



भारतीय दूरसंचार विनियामक प्राधिकरण
Telecom Regulatory Authority of India



**Recommendations on
the Definition of International Traffic**

New Delhi, India
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Chapter I: Introduction and Background

A. Introduction

- 1.1 Telecom Regulatory Authority of India (hereinafter also referred to as "TRAI", or "the Authority") was established in 1997. The Authority is mandated to regulate telecommunication services, protect the interests of service providers and consumers of the telecommunication sector, and promote and ensure orderly growth of the telecommunication sector in the country.
- 1.2 India is currently the world's second-largest telecommunication services market. There were 1163.83 million wireless subscribers and 36.23 million wireline subscribers in the country as of 31.08.2024. The last two decades have witnessed a remarkable growth in the telecommunication sector in the country.
- 1.3 Under the extant licensing regime in the country, the Central Government follows a regime of Unified License for the provision of telecommunication services. Eligible entities may obtain appropriate authorizations under Unified License from the Central Government¹ and provide a range of

¹ Hitherto, the Indian Telegraph Act, 1885 was the main legislation dealing with the establishment, maintenance and working of telegraphs in the country. It provided the Central Government an exclusive privilege of establishing, maintaining and working telegraphs¹ in India, and a 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.

In December 2023, the Indian Parliament enacted a new statute namely, 'the Telecommunication Act, 2023'. The Act amends and consolidates 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.

The Section 3 of the Act grants the power of authorisation to the Central Government. The Section 3 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.

DoT, through a letter dated 21.06.2024, sent a 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 provide telecommunication services as per the provisions of the Telecommunications Act 2023'. After a comprehensive consultation with stakeholders, the Authority sent its recommendations on 'the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023' to DoT on 18.09.2024. The said recommendations are available at https://trai.gov.in/sites/default/files/Recommendation_18092024.pdf

telecommunication services to their customers. Telecommunication services include telephony, short message service² etc.

1.4 Short message service (SMS)³ is a facility that provides the ability to send and receive short text messages. The messages sent through SMS may be termed as SMS messages⁴. SMS messages are limited to 160 characters and are strictly text-based. SMS has several advantages over other forms of communication. It is more discreet than a telephone conversation. It is often less time-consuming to send a text message than to make a phone call. SMS is also a convenient way for deaf and hearing-impaired people. SMS is a store-and-forward service, meaning that when a subscriber sends a text message, the message does not go directly to the recipient's cell phone. The advantage of this method is that the recipient's cell phone does not have to be active, or in the range of telecom network for the subscriber to send a message.

1.5 At present, many communication methods like voice call, email, over-the-top (OTT) messaging are available to international companies for connecting to consumers and clients across borders. However, international SMS remains the most reliable mode. With international SMS, businesses can send text messages

² European Telecommunications Standards Institute (ETSI) in the GSM Technical Specification (GSM 02.03)² stated that short message service "provides the transmission of a short message from a message handling system (service centre) to a mobile station".

³ The Standard for Generic Requirements (TEC 22040:2006) on 'Short Message Service Centre' issued by Telecom Engineering Center (TEC), Department of Telecommunications, Ministry of Communications, Government of India provides, *inter-alia*, the following definitions related to SMS:

"Short Message Service (SMS): The Short Message Service (SMS) is a facility that provides the ability for mobile subscribers to send and receive short text messages using SMEs. Unlike oneway pagers, SMS provides two-way text messaging capabilities and confirmation of the delivery of the message."

"Short Message Entities (SMEs): SMEs are electronic devices that are capable of transmitting or receiving text messages, for example, computer terminals, voice mail systems, e-mail networks and the most common type is the mobile handsets. "

⁴ In the RFC 5724 (January 2010) on 'URI Scheme for Global System for Mobile Communications (GSM) Short Message Service (SMS)', Internet Engineering Task Force (IETF) mentioned, *inter-alia*, that "GSM SMS messages are alphanumeric paging messages that can be sent to and from SMS clients."

Source: <https://www.ietf.org/rfc/rfc5724.txt>

outside of their country of origin, connecting to customers around the globe. As both feature-phones and smartphones are enabled to receive text messages, the customer base for businesses is nearly limitless.

B. Background

1.6 In the year 2021, TRAI received representations from two entities on the matter relating to the treatment of their SMS traffic. While one of the entities requested TRAI to instruct telecom service providers (TSPs) to allow the transmission of its SMS traffic under the domestic route, the other entity requested TRAI to provide a clarification to TSPs to route its transactional messages under domestic route as compared to an international route.

1.7 Based on the said representations, TRAI, through its letter dated 25.10.2021 on the subject- 'Clarification regarding definition of international messages as per License Agreements', requested Department of Telecommunications (DoT), Ministry of Communications, Government of India to peruse the said requests and investigate as to whether the messages in question are domestic or international in nature. TRAI also sent a reminder to DoT on this subject through a letter dated 30.12.2021.

