systems for which the Central Government has given its permission • To provide its SESG infrastructure to the entities which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023 and are permitted to use satellite media under their scope of service
5.	Cloud-hosted Telecommunication Network (CTN) Provider Authorisation	To provide cloud-hosted telecommunication network-as-a-service (CTNaaS) to the eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023
6.	Mobile Number Portability (MNP) Provider Authorisation	To establish, operate, maintain, and expand a telecommunication network for providing MNP to the entities authorised to provide Access Service under Section 3(1)(a) of the Telecommunications Act, 2023

3. In accordance with Section 3(6) of the Telecommunication Act, 2023, all IP-I

Registration holders and MNP Service licensees will be entitled to migrate to the network authorisations to be granted under the Telecommunications Act, 2023.

4. However, in case an entity decides to continue under its existing license/ registration/ permission/ authorisation as per the Section 3(6) of the Telecommunications Act, 2023, all conditions involving two or more network authorised entities such as cross-holding restrictions, infrastructure sharing etc. will apply on both types of entities viz. –
 - (a) the entities which will be granted authorisations under the Telecommunications Act, 2023, and
 - (b) the entities holding a license, registration, etc. granted under the old regime.
5. An authorised entity should not be permitted to hold more than one network authorisation of the same type under Section 3(1)(b) of the Telecommunication Act, 2023 or under the extant regime.
6. An authorised entity which already holds a network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 or a license/ registration etc. under the extant regime, intends to obtain another network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 whose scope of operation includes the scope of operation under the network authorisation/ license/ registration already held by such entity, in entirety, then such network authorisation/ license/ registration already held by the authorised entity should be treated as subsumed in the new network authorisation and it should cease to exist.
7. Upon migration from IP-I Registration under the extant regime to IP Authorisation under the Telecommunications Act, 2023, the IP Authorisation should be valid for a period of 20 years from the effective date of the IP Authorisation.

8. Similarly, upon migration from IP-I Registration under the extant regime to DCIP Authorisation under the Telecommunications Act, 2023, the DCIP Authorisation should be valid for a period of 20 years from the effective date of the DCIP Authorisation.
9. Upon migration from MNP Service License under the Indian Telegraph Act, 1885 to MNP Provider Authorisation under the Telecommunications Act, 2023, the MNP Provider Authorisation should be valid for the balance period of the validity of the MNP Service License.

Chapter – II:

Terms and Conditions for the Grant of Network Authorisations

1. Validity Period

- (1) The validity period of the network authorisations other than MNP Provider Authorisation shall be 20 years from the effective date of the authorisation unless revoked earlier for reasons as specified.
- (2) The validity period of MNP Provider Authorisation shall be 10 years from the effective date of the authorisation unless revoked earlier for reasons as specified.

2. Eligibility conditions

- (1) To apply for any network authorisation, the applicant must be a Company registered under the Indian Companies Act, 2013 (as amended from time to time).

- (2) **Additional requirement for obtaining SESG Provider Authorisation:**

For obtaining SESG Provider Authorisation, the applicant company shall be any one of the following:

- (a) A satellite operator operating satellite system(s) approved by the Indian Government; or
- (b) A subsidiary of such satellite operator; or
- (c) An entity having contracts/ license agreements entered into with such satellite operator for establishing SESG.

- (3) **Financial Conditions:**

For obtaining any network authorisation, Applicant Entity shall have–

- (a) Minimum paid up equity capital equal to the sum of the Paid-up Equity Capital required for each network authorisation (including the network authorisations already held) by the applicant entity as per Appendix

to Annexure 2.2. The applicant entity shall maintain the required minimum paid up equity during the currency of authorisation.

- (b) Minimum Network equal to the sum of the network required for each network authorisation applied by the applicant entity as per Appendix to Annexure 2.2 Net worth shall be as defined in the Companies Act, 2013 as amended from time to time. The network of promoters/ equity shareholders shall not be counted for determining the network of the applicant entity. While counting the network, the foreign currency shall be converted into Indian Rupees at the prevalent rate indicated by the Reserve Bank of India as on the date of application received. The Network shall be certified by the Companies Secretary or Statutory Auditor. In case the applicant entity is not covered under the Indian Companies Act, 2013 as amended from time to time, the network shall be as certified by the Chartered Accountant/ Cost Accountant.

(4) Foreign Direct Investment (FDI) Norms:

- (a) The Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to time, by Authorised Entity as well as investors.

Notwithstanding the above provision, foreign investment shall be subject to following conditions:

- (i) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- (ii) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the clause No. (i) above, such a subsequent change in beneficial ownership will also require Government approval.

- (iii) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.
 - (iv) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
 - (v) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
 - (vi) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.
- (b) The applicant entity shall declare its Indian & Foreign equity structure (both direct and indirect).

3. Application processing Fee, Entry Fee, and bank guarantees:

Details of the non-refundable application processing fee, Entry Fee, and bank guarantees are available in Appendix to Annexure 2.2.

4. Process of application to obtain network authorisations and other related conditions:

- (1) For all network authorisations other than MNP Provider Authorisation, the following process shall be followed for obtaining network authorisation:
 - (a) The eligible applicant entity shall submit the application through online portal.

- (b) The applicant company shall pay non-refundable processing fee as prescribed in Appendix to Annexure 2.2 along with the application for issue/ renewal of network authorisation through Non-Tax Receipt Portal (NTRP) of Government of India, <https://bharatkosh.gov.in>.
- (c) Grant of authorisation to the applicant shall be on the basis of the claims, representations and submissions made by the applicant as duly certified by the Company Secretary/Statutory Auditor and authorized Director of the Company or and in case the Authorised Entity is not covered under the Indian Companies Act, 2013, documents certified by the Chartered Accountant/ Cost Accountant. The applicant is therefore advised to ascertain their eligibility for the authorisations applied for with utmost care and diligence. The application shall be decided, so far as practicable, within 60 days of the submission of the application complete in all respect and the applicant company shall be informed accordingly. In case the applicant is eligible for the grant of authorisation, a Demand Letter will be issued through the online portal requesting the applicant to deposit non-refundable entry Fee and submit the bank guarantees/ other documents within the specified period as mentioned in the Demand Letter failing which the demand letter may be treated as withdrawn at the expiry of the permitted period. The details of entry fee and bank guarantee are available at Appendix to Annexure 2.2.
- (d) In case the applicant is found to be ineligible for the grant of authorisation sought by the applicant, the applicant shall be informed accordingly through the online portal.
- (e) The grant of authorisation would be subject to fulfillment of all requirements under the application including the fulfilment of eligibility conditions and compliance of the demand letter by the applicant. If deemed expedient, the Central Government may seek clarification before rejecting the application.

- (f) For the grant of network authorisation, a unique authorisation number will be generated in the format depicting type of network authorization.
 - (g) If at any time, any averments made or information furnished for obtaining the authorisation is found incorrect, the application and the authorisation if granted thereto on the basis of such an application, may invite penalties and/ or cancellation as may be deemed fit by the Central Government.
- (2) For MNP Provider Authorisation, the Central Government, as and when it may deem fit, may invite applications for the grant of authorisation(s) through a competitive bidding process.

5. Non-exclusivity clause:

- (1) All network authorisations, other than MNP Provider Authorisation, will be granted on a non-exclusive basis i.e. without any restriction on the number of entrants for the establishment of any network.
- (2) The condition related to exclusivity in respect of MNP Provider Authorisation in a MNP zone will be governed by separate guidelines/ rules on the subject.

6. Grant of Network Authorisation:

Upon fulfilment of the requisite conditions, network authorisation will be granted in the format given at **Annexure 2.3**.

7. Security conditions

- (1) The Chief Officer in charge of technical network operations and the Chief Security Officer/ Chief Information Security Officer shall be resident Indian citizen. The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted by Ministry of Home Affairs (MHA). Security vetting shall be required periodically on yearly basis. In case something adverse is found during the security vetting, the direction of MHA shall be binding on the Authorised Entity. All foreign personnel likely

to be deployed by the Authorised Entity for installation, operation and maintenance of the Authorised Entity's network shall also be security cleared by the Government of India prior to their deployment. The security clearance will be obtained from the Ministry of Home Affairs, Government of India, who will follow standard drill in the matter.

- (2) The Central Government shall have the right to take over the networks of the Authorised Entity or revoke/ terminate/ suspend the Authorisation in the interest of national security or in case of emergency or war or low intensity conflict or any other eventuality in public interest as declared by the Government of India. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government reserves the right to keep any area out of the operation zone if implications of security so require.

Provided any taking over or suspension of authorisation, issuance of an order and exclusion of an area, as described above shall neither be a ground of extension of Authorisation validity period or expansion of area in different corner or reduction of duly payable fee. However, the Authorisation Fee payable to the Central Government will not be required to be paid for the period for which the operation of the authorisation remains suspended in whole.

For further details and other conditions, the applicant may refer to the Authorisation Rules on the DoT website <www.dot.gov.in>.

8. Migration of the licensees/ registration of the old regime in the new authorisation framework

- (1) The entities holding IP-I Registration and MNP Service License who intend to migrate to the regime of network authorisations to be granted under the Telecommunications Act, 2023, shall be eligible to migrate to the respective network authorisations, as per the table given below, subject to the fulfilment of the eligibility conditions other than net-worth requirement:

Table 2.2: Existing licensees and registration holders eligible to migrate to network authorisations under the Authorisation framework under the Telecommunications Act, 2023

S. No.	Network authorisation under the Telecommunication Act, 2023	Existing entity eligible to migrate
1.	Infrastructure Provider (IP) Authorisation	Entities holding IP-I Registration
2.	Digital Communication Infrastructure Provider (DCIP) Authorisation	Entities holding IP-I Registration
3.	Mobile Number Portability (MNP) Provider Authorisation for an MNP zone	Entities holding Mobile Number Portability Service Provider (MNPSP) License for the respective MNP zone

- (2) The procedure for the migration of existing licensees/ registration holders is as follows: -
- On migration, IP Authorisation shall be valid for 20 years period from the effective date of Authorisation.
 - Upon migration from MNP Service License under the Indian Telegraph Act, 1885, the MNP Provider Authorisation under the Telecommunications Act, 2023 shall be valid for the balance period of validity of MNP Service License.
 - After migration, the terms and conditions of the network authorisation to be granted under the Telecommunications Act, 2023 shall be applicable.

Appendix to Annexure 2.2

Details of Application processing fee, Minimum Equity, Minimum Net worth, Entry Fee, and Bank Guarantee

Table-I: Minimum Equity, Minimum Net worth for various network authorisations

Sl. No.	Network Authorisation	Minimum Equity (Rs. in crore)	Minimum Net-worth (Rs. in crore)
1.	Infrastructure Provider (IP) Authorisation	Nil	Nil
2.	Digital Connectivity Infrastructure Provider (DCIP) Authorisation	Nil	Nil
3.	Internet Exchange Point (IXP) Provider Authorisation	Nil	Nil
4.	Satellite Earth Station Gateway (SESG) Provider Authorisation	Nil	Nil
5.	Cloud-hosted Telecommunication Network (CTN) Provider Authorisation	Nil	Nil
6.	Mobile Number Portability (MNP) Provider Authorisation	Nil	Nil

Table-II: Application Processing Fee, Entry Fee and Bank Guarantee for various network authorisations

Sl. No.	Network Authorisation	Application Processing Fee (in Rs.)	Entry Fee (in Rs.)	Bank Guarantee (in Rs.)
1.	Infrastructure Provider (IP) Authorisation	10,000	Nil	Nil
2.	Digital Connectivity Infrastructure	10,000	10,00,000	Nil

Sl. No.	Network Authorisation	Application Processing Fee (in Rs.)	Entry Fee (in Rs.)	Bank Guarantee (in Rs.)
	Provider (DCIP) Authorisation			
3.	Internet Exchange Point (IXP) Provider Authorisation	10,000	Nil	Nil
4.	Satellite Earth Station Gateway (SESG) Provider Authorisation	10,000	10,00,000	Nil
5.	Cloud-hosted Telecommunication Network (CTN) Provider Authorisation	10,000	10,00,000	Nil
6.	Mobile Number Portability (MNP) Provider Authorisation	10,000	50,00,000	40,00,000

Annexure 2.3

Format for Network Authorisation Document

Department of Telecommunications

Section 3 (1)(b) of the Telecommunications Act 2023

..... Authorisation

1. In exercise of the powers conferred by Section 3(1)(b) of the Telecommunications Act, 2023, I, ... (name and Designation), Department of Telecommunications, ... (address) acting on behalf of the President of India, grant a(n) ... (name of the Authorisation) to ... (name of applicant), ... (address) (hereinafter in this document referred to as the 'Authorised Entity').
2. This network authorisation shall be governed by the provisions of the Telecommunications Act, 2023, the Telecom Regulatory Authority of India Act, 1997 and Information Technology Act, 2000 as modified or replaced from time to time or any other relevant Act and the rules made thereunder. This network authorisation shall be governed by, *inter-alia*, (names of applicable rules).
3. **The salient terms of this authorisation are given below:**
 - (a) Effective Date of the authorisation: ... (to be specified)
 - (b) Period of Validity of the authorisation: ... (to be specified)
 - (c) Area of the authorisation: ... (to be specified)
 - (d) Scope of the authorisation: ... (to be specified)
 - (e) Authorisation Fee, other charges and bank guarantees: Authorised Entity shall pay to the Central Government Authorisation Fee and other charges to the Central Government in accordance with the provisions of the ... (names of applicable rules).
 - (f) Non-exclusivity clause: This authorisation will be granted on non-exclusive basis and additional authorisations may be issued from time to

time in future without any restriction on number of authorised entities with same or different entry conditions. This provision will not apply to MNP Provider Authorisation.

Date:

Signature of the representative of the Central Government: ...
(On behalf of the President of India)

Annexure 2.4

Terms and Conditions to be Included in the Telecommunication (Network Authorisation) Rules

Index:

Chapter – I	Infrastructure Provider (IP) Authorisation
Chapter – II	Digital Connectivity Infrastructure Provider (DCIP) Authorisation
Chapter – III	Internet Exchange Point (IXP) Provider Authorisation
Chapter – IV	Satellite Earth Station Gateway (SESG) Provider Authorisation
Chapter – V	Cloud-hosted Telecommunication Network (CTN) Provider Authorisation
Chapter – VI	Mobile Number Portability (MNP) Provider Authorisation

Chapter—I

Terms and Conditions for Infrastructure Provider (IP) Authorisation

1. **Period of Authorisation:**

The Authorisation shall be valid for a period of 20 years from the effective date of the Authorisation unless revoked earlier for reasons as specified in these rules.

2. **Renewal of Authorisation:**

(1) The Central Government may renew, if deemed expedient, the Authorisation by a term equivalent to the period of validity of the Authorisation, upon request of the Authorised Entity, if made at least 12 months prior to the expiry of the Authorisation, on the terms specified by the Central Government, subject to the extant policy. The decision of the Central Government shall be final and binding in this regard.

(2) No Entry Fee shall be levied at the time of renewal of the Authorisation. However, the Authorised Entity may have to pay a nominal fee, as notified by the Central Government, at the time of renewal.

3. **Area of the Authorisation:**

The Area of the Authorisation shall be at the National level.

4. **Non-exclusivity clause:**

This authorisation will be granted on non-exclusive basis and additional authorisations may be issued from time to time in future without any restriction on number of authorised entities with same or different entry conditions.

5. **Scope of Authorisation:**

(1) The Authorised Entity is permitted to provide dark fibres, right of way (RoW), duct space, towers and in-building solution (IBS) to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.

- (2) The Authorised Entity cannot enter into contractual agreements conferring Indefeasible Right of Use (IRU) of its telecommunication equipment and systems with any authorised entity, which may lead to exclusion of others.
- (3) Under this authorisation, the Authorised Entity shall not establish any other telecommunication network which requires a separate network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (4) Under this authorisation, the Authorised Entity shall not provide any telecommunication service which requires service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023.

6. **General Conditions:**

- (1) **Foreign Direct Investment (FDI) Norms:** The Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to time, by Authorised Entity as well as investors.

Notwithstanding with the above provision, foreign investment shall be subject to following conditions:

- (a) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- (b) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the clause No. (a) above, such a subsequent change in beneficial ownership will also require Government approval.
- (c) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.

- (d) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
 - (e) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
 - (f) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.
- (2) **Modifications in the Terms and Conditions of Authorisation:**
- (a) The Central Government reserves the right to modify at any time the terms and conditions of the Authorisation, or incorporate new conditions, if in the opinion of the Central Government, it is considered necessary or expedient to do so in the interest of national security, public interest and for proper conduct of the telecommunications.
 - (b) Any amendment in rules containing the terms and conditions of the Authorisation shall be carried out by the Central Government only after considering recommendations of the Telecom Regulatory Authority of India on the subject matter.
- (3) **Restriction on Transfer of Authorisation:**
- The Authorised Entity shall not, without the prior written consent of the Central Government, either directly or indirectly, assign or transfer this authorisation in any manner whatsoever to a third party or enter into any agreement for sub-authorisation and/ or partnership relating to any subject matter of the Authorisation to any third party either in whole or

in part i.e. no sub-leasing/ partnership/ third party interest shall be created. Mergers, demergers or acquisitions, or other forms of restructuring, as well as transfer of Authorisation shall be subject to the Rules notified under section 3(5) of the Telecommunications Act, 2023.

(4) Provision of Network:

- (a) The Authorised Entity shall ensure that-
 - (i) All its telecommunication network infrastructure, either owned, or taken on lease or hire, is in India.
 - (ii) The associated data/ information is stored in India.
- (b) Any dispute, with regard to the provision of telecommunication network infrastructure shall be a matter only between the aggrieved party and the Authorised Entity. In no case, the Central Government shall bear any liability or responsibility in the matter. The Authorised Entity shall keep the Central Government indemnified for all claims, cost, charges or damages in the matter.

(5) Requirement to furnish Information:

The Authorised Entity shall furnish to the Central Government/ TRAI, on demand in the manner and as per specified timelines such documents, accounts, estimates, returns, reports or other information in accordance with the rules/ orders as may be prescribed or as directed from time to time.

(6) Penalty, Suspension, Surrender, Termination/ Revocation of Authorisation:

- (a) In case of breach of any of the terms and conditions of Authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/ or make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation.

- (b) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by the Rules on Adjudication and Appeal notified under the Telecommunications Act, 2023.
- (c) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer, suspend, curtail or revoke the Authorisation, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.
- (d) For this purpose, the Central Government will issue a show cause notice of 21 days to the Authorised Entity. If the Central Government decides to revoke the Authorisation, the same will be effective from the 61st calendar days from the date of issue of such termination/ revocation order. The Authorised Entity shall be required to give a notice of at least 30 Calendar days to the authorised entities to whom it is providing its telecommunication network within this period of revocation order.
- (e) The Authorised Entity aggrieved by an order of the Designated Appeals Committee under section 36 of the Telecommunications Act, 2023, in so far as it pertains to matters under sub-section (1) of section 32 of the Telecommunications Act, 2023, or an order of the Central Government under sub-section (2) of section 32 of the Telecommunications Act, 2023, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by the Authorised Entity.
- (f) The Authorised Entity may surrender the Authorisation, by giving a notice of at least 60 Calendar days in advance. In such a case, it shall also notify all authorised entities to whom it is providing its telecommunication network by sending a 30 Calendar days'

notice. The effective date of the surrender shall be 61st Calendar days counted from the date of receipt of such notice by the Central Government, if it is not rejected by the Central Government within 30 days of date of receipt of the notice.

