



**Vodafone Counter to TRAI Consultation Paper on Internet Telephony dated 22.06.2016**

We have gone through the comments of the various stakeholders in response to the Authority's Consultation Paper on Internet Telephony and have the following counter comments on the same.

1. Many stakeholders have noted that Internet Telephony as being discussed by the Authority in the present consultation appears to be app based telephony that rides on networks of other service providers, for which the authority appears to be contemplating interconnection with PSTN/PLMN. As we have submitted, it is reiterated that the Authority has itself defined all app based services as content – regulation of which is outside the domain of the Authority under the Act.
2. We note that some stakeholders have chosen to only partly rely on license conditions, in order to mislead on the nature of internet telephony under license.

Extracts quoted by Stakeholder	Relevant clause	Comments
2.1(a)(i) .... The Licensee can also provide Internet Telephony, Internet Services including IPTV, Broadband Services and triple play i.e. voice, video and data. While providing Internet Telephony service, the Licensee may interconnect Internet Telephony network with PSTN/PLMN/GMPCS network.	2.1(a)(i) The Access Service under this authorization covers collection, carriage, transmission and delivery of voice and/or non-voice MESSAGES <u>over Licensee's network in the designated Service Area.</u> The Licensee can also provide Internet Telephony, Internet Services including IPTV, Broadband Services and triple play i.e. voice, video and data. While providing Internet Telephony service, the Licensee may interconnect Internet Telephony network with PSTN/PLMN/GMPCS network.	The clause clearly requires the service to be provided over the Licensee's network
6.2 It shall be mandatory for the LICENSEE to interconnect to/ provide interconnection to all eligible Telecom Service Providers (eligibility shall be	<p><b>6. Network Interconnection:</b></p> <p>6.2 It shall be mandatory for the LICENSEE to interconnect to/ provide interconnection</p>	The clause refers to network interconnection. The license does not allow interconnection with an App.



<p>determined as per the service provider's License Agreement and TRAI's determinations/orders/regulations issued from time to time) to ensure that the calls are completed to all destinations. ...</p>	<p>to all eligible Telecom Service Providers (eligibility shall be determined as per the service provider's License Agreement and TRAI's determinations/orders/regulations issued from time to time) to ensure that the calls are completed to all destinations. ....</p>	<p>The TRAI regulations also define interconnection as arrangements where service providers [i.e. licensees] connect <u>their</u> equipment, <u>networks</u> &amp; services to enable their subscribers to have access to the customers, services and networks of other service providers</p>
	<p>Explanation: Internet Telephony is a different service in its scope, nature and kind from real time voice service as offered by other licensees like Basic Service Licensees, Cellular Mobile Telephone Service (CMTS) Licensees, Unified Access Service (UAS) Licensees, Unified Licensee (Access Service), Unified Licensee with authorization for access services.</p>	
<p><b>3.6 INTERNET TELEPHONY in the above license</b> means <u>transfer</u> of message(s) including voice signal(s) through public internet</p>		<p>It is emphasized that the definition of internet telephony under license only permits 'transfer' of messages/voice signals over the public internet, and not origination/termination of such signals on the public internet.</p>
<p><b>Numbering levels ... As per prevailing licensing conditions, use of E.164 numbering for Internet Telephony calls has only been permitted for the Unified Licensee having access service authorization. Internet</b></p>	<p>2.5 IP Address assigned to a subscriber for Internet Telephony shall conform to IP addressing Scheme of Internet Assigned Numbers Authority (IANA) only. Translation of E.164 number / private number to IP address and vice versa by the licensee</p>	<p>This submission is a misrepresentation on so many levels.  The license permits translation of an IANA number to an E.164 number.</p>



<b>Telephony is akin to mobile services. Thus the use of E.164 mobile numbering scheme can also be extended to the internet telephony offered by the OTT/ISP players when in a commercial arrangement with the access service provider.</b>	for this purpose shall be as per directions/instructions issued by the Licensor.	There is no basis for claiming IT is 'akin' to mobile services. The license clear states that Internet Telephony is a different service in its scope, nature and kind from real time voice service as offered by other licensees like Basic Service Licensees, Cellular Mobile Telephone Service (CMTS)...  Use of E.164 is only for access licensees & not for OTT/ISP – in case of ISP, it is explicitly prohibited; OTT has been defined as content not telecommunication services
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3. It is submitted that all these concerns as also other licensing and security issues were highlighted to the Authority as early as April 2016. Copy of some key correspondence is enclosed as Annexure-1. We believe that the issues raised therein ought to have formed part of the consultation paper and the issues raised by the Authority so that views of all stakeholders could have been solicited, leading to a more meaningful debate and reasoned recommendations.
4. It is reiterated that Internet Telephony under license is a service that has to be offered by a licensee to its subscribers over its own network and cannot be taken to mean or include app based telephony that rides on networks of other service providers. The regulatory framework for even the Internet Telephony services that are permitted under license is yet to be laid down by the Licensor.
5. We do not agree with the view of stakeholders that internet telephony is 'akin' to mobile telephony. There is no basis for such an assertion. It may not be out of place to point out that other stakeholders have asserted that internet telephony is akin to fixed line telephony. Yet another stakeholder is classifying internet Telephony as a Technology and not a service. It is reiterated that the license clear states that Internet Telephony is a different service in its scope, nature and kind from real time voice service as offered by other licensees like Basic Service Licensees and Cellular Mobile Telephone Service (CMTS).
6. We would also like to highlight the example of one new licensee that has taken a Unified License with an access services authorization and been allocated a fixed line numbering series.