C. DoT's Reference Dated 30.08.2022

1.8 Thereafter, DoT, through a letter dated 30.08.2022 (**Annexure**), requested TRAI to provide its recommendations under Section 11(1)(a) of the TRAI Act, 1997 (as amended) on the definition of international SMS and domestic SMS. A relevant extract of the said reference is reproduced below:

“Due to interconnection of PLMN with Internet at different levels like network, devices, application etc. and deployment of the emerging technologies, enterprises use various means for dissemination of information to their

customers. In the instant case, telemarketer applications provide an interface between PLMN and Principal Entity (PE) systems, which in turn invariably get connected with internet. Direct or indirect interconnection between PLMN and Internet throw-up policy and regulatory challenges which requires updating the license terms & conditions.

2. TRAI, vide its letters dated M-7/1/16(37)/2021-QoS dated 25.10.2021, and 30.12.2021 has forwarded requests of M/s XXXXXXXXXXX and M/s XXXXXXXXXXX to DoT and asked to investigate whether the messages sent by them to their customers are domestic or international in nature.

3. The existing Licensing framework treats domestic & International traffic differently. As per licensing conditions, international traffic should be routed through networks of NLD/ ILD operators as reproduced below:

"6.1 Inter-Circle traffic from one service area to another shall be routed through the network of NLD licensee or the Unified Licensee having authorization of NLD service.

...

"6.3 International Long-Distance traffic should be routed through network of NLD service providers, to the ILD service provider's gateways for onward transmission to international networks subject to fulfilment of any Guidelines/ Orders/ Directions/ Regulation issued from time to time by LICENSOR/ TRAI. However, the Licensee shall not refuse to interconnect with the ILD Service licensee directly in situations where POP of ILD service licensee and Switches of Licensee's (GMSC/ Transit Switch) are located at the same station of Level-I TAX."

Further, as per Clause 2.6 (ii) in Access Service authorization of UL:

2.6 (ii) Calls from International out-roamers shall be handed over at ILD gateway of Licensed ILDOs and International termination charges shall be paid to the terminating Access Service provider Further, calls originated outside the country using Internet telephony shall be routed to ILD gateway like any other international call.

4. *Currently, no explicit Domestic and International SMS definition is available in License Agreements. As per TRAI's Telecommunication Interconnection Usage Charges (IUC) Regulations, termination charges on domestic SMS are regulated while termination charges on International SMS are under forbearance. However, the definitions of domestic SMS and International SMS are not provided in TRAI regulations also. Further, as per TRAI's Telecom Commercial Communications Customer Preference Regulations (TCCCPR), 2018, TSPs are required to notify the Code of Practice (COP) for entities and some of the TSPs have defined International SMS under CoPs. Keeping in view the extant licensing framework & TRAI regulations, there is a need to define International SMS and Domestic SMS in the license agreement."*
5. *In view of the above, TRAI is requested to provide its recommendations under section 11(1)(a) of TRAI Act,1997 (as amended) on the definition of International SMS and Domestic SMS."*

D. TRAI's Consultation Paper Dated 02.05.2023

- 1.9 With respect to the afore-mentioned reference received from DoT, the Authority, on 02.05.2023, issued a consultation paper on Definition of International Traffic (hereinafter also referred to as "the Consultation Paper dated 02.05.2023"). Written comments of stakeholders on the Consultation Paper dated 02.05.2023 were invited from stakeholders by 30.05.2023 and counter-comments by 13.06.2023. Upon request of some stakeholders, the last dates for furnishing comments and counter-comments were extended to 20.06.2023 and 04.07.2023 respectively. Upon a further request from a few stakeholders for extension in timelines, the last dates for furnishing comments and counter-comments were extended to 11.07.2023 and 25.07.2023 respectively. The Authority received written comments from 20 stakeholders and counter-comments from seven stakeholders. The comments and counter-comments received from stakeholders were placed on the TRAI's website www.trai.gov.in. An online Open House Discussion (OHD) on the Consultation

Paper dated 02.05.2023 was held on 24.08.2023 with stakeholders. Based on the comments and counter-comments received from stakeholders during the consultation process, and further analysis, the Authority has arrived at the present recommendations.

- 1.10 The Authority has formulated its recommendations based on the written inputs received from the stakeholders, views expressed by the stakeholders during the OHD, and its own internal analysis. The present recommendations comprise of three chapters. Chapter I provides an introduction and background of the subject. Chapter II presents an analysis of the issues raised in the Consultation Paper dated 02.05.2023 considering the comments and counter-comments received from stakeholders, based on which the recommendations have been framed. Chapter III provides a summary of the recommendations on the subject.