- (g) The Central Government reserves the right to suspend the operation of the Authorisation in whole or in part, at any time, if, in the opinion of the Central Government, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of telecommunications. Provided that if situation so warrants, the Central Government may dispense with the issue of notice prior to such suspension. The decision of the Central Government shall be final and binding in this regard.
- (h) Provided further that the Central Government shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Provided also that the suspension of the authorisation shall not be a cause or ground for extension of the period of the authorisation and suspension period will be taken as period spent.
- (i) The Central Government reserves the right to terminate/ revoke/ suspend the Authorisation, in whole or in part, at any time in the interest of public by giving a notice of 60 Calendar days from the date of issue of such notice:
Provided that, in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations, the Central Government has the right to revoke/ suspend the Authorisation, in whole or in part, without any notice period.
- (j) Under Section 21 of the Telecommunications Act, 2023, the Central Government may issue notification for taking such measures as are necessary to take over the telecommunication

infrastructure of the Authorised Entity in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations or any other eventuality in public interest as declared by the Central Government in full or in part in the Service area. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government reserves the right to keep any area out of the operation zone if implications of security so require:

Provided that any taking over of the Authorisation, issuance of an order and exclusion of an area, as described above shall not be a ground of extension of the authorisation period.

- (k) In case of suspension or termination/ revocation of the Authorisation, the Central Government may also impose a financial penalty not exceeding the amount as provided in Second Schedule of the Telecommunications Act, 2023 for violation of terms and conditions of the Authorisation.

(7) Actions pursuant to Revocation of Authorisation

- (a) In case the Central Government decides to revoke the Authorisation, the Central Government shall proceed in accordance with the terms and conditions provided in the rules for security interest notified under Telecommunications Act, 2023 provided by the Central Government. In cases where no such security interest is provided by the Central Government, upon revocation or surrender or cancellation of the Authorisation due to reasons whatsoever or expiry of the Authorisation, any dues on the Authorised Entity shall be recovered by the Central Government in accordance with the extant law.

(8) Compliance Reporting Requirement:

- (a) The Authorised Entity shall submit a compliance report regarding compliance of FDI norms on 1st day of January of every year to the Central Government in proforma as may be prescribed from time to time. This is to be certified by the Company Secretary or Statutory Auditor, countersigned by duly authorised Director of the Authorised Entity. When there is a change in FDI in the Authorised Entity, the Authorised Entity shall also submit the FDI compliance report within 15 days.
 - (b) The Authorised Entity shall also ensure that any change in shareholding shall be subject to all applicable statutory permissions under Laws of India.
 - (c) Change in the name of Authorised Entity, as per the provisions of the Indian Companies Act, 2013 shall have to be intimated to the Central Government in writing along with certified copy of the name change certificate within 30 days from the date of issue of such certificate by Registrar of Companies.
- (9) **Force- Majeure:**
- (a) If at any time, during the continuance of the Authorisation, the performance in whole or in part, by the Authorised Entity, of any obligation under the Authorisation is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the Authorised Entity), fire, floods, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such EVENT is given by the Authorised Entity to the Central Government, within 21 Calendar days from the date of occurrence thereof, the Central Government shall, by reason of such event, neither revoke the Authorisation, nor claim any damages against the Authorised Entity, in respect of such non-

performance or delay in performance:

However, the Force Majeure events noted above shall not in any way cause extension in the period of the Authorisation.

- (b) The Authorised Entity shall not be entitled to claim any damages against the Central Government for non-performance or delay in performance of the Central Government's obligations by reason of the EVENT.

(10) **Way Leave:**

The Authorised Entity shall make its own arrangements for Right of Way (RoW) as per the rules notified under Chapter III of the Telecommunications Act, 2023.

(11) **Other Conditions:**

- (a) The Authorised Entity shall be bound by these rules, the terms and conditions contained in the Authorisation document, instructions, as issued by the Central Government, and the orders/ directions/ regulations of TRAI as per the provisions of the TRAI Act, 1997, as amended from time to time.
- (b) The statutory provisions and the rules made under the Telecommunications Act, 2023 or TRAI Act, 1997, and any other relevant Act shall govern the provisions of network under the Authorisation. Any other rule/ order/ regulation/ direction passed under these statutes shall be binding on the Authorised Entity.

- 7. **Commercial conditions:** The Authorised Entity may provide dark fibres, right of way (RoW), duct space, towers, and in-building solution (IBS) to the entities authorised under Section 3(1)(a) of Telecommunications Act, 2023 as per the mutual agreement on fair, and non-discriminatory basis. However, the Central Government/ TRAI may prescribe the commercial conditions under which dark fibres, right of way (RoW), duct space, towers, and in-building solution (IBS) may be provided to the entities authorised under Section 3(1)(a) of Telecommunications Act, 2023.

8. **Financial conditions:**

(1) **FEES PAYABLE:**

(a) **Application Processing Fee:**

A non-refundable Application Processing Fee of Rupees Ten Thousand shall be paid by the Authorised Entity.

9. **Technical conditions:**

(1) The Authorised Entity shall utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from time to time.

(2) The Authorised Entity shall specify the details of technology and other performance parameters of the systems proposed to be deployed.

(3) The Authorised Entity shall adopt Renewable Energy Technologies (RETs) for powering the telecom network, deploy energy efficient equipment and reduce the carbon footprint as per directions/ instructions/ guidelines issued in this regard by Central Government/ TRAI from time to time.

(4) **The Applicable System:**

In the process of operating the telecommunication network infrastructure as per the scope of the authorisation, the Authorised Entity shall be responsible for its proper upkeep and maintenance, and for meeting the criteria of its performance.

(5) **Engineering Details:**

(a) The Authorised Entity shall furnish complete technical details of

the applicable system to the Central Government or its authorised representative(s), in such manner and at such times as may be required.

(b) The Authorised Entity shall supply all tools, test instruments and other accessories to the testing party of the Central Government for conducting tests at any time during the currency of the Authorisation.

(6) **Safety:** The Authorised Entity must ensure compliance with safety standards, and other technical requirements as and when prescribed. Regular audits may be conducted to verify adherence.

10. **Operating conditions:**

The Authorised Entity shall follow the following operating conditions:

(1) **Sharing of Infrastructure:**

(a) Authorised Entity is allowed to share its passive infrastructure such as building, tower, electrical equipment including battery and power plant, dark fiber, duct space, Right of Way, etc. with all types of network authorised entities.

(b) Authorised Entity is allowed to share its IBS with all types of eligible network authorised entities as per the scope of their authorisations.

(2) **Right to inspect:**

The Central Government or its authorised representative shall have the right to access and inspect the telecommunication network infrastructure established by the Authorised Entity under the scope of authorisation. The inspection will ordinarily be carried out after reasonable notice period except in circumstances, where giving such a notice will defeat the very purpose of the inspection.

(3) **Location of telecommunication network infrastructure elements:**

The Authorised Entity shall provide location details of its telecommunication network infrastructure elements, and any other details as may be required by the Central Government from time to time.

(4) **Confidentiality of information:** Subject to terms and conditions of the authorisation, the Authorised Entity shall take all necessary steps to safeguard the privacy and confidentiality of any information about the eligible authorised entities to whom it provides the telecommunication network infrastructure.

11. **Security conditions:**

(1) The Authorised Entity shall meet the instructions/ directions of the Central Government issued from time to time in the interest of national security as per relevant sections of the Telecommunication Act, 2023.

(2) The Authorised Entity shall make available on demand to the person authorized by the Central Government, full access to the Applicable System for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.

(3) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication network infrastructure elements only from trusted sources.

(4) The use of the telecommunication network infrastructure for anti-national activities would be construed as an offence punishable under the Indian Penal Code or other applicable law. The telecommunication network infrastructure cannot be used in such a manner as to endanger or make vulnerable Indian telecommunication networks. Acts such as break-ins or attempted break-ins of Indian telecommunication networks shall be dealt with in accordance with the Section 42 of the Telecommunications Act, 2023 and Bhartiya Nyaya Sanhita (BNS).

- (5) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network infrastructure or part thereof.
- (6) The Authorised Entity shall also ensure compliance to the following conditions:
 - (a) The majority Directors on the Board of the Authorised Entity shall be Indian citizens.
 - (b) The Chief Officer in-charge of the operations of the telecommunication network infrastructure and the Chief Security Officer/ Chief Information Security Officer associated with the Authorised Entity shall be resident Indian citizen.
 - (c) The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted on annual basis by Ministry of Home Affairs (MHA). The directions of MHA shall be binding on the Authorised Entity.
 - (d) The Authorised Entity may be restricted from operating in any sensitive area from the National Security angle, as determined by the Central Government.

12. **Application of Telecommunication Act 2023:**

The Authorised Entity shall adopt all means and facilitate in every manner the application of the Telecommunication Act 2023, as modified or replaced from time to time, and rules made thereunder.

Chapter-II

Terms and Conditions for Digital Connectivity Infrastructure Provider (DCIP) Authorisation

1. Period of Authorisation:

The Authorisation shall be valid for a period of 20 years from the effective date of the Authorisation unless revoked earlier for reasons as specified in these rules.

2. Renewal of Authorisation:

- (1) The Central Government may renew, if deemed expedient, the Authorisation by a term equivalent to the period of validity of the Authorisation, upon request of the Authorised Entity, if made at least 12 months prior to the expiry of the Authorisation, on the terms specified by the Central Government, subject to the extant policy. The decision of the Central Government shall be final and binding in this regard.
- (2) No Entry Fee shall be levied at the time of renewal of the Authorisation. However, the Authorised Entity may have to pay a nominal fee, as notified by the Central Government, at the time of renewal.

3. Area of the Authorisation:

The Area of the Authorisation shall be at the National level.

4. Non-exclusivity clause:

This authorisation will be granted on non-exclusive basis and additional authorisations may be issued from time to time in future without any restriction on number of authorised entities with same or different entry conditions.

5. Scope of Authorisation:

- (1) The Authorised Entity may establish, operate, maintain, and expand telecommunication equipment, and systems required for establishing wireline access networks, radio access networks (RANs), Wi-Fi systems, transmission links, and In-Building Solutions (IBS).
- (2) The Authorised Entity may provide wireline access networks, radio access networks (RANs), Wi-Fi systems, transmission links and In-Building Solutions (IBS) to the eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023. Here, the term 'transmission link' means the transmission system required for connecting the access network with the core network of the entity to whom the Authorised Entity is providing the access network.
- (3) The Authorised Entity may also provide dark fibers, right of way (RoW), duct space, and towers to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.
- (4) The Authorised Entity may install transmission links to connect to its own Baseband Unit (BBU), Radio Unit (RU) and antenna.
- (5) The Authorised Entity will not be permitted to deploy core network elements such as switches, mobile switching center (MSC), and home location register (HLR), Intelligent Network (IN) etc.
- (6) The Authorised Entity shall be permitted to purchase radio equipment without assignment of frequency spectrum, in accordance to the guidelines issued by the Central Government on the matter.
- (7) The Authorised Entity will not be permitted to provide end-to-end bandwidth to any authorised entity, or any user, or for its captive use.
- (8) The Authorised Entity cannot enter into contractual agreements conferring Indefeasible Right of Use (IRU) of its telecommunication equipment and systems with any authorised entity, which may lead to exclusion of others.
- (9) Any spectrum shall not be assigned to the Authorised Entity. However, for configuration, provisioning, operation and maintenance of its radio

access network equipment, the Authorised Entity may use spectrum resources of its partnering service authorised entities.

- (10) The usage of access spectrum of a partnering service authorised entity on a radio access network (established by the Authorised Entity) by any other partnering service authorised entity will be permitted only if such service authorised entities have access spectrum sharing arrangement between them.
- (11) Under this authorisation, the Authorised Entity shall not establish any other telecommunication network which requires a separate network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (12) The Authorised Entity shall not provide any telecommunication service which requires service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023.

6. **General Conditions:**

- (1) **Foreign Direct Investment (FDI) Norms:** The Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to time, by Authorised Entity as well as investors.

Notwithstanding with the above provision, foreign investment shall be subject to following conditions:

- (a) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- (b) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the

clause No. (a) above, such a subsequent change in beneficial ownership will also require Government approval.

- (c) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.
- (d) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
- (e) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
- (f) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.

(2) **Modifications in the Terms and Conditions of Authorisation:**

- (a) The Central Government reserves the right to modify at any time the terms and conditions of the Authorisation, or incorporate new conditions, if in the opinion of the Central Government, it is considered necessary or expedient to do so in the interest of national security, public interest and for proper conduct of the telecommunications.
- (b) Any amendment in rules containing the terms and conditions of the Authorisation shall be carried out by the Central Government only after considering recommendations of the Telecom Regulatory Authority of India on the subject matter.

(3) **Restriction on Transfer of Authorisation:**

The Authorised Entity shall not, without the prior written consent of the

Central Government, either directly or indirectly, assign or transfer this authorisation in any manner whatsoever to a third party or enter into any agreement for sub-authorisation and/ or partnership relating to any subject matter of the Authorisation to any third party either in whole or in part i.e. no sub-leasing/partnership/third party interest shall be created. Mergers, demergers or acquisitions, or other forms of restructuring, as well as transfer of Authorisation shall be subject to the Rules notified under section 3(5) of the Telecommunications Act, 2023.

(4) **Provision of Network:**

(a) The Authorised Entity shall be responsible for, and is authorised to install, test and commission all the Applicable Systems for the provision of telecommunication networks as per the scope of the Authorisation.

(b) For the provision of telecommunication networks as per the scope of the Authorisation, the Authorised Entity may take telecommunication network resources on lease or hire from cloud service providers, which are either empaneled by the Ministry of Electronics and Information Technology (MeitY), Government of India as cloud service providers, or are authorised under Section 3(1) of the Telecommunications Act, 2023. The cloud is to be situated in India. The telecommunication networks resources taken on lease or hire from cloud service providers shall be treated as part of the network of the Authorised Entity:

Provided that in respect of the telecommunication network resources taken on lease or hire by the Authorised Entity from cloud service providers -

(i) All security related compliances shall be the responsibility of the Authorised Entity.

(ii) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of

telecommunication equipment and telecommunication services only from trusted sources.

(iii) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.

(c) The Authorised Entity shall ensure that-

(i) All its telecommunication network infrastructure, either owned, or taken on lease or hire, is located in India.

(ii) The associated data/ information is stored in India.

(d) Any dispute, with regard to the provision of telecommunication network shall be a matter only between the aggrieved party and the Authorised Entity. In no case, the Central Government shall bear any liability or responsibility in the matter. The Authorised Entity shall keep the Central Government indemnified for all claims, cost, charges or damages in the matter.

(5) Requirement to furnish Information:

The Authorised Entity shall furnish to the Central Government/ TRAI, on demand in the manner and as per specified timelines such documents, accounts, estimates, returns, reports or other information in accordance with the rules/ orders as may be prescribed or as directed from time to time.

(6) Penalty, Suspension, Surrender, Termination/ Revocation of Authorisation:

(a) In case of breach of any of the terms and conditions of Authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central

Government regarding suspension, revocation, or curtailment of the duration of the authorisation.

- (b) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by the Rules on Adjudication and Appeal notified under the Telecommunications Act, 2023.
- (c) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer, suspend, curtail or revoke the Authorisation, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.
- (d) For this purpose, the Central Government will issue a show cause notice of 21 days to the Authorised Entity. If the Central Government decides to revoke the Authorisation, the same will be effective from the 61st calendar days from the date of issue of such termination/ revocation order. The Authorised Entity shall be required to give a notice of at least 30 Calendar days to the authorised entities to whom it is providing its telecommunication network within this period of revocation order.
- (e) The Authorised Entity aggrieved by an order of the Designated Appeals Committee under section 36 of the Telecommunications Act, 2023, in so far as it pertains to matters under sub-section (1) of section 32 of the Telecommunications Act, 2023, or an order of the Central Government under sub-section (2) of section 32 of the Telecommunications Act, 2023, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by the Authorised Entity.
- (f) The Authorised Entity may surrender the Authorisation, by giving a notice of at least 60 Calendar days in advance. In such a case,

it shall also notify all authorised entities to whom it is providing its telecommunication network by sending a 30 Calendar days' notice. The effective date of the surrender shall be 61st Calendar days counted from the date of receipt of such notice by the Central Government, if it is not rejected by the Central Government within 30 days of date of receipt of the notice.

- (g) The Central Government reserves the right to suspend the operation of the Authorisation in whole or in part, at any time, if, in the opinion of the Central Government, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the telecommunications. Provided that if situation so warrants, the Central Government may dispense with the issue of notice prior to such suspension. The decision of the Central Government shall be final and binding in this regard.
- (h) Provided further that the Central Government shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Provided also that the suspension of the authorisation shall not be a cause or ground for extension of the period of the authorisation and suspension period will be taken as period spent.
- (i) The Central Government reserves the right to terminate/ revoke/ suspend the Authorisation, in whole or in part, at any time in the interest of public by giving a notice of 60 Calendar days from the date of issue of such notice:
Provided that, in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations, the Central Government has the right to revoke/ suspend the Authorisation, in whole or in part, without any notice period.

- (j) Under Section 21 of the Telecommunications Act, 2023, the Central Government may issue notification for taking such measures as are necessary to take over the equipment and networks of the Authorised Entity in the interest of national security or in the event of national emergency/war or low intensity conflict or similar type of situations or any other eventuality in public interest as declared by the Central Government in full or in part in the Service area. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government reserves the right to keep any area out of the operation zone if implications of security so require:

Provided that any taking over of the Authorisation, issuance of an order and exclusion of an area as described above, shall neither be a ground of extension of the authorisation period or expansion of area in different corner or reduction of duly payable fee.

- (k) In case of suspension or termination/ revocation of the Authorisation, the Central Government may also impose a financial penalty not exceeding the amount as provided in Second Schedule of the Telecommunications Act, 2023 for violation of terms and conditions of the Authorisation.
- (l) The Authorised Entity shall not be entitled to a refund of any fees or charges paid in respect of or under an authorisation granted under the Telecommunications Act, 2023, if such authorisation is suspended, curtailed, revoked or varied.

(7) **Actions pursuant to Revocation of Authorisation:**

In case the Central Government decides to revoke the Authorisation, the Central Government shall proceed in accordance with the terms and conditions provided in the rules for security interest notified under the

Telecommunications Act, 2023 provided by the Central Government. In cases where no such security interest is provided by the Central Government, any dues on the Authorised Entity shall be recovered by the Central Government in accordance with the extant law, upon revocation or surrender or cancellation of the Authorisation due to reasons whatsoever or expiry of the Authorisation.