The said operator has no network, but is seeking interconnection with other TSPs. It appears that the intention is to introduce App based calling with termination on PSTN/PLMN, and because of the regulatory arbitrage that has been allowed in respect of calls originating from /terminating on a fixed line, the termination charges will be zero. The said operator will thus be able to offer full-fledged OTT communication services with no network and no termination costs. A copy of our key correspondence with the said operator is marked as Annexure-2.

7. It is submitted that the present IUC regime introduced by the Authority and the concept of Internet Telephony being mooted in the consultation are all leading to a situation where the national priority for investment in infrastructure is being given the go-by and regulatory frameworks are being created that encourage regulatory arbitrage, free over the top services.
8. We would also like to point out that BSNL, in its response to the consultation has itself not alluded to its Fixed Mobile Telephony services as Internet Telephony services. Rather, it has stated that BSNL's proposed FMT service was distinct from IP Telephony and was a value added service for its existing Wireline customers. It may also be noted that the said service was withdrawn after several illegalities were pointed out in the same. A copy of our letter dated 23.03.2016 addressed to the Authority is enclosed as Annexure-3.
9. Some stakeholders have contended that the internet telephony subscriber should be able to initiate and receive calls outside the service area. We do not agree with this contention. It may be noted that even in the case mobile subscribers, this can be done only through bilaterally agreed mutual commercial roaming arrangements – certainly the network of another TSP cannot be used without such arrangements being in place. It may also be noted that some other stakeholders, have also highlighted that **access to the telecom services of TSPs by the subscriber through public Internet (Internet access of any other TSP) should not be permitted as it would facilitate bypassing of the STD / ISD calling mechanism and tariffs as each and every call would be initiated as a local call**. And further that if the subscriber is able to remotely access and utilize his native TSP's service, the service can be used by anti-social elements to mask their call origination.
10. License while defining access services clearly states that "The subscriber shall have identity indicated by a number or any other address approved by the Licensor. The **subscriber shall be registered and authenticated by the network of Access Service Provider**" therefore the question of any other TSP does not arise.
11. In this regard, we would like to draw the attention of the Authority to such a service already having been advertised and offered by a new entrant in the market. The said entrant, operating a 4G network is offering that subscribers with 2G/3G phones can, by downloading an App of the new Entrant, remotely reach the operator through the internet access of another ISP/TSP. The internet call originated on another operators network, is them masked as a call that has originated from the new entrant's 4G network and the routed and terminated accordingly. This



feature has presently been disabled inasmuch as the call is not being completed. This has already been highlighted to the Authority and the said new entrant in a meeting held in TRAI on 09.09.2016. A copy of our key correspondence in this regard is enclosed as Annexure-4.

12. We would like to point out that the Hon'ble Supreme Court in its judgment dated 29.11.2010 in Civil Appeal No. 6706 of 2010 had observed and noted:

*... when the international call(s) lands at the local POI of the UASL, **the incoming traffic bypasses the authorized route** - international gateway exchange of BSNL, the NLDO trunk exchange of NLDO and the local telephone exchange of BSO. Thus, the defaulting UASL fails to maintain the billing records (including CDRs at each stage). **This results in concealment of details which results in reduced payment of IUC charges** by the defaulting UASL, thus, **giving him the unauthorized benefit** of paying less ADC which was the major component of IUC at the relevant time and which reduces the cost of providing services **which in turn results in destroying the "principle of level playing"** which is so important in the regulatory regime because pricing of the services in the international market plays an important role. **The above modus operandi enables the defaulting UASL to sell his product (services) abroad at a rate which may be less** as compared to the rates charged by BSNL (who is also a Competitor Service Provider). **The unauthorized call(s) gets for the defaulting UASL not only more profits by cost reduction, he also gets more business at the rates below the competitive rates.**"[emphasis supplied]*

The Authority may kindly take into consideration the above judgment whilst formulating its recommendations on the subject the above.

We verily believe that if the concept of Internet Telephony as mooted by TRAI is recommended, it will be in violation of Telegraphy Act and the licensing framework

13. We do not agree that the termination charges for internet telephony calls are well defined under present regulation. It is stated that the IUC regime does not and could not have dealt with internet telephony calls as the framework for such services which are permissible under license is still to be laid down.
14. We do not agree with the suggestion that for a Unified Licensee having a pan India presence, there is no need for a LSA based segmentation and routing of traffic through NLDO, it is submitted that the UL regime clearly maintains the service area wise licensing and also routing of inter circle traffic through NLDOs.
15. We also disagree with the statement by some stakeholders that there is no need to redefine general provisions like interconnection, numbering levels, etc and that prevailing provisions should continue or that Internet Telephony traffic can be terminated on any existing POI. It may be pointed out that both fixed and mobile services, which are permissible under the same access services license have very different interconnection provisions, numbering scheme and



also IUC charges. It may also not be out of place to point out that violations from the numbering and routing plans have been viewed very seriously by the licensor and have attracted heavy penalties under license.