Chapter II: Analysis of Issues

A. Traffic

- 2.1 The load carried on a telecommunication network is called traffic⁵, or more specifically 'telecommunication traffic'. Telecommunication traffic is a 'genus'⁶ comprising several 'species' such as voice call, SMS message, etc.
- 2.2 Looking from the standpoint of a country, traffic comprises domestic traffic (i.e., traffic within the country), and international traffic. In the Indian context, where the country has been divided into 22 telecom circles/ metro areas for the purpose of granting licenses/ authorization for access services, domestic traffic comprises intra-circle traffic, and inter-circle traffic.
- 2.3 DoT, through its reference dated 30.08.2022, expressed that "*there is a need to define International SMS and Domestic SMS in the license agreement.*"
- 2.4 Domestic SMS message is a type of domestic traffic. Though the term 'domestic traffic' has not been defined in the Unified License, its components viz. 'inter-circle traffic', and 'intra-circle traffic' have been specifically defined through the clauses 40 and 41⁷ of the Annexure I (Definitions of Terms and expressions) to the Unified License. As intra-circle traffic, and inter-circle traffic are the only two components of domestic traffic, the term 'domestic traffic' has been defined

⁵ Source: https://www.worldscientific.com/doi/10.1142/9789811200267_0013

⁶ Genus is a general class or division, comprising several species.

Source: <https://thelawdictionary.org/genus/#:~:text=In%20the%20civil%20law,.or%20division%2C%20comprising%20several%20species>

⁷ Annexure-I (Definitions of Terms and expressions) to the Unified License provides, inter-alia, the following definitions:

"40. *INTER – CIRCLE TRAFFIC means the Long Distance traffic originating in one Telecom Circle/Metro Area and terminating in another Telecom Circle/Metro Area.*

41. *INTRA- CIRCLE TRAFFIC means the traffic originating and terminating within boundaries of the same Telecom Circle/Metro Area.*"

implicitly in the Unified License. Accordingly, through the Consultation Paper dated 02.05.2023, the Authority expressed its *prima facie* view that the term domestic SMS message, which is a type of 'domestic traffic', requires no specific definition as both the components of domestic traffic (viz. 'inter-circle traffic', and 'intra-circle traffic') are already defined in the Unified License.

2.5 International SMS message is, essentially, a type of 'international traffic'. The term 'international traffic' has not been defined in the Unified License. Accordingly, through the Consultation Paper dated 02.05.2023, the Authority sought views of stakeholders on the definition of the term 'international traffic'.

2.6 In response to the issues raised in the Consultation Paper dated 02.05.2023, 21 comments and seven counter-comments have been received from stakeholders. The following section presents an analysis of the issues raised in the consultation paper considering the comments of stakeholders.

B. Analysis

(1) Definition of International Traffic

2.7 Through the Consultation Paper dated 02.05.2023, stakeholders' comments were invited on the following set of questions related to the definition of international traffic:

Q1. Whether it would be appropriate to define the term 'international traffic' in the telecommunication service license agreements as 'the international long-distance traffic originating in one country and terminating in another country, where one of the countries is India'? Kindly provide your response with a detailed justification.

Q2. In case your response to the Q1 is in the negative, kindly provide an alternative definition along with a detailed justification.

2.8 In response to the above set of questions, broadly three categories of views have been received from stakeholders as given below:

- (a) View-I: The definition of international traffic proposed by the Authority is correct.
- (b) View-II: The definition of international traffic proposed by the Authority needs amendment.
- (c) View-III: There is no need to prescribe the definition of international traffic in the telecommunication service licenses.

2.9 The stakeholders, who have supported the definition of international traffic proposed by the Authority, have opined that the proposed definition is specific, concise, and simple to apply.

2.10 The stakeholders, who are of the view that the definition of international traffic proposed by the Authority needs amendment, have contended that the proposed definition of international traffic is not specific, and it may be incorrectly interpreted.

2.11 The stakeholders, who are of the view that there is no need to prescribe the definition of international traffic in the telecommunication service licenses, have contended that all telecommunication service providers are already following an agreed, logical, evolved, mature and license-compliant definition of international traffic. They have also mentioned that para 36 and 37 of Annexure I of the Unified License⁸ provide the definitions of International Long Distance

⁸ The para 36 and 37 of Annexure I (Definition of Terms and expression) of the Unified License provide the definitions on international long-distance network, and international long-distance network service as below:

36. INTERCONNECTION is as defined by the TRAI in its relevant regulations. INTERNATIONAL LONG DISTANCE NETWORK means a network of transmission and switching elements connected in a predetermined fashion to provide international bandwidth/switched bearer interconnection from/to POP of the ILD Service Provider to/from the International destination.

37. INTERNATIONAL LONG DISTANCE SERVICE means provision of international bandwidth/switched bearer interconnection over the International Long Distance Network of the Licensee. Scope of Service provided under the ILD Service Authorization shall be governed by the terms and conditions as provided in Chapter XI."

Source:

<https://dot.gov.in/sites/default/files/Compendium-UL-AGREEMENT%20updated%20up%20to%2031032024.pdf?download=1>

Network, and International Long Distance Service, which are sufficient, and therefore, there is no need to define international traffic.