(8) Compliance Reporting Requirement:

- (a) The Authorised Entity shall submit a compliance report regarding compliance of FDI norms on 1st day of January of every year to the Central Government in proforma as may be prescribed from time to time. This is to be certified by the Company Secretary or Statutory Auditor, countersigned by duly authorised Director of the Authorised Entity. When there is a change in FDI in the Authorised Entity, the Authorised Entity shall also submit the FDI compliance report within 15 days.
- (b) The Authorised Entity shall also ensure that any change in shareholding shall be subject to all applicable statutory permissions under Laws of India.
- (c) Change in the name of Authorised Entity, as per the provisions of the Indian Companies Act, 2013 shall have to be intimated to the Central Government in writing along with certified copy of the name change certificate within 30 days from the date of issue of such certificate by Registrar of Companies.

(9) Force- Majeure:

- (a) If at any time, during the continuance of the Authorisation, the performance in whole or in part, by the Authorised Entity, of any obligation under the Authorisation is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of

the Authorised Entity), fire, floods, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such EVENT is given by the Authorised Entity to the Central Government, within 21 Calendar days from the date of occurrence thereof, the Central Government shall, by reason of such event, neither revoke the Authorisation, nor claim any damages against the Authorised Entity, in respect of such non-performance or delay in performance:

- (b) However, the Force Majeure events noted above shall not in any way cause extension in the period of the Authorisation.
- (c) The Authorised Entity shall not be entitled to claim any damages against the Central Government for non-performance or delay in performance of the Central Government's obligations by reason of the EVENT.

(10) **Way Leave:**

The Authorised Entity shall make its own arrangements for Right of Way (RoW) as per the rules notified under Chapter III of the Telecommunications Act, 2023.

(11) **Other Conditions:**

- (a) The Authorised Entity shall be bound by these rules, the terms and conditions contained in the Authorisation document, instructions, as issued by the Central Government, and the orders/ directions/ regulations of TRAI as per the provisions of the TRAI Act, 1997, as amended from time to time.
- (b) The statutory provisions and the rules made under the Telecommunications Act, 2023 or TRAI Act, 1997 or Information Technology Act, 2000, and any other relevant Act shall govern the provisions of network under the Authorisation. Any other rule/ order/ regulation/ direction passed under these statutes shall be binding on the Authorised Entity.

7. **Commercial conditions:** The Authorised Entity may provide wireline access network, radio access network (RAN), transmission links, Wi-Fi systems, In-Building Solution (IBS), dark fibers, right of way (RoW), duct space, and towers to the entities authorised under Section 3(1)(a) of Telecommunications Act, 2023 as per the mutual agreement on fair, and non-discriminatory basis. However, the Central Government/ TRAI may prescribe the commercial conditions under which wireline access network, radio access network (RAN), transmission links, Wi-Fi systems, In-Building Solution (IBS), dark fibers, right of way (RoW), duct space, and towers may be provided to the entities authorised under Section 3(1)(a) of Telecommunications Act, 2023.
8. **Financial conditions:**
- (1) **FEES PAYABLE:**
- (a) **Application Processing Fee:**
A non-refundable Application Processing Fee of Rupees Ten Thousand shall be paid by the Authorised Entity.
- (b) **Entry Fee:**
A one-time non-refundable Entry Fee of Rupees Ten Lakh shall be paid by the Authorised Entity.
9. **Technical conditions:**
- (1) The Authorised Entity shall utilize any type of equipment and product that meets TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from time to time.
- (2) The Authorised Entity shall specify the details of technology and other

performance parameters of the systems proposed to be deployed.

- (3) In case the Authorised Entity installs mobile base stations, the Authorised Entity shall comply with the instructions/ directions/ guidelines issued by the Central Government on Electromagnetic Field (EMF) exposure norms from time to time.
- (4) The Authorised Entity shall adopt Renewable Energy Technologies (RETs) for powering the telecom network, deploy energy efficient equipment and reduce the carbon footprint as per directions/ instructions/ guidelines issued in this regard by Central Government/ TRAI from time to time.
- (5) **The Applicable System:**
In the process of operating the telecommunication network as per the scope of the authorisation, the Authorised Entity shall be responsible for:
 - (a) the proper upkeep and maintenance of the Applicable System; and
 - (b) meeting the criteria of performance of the Applicable System.
- (6) **Engineering Details:**
 - (a) The Authorised Entity shall furnish complete technical details of the applicable system to the Central Government or its authorised representative(s), in such manner and at such times as may be required.
 - (b) The Authorised Entity shall supply all tools, test instruments and other accessories to the testing party of the Central Government for conducting tests at any time during the currency of the Authorisation.
- (7) **Safety:** The Authorised Entity must ensure compliance with safety standards, and other technical requirements as and when prescribed. Regular audits may be conducted to verify adherence.

10. **Operating conditions:**

(1) **Sharing of Infrastructure:**

- (a) Authorised Entity is allowed to share the passive infrastructure such as building, tower, electrical equipment including battery and power plant, dark fiber, duct space, Right of Way, etc. owned, established, and operated under the Authorisation with all types of network authorised entities.
- (b) Authorised Entity is allowed to share all types of active infrastructure elements owned, established, and operated by it under the Authorisation with all types of eligible network authorised entities as per the scope of their authorisation.

(2) **Right to inspect:**

The Central Government or its authorised representative shall have the right to access and inspect sites and telecommunication equipment, and systems used for providing telecommunication network under the scope of the Authorisation. The inspection will ordinarily be carried out after a reasonable notice period except in the circumstances, where giving such a notice will defeat the very purpose of the inspection.

(3) **Location of Network Elements:**

The Authorised Entity shall provide location details of all network elements, and any other details as may be required by the Central Government from time to time.

(4) **Confidentiality of information:**

Subject to terms and conditions of the authorisation, the Authorised Entity shall take all necessary steps to safeguard the privacy and confidentiality of any information about the eligible authorised entities to whom it provides the telecommunication network.

11. **Security conditions:**

- (1) The Authorised Entity shall meet the instructions/ directions of the Central Government issued from time to time in the interest of national

security as per relevant sections of the Telecommunication Act, 2023.

- (2) The Authorised Entity shall make available on demand to the person authorized by the Central Government, full access to the Applicable System for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.
- (3) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.
- (4) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
- (5) The Authorised Entity shall create facilities for the monitoring of all intrusions, attacks and frauds on its technical facilities and provide reports on the same as prescribed by the Central Government. Such facilities shall be created within 12 months since the date of the Authorisation and report the same to the Central Government.
- (6) The use of the network for anti-national activities would be construed as an offence punishable under the Indian Penal Code or other applicable law. The telecommunication networks cannot be used in such a manner as to endanger or make vulnerable a networked infrastructure. Acts such as break-ins or attempted break-ins of Indian networks shall be dealt with in accordance with the Section 42 of the Telecommunications Act, 2023 and Bhartiya Nyaya Sanhita (BNS).
- (7) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions

in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.

- (8) The Authorised Entity shall also ensure compliance of the following conditions:
- (a) The majority Directors on the Board of the Entity shall be Indian citizens.
 - (b) The Chief Officer in charge of technical network operations and the Chief Security Officer/ Chief Information Security Officer, in-charge of Network Elements, and System Administrators associated with the Authorised Entity shall be resident Indian citizen.
 - (c) The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted on annual basis by Ministry of Home Affairs (MHA). The directions of MHA shall be binding on the Entity.
 - (d) The Authorised Entity may be restricted from operating in any sensitive area from National Security angle, as determined by the Central Government.
- (9) The Authorised Entity shall ensure that the radio transmitters, while deploying wireless system(s), are located and work in such a fashion that any signal or signals, emanating there from, fade out when nearing or about to cross the international border and also become unusable within a reasonable distance across such border.

12. **Application of Telecommunication Act 2023:**

The Authorised Entity shall adopt all means and facilitate in every manner the application of the Telecommunication Act 2023, as modified or replaced from time to time, and rules made thereunder.

Chapter-III
Terms and Conditions for Internet Exchange Point (IXP) Network
Authorisation

1. Period of authorisation

The Authorisation shall be valid for a period of 20 years from the effective date of the Authorisation unless revoked earlier for reasons as specified in these rules.

2. Renewal of Authorisation:

- (1) The Central Government may renew, if deemed expedient, the Authorisation by a term equivalent to the period of validity of the Authorisation, upon request of the Authorised Entity, if made at least 12 months prior to the expiry of the Authorisation, on the terms specified by the Central Government, subject to the extant policy. The decision of the Central Government shall be final and binding in this regard.
- (2) No Entry Fee shall be levied at the time of renewal of the Authorisation. However, the Authorised Entity may have to pay a nominal fee, as notified by the Central Government, at the time of renewal.

3. Area of the Authorisation:

The Area of the Authorisation shall be at the National level.

4. Non-exclusivity clause:

This authorisation will be granted on a non-exclusive basis and additional authorisations may be issued from time to time in future without any restriction on the number of authorised entities with same or different entry conditions.

5. Scope of the Authorisation:

- (1) The Authorised Entity may provide peering and exchange of internet traffic, originated and destined within India, amongst the entities

authorised to provide internet service under Section 3(1)(a) of the Telecommunications Act, 2023, and Content Delivery Networks (CDNs) located in India.

- (2) The Authorised Entity will be permitted to interconnect with other IXP authorised entities.
- (3) Under this authorisation, the Authorised Entity shall not establish any other telecommunication network which requires a separate network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (4) The Authorised Entity shall not provide any telecommunication service which requires service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023.

4. **General conditions –**

(1) **Foreign Direct Investment Norms**

Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to time, by Authorised Entity as well as investors.

Notwithstanding with the above provision, foreign investment shall be subject to following conditions:

- (a) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- (b) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the clause No. (a) above, such a subsequent change in beneficial ownership will also require Government approval.

- (c) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.
 - (d) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
 - (e) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
 - (f) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.
- (2) **Modifications in the Terms and Conditions of Authorisation:**
- (a) The Central Government reserves the right to modify at any time the terms and conditions of the Authorisation, or incorporate new conditions, if in the opinion of the Central Government, it is considered necessary or expedient to do so in the interest of national security, public interest and for proper conduct of the telecommunications.
 - (b) Any amendment in rules containing the terms and conditions of the Authorisation shall be carried out by the Central Government only after considering recommendations of the Telecom Regulatory Authority of India on the subject matter.
- (3) **Restriction on Transfer of Authorisation:**
- The Authorised Entity shall not, without the prior written consent of the Central Government, either directly or indirectly, assign or transfer this

authorisation in any manner whatsoever to a third party or enter into any agreement for sub-authorisation and/ or partnership relating to any subject matter of the Authorisation to any third party either in whole or in part i.e. no sub-leasing/partnership/third party interest shall be created. Mergers, demergers or acquisitions, or other forms of restructuring, as well as transfer of Authorisation shall be subject to the Rules notified under section 3(5) of the Telecommunications Act, 2023.

(4) **Provision of Network:**

- (a) The Authorised Entity shall be responsible for, and is authorised to install, test and commission all the Applicable systems for providing the network authorised under the Authorisation.
- (b) The Authorised Entity may take telecommunication network resources on lease or hire from cloud service providers, which are either empaneled by the Ministry of Electronics and Information Technology (MeitY), Government of India as cloud service providers, or are authorised under Section 3(1) of the Telecommunications Act, 2023. The cloud is to be situated in India. The networks resources taken on lease or hire from cloud service providers shall be treated as part of the network of the Authorised Entity:

Provided that in respect of the telecommunication network resources taken on lease or hire by the Authorised Entity from cloud service providers -

- (i) All security related compliances shall be the responsibility of the Authorised Entity.
- (ii) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.

- (iii) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
 - (c) The Authorised Entity shall ensure that-
 - (i) All its telecommunication network infrastructure and equipment, either owned, or taken on lease or hire, are located in India.
 - (ii) The associated data/ information is stored in India.
 - (d) Any dispute, with regard to the provision of telecommunication network shall be a matter only between the aggrieved party and the Authorised Entity. In no case, the Central Government shall bear any liability or responsibility in the matter. The Authorised Entity shall keep the Central Government indemnified for all claims, cost, charges or damages in the matter.
- (5) **Requirement to furnish Information:**
- The Authorised Entity shall furnish to the Central Government/ TRAI, on demand in the manner and as per specified timelines such documents, accounts, estimates, returns, reports or other information in accordance with the rules/ orders as may be prescribed or as directed from time to time.
- (6) **Penalty, Suspension, Surrender, Termination/ Revocation of Authorisation:**
- (a) In case of breach of any of the terms and conditions of Authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central

Government regarding suspension, revocation, or curtailment of the duration of the authorisation.

- (b) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by the Rules on Adjudication and Appeal notified under the Telecommunications Act, 2023.
- (c) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer, suspend, curtail or revoke the Authorisation, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.
- (d) For this purpose, the Central Government will issue a show cause notice of 21 days to the Authorised Entity. If the Central Government decides to revoke the Authorisation, the same will be effective from the 61st calendar days from the date of issue of such termination/ revocation order. The Authorised Entity shall be required to give a notice of at least 30 Calendar days to the authorised entities to whom it is providing its telecommunication network within this period of revocation order.
- (e) The Authorised Entity aggrieved by an order of the Designated Appeals Committee under section 36 of the Telecommunications Act, 2023, in so far as it pertains to matters under sub-section (1) of section 32 of the Telecommunications Act, 2023, or an order of the Central Government under sub-section (2) of section 32 of the Telecommunications Act, 2023, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by the Authorised Entity.
- (f) The Authorised Entity may surrender the Authorisation, by giving a notice of at least 60 Calendar days in advance. In such a case,

it shall also notify all authorised entities to whom it is providing its telecommunication network by sending a 30 Calendar days' notice. The effective date of the surrender shall be 61st Calendar days counted from the date of receipt of such notice by the Central Government, if it is not rejected by the Central Government within 30 days of date of receipt of the notice.

- (g) The Central Government reserves the right to suspend the operation of the Authorisation in whole or in part, at any time, if, in the opinion of the Central Government, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the Telecommunication. Provided that if situation so warrants, the Central Government may dispense with the issue of notice prior to such suspension. The decision of the Central Government shall be final and binding in this regard.
- (h) Provided further that the Central Government shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Provided also that the suspension of the authorisation shall not be a cause or ground for extension of the period of the authorisation and suspension period will be taken as period spent.
- (i) The Central Government reserves the right to terminate/ revoke/ suspend the Authorisation, in whole or in part, at any time in the interest of public by giving a notice of 60 Calendar days from the date of issue of such notice:
Provided that, in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations, the Central Government has the right to revoke/ suspend the Authorisation, in whole or in part, without any notice period.

- (j) Under Section 21 of the Telecommunications Act, 2023, the Central Government may issue notification for taking such measures as are necessary to take over the equipment and networks of the Authorised Entity in the interest of national security or in the event of national emergency/war or low intensity conflict or similar type of situations or any other eventuality in public interest as declared by the Central Government in full or in part in the Service area. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government reserves the right to keep any area out of the operation zone if implications of security so require:

Provided that any taking over of the Authorisation, issuance of an order and exclusion of an area, as described above shall neither be a ground of extension of the authorisation period or expansion of area in different corner or reduction of duly payable fee.

- (k) In case of suspension or termination/ revocation of the Authorisation, the Central Government may also impose a financial penalty not exceeding the amount as provided in Second Schedule of the Telecommunications Act, 2023 per service area for violation of terms and conditions of the Authorisation.
- (l) The Authorised Entity shall not be entitled to the refund of any fees or charges paid in respect of or under an authorisation granted under the Telecommunications Act, 2023, if such authorisation is suspended, curtailed, revoked or varied.

(7) Actions pursuant to Revocation of Authorisation

- (a) In case the Central Government decides to revoke the Authorisation, the Central Government shall proceed in accordance with the terms and conditions provided in the rules

for security interest notified under Telecommunications Act, 2023 provided by the Central Government. In cases where no such security interest is provided by the Central Government, the action will be taken as per the Condition given below.

- (b) On revocation or surrender or cancellation of the Authorisation due to reasons whatsoever or expiry of the Authorisation, any dues on the Authorised Entity shall be recovered by the Central Government in accordance with the extant law.

(8) **Compliance Reporting Requirement:**

- (a) The Authorised Entity shall submit a compliance report regarding compliance of FDI norms on 1st day of January of every year to the Central Government in proforma as may be prescribed from time to time. This is to be certified by Company Secretary or Statutory Auditor, countersigned by duly authorised Director of the Authorised Entity. When there is a change in FDI in the Authorised Entity, the Authorised Entity shall also submit the FDI compliance report within 15 days.
- (b) The Authorised Entity shall also ensure that any change in shareholding shall be subject to all applicable statutory permissions under Laws of India.
- (c) Change in the name of Authorised Entity, as per the provisions of the Indian Companies Act, 2013 shall have to be intimated to the Central Government in writing along with certified copy of the name change certificate within 30 days from the date of issue of such certificate by Registrar of Companies.

(9) **Force- Majeure:**

- (a) If at any time, during the continuance of the Authorisation, the performance in whole or in part, by the Authorised Entity, of any obligation under the Authorisation is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory

Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the Authorised Entity), fire, floods, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such EVENT is given by the Authorised Entity to the Central Government, within 21 Calendar days from the date of occurrence thereof, the Central Government shall, by reason of such event, neither revoke the Authorisation, nor claim any damages against the Authorised Entity, in respect of such non-performance or delay in performance:

- (b) However, the Force Majeure events noted above shall not in any way cause extension in the period of the Authorisation.
- (c) The Authorised Entity shall not be entitled to claim any damages against the Central Government for non-performance or delay in performance of the Central Government's obligations by reason of the EVENT.

(10) **Way Leave:**

The Authorised Entity shall make its own arrangements for Right of Way (RoW) as per the rules notified under Chapter III of the Telecommunications Act, 2023.

(11) **Other Conditions:**

- (a) The Authorised Entity shall be bound by these rules, the terms and conditions contained in the Authorisation document, instructions, as issued by the Central Government, and the orders/ directions/ regulations of TRAI as per the provisions of the TRAI Act, 1997, as amended from time to time.
- (b) The statutory provisions and the rules made under the Telecommunications Act, 2023 or TRAI Act, 1997 or Information Technology Act, 2000, and any other relevant Act shall govern the provisions of network under the Authorisation. Any other rule/ order/ regulation/ direction passed under these statutes shall be

binding on the Authorised Entity.

6. Commercial Conditions:

The Authorised Entity may provide peering and exchange of traffic to the entities authorised to provide Internet Service and CDNs as per the mutual agreement on fair, and non-discriminatory basis. However, the Central Government/ TRAI may prescribe the commercial conditions, under which, peering and exchange of traffic may be provided to the entities authorised to provide Internet Service and CDNs.

7. Financial conditions:

(1) FEES PAYABLE:

(a) Application Processing Fees:

A non-refundable Application Processing Fee of Rupees Ten Thousand shall be paid by the Authorised Entity.

8. Technical conditions:

- (1) The Authorised Entity shall utilise any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilise only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from time to time.
- (2) The Authorised Entity shall specify the details of technology and other performance parameters of the systems proposed to be deployed.
- (3) The Authorised Entity shall adopt Renewable Energy Technologies (RETs) for powering the telecom network, deploy energy efficient equipment and reduce the carbon footprint as per directions/

instructions/ guidelines issued in this regard by Central Government/ TRAI from time to time.