16. The license also records that Internet Telephony is a different service from real time voice communication services. The TRAI, in 2008 had also treated Internet Telephony as a separate service from fixed/mobile services.
17. While the license allows for translation of the IANA addressing scheme to E.164 number, this E.164 number is NOT the fixed or mobile number of the subscriber, but has to be a separate numbering series. This is necessary because the license clearly states that Internet Telephony is different for the basic and cellular services offered under license. A separate numbering scheme was also recommended by the TRAI in 2008, as below:

*4.3.5 UASPs, BSOs & CMSPs shall also be allocated number resources to provide Internet telephony **from the identified blocks earmarked for Internet telephony.***
18. As suggested by some stakeholders, a 13 digit numbering scheme could be adopted for internet telephony.
19. We do not agree with the view of some stakeholders that the last mile in case of internet telephony should be the public internet. It is submitted that internet telephony under license is defined as 'transfer' of messages /signals over the public internet and NOT the origination/termination of messages. As rightly noted by one stakeholder the concept of the "last mile" is premised upon the network, not the user.
20. The view of some stakeholders that the consultation does not deal with unregulated OTT players is misplaced, as it is our view that the consultation deals only with OTT telephony services and their termination of PSTN/PLMN. This is also clearly evident from the fact that a number of stakeholders have responded to this consultation seeking interconnection to PSTN/PLMN for OTT Communication services on commercially agreed terms.
21. It may not be out of place to point out that in its Consultation Paper on Regulatory Framework for Over-the-top (OTT) services dated 27.03.2015, the Authority had noted that interconnection with OTTs is not required as they are Over the Top Networks [Ref Para 3.4, table 3.1]. The relevant extract from the consultation is reproduced below:

Area of Regulation	Telecom Service Providers	OTTs
Interconnection	Yes, required as part of regulatory regime. Requirement to interconnect entails costs.	No such interconnection required as they are 'Over the Top' networks



22. It is reiterated that even the Internet Telephony, which is allowed under UASL/UL(AS)/CMTS does not mandate interconnection of internet telephony network with PSTN/PLMN.
23. We also refute the contention of one stakeholder that because IP interconnection has been permitted, App to PSTN connectivity has been allowed. It is emphasized that IP interconnection is also between networks and not with OTT/Apps,
24. We reiterate that the issue of Regulation of OTT Communication players is part of the larger debate interlinked to the issue of Net Neutrality, that was initiated by the Authority in March 2015. A DoT Committee has already deliberated on this issue and submitted its report /recommendations in May 2015. A pre-consultation on this issue was also issued by the Authority on 30.05.2016. The Government is now awaiting the recommendations of TRAI before it takes a final decision in the matter. We believe that all issues related to regulation of OTT should be taken up as a part of the larger debate that has already been initiated by the Authority.
25. In summary, it is submitted/reiterated that:
  - a. Internet Telephony under license is a service that has to be offered by a licensee to its subscribers over its own network.
  - b. The call cannot be originated on the network of another TSP – i.e. the licensee cannot be remotely accessed by its subscriber.
  - c. This service is different from the fixed and mobile services that are also permissible under an access service license and cannot be treated as an extension of either fixed /mobile services.
  - d. These Internet Telephony services will have to be allotted a separate numbering scheme as recommended by the authority in 2008.
  - e. The translation/conversion of the IANA address to the E.164 number can only be as per the instructions of the Licensor and cannot be done unilaterally by any TSP.
  - f. As the routing of an Internet Telephony call is different from that applicable for PSTN/PLMN calls, the POI structure defined for fixed/mobile services cannot be extended to Internet Telephony calls.
  - g. Needless to say that the license being defined by a geographic area, the confines of the service can be limited only to the geographic area for which the license has been granted.
  - h. Issues related to interconnection charges, quality of service, etc., can only be debated once the structure of the service is clearly known to all.
26. It may not be out of place to conclude with the view of the DoT Committee Report of – 2015, as below:

*“Public policy interventions require that the **State should create and facilitate creation of infrastructure to bridge the digital divide and provide affordable access. The ability of network providers to generate sufficient revenue streams and incentivise***



*investment in network infrastructure supports the ability of the State to bridge the digital divide rapidly. There is a possibility that increased data rates<sup>3</sup> or reduced investment in expansion of broadband network may inhibit broadband penetration. Affordable access requires an investment climate that reduces costs and supports business models tailored around the ability and willingness of the user to pay for customized service offerings. Market failure in ensuring private investment in broadband infrastructure would require recourse to the Universal Service Obligation Fund for public funding of investment drawing upon scarce public resources....”*

The Authority may appreciate that the vision of Digital India will be met through the establishment of infrastructure and networks, for which huge investments are required. We request that the above may kindly be kept in mind whilst deliberating on the issues raised in the present consultation.

**New Delhi**  
**13 September 2016**