2.12 A few stakeholders, who are of the view that the definition of international traffic proposed by the Authority needs amendment, have proposed alternative definitions for international traffic. The definitions of international traffic, proposed by such stakeholders, are given below:

- (a) *"International traffic shall mean international long-distance traffic originating from the telecommunication networks of a telecommunication service provider of one country and terminating in the telecommunication networks of a telecommunication service provider in another country, where one country is India."*
- (b) *"Transmission of long-distance telecommunications traffic originating from the telecommunication networks of a telecommunication service provider located in one country and terminating in the telecommunication networks of a telecommunication service provider in another country, where one country is India."*
- (c) *"Traffic originating/ terminating from the telecommunication network(s) of a TSP of one country and terminating/ originating in the telecommunication network(s) of a TSP in another country, where one of the countries is India."*
- (d) *"'International Traffic' refers to the transmission of international long-distance traffic that satisfies either of the following conditions:*
 - a. Traffic that originates on the telecommunication network of a telecommunication service provider within the geographical boundaries of India, and terminates on the telecommunication network of a telecommunication service provider outside the geographical boundaries of India, or*
 - b. Traffic that originates on the telecommunication network of a telecommunication service provider outside the geographical boundaries*

of India, and terminates on the telecommunication network of a telecommunication service provider within the geographical boundaries of India."

2.13 Some stakeholders, who have proposed alternative definitions for international traffic, have opined that, as DoT has requested TRAI to provide recommendations on the definition of International SMS and domestic SMS, TRAI should also define the term 'international SMS'; until the definition of international SMS is also brought out clearly, ambiguity and arbitrary interpretation may continue to exist. Such stakeholders have also proposed definitions for international SMS. The definitions of international SMS, proposed by such stakeholders, are given below:

- (a) *"The term international SMS shall mean international traffic delivered using SMS which originates on the PSTN/ PLMN network of a telecom service provider of one country and terminates in the PSTN/ PLMN networks of a telecommunication service provider in another country, where one country is India."*
- (b) *"The term international SMS shall mean international traffic delivered using SMS."*
- (c) *"International SMS' refers to international traffic transmitted and received using SMS."*

2.14 A few stakeholders who are of the view that there is no need to prescribe the definition of international traffic in the telecommunication service licenses, have mentioned that in case the Authority intends to define international traffic, then international traffic should be defined based on only the location of actual users between whom information transfer takes place. Such stakeholders have also stated that international SMS needs to be specifically defined as per the telecom service providers' Code of Practices (CoPs), which has been agreed and accepted industry-wide, or alternatively as below:

"International SMS is a short message service enabling text message to be transferred and/ or originated by any data, application, system, servers, handset device or terminal device etc. which influences, generates, control, facilitate or enable the generation, dissemination, transmission or transition of messages through a communication network process, including partial process, from a location outside the territory of India or a text message originated by handset device or terminal device located in India to such application, system, servers etc. located outside India prompted in response to a short message by such data, application, system, servers etc. Any mediation server solution in India shall not impact and/ or change the nature of such International SMS to national/ domestic SMS".

- 2.15 A few stakeholders, who are of the view that there is no need to prescribe the definition of international traffic in the telecommunication service licenses, have mentioned that the definition of international SMS, which has been filed by telecom service providers to TRAI under the Telecom Commercial Communication Customer Preference Regulations dated 19.07.2018 (TCCCPR, 2018) is all encompassing and compliant with the licensing and regulatory framework. One of the telecom service providers has stated that its Code of Practice (CoP) under the TCCCPR, 2018 defines international SMS as below:

"International SMS: Any data/ application/ system/ servers etc. which influences, generates, control, facilitate or enable the generation, dissemination/ transmission of messages from a location outside the territory of India will constitute as International SMS. Any mirroring solution in India shall not impact and/ or change the nature of such International SMS to national/ domestic SMS.

The sender shall enter into a distinct agreement with the concerned Telecom Service Provider ('TSP') for international SMS. The OAP and TAP i.e. TSP's shall also have a written arrangement in place for International messages. The

Header for international messages shall be distinct as may be decided by a TSP/Header Registrar.

If any case of misuse or unauthorised SMS termination including termination of International SMS as domestic SMS, is detected, XXXXXXXX shall have right to block the customer account as well as charge all such unauthorised SMSs terminated since provisioning of the customer account, with double the prevailing rate of International SMS termination”

2.16 The Authority notes that clause 6.3 of Chapter VIII (Access Service) of the Unified License prescribes that an access service provider should route international long distance traffic, either directly or through an NLD service provider’s network, to the ILDO service provider’s gateway for onward transmission to international networks. The method of routing of international long distance traffic, as prescribed in Unified License, may be depicted through the following diagram:

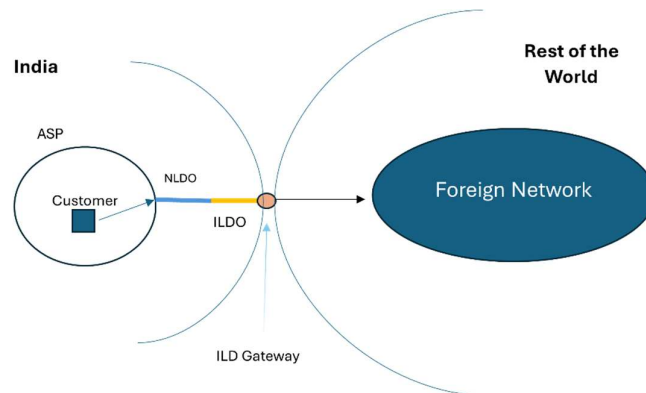


Figure 2.1: Method of Routing International long distance traffic prescribed in the Unified License⁹

2.17 The Authority notes that even though the method of routing of international long distance traffic to be followed by access service providers has been prescribed in the Unified License, no definition of the term 'international long

⁹ Full forms of the acronyms given in the diagram- ASP: Access Service Provider, NLDO: National Long Distance Operator, ILDO: International Long Distance Operator, ILD Gateway: International Long Distance Gateway

distance traffic', or 'international traffic' has been given in the Unified License. The Authority is of the view that providing a definition of international traffic under the telecommunication service licenses/ authorisations will remove ambiguity on the treatment of telecommunication traffic by stakeholders.

- 2.18 While evaluating the comments of stakeholders on the definition of international traffic, the Authority noted the following definitions of inter-circle traffic and intra-circle traffic given in the Unified License:

"40. INTER – CIRCLE TRAFFIC means the Long Distance traffic originating in one Telecom Circle/Metro Area and terminating in another Telecom Circle/Metro Area.

41. INTRA- CIRCLE TRAFFIC means the traffic originating and terminating within boundaries of the same Telecom Circle/Metro Area."

- 2.19 As may be seen from the above definitions, the terms 'inter-circle traffic' and 'intra-circle traffic' have been defined in the Unified License in terms of the place of origination and termination of traffic. If the traffic is originated and terminated within the same telecom circle/ metro area, it is termed as 'intra-circle traffic'. On the other hand, if the traffic originates in one telecom circle/ metro area and terminates in another telecom circle/ metro area, it is termed as 'inter-circle traffic'.

- 2.20 The Authority is of the opinion that defining 'international traffic' in terms of the place of origination and termination of traffic would be consistent with the scheme of Unified License. Accordingly, the Authority is of the view that, in line with the definition of 'inter-circle traffic', international traffic may be defined as a traffic which originates in one country and terminates in another country.

- 2.21 In view of the foregoing discussion, **the Authority recommends that the term 'International Traffic' should be defined in the relevant telecommunication service licenses and authorisations as below:**

"INTERNATIONAL TRAFFIC means the traffic originating in one country and terminating in another country, where one of the countries is India."

2.22 The Authority also took note of the submission made by several stakeholders that the Authority should also define the term 'international SMS' to prevent any ambiguous and arbitrary interpretation of the term. While examining such submissions of stakeholders, the Authority took note of the fact that DoT, through the reference dated 30.08.2022, has stated that "*[k]eeping in view the extant licensing framework & TRAI regulations, there is a need to define International SMS and Domestic SMS in the license agreement*" and has requested TRAI to provide its recommendations "*on the definition of International SMS and Domestic SMS*".

2.23 An SMS message is, essentially, a type of traffic which is delivered to end users by using the short message service. The Authority notes that one of stakeholders has suggested that international SMS may defined as "*the international traffic delivered using SMS.*" The Authority concurs with this viewpoint.

2.24 In view of the foregoing discussion, **the Authority recommends that the term 'International SMS Message' should be defined in the relevant telecommunication service licenses and authorisations as below:**
'INTERNATIONAL SMS MESSAGE means the international traffic delivered using SMS.'

2.25 The Authority notes that, based on the method of origination, SMS messages may be categorized as below:

- (a) Person-to-Person (P2P) SMS message; and
- (b) Application-to-Person (A2P) SMS message.

2.26 In the case of a P2P SMS message, both the originating device and the terminating device are customer handsets. On the other hand, in the case of an A2P SMS message, the message originates in a computer system/ application or a series of computer systems/ applications and is received by a customer handset. The P2P SMS is mainly used by individuals for interpersonal communication whereas the A2P SMS is mainly used by businesses for promotional, transactional or service communication.