(4) **The Applicable System:**

In the process of operating the telecommunication network as per the scope of the authorisation, the Authorised Entity shall be responsible for:

- (a) the proper upkeep and maintenance of the Applicable System; and
- (b) meeting the criteria of performance of the Applicable System.

(5) **Engineering Details:**

- (a) The Authorised Entity shall furnish complete technical details of the applicable system to the Central Government or its authorised representative(s), in such manner and at such times as may be required.
- (b) The Authorised Entity shall supply all tools, test instruments and other accessories to the testing party of Central Government for conducting tests at any time during the currency of the Authorisation.

(6) **Network Interconnection:**

- (a) The Authorised Entity may establish inter-connectivity with the entities authorised to provide Internet Service under Section 3(1)(a) of the Telecommunications Act, 2023, CDN providers, and other IXP authorised entities.
- (b) The Authorised Entity may obtain leased bandwidth from any other entity authorised to provide such bandwidth on lease.
- (c) The Authorised Entity shall use Internet Protocol (IP) and shall meet the interface requirements as prescribed by the Central Government to connect with other authorised entity's network.

(7) **Safety:** The Authorised Entity must ensure compliance with safety standards, and other technical requirements as and when prescribed. Regular audits may be conducted to verify adherence.

9. Operating conditions:

- (1) The Authorised Entity shall mutually decide and agree upon the resources required for interconnecting with other authorised entity's network as well as time frame for the same.
- (2) The Authorised Entity shall not in any manner discriminate between peers and provide facilities on equitable terms.
- (3) In case of revocation of the Authorisation of any authorised entity, the interconnection with such entity shall have to be withdrawn within one hour of the receipt of intimation or within such time as directed by the Central Government in writing.

(4) Principle of non-discriminatory treatment:

- (a) The Authorised Entity shall not engage in any discriminatory treatment of content, including based on the sender or receiver, the protocols being used or the telecommunication equipment.
- (b) The Authorised Entity is prohibited from entering into any arrangement, agreement or contact, by whatever name called, with any person, natural or legal, that has the effect of discriminatory treatment of content.
- (c) Nothing contained in this provision shall restrict the provision of any specialized arrangements by the Authorised Entity, Provided that the provision of the specialized arrangements is not detrimental to the availability and overall performance.

For the purpose of this provision:

- (i) "Content" shall include all content, applications, services, and any other data, including its end-point information, which can be accessed or transmitted over the Internet.
- (ii) "Discriminatory treatment" shall include any form of discrimination, restriction or interference in the treatment of content, including practices like blocking, degrading, slowing down or granting preferential speeds or treatment to any content.

- (iii) "Specialized arrangements" shall mean facilities that are optimized for specific content, protocols, or user equipment, where the optimization is necessary in order to meet specific delivery requirements.

(5) **Right to inspect:**

The Central Government or its authorised representative shall have right to access and inspect sites and telecommunication equipment, and systems used for providing telecommunication network under the scope of the Authorisation. The inspection will ordinarily be carried out after reasonable notice period except in circumstances, where giving such a notice will defeat the very purpose of the inspection.

(6) **Location of Network Elements:**

The Authorised Entity shall provide location details of all network elements, and any other details as may be required by the Central Government from time to time.

(7) **Confidentiality of information:**

Subject to terms and conditions of the authorisation, the Authorised Entity shall take all necessary steps to safeguard the privacy and confidentiality of any information about the eligible authorised entities to whom it provides the telecommunication network.

(8) **Sharing of Infrastructure:**

- (a) Authorised Entity is allowed to share the passive infrastructure such as building, tower, electrical equipment including battery and power plant, dark fiber, duct space, Right of Way, etc. owned, established, and operated under the Authorisation with all types of network authorised entities.
- (b) Authorised Entity is allowed to share all types of active infrastructure elements owned, established, and operated by it under the Authorisation with all types of eligible network authorised entities as per the scope of their authorisation.

(9) The Authorised Entity shall provide to the Central Government/ TRAI, a

quarterly report indicating the details of IXP Nodes or Points of Presence (PoPs) with their locations and number of connected members. The Authorised Entity shall provide to the licensor/ TRAI on regular basis the volume of internet traffic flowing through its network.

10. Security conditions:

- (1) The Authorised Entity shall meet the instructions/ directions of the Central Government issued from time to time in the interest of national security as per relevant sections of the Telecommunication Act, 2023.
- (2) The Authorised Entity shall make available on demand to the person authorised by the Central Government, full access to the Applicable System for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.
- (3) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.
- (4) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
- (5) The Authorised Entity shall create facilities for the monitoring of all intrusions, attacks and frauds on its technical facilities and provide reports on the same as prescribed by the Central Government. Such facilities shall be created within 12 months since the date of the Authorisation and report the same to the Central Government.
- (6) The use of the network for anti-national activities would be construed as an offence punishable under the Indian Penal Code or other applicable law. The networks cannot be used in such a manner as to endanger or make vulnerable a networked infrastructure. Acts such as break-ins or attempted break-ins of Indian networks shall be dealt with in accordance

with the Section 42 of the Telecommunications Act, 2023 and Bhartiya Nyaya Sanhita (BNS).

- (7) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.
- (8) The Authorised Entity shall also ensure compliance of the following conditions:
 - (a) The majority Directors on the Board of the Entity shall be Indian citizens.
 - (b) The Chief Officer in charge of technical network operations and the Chief Security Officer/ Chief Information Security Officer, in-charge of Network Elements, and System Administrators associated with the Authorised Entity shall be resident Indian citizen.
 - (c) The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted on annual basis by Ministry of Home Affairs (MHA). The directions of MHA shall be binding on the Entity.
 - (d) The Authorised Entity may be restricted from operating in any sensitive area from National Security angle, as determined by the Central Government.
- (9) The Authorised Entity shall block Internet sites/Uniform Resource Locators (URLs)/Uniform Resource Identifiers (URIs) and/or specific networks subscribers, as identified and directed by the Central Government from time to time in the interest of national security or

public interest.

- (10) The Authorised Entity shall provide Remote Access (RA) to the network only with prior approval of the Central Government.
- (11) A record of complete network diagram along with details of connectivity shall be available at the site.

11. Application of Telecommunication Act 2023:

The Authorised Entity shall adopt all means and facilitate in every manner the application of the Telecommunication Act 2023, as modified or replaced from time to time, and rules made thereunder.

Chapter-IV
Terms and Conditions for Satellite Earth Station Gateway (SESG)
Provider Authorisation

1. Period of Authorisation:

The Authorisation shall be valid for a period of 20 years from the effective date of the Authorisation unless revoked earlier for reasons as specified in these rules.

2. Renewal of Authorisation:

- (1) The Central Government may renew, if deemed expedient, the Authorisation by a term equivalent to the period of validity of the Authorisation, upon request of the Authorised Entity, if made at least 12 months prior to the expiry of the Authorisation, on the terms specified by the Central Government, subject to the extant policy. The decision of the Central Government shall be final and binding in this regard.
- (2) No Entry Fee shall be levied at the time of renewal of the Authorisation. However, the Authorised Entity may have to pay a nominal fee, as notified by the Central Government, at the time of renewal.

3. Area of the Authorisation:

The Area of the Authorisation shall be at the National level.

4. Non-exclusivity clause:

This authorisation will be granted on non-exclusive basis and additional authorisations may be issued from time to time in future without any restriction on number of authorised entities with same or different entry conditions.

5. Scope of Authorisation:

- (a) The Authorised Entity may establish, operate, maintain, or expand satellite earth station gateways (SESGs) in India for all types of satellite

systems for which the Central Government has given its permission. However, before establishing an SESG, the Authorised Entity shall obtain the prior permission of the Central Government.

- (b) The Authorised Entity may provide its SESG infrastructure to the entities which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023 and are permitted to use satellite media under their scope of service.
- (c) The Authorised Entity may install the baseband equipment at its SESGs on behalf of the service authorised entities to whom it is providing its SESG infrastructure.
- (d) The Authorised Entity, for configuration and provisioning purposes, may utilize the spectrum of its partnering service authorised entity on its SESG. Such configuration and provisioning may be done by the Authorised Entity on behalf of the partnering service authorised entity, and the right to use of spectrum will remain with the partnering service authorised entity.
- (e) The Authorised Entity may connect its SESGs with its points of presence (PoPs) in India through optical fiber cable (OFC) system.
- (f) Under this authorisation, the Authorised Entity shall not establish any other telecommunication network which requires a separate network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (g) The Authorised Entity shall not provide any telecommunication service which requires service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023.

6. General Conditions:

- (1) **Foreign Direct Investment (FDI) Norms:** The Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to time,

by Authorised Entity as well as investors.

Notwithstanding with the above provision, foreign investment shall be subject to following conditions:

- (a) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- (b) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the clause No. (a) above, such a subsequent change in beneficial ownership will also require Government approval.
- (c) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.
- (d) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
- (e) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
- (f) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.

(2) **Modifications in the Terms and Conditions of Authorisation:**

- (a) The Central Government reserves the right to modify at any time the terms and conditions of the Authorisation, or incorporate new

conditions, if in the opinion of the Central Government, it is considered necessary or expedient to do so in the interest of national security, public interest and for proper conduct of the Telecommunication.

- (b) Any amendment in rules containing the terms and conditions of the Authorisation shall be carried out by the Central Government only after considering recommendations of the Telecom Regulatory Authority of India on the subject matter.

(3) **Restriction on Transfer of Authorisation:**

The Authorised Entity shall not, without the prior written consent of the Central Government, either directly or indirectly, assign or transfer this authorisation in any manner whatsoever to a third party or enter into any agreement for sub-authorisation and/ or partnership relating to any subject matter of the Authorisation to any third party either in whole or in part i.e. no sub-leasing/partnership/ third party interest shall be created. Mergers, demergers or acquisitions, or other forms of restructuring, as well as transfer of Authorisation shall be subject to the Rules notified under section 3(5) of the Telecommunications Act, 2023.

(4) **Provision of Network:**

- (a) The Authorised Entity shall be responsible for, and is authorised to install, test and commission all the Applicable systems for establishing SESGs.
- (b) The Authorised Entity may take telecommunication network resources on lease or hire from cloud service providers, which are either empaneled by the Ministry of Electronics and Information Technology (MeitY), Government of India as cloud service providers, or are authorised under Section 3(1) of the Telecommunications Act, 2023. The cloud is to be situated in India. The networks resources taken on lease or hire from cloud service providers shall be treated as part of the network of the Authorised Entity:

Provided that in respect of the telecommunication network resources taken on lease or hire by the Authorised Entity from cloud service providers -

(i) All security related compliances shall be the responsibility of the Authorised Entity.

(ii) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.

(iii) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure.

(c) The Authorised Entity shall ensure that-

(i) All its telecommunication network infrastructure and equipment, either owned, or taken on lease or hire, are located in India.

(ii) The associated data/ information is stored in India.

(d) Any dispute, with regard to the provision of telecommunication network shall be a matter only between the aggrieved party and the Authorised Entity. In no case, the central Government shall bear any liability or responsibility in the matter. The Authorised Entity shall keep the Central Government indemnified for all claims, cost, charges or damages in the matter.

(5) Requirement to furnish Information:

(a) The Authorised Entity shall furnish to the Central Government/ TRAI, on demand in the manner and as per specified timelines such documents, accounts, estimates, returns, reports or other

information in accordance with the rules/ orders as may be prescribed or as directed from time to time.

- (b) Any change in the details such as the name of the authorised entity, ownership, address, and contact details provided while obtaining the SESG authorisation shall be updated on Saral Sanchar portal, within 15 days of such change.
- (c) The Authorised Entity shall submit the requisite details of the satellite system for which the Satellite Earth Station Gateway is proposed to be established.
- (d) The Authorised Entity shall also submit complete details of the terms and conditions of the contract/ authorisation agreement entered into with the satellite operator for establishing the Satellite Earth Station Gateway.

(6) **Penalty, Suspension, Surrender, Termination/ Revocation of Authorisation:**

- (a) In case of breach of any of the terms and conditions of Authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation.
- (b) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by the Rules on Adjudication and Appeal notified under the Telecommunications Act, 2023.
- (c) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer, suspend, curtail or revoke the Authorisation, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.

- (d) For this purpose, the Central Government will issue a show cause notice of 21 days to the Authorised Entity. If the Central Government decides to revoke the Authorisation, the same will be effective from the 61st calendar days from the date of issue of such termination/ revocation order. The Authorised Entity shall be required to give a notice of at least 30 Calendar days to the authorised entities to whom it is providing its telecommunication network within this period of revocation order.
- (e) The Authorised Entity aggrieved by an order of the Designated Appeals Committee under section 36 of the Telecommunications Act, 2023, in so far as it pertains to matters under sub-section (1) of section 32 of the Telecommunications Act, 2023, or an order of the Central Government under sub-section (2) of section 32 of the Telecommunications Act, 2023, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by the Authorised Entity.
- (f) The Authorised Entity may surrender the Authorisation, by giving a notice of at least 60 Calendar days in advance. In such a case, it shall also notify all authorised entities to whom it is providing its telecommunication network by sending a 30 Calendar days' notice. The effective date of the surrender shall be 61st Calendar days counted from the date of receipt of such notice by the Central Government, if it is not rejected by the Central Government within 30 days of date of receipt of the notice.
- (g) The Central Government reserves the right to suspend the operation of the Authorisation in whole or in part, at any time, if, in the opinion of the Central Government, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the

Telecommunication. Provided that if situation so warrants, the Central Government may dispense with the issue of notice prior to such suspension. The decision of the Central Government shall be final and binding in this regard.

(h) Provided further that the Central Government shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Provided also that the suspension of the authorisation shall not be a cause or ground for extension of the period of the authorisation and suspension period will be taken as period spent.

(i) The Central Government reserves the right to terminate/ revoke/ suspend the Authorisation, in whole or in part, at any time in the interest of public by giving a notice of 60 Calendar days from the date of issue of such notice:

Provided that, in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations, the Central Government has the right to revoke/ suspend the Authorisation, in whole or in part, without any notice period.

(j) Under Section 21 of the Telecommunications Act, 2023, the Central Government may issue notification for taking such measures as are necessary to take over the equipment and networks of the Authorised Entity in the interest of national security or in the event of national emergency/war or low intensity conflict or similar type of situations or any other eventuality in public interest as declared by the Central Government. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government

reserves the right to keep any area out of the operation zone if implications of security so require:

Provided that any taking over of the Authorisation, issuance of an order and exclusion of an area, as described above shall neither be a ground of extension of the authorisation period or expansion of area in different corner or reduction of duly payable fee.

- (k) In case of suspension or termination/ revocation of the Authorisation, the Central Government may also impose a financial penalty not exceeding the amount as provided in Second Schedule of the Telecommunications Act, 2023 per service area for violation of terms and conditions of the Authorisation.
- (l) The Authorised Entity shall not be entitled to the refund of any fees or charges paid in respect of or under an authorisation granted under the Telecommunications Act, 2023, if such authorisation is suspended, curtailed, revoked or varied.

(7) Actions pursuant to Revocation of Authorisation

- (a) In case the Central Government decides to revoke the Authorisation, the Central Government shall proceed in accordance with the terms and conditions provided in the rules for security interest notified under Telecommunications Act, 2023 provided by the Central Government. In cases where no such security interest is provided by the Central Government, any dues on the Authorised Entity shall be recovered by the Central Government in accordance with the extant law.

(8) Compliance to the Reporting Requirement:

- (a) The Authorised Entity shall submit a compliance report regarding compliance of FDI norms on 1st day of January of every year to the Central Government in proforma as may be prescribed from time to time. This is to be certified by Company Secretary or Statutory Auditor, countersigned by duly authorised Director of the Authorised Entity. When there is a change in FDI in the

Authorised Entity, the Authorised Entity shall also submit the FDI compliance report within 15 days.

- (b) The Authorised Entity shall also ensure that any change in shareholding shall be subject to all applicable statutory permissions under Laws of India.
- (c) Change in the name of Authorised Entity, as per the provisions of the Indian Companies Act, 2013 shall have to be intimated to the Central Government in writing along with certified copy of the name change certificate within 30 days from the date of issue of such certificate by Registrar of Companies.

(9) **Force- Majeure:**

- (a) If at any time, during the continuance of the Authorisation, the performance in whole or in part, by the Authorised Entity, of any obligation under the Authorisation is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the Authorised Entity), fire, floods, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such EVENT is given by the Authorised Entity to the Central Government, within 21 Calendar days from the date of occurrence thereof, the Central Government shall, by reason of such event, neither revoke the Authorisation, nor claim any damages against the Authorised Entity, in respect of such non-performance or delay in performance:
- (b) However, the Force Majeure events noted above shall not in any way cause extension in the period of the Authorisation.
- (c) The Authorised Entity shall not be entitled to claim any damages against the Central Government for non-performance or delay in performance of the Central Government's obligations by reason

of the EVENT.

(10) **Way Leave:**

The Authorised Entity shall make its own arrangements for Right of Way (RoW) as per the rules notified under Chapter III of the Telecommunications Act, 2023.

(11) **Other Conditions:**

- (a) The Authorised Entity shall be bound by these rules, the terms and conditions contained in the Authorisation document, instructions, as issued by the Central Government, and the orders/ directions/ regulations of TRAI as per the provisions of the TRAI Act, 1997, as amended from time to time.
- (b) The statutory provisions and the rules made under the Telecommunications Act, 2023 or TRAI Act, 1997 and any other relevant Act shall govern the provision of network under the Authorisation. Any other rule/ order/ regulation/ direction passed under these statutes shall be binding on the Authorised Entity.

7. Commercial conditions:

The Authorised Entity may provide its SESG infrastructure to eligible service authorised entities as per the mutual agreement on fair, and non-discriminatory basis. However, the Central Government/ TRAI may prescribe the commercial conditions under which the SESG infrastructure may be provided to the eligible service authorised entities.

8. Financial conditions:

(1) **FEES PAYABLE:**

(a) **Application Processing Fee:**

A non-refundable Application Processing Fee of Rupees Ten Thousand shall be paid by the Authorised Entity.

(b) **Entry Fee:**

A one-time non-refundable Entry Fee of Rupees Ten Lakh shall be paid by the Authorised Entity.

9. Technical conditions:

- (1) The Authorised Entity shall utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from time to time.
- (2) The Authorised Entity shall specify the details of technology and other performance parameters of the systems proposed to be deployed.
- (3) The Authorised Entity shall adopt Renewable Energy Technologies (RETs) for powering the telecom network, deploy energy efficient equipment and reduce the carbon footprint as per directions/ instructions/ guidelines issued in this regard by Central Government/ TRAI from time to time.
- (4) **The Applicable System:**
In the process of operating the telecommunication network as per the scope of the authorisation, the Authorised Entity shall be responsible for:
 - (a) the proper upkeep and maintenance of the Applicable System; and
 - (b) meeting the criteria of performance of the Applicable System.
- (5) **Engineering Details:**
 - (a) The Authorised Entity shall furnish complete technical details of the applicable system to the Central Government or its authorised representative(s), in such manner and at such times as may be required.

- (b) The Authorised Entity shall supply all tools, test instruments and other accessories to the testing party of Central Government for conducting tests at any time during the currency of the Authorisation.
- (6) **Safety:** The Authorised Entity must ensure compliance with safety standards, and other technical requirements as and when prescribed. Regular audits may be conducted to verify adherence.

10. Operating conditions:

(1) Sharing of Infrastructure:

- (a) Authorised Entity is allowed to share the passive infrastructure such as building, tower, electrical equipment including battery and power plant, dark fiber, duct space, Right of Way, etc. owned, established, and operated under the Authorisation with all types of network authorised entities.
- (b) Authorised Entity is allowed to share its SESGs with other SESG authorised entities.

(2) Right to inspect:

The Central Government or its authorised representative shall have right to access and inspect sites and telecommunication equipment, and systems used for providing telecommunication network under the scope of the Authorisation. The inspection will ordinarily be carried out after reasonable notice period except in circumstances, where giving such a notice will defeat the very purpose of the inspection.

(3) Location of Network Elements:

The Authorised Entity shall provide location details of all network elements, and any other details as may be required by the Central Government from time to time.

(4) Confidentiality of information:

Subject to terms and conditions of the authorisation, the Authorised Entity shall take all necessary steps to safeguard the privacy and

confidentiality of any information about the eligible authorised entities to whom it provides the telecommunication network.

- (5) The Authorised entity will obtain SACFA clearance apart from the necessary clearance from Satellite Monitoring Center (SMC) before the start of the operation of Satellite Earth Station Gateway.
- (6) The Authorised Entity shall provide its SESG infrastructure to the entities which are authorised under Section 3(1)(a) of the Telecommunications Act, 2023 and are permitted to use satellite media under their scope of service in fair, and non-discriminatory manner.
- (7) For establishing a new Satellite Earth Station Gateway subsequently, the Authorised Entity shall seek permission of the Central Government for the establishment of the new Satellite Earth Station Gateway.
- (8) The satellite spectrum (gateway-side spectrum as well as user-side spectrum) shall be assigned only to the eligible service authorised entities and not to the SESG Authorised Entity.
- (9) **Baseband equipment:**
The baseband equipment to be deployed at SESGs of the Authorised Entity shall be owned by the eligible service authorised entities interworking with the authorised Entity, and not by the Authorised Entity.
- (10) **Assignment of spectrum:**
The satellite spectrum (gateway-side spectrum, as well as user-side spectrum) shall not be assigned to the Authorised Entity.

11. Security conditions:

- (1) The Authorised Entity shall meet the instructions/ directions of the Central Government issued from time to time in the interest of national security as per relevant sections of the Telecommunication Act, 2023.
- (2) The Authorised Entity shall make available on demand to the person authorized by the Central Government, full access to the Applicable System for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.

- (3) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.
- (4) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
- (5) The Authorised Entity shall create facilities for the monitoring of all intrusions, attacks and frauds on its technical facilities and provide reports on the same as prescribed by the Central Government. Such facilities shall be created within 12 months since the date of the Authorisation and report the same to the Central Government.
- (6) The use of the network for anti-national activities would be construed as an offence punishable under the Indian Penal Code or other applicable law. The networks cannot be used in such a manner as to endanger or make vulnerable a networked infrastructure. Acts such as break-ins or attempted break-ins of Indian networks shall be dealt with in accordance with the Section 42 of the Telecommunications Act, 2023 and Bhartiya Nyaya Sanhita (BNS).
- (7) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.
- (8) The Authorised Entity shall also ensure compliance of the following conditions:

- (a) The majority Directors on the Board of the Entity shall be Indian citizens.
 - (b) The Chief Officer in charge of technical network operations and the Chief Security Officer/ Chief Information Security Officer, in-charge of Network Elements, and System Administrators associated with the Authorised Entity shall be resident Indian citizen.
 - (c) The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted on annual basis by Ministry of Home Affairs (MHA). The directions of MHA shall be binding on the Entity.
 - (d) The Authorised Entity may be restricted from operating in any sensitive area from National Security angle, as determined by the Central Government.
- (9) The Authorised Entity shall abide by the instructions issued by the Government on the security aspects related to the establishment and operation of Satellite Earth Station Gateway near Line of Control (LOC), Line of Actual Control (LAC) and International Border (IB).

12. Application of Telecommunication Act 2023: The Authorised Entity shall adopt all means and facilitate in every manner the application of the Telecommunication Act 2023, as modified or replaced from time to time, and rules made thereunder.

Chapter-V
Terms and Conditions for Cloud-hosted Telecommunication Network
(CTN) Authorisation

1. Period of Authorisation:

The Authorisation shall be valid for a period of 20 years from the effective date of the Authorisation unless revoked earlier for reasons as specified in these rules.

2. Renewal of Authorisation:

- (1) The Central Government may renew, if deemed expedient, the Authorisation by a term equivalent to the period of validity of the Authorisation, upon request of the Authorised Entity, if made at least 12 months prior to the expiry of the Authorisation, on the terms specified by the Central Government, subject to the extant policy. The decision of the Central Government shall be final and binding in this regard.
- (2) No Entry Fee shall be levied at the time of renewal of the Authorisation. However, the Authorised Entity may have to pay a nominal fee, as notified by the Central Government, at the time of renewal.

3. Area of the Authorisation:

The Area of the Authorisation shall be at the National level.

4. Non-exclusivity clause:

This authorisation will be granted on non-exclusive basis and additional authorisations may be issued from time to time in future without any restriction on number of authorised entities with same or different entry conditions.

5. Scope of Authorisation:

- (1) The Authorised Entity may provide cloud-hosted telecommunication network-as-a-service (CTNaaS) to the eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.
- (2) The term 'CTNaaS' shall cover the following activities:
 - (i) Provision of physical infrastructure to any other entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for housing its telecommunication equipment;
 - (ii) Provision of dedicated telecommunication equipment to any other entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for use in its telecommunication network;
 - (iii) Provision of virtual machine(s) to any other entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for use in its telecommunication network; and
 - (iv) Provision of telecommunication network functionality to any entity authorised under Section 3(1)(a) of the Telecommunications Act, 2023 for providing telecommunication services.
- (3) Under this authorisation, the Authorised Entity shall not establish any other telecommunication network which requires a separate network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (4) Under this authorisation, the Authorised Entity shall not provide any telecommunication service which requires a service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023.

6. General Conditions:

(1) Foreign Direct Investment (FDI) Norms:

The Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to

time, by Authorised Entity as well as investors.

Notwithstanding with the above provision, foreign investment shall be subject to following conditions:

- (a) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
- (b) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the clause No. (a) above, such a subsequent change in beneficial ownership will also require Government approval.
- (c) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.
- (d) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
- (e) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
- (f) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.

(2) **Modifications in the Terms and Conditions of Authorisation:**

- (a) The Central Government reserves the right to modify at any time the terms and conditions of the Authorisation, or incorporate new

conditions, if in the opinion of the Central Government, it is considered necessary or expedient to do so in the interest of national security, public interest and for proper conduct of the Telecommunication.

- (b) Any amendment in rules containing the terms and conditions of the Authorisation shall be carried out by the Central Government only after considering recommendations of the Telecom Regulatory Authority of India on the subject matter.

(3) **Restriction on Transfer of Authorisation:**

The Authorised Entity shall not, without the prior written consent of the Central Government, either directly or indirectly, assign or transfer this authorisation in any manner whatsoever to a third party or enter into any agreement for sub-authorisation and/ or partnership relating to any subject matter of the Authorisation to any third party either in whole or in part i.e. no sub-leasing/partnership/third party interest shall be created. Mergers, demergers or acquisitions, or other forms of restructuring, as well as transfer of Authorisation shall be subject to the Rules notified under section 3(5) of the Telecommunications Act, 2023.

(4) **Provision of Network:**

- (a) The Authorised Entity shall be responsible for, and is authorised to install, test and commission all the Applicable systems for providing the network authorised under the Authorisation.
- (b) The Authorised Entity shall ensure that-
 - (i) All its telecommunication network infrastructure and equipment, either owned, or taken on lease or hire, are located in India.
 - (ii) The associated data/ information is stored in India.
- (c) Any dispute, with regard to the provision of telecommunication network shall be a matter only between the aggrieved party and the Authorised Entity. In no case, the central Government shall bear any liability or responsibility in the matter. The Authorised

Entity shall keep the Central Government indemnified for all claims, cost, charges or damages in the matter.

(5) **Requirement to furnish Information:**

The Authorised Entity shall furnish to the Central Government/ TRAI, on demand in the manner and as per specified timelines such documents, accounts, estimates, returns, reports or other information in accordance with the rules/ orders as may be prescribed or as directed from time to time.

(6) **Penalty, Suspension, Surrender, Termination/ Revocation of Authorisation:**

- (a) In case of breach of any of the terms and conditions of Authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation.
- (b) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by the Rules on Adjudication and Appeal notified under the Telecommunications Act, 2023.
- (c) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer, suspend, curtail or revoke the Authorisation, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.
- (d) For this purpose, the Central Government will issue a show cause notice of 21 days to the Authorised Entity. If the Central Government decides to revoke the Authorisation, the same will be effective from the 61st calendar days from the date of issue of such termination/ revocation order. The Authorised Entity shall

be required to give a notice of at least 30 Calendar days to the authorised entities to whom it is providing its telecommunication network within this period of revocation order.

- (e) The Authorised Entity aggrieved by an order of the Designated Appeals Committee under section 36 of the Telecommunications Act, 2023, in so far as it pertains to matters under sub-section (1) of section 32 of the Telecommunications Act, 2023, or an order of the Central Government under sub-section (2) of section 32 of the Telecommunications Act, 2023, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by the Authorised Entity.
- (f) The Authorised Entity may surrender the Authorisation, by giving a notice of at least 60 Calendar days in advance. In such a case, it shall also notify all authorised entities to whom it is providing its telecommunication network by sending a 30 Calendar days' notice. The effective date of the surrender shall be 61st Calendar days counted from the date of receipt of such notice by the Central Government, if it is not rejected by the Central Government within 30 days of date of receipt of the notice.
- (g) The Central Government reserves the right to suspend the operation of the Authorisation in whole or in part, at any time, if, in the opinion of the Central Government, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the Telecommunication. Provided that if situation so warrants, the Central Government may dispense with the issue of notice prior to such suspension. The decision of the Central Government shall be final and binding in this regard.

(h) Provided further that the Central Government shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Provided also that the suspension of the authorisation shall not be a cause or ground for extension of the period of the authorisation and suspension period will be taken as period spent.

(i) The Central Government reserves the right to terminate/ revoke/ suspend the Authorisation, in whole or in part, at any time in the interest of public by giving a notice of 60 Calendar days from the date of issue of such notice:

Provided that, in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations, the Central Government has the right to revoke/ suspend the Authorisation, in whole or in part, without any notice period.

(j) Under Section 21 of the Telecommunications Act, 2023, the Central Government may issue notification for taking such measures as are necessary to take over the equipment and networks of the Authorised Entity in the interest of national security or in the event of national emergency/war or low intensity conflict or similar type of situations or any other eventuality in public interest as declared by the Central Government in full or in part in the Service area. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government reserves the right to keep any area out of the operation zone if implications of security so require:

Provided that any taking over of the Authorisation, issuance of an order and exclusion of an area, as described above shall neither

be a ground of extension of the authorisation period or expansion of area in different corner or reduction of duly payable fee.

- (k) In case of suspension or termination/ revocation of the Authorisation, the Central Government may also impose a financial penalty not exceeding the amount as provided in Second Schedule of the Telecommunications Act, 2023 per service area for violation of terms and conditions of the Authorisation.
- (l) The Authorised Entity shall not be entitled to the refund of any fees or charges paid in respect of or under an authorisation granted under the Telecommunications Act, 2023, if such authorisation is suspended, curtailed, revoked or varied.

(7) **Actions pursuant to Revocation of Authorisation**

- (a) In case the Central Government decides to revoke the Authorisation, the Central Government shall proceed in accordance with the terms and conditions provided in the rules for security interest notified under Telecommunications Act, 2023 provided by the Central Government. In cases where no such security interest is provided by the Central Government, the action will be taken as per the Condition given below.
- (b) On revocation or surrender or cancellation of the Authorisation due to reasons whatsoever or expiry of the Authorisation, any dues on the Authorised Entity shall be recovered by the Central Government in accordance with the extant law.

(8) **Compliance Reporting Requirement:**

- (a) The Authorised Entity shall submit a compliance report regarding compliance of FDI norms on 1st day of January of every year to the Central Government in proforma as may be prescribed from time to time. This is to be certified by Company Secretary or Statutory Auditor, countersigned by duly authorised Director of the Authorised Entity. When there is a change in FDI in the

Authorised Entity, the Authorised Entity shall also submit the FDI compliance report within 15 days.

- (b) The Authorised Entity shall also ensure that any change in shareholding shall be subject to all applicable statutory permissions under Laws of India.
- (c) Change in the name of Authorised Entity, as per the provisions of the Indian Companies Act, 2013 shall have to be intimated to the Central Government in writing along with certified copy of the name change certificate within 30 days from the date of issue of such certificate by Registrar of Companies.

(9) **Force- Majeure:**

- (a) If at any time, during the continuance of the Authorisation, the performance in whole or in part, by the Authorised Entity, of any obligation under the Authorisation is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the Authorised Entity), fire, floods, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such EVENT is given by the Authorised Entity to the Central Government, within 21 Calendar days from the date of occurrence thereof, the Central Government shall, by reason of such event, neither revoke the Authorisation, nor claim any damages against the Authorised Entity, in respect of such non-performance or delay in performance:
- (b) However, the Force Majeure events noted above shall not in any way cause extension in the period of the Authorisation.
- (c) The Authorised Entity shall not be entitled to claim any damages against the Central Government for non-performance or delay in performance of the Central Government's obligations by reason

of the EVENT.

(10) Other Conditions:

- (a) The Authorised Entity shall be bound by these rules, the terms and conditions contained in the Authorisation document, instructions, as issued by the Central Government, and the orders/ directions/ regulations of TRAI as per the provisions of the TRAI Act, 1997, as amended from time to time.
- (b) The statutory provisions and the rules made under the Telecommunications Act, 2023 or TRAI Act, 1997 or Information Technology Act, 2000, and any other relevant Act shall govern the provision of network under the Authorisation. Any other rule/ order/ regulation/ direction passed under these statutes shall be binding on the Authorised Entity.

7. **Commercial conditions:** The Authorised Entity may provide CTNaaS to eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023 as per the mutual agreement on fair, and non-discriminatory basis. However, the Central Government/ TRAI may prescribe the commercial conditions under which CTNaaS may be provided to the eligible entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023.

8. **Financial conditions:**

(1) FEES PAYABLE:

(a) Application Processing Fee:

A non-refundable Application Processing Fee of Rupees Ten Thousand shall be paid by the Authorised Entity.

(b) Entry Fee:

A one-time non-refundable Entry fee of Rupees Ten Lakh shall be paid by the Authorised Entity.

9. **Technical conditions:**

- (1) The Authorised Entity shall utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from time to time.
- (2) The Authorised Entity shall adopt Renewable Energy Technologies (RETs) for powering the telecom network, deploy energy efficient equipment and reduce the carbon footprint as per directions/ instructions/ guidelines issued in this regard by Central Government/ TRAI from time to time.
- (3) **The Applicable System:**
In the process of operating the telecommunication network as per the scope of the authorisation, the Authorised Entity shall be responsible for:
 - (a) the proper upkeep and maintenance of the Applicable System; and
 - (b) meeting the criteria of performance of the Applicable System, as and when notified by the Central Government or TRAI.
- (4) **Engineering Details:**
 - (a) The Authorised Entity shall furnish complete technical details of the applicable system to the Central Government or its authorised representative(s), in such manner and at such times as may be required.
 - (b) The Authorised Entity shall supply all tools, test instruments and other accessories to the testing party of Central Government for conducting tests at any time during the currency of the Authorisation.

- (5) **Safety:** The Authorised Entity must ensure compliance with safety standards, and other technical requirements as and when prescribed. Regular audits may be conducted to verify adherence.

10. **Operating conditions:**

(1) **Right to inspect:**

The Central Government or its authorised representative shall have right to access and inspect sites and telecommunication equipment, and systems used for providing telecommunication network under the scope of the Authorisation. The inspection will ordinarily be carried out after reasonable notice period except in circumstances, where giving such a notice will defeat the very purpose of the inspection.

(2) **Location of Network Elements:**

The Authorised Entity shall provide location details of all network elements, and any other details as may be required by the Central Government from time to time.

(3) **Confidentiality of information:**

Subject to terms and conditions of the authorisation, the Authorised Entity shall take all necessary steps to safeguard the privacy and confidentiality of any information about the eligible authorised entities to whom it provides the telecommunication network.

11. **Security conditions:**

- (1) The Authorised Entity shall meet the instructions/ directions of the Central Government issued from time to time in the interest of national security as per relevant sections of the Telecommunication Act, 2023.
- (2) The Authorised Entity shall make available on demand to the person authorized by the Central Government, full access to the Applicable System for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.
- (3) The Authorised Entity shall follow the measures notified by the Central

Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.

- (4) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
- (5) The Authorised Entity shall create facilities for the monitoring of all intrusions, attacks and frauds on its technical facilities and provide reports on the same as prescribed by the Central Government. Such facilities shall be created within 12 months since the date of the Authorisation and report the same to the Central Government.
- (6) The use of the network for anti-national activities would be construed as an offence punishable under the Indian Penal Code or other applicable law. The networks cannot be used in such a manner as to endanger or make vulnerable a networked infrastructure. Acts such as break-ins or attempted break-ins of Indian networks shall be dealt with in accordance with the Section 42 of the Telecommunications Act, 2023 and Bhartiya Nyaya Sanhita (BNS).
- (7) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.
- (8) The Authorised Entity shall also ensure compliance of the following conditions:
 - (a) The majority Directors on the Board of the Entity shall be Indian

citizens.

- (b) The Chief Officer in charge of technical network operations and the Chief Security Officer/ Chief Information Security Officer, in-charge of Network Elements, and System Administrators associated with the Authorised Entity shall be resident Indian citizen.
- (c) The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted on annual basis by Ministry of Home Affairs (MHA). The directions of MHA shall be binding on the Entity.
- (d) The Authorised Entity may be restricted from operating in any sensitive area from National Security angle, as determined by the Central Government.

12. **Application of Telecommunication Act 2023:**

The Authorised Entity shall adopt all means and facilitate in every manner the application of the Telecommunication Act 2023, as modified or replaced from time to time, and rules made thereunder.

Chapter-VI

Terms and Conditions for Mobile Number Portability (MNP) Provider Authorisation

1. Period of Authorisation:

The Authorisation shall be valid for a period of 10 years from the effective date of the Authorisation unless revoked earlier for reasons as specified in these rules.

2. Renewal of Authorisation:

- (1) The Central Government may renew, if deemed expedient, the Authorisation by a term equivalent to the period of validity of the Authorisation, upon request of the Authorised Entity, if made at least 12 months prior to the expiry of the Authorisation, on the terms specified by the Central Government, subject to the extant policy. The decision of the Central Government shall be final and binding in this regard.
- (2) No Entry Fee shall be levied at the time of renewal of the Authorisation. However, the Authorised Entity may have to pay a nominal fee, as notified by the Central Government, at the time of renewal.