2.27 The Authority notes that a few stakeholders have made specific comments in respect of A2P SMS messages. A brief summary of such comments is given below:

- (a) In the case of certain business entities, the servers which are located outside India originate A2P SMS messages. Such A2P SMS messages are routed to India through Internet/ leased lines and pumped into the Indian PSTN using their media gateways/ mediation servers located in India. The core application or server located outside India serves as the actual sender/ originator of these SMS messages, having sole authority over the decision regarding recipients, timing and content. The mediation server located in India simply acts a media converter. Therefore, SMS messages sent to the Indian operators through such an arrangement cannot be termed as domestic messages.
- (b) Any SMS message, whose source point of origination, whether thorough server/ cloud/ aggregation point, is outside India, and which ultimately breaks out on the Indian PSTN can only be delivered through the legitimate route i.e. via the ILDO route. The underlying principle is that the brain and intelligence (i.e. the originating server/ application etc.) sits outside of India and hence it cannot be considered as domestic traffic even if this traffic is said to be mirrored in India or delivered to Indian aggregators.

2.28 At this juncture, it is noteworthy that DoT, in its reference dated 30.08.2022, has indicated direct or indirect interconnections between public land mobile networks (PLMNs) and Internet by way of telemarketer applications. In this regard, the relevant portion of the DoT's reference dated 30.08.2022 is reproduced below:

"Due to interconnection of PLMN with Internet at different levels like network, devices, application etc. and deployment of the emerging technologies, enterprises use various means of dissemination of information to their customers. In the instant case, telemarketer applications provide an interface between PLMN and Principal Entity (PE) systems, which in turn invariably get connected with internet. Direct or indirect interconnection between PLMN and Internet throw-up policy and regulatory challenges which requires updating the license terms & conditions."

2.29 The Authority notes that telemarketer applications interact with the PLMNs of telecom service providers through the internet/ leased lines. Owing to such an interaction, one can, potentially, originate an A2P message in a foreign country, transport it through the internet/ leased lines to India, and then send it through a telemarketer to the PLMN of a telecom service provider. By using this method, an international SMS message may be camouflaged as a domestic SMS message, and thereby the levy of a legitimate international SMS termination charge may be avoided. To prevent such a camouflage, it would be appropriate to treat any incoming A2P SMS message as international SMS message if it cannot be generated, transmitted or received without the use or intervention of a computer system or application located outside India.

2.30 In view of the foregoing discussion, **the Authority recommends that the following explanation should be included under the definition of international SMS in the relevant telecommunication service licenses and authorisations:**

"Any incoming application to person (A2P) SMS message shall be treated as an international SMS message, if it cannot be generated,

transmitted or received without the use or intervention of any electronic device, computer system or computer application located outside India.”

(2) Definition of Domestic Traffic

2.31 Through the Consultation Paper dated 02.05.2023, stakeholders’ comments were invited on the following questions:

Q3. Since the terms ‘Inter circle traffic’ and ‘Intra circle traffic’ are already defined in the telecommunication service license agreements, whether there is still a need to define the term ‘domestic traffic’ in the telecommunication service license agreements? If yes, what should be the definition of the term ‘domestic traffic’? Kindly provide your response with a detailed justification.

Q4. Whether there are any other issues/ suggestions relevant to the subject? If yes, the same may kindly be furnished with proper justification.

2.32 In response, some stakeholders have suggested that there is no need to define the term ‘domestic traffic’ in the telecommunication service licenses. Some other stakeholders have contended that it is imperative to define the term ‘domestic traffic’ in the telecommunication service licenses for clarity.

2.33 The comments of the stakeholders who have suggested that there is no need to define ‘domestic traffic’ may be summarized as below:

(a) The existing definitions of intra-circle traffic and inter-circle traffic given in the Unified License are adequate and have been serving the purpose so far. There is no requirement to categorize traffic as international or domestic, as the existing arrangement has proven to be effective.

(b) Any new definition, if created in a way that is at variance from what is understood and practiced at present, will unnecessarily confuse the market and lead to interpretational challenges.

2.34 The comments of the stakeholders, who have suggested that there a need to define 'domestic traffic' in the telecommunication service licenses, may be summarized as below:

- (a) Defining 'domestic traffic' will help in establishing a framework for differentiating domestic traffic from international traffic, thereby enabling effective oversight, and ensuring compliance with applicable regulations. This will bring clarity, which is crucial for policy development, implementation, and consumer protection from unfair practices.
- (b) 'Domestic traffic' should be explicitly defined to promote ease of doing business. Implementing clear and comprehensive definitions in India's telecom sector can improve regulatory compliance, foster flexibility, and promote adaptability.

2.35 A few stakeholders, who have suggested that there is a need to define 'domestic traffic' in the telecommunication service licenses, have also proposed definitions of domestic traffic as given below:

- (a) *"Domestic traffic shall mean 'inter-circle traffic' or 'intra-circle traffic' originating and terminating on the telecommunication networks of telecommunication service providers within the territorial boundary of India."*
- (b) *"Domestic traffic shall mean traffic originating and terminating on the telecommunication network(s) of TSPs within India."*
- (c) *"Domestic Traffic' refers to the transmission of telecommunication traffic that originates and terminates on the telecommunication network of a telecommunication service provider within the geographical boundaries of India."*
- (d) *"Domestic traffic shall encompass 'inter-circle traffic' or 'intra-circle traffic' that originates and terminates exclusively within the territorial boundaries*

of India, taking place on the telecommunication networks of telecommunication service providers operating within the country."