3. Area of Authorisation:

- (1) The Area of the MNP authorisation shall be at the Mobile Number Portability (MNP) zone level. For this purpose, the whole country has been divided into two MNP zones (Zone 1 and zone 2), consisting of eleven (11) authorised service areas.
 - (i) The area of the authorisation of MNP Zone 1 consists of Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Punjab, Rajasthan, Uttar Pradesh (East), Uttar Pradesh (West), Delhi and Mumbai authorised service areas.
 - (ii) The area of the authorisation of MNP Zone 2 consists of Andhra Pradesh, Assam, Bihar, Karnataka, Kerala, Madhya Pradesh, North

East, Orissa, Tamil Nadu including Chennai, West Bengal and Kolkata authorised service areas.

Details of the Area of Operation is given in Appendix to this chapter.

- (2) There will be only one MNP authorised entity in each MNP zone. However, the Central Government may, if deemed fit, change the number of MNP zones in the country, amend the composition of authorised services areas within each MNP zone, and also introduce more MNP authorised entities in each MNP zone through a competitive bidding process.

4. **Scope of Authorisation:**

- (1) The Authorised Entity shall establish, operate, maintain, and expand a telecommunication network for providing MNP in its MNP zone to the entities authorised to provide Access Service under Section 3(1)(a) of the Telecommunications Act, 2023.
- (2) The Authorised Entity shall provide location routing number (LRN) update to all entities authorised to provide Access Service, NLD Service and ILD Service under the Telecommunications Act, 2023.
- (3) Under this authorisation, the Authorised Entity shall not establish any other telecommunication network which requires a separate network authorisation under Section 3(1)(b) of the Telecommunications Act, 2023.
- (4) Under this authorisation, the Authorised Entity shall not provide any telecommunication service which requires service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023.

5. **General Conditions:**

- (1) **Foreign Direct Investment (FDI) Norms:** The Foreign Direct Investment (FDI) is permitted up to 100% of equity under Automatic route subject to the observance of terms and conditions of the Authorisation, as notified by the Central Government from time to time,

by Authorised Entity as well as investors.

Notwithstanding with the above provision, foreign investment shall be subject to following conditions:

- (a) An entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, can invest only under the Government route.
 - (b) In the event of the transfer of ownership of any existing or future FDI in an entity in India, directly or indirectly, resulting in the beneficial ownership falling within the restriction/ purview of the clause No. (a) above, such a subsequent change in beneficial ownership will also require Government approval.
 - (c) Both direct and indirect foreign investment in the Authorised Entity shall be counted for the purpose of calculating total FDI.
 - (d) The Authorised Entity/ Indian Promoters/ Investment Companies including their holding companies shall comply relevant provisions of extant FDI policy of the Government of India. While approving the investment proposals, the Government may take into account security concerns.
 - (e) FDI shall be subject to laws of India and not the laws of the foreign country/ countries. The Authorised Entity shall comply with the relevant provisions of FDI policy of the Government of India and such modifications to the policy as may be issued from time to time.
 - (f) The words mentioned hereinabove such as FDI, foreign equity, investment companies, Automatic route, Government route, etc., shall have the same meaning as defined by Department for Promotion of Industry and Internal Trade (DPIIT) in its FDI Policy.
- (2) **Ownership:** The Authorised Entity shall ensure that:
- (a) No entities authorised to provide access service, NLD service or ILD service under the Telecommunications Act, 2023 shall hold

any equity, directly or indirectly, in the Authorised Entity. Further, the Authorised Entity shall also not likewise hold any equity, in any entities authorised to provide access service, NLD service or ILD service under the Telecommunications Act, 2023.

- (b) No MNP authorised entity and its shareholders, either directly or indirectly, shall have any substantial equity share holding (SEH) in more than one MNP authorised entity. 'Substantial equity share holding (SEH) herein shall mean 'an equity of 10% or more'. The Central Government may relax this condition in exceptional circumstances.

(3) **Modifications in the Terms and Conditions of Authorisation:**

- (a) The Central Government reserves the right to modify at any time the terms and conditions of the Authorisation, or incorporate new conditions, if in the opinion of the Central Government, it is considered necessary or expedient to do so in the interest of national security, public interest and for proper conduct of the Telecommunication.
- (b) Any amendment in rules containing the terms and conditions of the Authorisation shall be carried out by the Central Government only after considering recommendations of the Telecom Regulatory Authority of India on the subject matter.

(4) **Restriction on Transfer of Authorisation:**

The Authorised Entity shall not, without the prior written consent of the Central Government, either directly or indirectly, assign or transfer this authorisation in any manner whatsoever to a third party or enter into any agreement for sub-authorisation and/ or partnership relating to any subject matter of the Authorisation to any third party either in whole or in part i.e. no sub-leasing/partnership/third party interest shall be created. Mergers, demergers or acquisitions, or other forms of restructuring, as well as transfer of Authorisation shall be subject to the Rules notified under section 3(5) of the Telecommunications Act, 2023.

(5) **Provision of Network:**

- (a) The Authorised Entity shall be responsible for, and is authorised to install, test and commission all the Applicable systems for providing the network authorised under the Authorisation.
- (b) The Authorised Entity may take telecommunication network resources on lease or hire from cloud service providers, which are either empaneled by the Ministry of Electronics and Information Technology (MeitY), Government of India as cloud service providers, or are authorised under Section 3(1) of the Telecommunications Act, 2023. The cloud is to be situated in India. The networks resources taken on lease or hire from cloud service providers shall be treated as part of the network of the Authorised Entity:

Provided that in respect of the telecommunication network resources taken on lease or hire by the Authorised Entity from cloud service providers -

- (i) All security related compliances shall be the responsibility of the Authorised Entity.
 - (ii) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.
 - (iii) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
- (c) The Authorised Entity shall ensure that-

- (i) All its telecommunication network infrastructure and equipment, either owned, or taken on lease or hire, are located in India.
 - (ii) The associated data/ information is stored in India.
 - (d) Any dispute, with regard to the provision of telecommunication network shall be a matter only between the aggrieved party and the Authorised Entity. In no case, the central Government shall bear any liability or responsibility in the matter. The Authorised Entity shall keep the Central Government indemnified for all claims, cost, charges or damages in the matter.
- (6) **Requirement to furnish Information:**
- The Authorised Entity shall furnish to the Central Government/ TRAI, on demand in the manner and as per specified timelines such documents, accounts, estimates, returns, reports or other information in accordance with the rules/ orders as may be prescribed or as directed from time to time.
- (7) **Penalty, Suspension, Surrender, Termination/ Revocation of Authorisation:**
- (a) In case of breach of any of the terms and conditions of Authorisation granted under the Telecommunications Act, 2023, the Adjudicating Officer appointed by the Central Government may, pursuant to an inquiry, impose financial penalty and/or make recommendations for the consideration of the Central Government regarding suspension, revocation, or curtailment of the duration of the authorisation.
 - (b) Adjudication and appeal of any contravention or breach of the terms and conditions of the Authorisation shall be governed by the Rules on Adjudication and Appeal notified under the Telecommunications Act, 2023.
 - (c) The Central Government may, after due consideration of the recommendations of the Adjudicating Officer, suspend, curtail or

revoke the Authorisation, which may be reversed if the substantial violation is remedied to the satisfaction of the Central Government.

- (d) For this purpose, the Central Government will issue a show cause notice of 21 days to the Authorised Entity. If the Central Government decides to revoke the Authorisation, the same will be effective from the 61st calendar days from the date of issue of such termination/ revocation order. The Authorised Entity shall be required to give a notice of at least 30 Calendar days to the authorised entities to whom it is providing its telecommunication network within this period of revocation order.
- (e) The Authorised Entity aggrieved by an order of the Designated Appeals Committee under section 36 of the Telecommunications Act, 2023, in so far as it pertains to matters under sub-section (1) of section 32 of the Telecommunications Act, 2023, or an order of the Central Government under sub-section (2) of section 32 of the Telecommunications Act, 2023, may prefer an appeal to the Telecom Disputes Settlement and Appellate Tribunal constituted under section 14 of the Telecom Regulatory Authority of India Act, 1997, within a period of thirty days from the date on which a copy of the order is received by the Authorised Entity.
- (f) The Authorised Entity may surrender the Authorisation, by giving a notice of at least 60 Calendar days in advance. In such a case, it shall also notify all entities to whom it is providing its telecommunication network by sending a 30 Calendar days' notice. The Authorised Entity shall pay all fees payable by it till the date on which the surrender of the Authorisation becomes effective. The effective date of the surrender shall be 61st Calendar days counted from the date of receipt of such notice by the Central Government, if it is not rejected by the Central Government within 30 days of date of receipt of the notice.

- (g) The Central Government reserves the right to suspend the operation of the Authorisation in whole or in part, at any time, if, in the opinion of the Central Government, it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the telecommunication. Authorisation Fee payable to the Central Government will not be required to be paid for the period for which the operation of the authorisation remains suspended in whole. Provided that if situation so warrants, the Central Government may dispense with the issue of notice prior to such suspension. The decision of the Central Government shall be final and binding in this regard.
- (h) Provided further that the Central Government shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Provided also that the suspension of the authorisation shall not be a cause or ground for extension of the period of the authorisation and suspension period will be taken as period spent.
- (i) Under Section 21 of the Telecommunications Act, 2023, the Central Government may issue notification for taking such measures as are necessary to take over the equipment and networks of the Authorised Entity in the interest of national security or in the event of national emergency/ war or low intensity conflict or similar type of situations or any other eventuality in public interest as declared by the Central Government in full or in part in the MNP zone. Any specific orders or direction from the Government issued under such conditions shall be immediately applicable to the Authorised Entity without loss of time and shall be strictly complied with. Further, the Central Government reserves the right to keep any area out of the operation zone if implications of security so require:

Provided that any taking over of the Authorisation, issuance of an order and exclusion of an area, as described above shall neither be a ground of extension of the authorisation period or expansion of area in different corner or reduction of duly payable fee.

- (j) In case of suspension or termination/ revocation of the Authorisation, the Central Government may also impose a financial penalty in accordance with the Second Schedule of the Telecommunications Act, 2023 for breach of terms and conditions of the Authorisation.
- (k) The Authorised Entity shall not be entitled to the refund of any fees or charges paid in respect of or under an authorisation granted under the Telecommunications Act, 2023, if such authorisation is suspended, curtailed, revoked or varied.

(8) Actions pursuant to Revocation of Authorisation:

- (a) In case the Central Government decides to revoke the Authorisation, the Central Government shall proceed in accordance with the terms and conditions provided in the rules for security interest notified under Telecommunications Act, 2023 provided by the Central Government. In cases where no such security interest is provided by the Central Government, the action will be taken as per the Condition given below.
- (b) On revocation or surrender or cancellation of the Authorisation due to reasons whatsoever or expiry of the Authorisation, the relevant Bank Guarantee(s) shall be released to the Authorised Entity only after ensuring clearance of all dues, which the Authorised Entity is liable to pay to the Central Government. In case of failure of the Authorised Entity to pay the amounts due to the Central Government, the outstanding amounts shall be realized through encashment of the Bank Guarantees without prejudice to any other action(s) for recovery of the amounts due

to the Central Government without any further communication to the Authorised Entity.

- (c) In the event of termination of MNP Provider Authorisation, the MNP zone so falling vacant may be allotted to the MNP Provider authorised entity in the other zone.

(9) Compliance Reporting Requirement:

- (a) The Authorised Entity shall submit a compliance report regarding compliance of FDI norms on 1st day of January of every year to the Central Government in proforma as may be prescribed from time to time. This is to be certified by Company Secretary or Statutory Auditor, countersigned by duly authorised Director of the Authorised Entity. When there is a change in FDI in the Authorised Entity, the Authorised Entity shall also submit the FDI compliance report within 15 days.
- (b) The Authorised Entity shall also ensure that any change in shareholding shall be subject to all applicable statutory permissions under Laws of India.
- (c) Change in the name of Authorised Entity, as per the provisions of the Indian Companies Act, 2013 shall have to be intimated to the Central Government in writing along with certified copy of the name change certificate within 30 days from the date of issue of such certificate by Registrar of Companies.

(10) Force- Majeure:

- (a) If at any time, during the continuance of the Authorisation, the performance in whole or in part, by the Authorised Entity, of any obligation under the Authorisation is prevented or delayed, by reason of war, or hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of

the Authorised Entity), fire, floods, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such EVENT is given by the Authorised Entity to the Central Government, within 21 Calendar days from the date of occurrence thereof, the Central Government shall, by reason of such event, neither revoke the Authorisation, nor claim any damages against the Authorised Entity, in respect of such non-performance or delay in performance:

- (b) However, the Force Majeure events noted above shall not in any way cause extension in the period of the Authorisation.
- (c) While it shall normally not be a ground for non-payment of Authorisation Fee, the liability for payment of Authorisation Fee for such inoperative period(s) due to force majeure clause may, however, be reduced/ waived by the Central Government, at its discretion based on circumstances of the EVENT.
- (d) The Authorised Entity shall not be entitled to claim any damages against the Central Government for non-performance or delay in performance of the Central Government's obligations by reason of the EVENT.

(11) **SET OFF:**

- (a) In the event any sum of money or claim becomes recoverable from or payable by Authorised Entity to the Central Government either against the Authorisation or otherwise in any manner, such money or claim can be (without restricting any right of set off for counter claim given or employed by law) deducted or adjusted against any amount or sum of money then due or which at any time thereafter may become due to the Authorised Entity under the Authorisation.
- (b) The aforesaid sum of money payable to the Authorised Entity shall include any Security/ Bank Guarantee which can be converted into money.

- (c) After exercising the right of set off, the Central Government shall inform the Authorised Entity of the action taken.

(12) Other Conditions:

- (a) The Authorised Entity shall be bound by these rules, the terms and conditions contained in the Authorisation document, instructions, as issued by the Central Government, and the orders/ directions/ regulations of TRAI as per the provisions of the TRAI Act, 1997, as amended from time to time.
- (b) The statutory provisions and the rules made under the Telecommunications Act, 2023 or TRAI Act, 1997, and any other relevant Act shall govern the provisions of service under the Authorisation. Any other rule/ order/ regulation/ direction passed under these statutes shall be binding on the Authorised Entity.

6. Commercial conditions:

The Authorised Entity shall charge 'per port transaction fee' for Mobile Number Portability as per the regulations/ directions/ orders (as amended from time to time) of TRAI from the entities authorised to provide access service.

7. Financial conditions:

(1) FEES PAYABLE:

(a) Application Processing Fee

A non-refundable Application Processing Fee of Rupees Ten Thousand shall be paid by the Authorised Entity.

(b) Entry Fee

A one-time non-refundable Entry Fee of Rupees Fifty Lakh shall be paid by the Authorised Entity.

(c) Authorisation fee

In addition to the Entry Fee described above, the Authorised Entity shall pay Authorisation fee annually @ 1 (one) % of Adjusted Gross Revenue (AGR) of the Authorised Entity. There

shall be a moratorium of authorisation fee payment for first two years from effective date of the authorisation.

(2) Definitions of Gross Revenue (GR), Applicable Gross Revenue (ApGR) and Adjusted Gross Revenue (AGR)

(a) Gross Revenue (GR)

The Gross Revenue shall be inclusive of revenue from operations, porting fees, sale proceeds of any software & hardware items, revenue on account of interest, dividend, capital gains, value added services, supplementary services, access or interconnection charges, revenue from permissible sharing of infrastructure and any other miscellaneous revenue etc., without any set-off from related items of expense.

(b) Applicable Gross Revenue (ApGR)

ApGR shall be equal to Gross Revenue (GR) of the Authorised Entity as reduced by the items listed below:

- (i) Revenue from operations other than telecom activities/ operations.
- (ii) Revenue from activities under a license/ permission/ authorisation issued by Ministry of Information and Broadcasting.
- (iii) Receipts from the Digital Bharat Nidhi.
- (iv) List of other income* to be excluded from GR to arrive at ApGR
 - a. Income from Dividend
 - b. Income from Interest
 - c. Capital Gains on account of profit of Sale of fixed assets and securities
 - d. Gains from Foreign Exchange rates fluctuations
 - e. Income from property rent
 - f. Insurance claims
 - g. Bad Debts recovered

h. Excess Provisions written back

* subject to conditions given in Annexure-D

(c) **Adjusted Gross Revenue (AGR)**

Adjusted Gross Revenue shall be same as Applicable Gross Revenue (ApGR).

(3) SCHEDULE OF PAYMENT OF ANNUAL AUTHORISATION FEE AND OTHER DUES

- (a) For the purposes of the Authorisation Fee, the 1st year shall end on 31st March following the date of end of period of moratorium of payment of Authorisation fee i.e. first two years from the effective date of the Authorisation and the Authorisation fee for the First year shall be determined on a pro-rata basis for the actual duration of the "year". From second year onwards, the year shall be of Twelve English calendar months from 1st of April to the 31st March for payment of Authorisation Fee.

EXPLANATION: The Authorisation fee for the first quarter of the first year for the purpose of Authorisation fee and last quarter of the last year of the Authorisation will be computed with reference to the actual number of days after excluding the other quarters, each being of three months.

- (b) Authorisation Fee shall be payable in four quarterly installments during each financial year (FY). Quarterly installment of Authorisation fee for the first three quarters of a financial year shall be paid within 15 days of the completion of the relevant quarter. This Fee shall be paid by the AUTHORISED ENTITY on the basis of actual revenue (on accrual basis) for the quarter, self-certified by a representative of the Authorised Entity (Annexure-A). However, for the last quarter of the financial year, the AUTHORISED ENTITY shall pay the Authorisation Fee by 25th March on the basis of expected revenue for the quarter, subject

to a minimum payment equal to the actual revenue share paid for the previous quarter.

- (c) The Authorised Entity shall adjust and pay the difference between the payment made and actual amount duly payable (on accrual basis) for the last quarter of financial year within 15 days of the end of the quarter.
- (d) The quarterly payment shall be made together with a STATEMENT in the prescribed form as Appendix-II to Annexure-A, showing the computation of revenue and Authorisation fee payable. The aforesaid quarterly STATEMENTS of each year shall be required to be audited by the Auditors (hereinafter called Authorised Entity's Auditors) of the Authorised Entity appointed under Section 143 of the Companies' Act, 2013. The report of the Auditor should be in prescribed form as Appendix-I to Annexure-A.
- (e) Any delay in payment of Authorisation Fee payable, or any other dues payable under the Authorisation beyond the stipulated period will attract interest at a rate which will be 2% above the one year Marginal Cost of Lending Rate (MCLR) of State Bank of India existing as on the beginning of the Financial Year (namely 1st April) in respect of the Authorisation fees pertaining to the said Financial Year. The interest shall be compounded monthly and a part of the month shall be reckoned as a full month for the purposes of calculation of interest. A month shall be reckoned as an English calendar month.
- (f) Final adjustment of the Authorisation fee for the year shall be made based on the gross revenue figures duly certified by the auditors of the Authorised Entity in accordance with the provision of Companies' Act, 2013.
- (g) A reconciliation between the figures appearing in the quarterly statements submitted in terms of the Condition 7(3)(b) of the

MNP Provider Authorisation with those appearing in annual accounts shall be submitted along with a copy of the published annual accounts, audit report and duly audited quarterly statements, within 7 (seven) Calendar days of the date of signing of the audit report. The annual financial account and the statement as prescribed above shall be prepared following the norms as prescribed in Annexure-B.

- (h) In case, the total amount paid as quarterly Authorisation Fee for the 4 (four) quarters of the financial year, falls short by more than 10% of the payable Authorisation Fee, it shall attract a penalty of 50% of the entire amount of short payment. However, if such short payment is made good within 60 days from the last day of the financial year, no penalty shall be imposed. This amount of penalty shall be payable within 15 days of the date of signing the audit report on the annual accounts, failing which interest shall be further charged as per terms of Condition 7(3)(e).
- (i) All sums becoming due and payable as mentioned in this Authorisation shall be paid by the Authorised Entity through e-transfers or through a demand draft or Pay Order payable at New Delhi, drawn on any Scheduled Bank, in favour of the Pay & Accounts Officer (HQ), DOT or any other Authority if so designated by Central Government. The Central Government, to ensure proper and correct verification of revenue share paid, can, if deemed necessary, modify, alter, substitute and amend whatever stated in Conditions 7(3)(d), 7(3)(e), 7(3)(f) and 7(3)(g) hereinbefore and hereinafter written.
- (j) The Authorised Entity shall also separately pay charges for network resources obtained by the Authorised Entity from other authorised service providers. This will be governed by mutual agreement and/ or the determination of TRAI if any.

(4) Bank Guarantee

- (a) The Authorised Entity shall submit Bank Guarantee of Rupees Forty Lakh, before grant of the Authorisation from any Scheduled Bank or Public Financial Institution duly authorised to issue such Bank Guarantee, in prescribed format as given below at Annexure-C.
- (b) For the initial year, the amount of Bank Guarantee shall be Rupees Forty Lakh. For the subsequent years, the amount of Bank Guarantee shall be higher of Rupees Ten Lakh or 20% of the estimated sum payable (of Authorisation fee for two quarters and other dues not otherwise securitized).
- (c) This Bank Guarantee should be submitted to securitize the Authorisation fee and other dues not otherwise securitized, to cover the violation of terms and conditions and to ensure the performance under authorisation/ regulations including compliance of instructions issued by the Central Government/ TRAI from time to time. The term "other dues not otherwise securitized" includes the dues arising out of penalties/ financial disincentives imposed by the Central Government / TRAI.
- (d) In order to enhance the Ease of Doing Business, Electronic Bank Guarantee shall be submitted.
- (e) The Bank Guarantee shall be subject to periodic review on six monthly basis by the Central Government and shall be kept valid by the Authorised Entity during the entire currency of the Authorisation.
- (f) The Authorised Entity, on its own, shall extend the validity period of the Bank Guarantees at least one month prior to date of its expiry without any demand or notice from the central Government on year-to-year basis. Any failure to do so, shall amount to violation of the terms of the authorisation and entitle the Central Government to encash the Bank Guarantees and to convert into a cash security without any reference to the

Authorised Entity at his risk and cost. No interest or compensation whatsoever shall be payable by the Central Government on such encashment.

- (g) Where the Bank Guarantees have been encashed partially, the Authorised Entity on such occasions, shall restore the encashed guarantees to the full amount. Any failure to do so shall amount to violation of the terms and conditions of the authorization.
- (h) Without prejudice to its rights of any other remedy, including those under Section 32 of the Act, the Central Government may encash the Bank Guarantee in case of following:
 - (i) Non-payment of authorisation fee or any other fee/charges payable under the Rules of the Authorisation.
 - (ii) In case of any breach in terms & conditions of the authorisation by the Authorised Entity.
 - (iii) Non-payment of dues arising out of penalties/ financial disincentives imposed by the Central Government/ TRAI.

(5) **Preparation of Accounts.**

- (a) The Authorised Entity will draw, keep and furnish independent accounts for the authorisation and shall fully comply orders, directions or regulations as may be issued by TRAI and rules/instructions/directions as are issued by the Central Government from time to time.
- (b) The Authorised Entity shall be obliged to:
 - (i) Compile and maintain accounting records, sufficient to show and explain its transactions in respect of each completed quarter of the Authorisation period or of such lesser periods as the Central Government may specify, fairly presenting the costs (including capital costs), revenue and financial position of the Authorised Entity's business under the Authorisation including a reasonable assessment of the assets employed in and the

liabilities attributable to the Authorised entity's business, as well as, for the quantification of Revenue or any other purpose.

(ii) Procure in respect of each of those accounting statements prepared in respect of a completed financial year, a report by the Authorised Entity's Auditor in the format prescribed by the Central Government, stating inter-alia whether in his opinion the statement is adequate for the purpose of this condition and thereafter deliver to the Central Government a copy of each of the accounting statements not later than three months at the end of the accounting period to which they relate.

(iii) Send to the Central Government a self-certified statement, by authorised representative of the company, containing full account of Revenue as defined in condition 3 earned from the operations for each quarter separately along with the payment for the quarter.

(c) (i) The Central Government or the TRAI, as the case may be, shall have a right to call for and the Authorised Entity shall be obliged to supply and provide for examination of any books of accounts that the Authorised Entity may maintain in respect of the business carried on to provide the network service(s) under the Authorisation at any time without recording any reasons thereof.

(ii) Authorised Entity shall invariably preserve all billing and all other accounting records (electronic as well as hard copy) for a period of three years from the date of publishing of duly audited & approved accounts of the company and any dereliction thereof shall be treated as a material breach independent of any other breach, sufficient to give a cause for cancellation of the Authorisation.

(d) The records of the Authorised Entity will be subject to such scrutiny as may be prescribed by the Central Government so as

to facilitate independent verification of the amount due to the Central Government as its share of the revenue.

- (e) The Central Government may, on forming an opinion that the statements or accounts submitted are inaccurate or misleading, order Audit of the accounts of the Authorised Entity by appointing auditor at the cost of the Authorised Entity and such auditor(s) shall have the same powers which the statutory auditors of the company enjoy under Section 143 of the Companies Act, 2013. The remuneration of the Auditors, as fixed by the Central Government, shall be borne by the Authorised Entity.
- (f) The Central Government may also get conducted a 'Special Audit' of the Authorised Entity company's accounts/records by "Special Auditors", the payment for which at a rate as fixed by the CENTRAL GOVERNMENT, shall be borne by the Authorised Entity. This will be in the nature of auditing the audit described in Condition 7(5)(e) above. The Special Auditors shall also be provided the same facility and have the same powers as of the companies' auditors as envisaged in the Companies Act, 2013..
- (g) The Authorised Entity shall be liable to prepare and furnish the company's annual financial accounts according to the accounting norms and principles prescribed and the directions given by the CENTRAL GOVERNMENT or the TRAI, as the case may be, from time to time.
- (h) The Central Government, to ensure proper and correct assessment, verification and settlement of revenue share paid, can, if deemed necessary, add, modify, alter, substitute and amend whatever stated in this Condition. The Authorised Entity shall comply with the instructions/directions issued in this regard from time to time.

8. **Technical conditions:**

- (1) The Authorised Entity shall utilize any type of equipment and product that meet TEC standards, wherever made mandatory by the Central Government from time to time. In the absence of mandatory TEC standard, the Authorised Entity may utilize only those equipment and products which meet the relevant standards set by International standardization bodies, such as, ITU, ETSI, IEEE, ISO, IEC etc.; or set by International Fora, such as 3GPP, 3GPP-2, IETF, MEF, WiMAX, Wi-Fi, IPTV, IPv6, etc. as recognized by TEC and subject to modifications/ adaptation, if any, as may be prescribed by TEC from time to time.
- (2) The Authorised Entity shall specify the details of technology and other performance parameters of the systems proposed to be deployed.
- (3) The Authorised Entity shall interconnect with the entities authorised to provide Access Service, NLD Service, and ILD Service apart from the other MNP authorised entity, and any other entity as mandated by the TRAI/ Licensor.
- (4) The Authorised Entity shall adopt Renewable Energy Technologies (RETs) for powering the telecom network, deploy energy efficient equipment and reduce the carbon footprint as per directions/ instructions/ guidelines issued in this regard by Central Government/ TRAI from time to time.
- (5) **The Applicable System:**
 - (a) The Authorised Entity shall establish, operate and maintain the Applicable System comprising, *inter-alia*, a centralized MNP clearing house (MCH) and a centralized number portability database (NPDB).
 - (b) The Authorised Entity shall also establish, operate and maintain an online disaster recovery (DR) site of the Applicable System at a separate geographic site falling in different seismic zone and with a minimum distance of 500 km.

- (c) The Authorised Entity shall furnish complete technical details of the applicable system to the Central Government or its authorised representative(s), in such manner and at such times as may be required.
 - (d) The Authorised Entity shall supply all tools, test instruments and other accessories to the testing party of Central Government for conducting tests at any time during the currency of the Authorisation.
- (6) **Availability**
- (a) The System (both hardware and software) shall be designed for high availability and continuous operation. All major hardware components, including router/ firewall, web servers, data servers etc. shall have redundancy provisions.
 - (b) The Applicable System shall achieve availability of not less than 99.99% on quarterly basis (i. e. every three months) and any failure of maintaining system below 99.99% (or as per orders/ directions/ regulations of TRAI) service availability, the Bank Guarantee may be forfeited if so, recommended by TRAI.
- (7) **Safety:** The Authorised Entity must ensure compliance with safety standards, and other technical requirements as and when prescribed. Regular audits may be conducted to verify adherence.

9. **Operating conditions:**

(1) **Right to inspect:**

The Central Government or its authorised representative shall have right to access and inspect sites and telecommunication equipment, and systems used for providing telecommunication network under the scope of the Authorisation. The inspection will ordinarily be carried out after reasonable notice period except in circumstances, where giving such a notice will defeat the very purpose of the inspection.

(2) **Location of Network Elements:**

The Authorised Entity shall provide to the Central Government location details of MNP systems (Primary and Disaster Recovery), location of telecom service providers systems connected with Main and DR systems of the Authorised Entity, including routing details etc., and any other details as may be required by the Central Government from time to time. Location of these centers shall not be changed without prior approval of the Central Government.

- (3) **Confidentiality of information:** Subject to terms and conditions of the authorisation, the Authorised Entity shall take all necessary steps to safeguard the privacy and confidentiality of any information about the eligible authorised entities to whom it provides the telecommunication network.

10. **Security conditions:**

- (1) The Authorised Entity shall meet the instructions/ directions of the Central Government issued from time to time in the interest of national security as per relevant sections of the Telecommunication Act, 2023.
- (2) The Authorised Entity shall make available on demand to the person authorized by the Central Government, full access to the Applicable System for technical scrutiny and for inspection, which can be visual inspection or an operational inspection.
- (3) The Authorised Entity shall follow the measures notified by the Central Government under Section 21 of the Telecommunication Act, 2023 in respect of the procurement of telecommunication equipment and telecommunication services only from trusted sources.
- (4) The Authorised Entity shall follow the measures prescribed by the Central Government under Section 22 of the Telecommunications Act, 2023 to protect and ensure cyber security of Telecommunications networks including Critical Telecommunication Infrastructure and Telecommunication services.
- (5) The Authorised Entity shall create facilities for the monitoring of all

intrusions, attacks and frauds on its technical facilities and provide reports on the same as prescribed by the Central Government. Such facilities shall be created within 12 months since the date of the Authorisation and report the same to the Central Government.

- (6) The use of the network for anti-national activities would be construed as an offence punishable under the Indian Penal Code or other applicable law. The networks cannot be used in such a manner as to endanger or make vulnerable a networked infrastructure. Acts such as break-ins or attempted break-ins of Indian networks shall be dealt with in accordance with the Section 42 of the Telecommunications Act, 2023 and Bhartiya Nyaya Sanhita (BNS).
- (7) As per Section 21(f) of the Telecommunications Act, 2023, the Central Government may, if satisfied that it is necessary or expedient so to do, in the interest of national security, friendly relations with foreign States, or in the event of war, by notification take such measures as are necessary in the circumstances of the case, including issuing directions in respect of taking over the control and management of, or suspending the operation of, or entrusting any authority of the Central Government to manage any telecommunication network or part thereof.
- (8) The Authorised Entity shall also ensure compliance of the following conditions:
 - (a) The majority Directors on the Board of the Entity shall be Indian citizens.
 - (b) The Chief Officer in charge of technical network operations and the Chief Security Officer/ Chief Information Security Officer, in-charge of Network Elements, and System Administrators associated with the Authorised Entity shall be resident Indian citizen.
 - (c) The positions of the Chairman, Managing Director, Chief Executive Officer (CEO) and/or Chief Financial Officer (CFO), if held by foreign nationals, would require to be security vetted on

annual basis by Ministry of Home Affairs (MHA). The directions of MHA shall be binding on the Entity.

- (d) The Authorised Entity may be restricted from operating in any sensitive area from National Security angle, as determined by the Central Government.

(9) **Information on Ported Numbers to Security Agencies:**

The Authorised Entity shall provide updated database of ported numbers or other details as may be required by the Central Government/ designated security agencies in the format required by them as per directions issued by the Central Government from time to time.

11. **Application of Telecommunication Act 2023:**

The Authorised Entity shall adopt all means and facilitate in every manner the application of the Telecommunication Act 2023, as modified or replaced from time to time, and rules made thereunder.

Appendix to Chapter VI

Areas of operation for the purpose of MNP Provider Authorisation

Sl. No.	Area of operation for MNP Provider	Telecom circles/ Metro area* covered
1	MNP Zone- 1	Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Punjab, Rajasthan, Uttar Pradesh (E), Uttar Pradesh (W), Delhi and Mumbai authorised service areas
2	MNP Zone-2	Andhra Pradesh, Assam, Bihar, Karnataka, Kerala, Madhya Pradesh, North East, Orissa, Tamil Nadu including Chennai, West Bengal and Kolkata authorised service areas

***Telecom circles/ Metro area will have the following meanings:**

Sl. No.	Name of Service Area	Areas covered
01.	West Bengal Service Area	Entire area falling within the Union Territory of Andaman & Nicobar Islands and area falling within the State of West Bengal and the State of Sikkim excluding the areas covered by Kolkata Metro Service Area.
02.	Andhra Pradesh Service Area	Entire area falling within the State of Andhra Pradesh and Telangana state.
03.	Assam Service Area	Entire area falling within the State of Assam.
04.	Bihar Service Area	Entire area falling within the re-organised State of Bihar and newly created State of Jharkhand pursuant to the Bihar Reorganisation Act, 2000 (No.30 of 2000) dated 25 th August, 2000.

Sl. No.	Name of Service Area	Areas covered
05.	Gujarat Service Area	Entire area falling within the State of Gujarat and Union Territory of Daman and Diu, Silvassa (Dadra & Nagar Haveli).
06.	Haryana Service Area	Entire area falling within the State of Haryana except Panchkula town and the local areas served by Faridabad and Gurgaon Telephone exchanges.
07.	Himachal Pradesh Service Area	Entire area falling within the State of Himachal Pradesh
08.	Jammu & Kashmir Service Area	Entire area falling within the Union Territory of Jammu & Kashmir and Union Territory of Ladakh.
09.	Karnataka Service Area	Entire area falling within the State of Karnataka
10.	Kerala Service Area	Entire area falling within the State of Kerala and Union Territory of Lakshadweep and Minicoy.
11.	Madhya Pradesh Service Area	Entire area falling within the re-organised State of Madhya Pradesh as well as the newly created State of Chattisgarh pursuant to the Madhya Pradesh Reorganisation Act, 2000 (No:28 of 2000) dated 25 th August, 2000.
12.	Maharashtra Service Area	Entire area falling within the State of Maharashtra and Union Territory of Goa, excluding areas covered by Mumbai Metro Service Area.
13.	North East Service Area	Entire area falling within the States of Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur and Tripura.
14.	Odisha Service Area	Entire area falling within the State of Odisha.
15.	Punjab Service Area	Entire area falling within the State of Punjab and Union territory of Chandigarh and Panchkula town of Haryana.

Sl. No.	Name of Service Area	Areas covered
16.	Rajasthan Service Area	Entire area falling within the State of Rajasthan.
17.	Tamilnadu Service Area (including Chennai Service Area)	Entire area falling within the State of Tamilnadu and Union Territory of Puducherry.
18.	Uttar Pradesh (West) Service Area	Entire area covered by Western Uttar Pradesh with the following as its boundary districts towards Eastern Uttar Pradesh: Pilibhit, Bareilly, Badaun, Kasganj (Kanshiram Nagar), Etah, Mainpuri, Etawah and Auraiya. It will exclude the local telephone area of Ghaziabad and Noida. However, it will also include the newly created State of Uttaranchal pursuant to the Uttar Pradesh Reorganisation Act, 2000 (No.29 of 2000) dated 25 th August, 2000.
19.	Uttar Pradesh (East) Service Area	Entire area covered by Eastern Uttar Pradesh with the following as its boundary districts towards Western Uttar Pradesh: Shahjahanpur, Kannauj, Farrukhabad, Lakhimpur, Kanpur Rural and Jalaun (Orai).
20.	Delhi Service Area	Local Areas served by Delhi, Ghaziabad, Faridabad, Noida, and Gurgaon Telephone Exchanges
21.	Kolkata Service Area	Local Areas served by Calcutta Telephones.
22.	Mumbai Service Area	Local Areas served by Mumbai, New Mumbai and Kalyan Telephone Exchanges

NOTE:

1. Yenam, an area of Union Territory of Puducherry is served under Andhra Pradesh Telecom Circle in East Godavari LDCA.
2. The definition of Local areas of exchanges will be as applicable to the cellular

Sl. No.	Name of Service Area	Areas covered
3.		<p>operators at the time of grant of cellular Licenses in Metro cities.</p> <p>The definition of local areas with regard to the above service area is as per the definition applicable to Cellular Mobile Service Licenses as in the year 1994 & 1995, when those Licenses were granted to them. This is in accordance with respective Gazette Notification for such local areas wherever issued and as per the statutory definition under Rule 2 (w) Indian Telegraph Rules 1951, as it stood during the year 1994/1995 where no specific Gazette Notification has been issued.</p>

Annexure A

Self Certificate

I, aged about years son/daughter of Shri, resident of, do solemnly affirm and state as under:

2. That I amof (Name of the Authorised entity), Authorised entity of Authorisation and I am duly authorised by the resolutions dated Passed by Board of Directors of the Company to furnish self-certificate on behalf of(Name of the Authorised entity).

3. That in compliance of Condition No..... of the Authorisation No. granted by the Central Government, for payment of Authorisation fee, a payment of Rs. (Rupees is being made for the periodto The details of calculation of 'revenue' is as per **Annexure-----** (attached).

4. That the contents in para 2 & 3 and Statement made in Annexure ____ are true and correct to the best of my knowledge, based on the records of the Authorised entity.