- 2.36 A few stakeholders, who have suggested that there is a need to define 'domestic traffic' in the telecommunication service licenses, have also averred that the Authority should also define the term 'domestic SMS' in the telecommunication service licenses. They have mentioned that the lack of clarity on international SMS and domestic SMS leaves room for interpretation. One of the stakeholders has stated that it is imperative to amend the telecommunication service licenses to define both "international SMS" and "domestic SMS" and provide clear definitions which are specific to telecom networks. On the other hand, a few stakeholders have contended that there is no need to define domestic SMS.
- 2.37 The Authority notes that even though the term 'domestic traffic' finds a mention in the Unified License¹⁰, the said term has not been defined in the Unified License. Based on the comments of stakeholders, the Authority is of the view that providing a definition of domestic traffic (apart from the definition of international traffic) under the relevant telecommunication service licenses/ authorisations will remove ambiguity in the treatment of telecommunication traffic by stakeholders.

¹⁰ The following clauses of the Unified License contain the term 'domestic traffic' in them:

- (a) Clause 39.23 in Chapter VI (Security Conditions) of Unified License:

"39.23 The Licensee shall also ensure compliance of the following conditions: ...

*(iii) For security reasons, **domestic traffic** of such entities as may be identified/ specified by the Licensor shall not be hauled/ routed to any place outside India. For this purpose, location of satellites serving India for domestic traffic shall not be treated as outside India. ..."*

- (b) Clause 7.15 under the heading 'Security Conditions' of Chapter XII (Global Mobile Personal Communication by Satellite Service):

*"7.15 All calls originating or terminating from Mobile Terminals in India shall pass through the GMPCS Gateway Switch located in India. Such calls will not be routed through any other Gateway located outside India. All inter-network calls will be routed through GMPCS Gateway switches i.e., one the GMPCS switch of the Licensee and other that of the licensed telecom service providers. All International calls outgoing or terminating in a PSTN/ PLMN shall be routed via licensed International Long Distance gateway switches located in India. All national calls outgoing or terminating in a PSTN/ PLMN shall be routed via licensed telecom service provider's network. **Domestic traffic** should not be hauled/ routed to any place outside India (Emphasis supplied)*

- 2.38 In the preceding sub-section, the Authority has recommended the definition of 'international traffic' in terms of the place of origination and termination of traffic. The Authority is of the view that it would be appropriate to also define 'domestic traffic' in terms of the place of origination and termination of traffic.
- 2.39 The Authority notes that the intra-circle traffic¹¹ has been defined in the Unified License as the traffic originating and terminating within the boundaries of the same Telecom Circle/ Metro Area. In this regard, the Authority is of the view that in line with the definition of intra-circle traffic, the domestic traffic may be defined as the traffic originating and terminating within India.
- 2.40 In light of the foregoing discussion, **the Authority recommends that the term 'Domestic Traffic' should be defined in the relevant telecommunication service licenses and authorisations as below:**
"DOMESTIC TRAFFIC means the traffic originating and terminating within India."
- 2.41 Considering the comments of some stakeholders suggesting the need for defining the term 'domestic SMS' in the telecommunication service licenses, the Authority examined the possibility of defining 'domestic SMS message' on the lines of the definition of 'International SMS message' recommended above. In this regard, the Authority is of the view that it would be appropriate to define domestic SMS message as the domestic traffic delivered through SMS.
- 2.42 In view of the foregoing discussion, **the Authority recommends that the term 'Domestic SMS' should be defined in the relevant telecommunication service licenses and authorisations as below:**
"DOMESTIC SMS means the domestic traffic delivered using SMS."

¹¹ The definition of the term Intra-circle traffic, as given in Annexure I of the Unified License, is reproduced below:

"41. INTRA- CIRCLE TRAFFIC means the traffic originating and terminating within boundaries of the same Telecom Circle/Metro Area."

2.43 The following chapter provides a summary of recommendations.

Chapter III: Summary of Recommendations

- 3.1. **The Authority recommends that the term 'International Traffic' should be defined in the relevant telecommunication service licenses and authorisations as below:**

"INTERNATIONAL TRAFFIC means the traffic originating in one country and terminating in another country, where one of the countries is India."

(Para No.2.21)

- 3.2. **The Authority recommends that the term 'International SMS Message' should be defined in the relevant telecommunication service licenses and authorisations as below:**

'INTERNATIONAL SMS MESSAGE means the international traffic delivered using SMS.'

(Para No.2.24)

- 3.3. **The Authority recommends that the following explanation should be included under the definition of international SMS in the relevant telecommunication service licenses and authorisations:**

"Any incoming application to person (A2P) SMS message shall be treated as an international SMS message, if it cannot be generated, transmitted or received without the use or intervention of any electronic device, computer system or computer application located outside India."

(Para No.2.30)

- 3.4. **The Authority recommends that the term 'Domestic Traffic' should be defined in the relevant telecommunication service licenses and authorisations as below:**

"DOMESTIC TRAFFIC means the traffic originating and terminating within India."

(Para No.2.40)

- 3.5. **The Authority recommends that the term 'Domestic SMS' should be defined in the relevant telecommunication service licenses and authorisations as below:**

'DOMESTIC SMS means the domestic traffic delivered using SMS.'

(Para No.2.42)

Annexure: DoT's Reference Dated 30.08.2022

F. No.20-405/2013-AS-I
Ministry of Communications
Department of Telecommunications
(Access Service Wing)
20, Ashoka Road, Sanchar Bhawan, New Delhi

Dated the 30th August, 2022

Subject: Issues related to definition of International SMS and Domestic SMS-seeking recommendations of TRAI.

Due to interconnection of PLMN with Internet at different levels like network, devices, application etc. and deployment of the emerging technologies, enterprises use various means for dissemination of information to their customers. In the instant case, telemarketer applications provide an interface between PLMN and Principal Entity (PE) systems, which in turn invariably get connected with Internet. Direct or indirect interconnection between PLMN and Internet throw-up policy and regulatory challenges which requires updating the license terms & conditions.

2. TRAI, vide its letters dated M-7/1/16(37)/2021-QoS dated 25.10.2021, and 30.12.2021 has forwarded requests of M/s and M/s to DoT and asked to investigate whether the messages sent by them to their customers are domestic or international in nature.

3. The existing Licensing framework treats domestic & International traffic differently. As per licensing conditions, International traffic should be routed through networks of NLD/ILD operators as reproduced below:

"6.1 Inter-Circle traffic from one service area to another shall be routed through the network of NLD licensee or the Unified Licensee having authorization of NLD service.

.....

6.3 International Long Distance traffic should be routed through network of NLD service providers, to the ILD service provider's gateways for onward transmission to international networks subject to fulfilment of any Guidelines/ Orders/ Directions/ Regulation issued from time to time by LICENSOR/ TRAI. However, the Licensee shall not refuse to interconnect with the ILD Service licensee directly in situations where POP of ILD service licensee and Switches of Licensee's (GMSC/ Transit Switch) are located at the same station of Level-I TAX."

Further, as per Clause 2.6 (ii) in Access Service authorisation of UL:

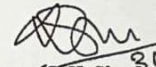
2.6 (ii) Calls from International out-roamers shall be handed over at ILD gateway of Licensed ILDOs and International termination charges shall be paid

to the terminating Access Service providers. Further, calls originated outside the country using Internet telephony shall be routed to ILD gateway like any other International call.

4. Currently, no explicit Domestic and International SMS definition is available in License Agreements. As per TRAI's Telecommunication Interconnection Usage Charges (IUC) Regulations, termination charges on domestic SMS are regulated while termination charges on International SMS are under forbearance. However, the definitions of domestic SMS and International SMS are not provided in TRAI regulations also. Further, as per TRAI's Telecom Commercial Communications Customer Preference Regulations (TCCCPR), 2018, TSPs are required to notify the Code of Practice (CoP) for entities and some of the TSPs have defined International SMS under CoPs. Keeping in view the extant licensing framework & TRAI regulations, there is a need to define International SMS and Domestic SMS in the license agreement.

5. In view of above, TRAI is requested to provide its recommendations under Section 11 (1) (a) of TRAI Act, 1997 (as amended) on the definition of International SMS and Domestic SMS.

6. This is issued with the approval of Hon'ble MoC.


20/8/22
(S.K. Singhal)

Deputy Director General (AS)
Tele No. 23036835

To

The Secretary
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawaharlal Nehru Marg (Old Minto Road), New Delhi - 110002.

List of Acronyms

S. No.	Acronym	Description
1.	A2P	Application/Advertiser to Person
2.	AGR	Adjusted Gross Revenue
3.	ASP	Access Service Provider
4.	CoP	Code of Practice
5.	DoT	Department of Telecommunications
6.	ILD	International Long Distance
7.	ILDO	International Long-Distance Operator
8.	IUC	Interconnection Usage Charges
9.	MNP	Mobile Number Portability
10.	NLDO	National Long-Distance Operator
11.	OHD	Open House Discussions
12.	P2P	Person to Person
13.	PLMN	Public Land Mobile Network
14.	PSTN	Public Switched Telephone Network
15.	SMS	Short Messaging Service
16.	SMSC	Short Message Service Centre

S. No.	Acronym	Description
17.	TCCCPR	Telecom Commercial Communications Customer Preference Regulations
18.	TRAI	Telecom Regulatory Authority of India
19.	TSP	Telecom Service Provider
20.	UL	Unified License
21.	WATTC	World Telegraph and Telephone Conference
22.	WPC	Wireless Planning and Coordination