Authorised representative

Appendix-I to Annexure-A

Format of Auditor's Report on Statement of Revenue

To
The Board of Directors

.....

.....

We have examined the attached Statement of Revenue of(the name of the Authorised Entity) for the quarter(s) ending _____. We have also examined the reconciliation of the cumulative figures for the quarter(s) ending _____ appearing in the Statement of Revenue of the Authorised entity with the figures appearing in the profit and loss account of the company for the year ended _____ which was audited by us. We understand that the aforesaid statement(s) (and the reconciliation) is /are to be furnished to the Central Government for assessment of the Authorisation fee payable by the Authorised entity to the Government, in terms of the Authorisation No..... granted by the Central Government.

We report that:

1. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit.
2. In our view, the company has an adequate internal control system in relation to revenues which is commensurate with its size and the nature of its business. The system, in our opinion, provides reasonable assurance that there is no unrecorded revenue and that all revenue is recorded in the proper amount and in the proper period.
3. In our opinion and to the best of our knowledge and belief and according to the explanations given to us, the Statement has been prepared in accordance with the norms/guidelines contained in the said Authorisation in this behalf and gives a true and fair view of the revenue and authorisation fee payable for the period computed on the basis of the aforesaid guidelines except for the following:

* Strike off wherever not applicable.

(SIGNATURE)

Appendix-II to Annexure-A

Format of Statement of Revenue

(Name and address of operator)

**MNP Provider Authorisation- Mobile Number Portability in -----
(MNP Zone)**

Statement of Revenue for the Quarter

.....of the financial year.....

(AMOUNT IN RUPEES)

S.N.	PARTICULARS	ACTUALS FOR THE CURRENT QUARTER
1	Revenue from MNP operations	
i.	Revenue from Mobile Number Porting fees	
ii.	Revenue from Bureau/ Outsourcing/ Support services	
2	Revenue from other operations	
i.	Sale proceeds of any software items	
ii.	Sale proceeds of any hardware items	
iii.	Charges on account of any value added services, Supplementary Services etc.	
iv.	Access or interconnection charges	
v.	Any other revenue	
3	Income from investments	
i.	Interest income	
ii.	Dividend income	
iii.	Any other miscellaneous receipt from investments.	

4	Non-refundable deposits	
5	Revenue from franchisees/resellers including all commissions and discounts etc	
6	Revenue from sharing/ leasing of infrastructure	
7	Revenue from Operations/ Activities other than Telecom Operations/ Activities under a license from Ministry of Information and Broadcasting	
8	Miscellaneous revenue	
AA	Gross Revenue of the Authorised Entity : (Add 1 to 8)	
BB	LESS	
1.	Revenue from operations other than telecom activities/ operations	
2.	Revenue from activities under a license from Ministry of Information and Broadcasting	
3.	Receipt from Digital Bharat Nidhi	
4.	Items of Other Income as listed in Annexure- D	
i.	Income from Dividend	
ii.	Income from Interest	
iii.	Capital Gains on account of profit of Sale of fixed assets and securities	
iv.	Gains from Foreign Exchange rates fluctuations	
v.	Income from property rent	

vi.	Insurance claims	
vii.	Bad Debts recovered	
viii.	Excess Provisions written back	
BB	Total (1+2+3+4)	
CC	APPLICABLE GROSS REVENUE (ApGR) (AA- BB)	
DD	ADJUSTED GROSS REVENUE (CC)	
EE	REVENUE SHARE	
	Authorisation Fee @ -----OF ADJUSTED GROSS REVENUE (DD)	

NORMS FOR PREPARATION OF STATEMENT OF REVENUE

- Statement of Revenue shall be prepared separately for MNP Provider authorisation, zone-wise, operated by the Authorised entity.
- Any category of accrued revenue, the amount of which exceeds 5% of the total accrued revenue, shall be shown separately and not combined with any other item/category.
- Accrued Revenue shall indicate:
 - (a) All amounts billable for the period.
 - (b) Any billings for previous years that had been omitted from the previous years' P&L Accounts should be shown separately under any other/ miscellaneous revenue.
 - (c) Any non-refundable deposits collected from the users/franchisees to the extent these are credited to P&L Account for the year should be shown under Non-refundable deposits from users.
- Subsidiary registers/ledgers shall be maintained for each item given above so as to enable easy verification.
- Revenue from MNP (amount billable) shall be shown gross without any netting off.
- Security or any other Deposits taken from the user shall be shown separately, for each category, and the amount that has fallen due for refund but not yet paid also disclosed under two categories, namely:
 - Up to 45 days
 - More than 45 days.
- Goods and Service Tax (GST) billed, collected and remitted to the Government shall not be included in the Statement of Revenue.
- Details of Income from sales of goods shall be furnished indicating the income shall be shown under Income from trading activity
- Details of reversal of previous years' debits, if any, shall be shown component-wise, under the miscellaneous head (eg. Bad debts recovered etc.)
- Item-wise details of expenditure that has been set off against corresponding income.

Proforma for Bank Guarantee

To

The President of India

In consideration of the President of India (hereinafter referred to as 'the Authority') having agreed to grant a _____ Network Authorisation for _____ Zone to M/s _____ of _____ (hereinafter called 'the Authorised entity ') to establish, maintain and operate the Authorisation in accordance with the Authorisation No. _____ dated _____ (hereinafter called 'the said Authorisation') on the terms and conditions contained in the said Authorisation, which inter-alia provides for production of a Bank Guarantee to the extent of Rs. _____ (in words _____) under the said Authorisation by way of security for payment of the said Authorisation fee as well as such other fees or charges required to be paid by the Authorised entity under the Authorisation. We _____ (indicate the name and address and other particulars of the Bank) (hereinafter referred to as 'the Bank') at the request of the Authorised entity hereby irrevocably and unconditionally guarantee to the Authority that the Authorised entity shall pay all the dues, including but not limited to, the Authorisation fee and other charges etc., to the Authority and that the Authorised entity shall render all necessary and efficient services which may be required to be rendered by the Authorised entity in connection with and/or for the performance of terms and conditions of the said Authorisation and further guarantees that the service which shall be provided by the Authorised entity under the said Authorisation, shall be actually performed in accordance with the terms & conditions of the Authorisation to the satisfaction of the Authority.

1. We, the Bank, hereby undertake to pay the Authority an amount not exceeding Rs. (Rupees... only) against any loss or damage caused to or suffered or would be caused to or suffered by the Authority by reason of any failure of the Authorised Entity to extend the validity of the guarantee or give a fresh guarantee in lieu of existing one in terms of Authorisation, or any breach by the said Authorised entity of the terms and conditions contained in the said Authorisation, pay all the above mentioned fees, dues and charges or any part thereof within the periods stipulated in the Authorisation.
2. We, the Bank, hereby in pursuance of the terms of the said Authorisation,

absolutely, irrevocably and unconditionally guarantee as primary obligor and not merely as surety to pay such sum not exceeding Rs. _____ (Rupees Only) to the Authority immediately on demand and without demur stating that the amount claimed is due by way of failure of the Authorised entity to pay any fees or charges or any part thereof in terms of the said Authorisation and to secure due and faithful performance by the Authorised entity of all his/their obligations under the said Authorisation.

3. We, the Bank hereby also undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Authority stating that the amount claimed is due by way of loss or damage caused or would be caused to or suffered by the Authority by reason of breach by the said Authorised entity of any of the terms or conditions contained in the said Authorisation or by reason of the Authorised entity's failure to perform any of its obligations under the said Authorisation.
4. We, the bank, do hereby declare and agree that the decision of the authority as to whether authorised entity has failed to pay the said authorisation fees or any other fees or charge or any part thereof payable under the said Authorisation, whether the Authorised entity has failed to or neglected to perform or discharge his duties and obligations under the terms and conditions of the Authorisation as aforesaid and/or whether the service is free from deficiencies and defects and is in accordance with or not of the terms & conditions of the said Authorisation and as to the amount payable to the Authority by the Bank as to the amount payable to the Authority by the Bank hereunder shall be final and binding on the Bank.
5. We, the bank, do hereby declare and agree that:
 - (a) the Guarantee herein contained shall remain in full force and effect for entire currency of the Authorisation from the date hereof and that it shall continue to be enforceable till all the dues of the Authority and by virtue of the said Authorisation have been fully paid and its claims satisfied or discharged or till Authority satisfies that the terms and conditions of the said Authorisation have been fully and properly carried out by the said Authorised entity and accordingly discharged this guarantee.
 - (b) The Authority shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Authorisation or to extend time of performance of any obligations by the said Authorised entity from time to

time or to postpone for any time or from time to time any of the powers exercisable by the Authority against the said Authorised entity and to forbear or to enforce any of the terms and conditions relating to the said Authorisation and we shall not be relieved from our liability by reason of any variation or extension being granted to the said Authorised entity or forbearance act or omission on the part of the Authority or any indulgence by the Authority to the said Authorised entity or to give such matter or thing whatsoever which under the law relating to sureties would but for this provision, have effect of so relieving us.

- (c) Any claim which we have against the Authorised entity shall be subject and subordinate to the prior payment and performance in full of all the obligations of us hereunder and we will not without prior written consent of the Authority exercise any legal right or remedy of any kind in respect of any such payment or performance so long as the obligations of us hereunder remains owing and outstanding.
- (d) This Guarantee shall be irrevocable and the obligations of us herein shall not be conditional of any prior notice by us or by the Authorised entity.

- 6. We, the BANK, undertake not to revoke this Guarantee during its currency except with the previous consent of the Authority in writing.
- 7. Notwithstanding anything contained above, our liability, under the Guarantee shall be restricted to Rs..... and our Guarantee shall remain in force until.....year from the date hereof. Unless a demand or claim under this Guarantee is made on us in writing within this date i.e all your rights under the Guarantee shall be forfeited and we shall be released and discharged from all liabilities thereunder.

Dated _____ day _____ for _____ (Name of the Bank)

Witness:

1.....
.....

2.....
.....

Annexure-D**List of other income to be excluded from GR to arrive at ApGR**

Sl. No.	Item/ Head of 'Other Income'	Description and conditions applicable
a.	Income from Dividend	<p>Income from dividend is return on investment made by the company. Such investment is made out of surplus funds available with the company. Companies Act, 2013 and Accounting Standard-9 classified dividend income as 'other income' i.e., distinct from the core operations of the entity.</p> <p>Therefore, income from dividend shall not be part of ApGR for the purpose of computation of authorisation fee.</p>
b.	Income from Interest	<p>Income from interest is return on investment made by the company in bank deposits, corporate deposits, debentures etc. Such investment is made out of surplus funds available with the company. Also sometimes, Authorised Entity receives interest from Tax Authorities on advance tax or refundable tax. Companies Act, 2013 and Accounting Standard-9 classified interest income as 'other income' i.e., distinct from the core operations of the entity.</p> <p>At the same time, Authorised Entity accepts refundable deposits from users, telecom vendors and other Authorised Entities. These deposits essentially are part of telecom operations. The interest income earned on such amounts should be recorded and certified by statutory auditors.</p> <p>Therefore, income from interest shall not be part of ApGR for the purpose of computation of</p>

		<p>authorisation fee. However, interest earned on refundable deposits from users, telecom vendors and other Authorised Entities shall be considered in ApGR for the purpose of computation of authorisation fee. Also, any refundable deposit received by the Authorised Entity on the strength of telecom service viz. linkage with tariff, advance rental etc. shall also have similar treatment for inclusion in ApGR.</p>
c.	Capital gains on account of profit on sale of fixed assets and securities	<p>Capital gain earned by the Authorised Entity on the account of profit on sale of assets and securities, are of from investing activities instead of from telecom operations. Therefore, the revenue on account of sale of immovable property, securities, warrants or debt instruments, other items of fixed assets shall not be part of ApGR for the purpose of computation of authorisation fee.</p>
d.	Gains from Foreign Exchange rates fluctuations	<p>Foreign Exchange differences arise when actual rates at the time of settlement differs from those at which they were initially recorded in the books. The provisions contained in the Accounting Standard-11 require a notional entry for exchange differences in respect of liabilities at the closing date of the AFSs. The foreign exchange gains reflected in the profit and loss statement of Authorised Entity could arise from reduction of payment liability or increase in the value of foreign exchange accounts receivables. In other words, foreign exchange fluctuation is a contingency which has impact on every business which may have something to do with foreign</p>

		<p>exchange and is not specific and unique to telecom business.</p> <p>Therefore, revenue/profit arising out of upward valuation or devaluation on account of fluctuation of foreign exchange shall not be part of ApGR for the purpose of computation of authorisation fee.</p>
e.	Income from property rent	<p>Authorised Entity may rent or lease part of their properties and earn revenue in the form of rent. Some Authorised Entity as part of staff welfare measure provides staff quarters to their employees and receive rent from such staff. Revenue from rent cannot be distinctly treated as only from telecom business. Therefore, revenue/income from property rent shall not be part of ApGR for the purpose of computation of authorisation fee. In case property is let out for 'establishing, maintaining and working of telecommunication', then revenue/income from such rent shall be considered in ApGR for the purpose of computation of authorisation fee.</p>
f.	Insurance claims	<p>A receipt from Insurance company against loss of property/fixed assets is basically a reimbursement in nature for the loss occurred by the Authorised Entity. Receipt of insurance claim from insurance company shall not be part of ApGR for the purpose of computation of authorisation fee.</p>
g.	Bad Debts recovered	<p>Bad debt is an amount owed by a debtor that is unlikely to be received/ realized and recognized as an expense in the books of accounts. Bad Debts recovered represents reversal of debits (i.e. bad debts) appearing in the profit and loss account of</p>

		<p>previous year(s). This basically represents an adjustment to the amount of an expense (i.e. bad debts) as estimated in an earlier year(s) in which it had already recorded as part of revenue from operations.</p> <p>Therefore, income on account of bad debts recovered shall not be part of ApGR for the purpose of computation of authorisation fee.</p>
h.	Excess Provisions written back	<p>Excess Provisions written back represent the reversal of excess provision made for any liability or expenses in any previous year. On settlement, this excess provision is written back into books of accounts as other income. This basically represents an adjustment instead of actual revenue earned.</p> <p>Therefore, income on account of excess provisions written back shall not be part of ApGR for the purpose of computation of authorisation fee.</p>

List of Acronyms

Acronym	Description
5G SA	5G standalone
ACMA	Australia Communications and Media Authority
AMTA	Australian Media and Telecommunications Association
BBU	Baseband Unit
BEREC	Body of European Regulators for Electronic Communications
BSS	Business support systems
BTS	Base Transceiver Station
CAGR	Compounded Annual Growth rate
CAPEX	Capital Expenditure
CDN	Content Delivery Network
CMTS	Cellular Mobile Telephone Service
CMTS	Cellular Mobile Telephone Services
CPaaS	Communications Platform as a Service
CPE	Customer Premises Equipment
CSP	Cloud Service Providers
CTI	Common Telecom Infrastructure
CTN	Cloud Hosted Telecommunication Networks
CTNaaS	Cloud-hosted telecommunication network-as-a-service
DAS	Distributed Antenna System
DCI	Digital Communication Infrastructure
DCIP	Digital Connectivity Infrastructure Provider
DIPA	Digital Infrastructure Providers Association
DoT	Department of Telecommunications, Government of India
DR	Disaster Recovery
DSNG	Digital Satellite News Gathering Service
DTH	Direct-to-Home
EI	Exposure Index

Acronym	Description
EoDB	Ease of Doing Business
EU	European Union
EY	Ernst and Young
FAT	Fiber Access Terminals
FBG	Financial Bank Guarantee
FSS	Fixed Satellite Services
GMPCS	Global Mobile Personal Communication by Satellite
GSaaS	Ground Station as a Service
GSO	Geostationary Orbit
HLR	Home Location Register
HTS	High Throughput System
IaaS	Infrastructure as a Service
IBS	In-Building Solutions
IEEE	Institute of Electrical and Electronics Engineers
IFMC	Inflight and Maritime connectivity
IIG	International Internet Gateway
ILD	International Long Distance
IN	Intelligent Network
IN-SPACe	Indian National Space Promotion and Authorization Centre
IP	Infrastructure Provider
IP-I	Infrastructure Provider Category 1
IP-II	Infrastructure Provider Category 2
IPLC	International Private Leased Circuit
IPTV	Internet Protocol Television
ISP	Internet Service Provider
ITU	International Telecommunication Union
ITU-RR	International Telecommunication Union Radio Regulations
IXP	Internet Exchange Points
KPI	key performance indicator

Acronym	Description
LEA	Law Enforcement Agencies
LEO	Low Earth Orbit
LI	Lawful Interception
LIM	Lawful Interception Management
LRN	Location routing number
LSAs	Licensed Service Areas
M2M	Machine to Machine
Mbps	Megabits per second
MCC	Mission Control Centre
MCH	Mobile Number Portability centralized clearing house
MeitY	Ministry of Electronics and Information Technology
MEO	Medium Earth Orbit
MIB	Ministry of Information & Broadcasting
MNP	Mobile Number Portability
MNPSP	Mobile Number Portability service Provider
MOU	Master Optical Units
MSC	Mobile Switching Center
MSS	Mobile Satellite Services
MTCTE	Mandatory Testing and Certification of Telecommunication Equipment
NDCP 2018	National Digital Communication Policy 2018
NFAP	National Frequency Allocation Plan
NFV	Network Function Virtualization
NGE	Non-Government Entity
NGP	Norms, Guidelines, and Procedures
NGSO	Non-Geostationary Orbit
NIXI	National Internet Exchange of India
NLD	National Long Distance
NLD	National Long Distance
NOCC	Network Operation and Coordination Center

Acronym	Description
NPDB	Number Portability DataBase
NRA	National Regulatory Authorities
NSO	Network Service Operator
NTN	Non terrestrial networks
NTP	New Telecom Policy
OFC	Optical Fiber Cables
OLT	Optical Line Terminals
ONU	Optical Networking Units
OpEx	Operating expenditure
OSS	Operations support systems
OTT	Over the Top
PaaS	Platform as a Service
PBG	Performance Bank Guarantee
PC	Personal Computers
PLMN	Public Land Mobile Network
PoPs	points of presence
PSTN	Public Switched Telecommunication Network
PSU	Power Supply Units
QoS	Quality of Service
RAN	Radio Access Network
RF-EMF	Radio Frequency Electromagnetic Filed
ROU	Remote Optical Units
RoW	Right of Way
RRH	Remote Radio Heads
RRU	Remote Radio Units
RU	Radio unit
RWA	Resident Welfare Association
SaaS	Software as a Service
SBC	session border controller

Acronym	Description
SCC	Satellite control center
SESG	Satellite Earth Station Gateway
SSA	Space Situational Awareness
TEC	Telecom Engineering Centre
TIL	Telecom Infrastructure License
TRAI	Telecom Regulatory Authority of India
TSP	Telecom Service Provider
TT&C	Telemetry, Tracking and Command
UAS	Unified Access Service
UCaaS	Unified Communications as a Service
UL	Unified License
UT	User Terminals
VNO	Virtual Network Operator
VSAT	Very Small Aperture Terminal
WAN	Wide Area Network
WiFi	Wireless Fidelity
WPC	Wireless Planning and Coordination Wing