



**Counter Comments  
TRAI Consultation Paper on  
Internet Telephony  
Released on July 22, 2016**

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At the outset, we would like to highlight key submissions made in our response to the Consultation paper in order to provide clear perspective on the issues involved:

1. Only Unified Licensee with Access Authorization can be allowed to provide Internet Telephony on their networks.
2. Internet Telephony requires Access Network (Last Mile) of UL/CMTS/UASL under Licensing Framework.
3. The Access Network to Subscriber of UASL/CMTS/UL (Access Authorization) has to be given by that UASL/CMTS/UL (Access Authorization) only. Even a licensee which is not giving such access network to its subscriber (last mile), cannot provide /internet telephony.
4. Any such attempt to provide connectivity through other service provider's internet connection is equal to any OTT Communication Service and not Internet Telephony Service as envisaged under the current licensing regime.
5. An OTT Communication Service (even when provided by a licensee where that licensee does not have an access network) cannot use any numbering or addressing resource to show such OTT Communication Service as Internet Telephony.
6. The fundamental issue of OTT Communication Services and corresponding issue of 'SAME SERVICE SAME RULES' needs to be decided first before initiating this Consultation.
7. Internet Telephony provided by unlicensed entities besides being in violation of license will not only deprive the licensed operators of huge revenue but will also result in lesser payout to exchequer in the form of reduced license fee on revenues.

We would like to make following submissions on the comments received from various stakeholders:

1. **Internet Telephony as a Fixed line or Mobile service:** Some of the stakeholders in their response to the Consultation paper have submitted that Internet Telephony should be construed as the fixed line service; others have stated that it is 'akin' to a mobile service. In this regard, we would like to make following submissions:
  - a. We would like to submit that Internet telephony cannot be construed as an extension of fixed or mobile services. Public Internet is a separate delivery channel. License too clearly states that Internet telephony is different from the fixed and mobile services offered by access licensees.
  - b. Importantly, we would like to submit that such remote access of telecom services of an ISP/TSP by its subscriber through internet access of any other ISP/TSP is illegal and not allowed under the current licensing regime. It is also not a public internet which is created by the subscriber using the internet access of another ISP/TSP.
  - c. Public internet is 'Internet Cloud' which is behind the gateway of ISP/TSP and not the "Internet access of any other TSP". TRAI itself has mentioned Public Internet as 'Internet Cloud' in 2008 Consultation paper on the same subject and it cannot now change the definition. Hence, internet telephony, with so called public internet being at last mile level, is not envisaged in the license agreement. **Any routing of call, in this manner will be in serious breach of numbering plan, re-selling conditions, CLI tampering and illegal call routing.**
2. **Interconnection/Termination Charges:** Some of the stakeholders have submitted that Point of Interconnection for circuit switched network for various types of calls cannot be made applicable for Point of Interconnection for IP Telephony calls and hence the IUC that currently exists cannot be implemented in case of voice traffic if they follow the IP domain. Some have contended that the fixed line termination should be followed; others that it should be the termination applicable to mobile services. However irrespective of whether these services are classified as 'content' or as fixed line or even as mobile, these stakeholders want that Bill and Keep (BAK) should be implemented for termination charges. In this regard, notwithstanding to our comments w.r.t to the initiation of this consultation paper even before deciding on the issue of OTT Communication Services and corresponding issue of 'SAME SERVICE SAME RULES' by the Licensor, we would like to make following submissions:
  - a. COAI has always held the view that Interconnect charges should be determined **on cost based and work done principle**. Interconnection usage charges should be arrived at by using a robust cost based model, which includes all costs and justifies investment for expansion of service.

- b. Networks have to be built and costs have to be recovered and unless the TRAI is proposing a move back to a Receiving party pays regime, a cost based IUC has to be prescribed.
  - c. The TRAI has itself stated in 2015 that the Bill & Keep approach is not desirable in cases there are asymmetries in traffic flows, where operators are at different stages of development, that bill & keep has never been mandated by Regulation but is mostly voluntarily agreed between operators, that no country has adopted bill and keep in a CPP regime, even the most mature telecom regimes have not opted for bill and keep. Hence, we are of the view that the Bill & Keep approach cannot be prescribed in such environment.
  - d. Further, prescribing Bill & Keep will disincentivize the operators from investing in telecom & network infrastructure, since the operators will not be adequately compensated for the resources utilized in its network, but at the same time is required to install and expand its network to meet the growing terminating traffic.
  - e. The so called internet telephony being mooted in the consultation appears to be focused on app based telephony that will ride on networks created by other TSPs/ISPs with no incentive for any TSP to invest in the said underlying infrastructure.
3. **Entry fee for ISP:** Some of the stakeholders have submitted that no additional entry fees should be charged from the ISPs to allow them to offer unrestricted internet telephony services. In this regard, we would like to make following submission:
- a. In case ISP Licensee intends to provide Internet Telephony as permitted under UL (AS) along with interconnection to PSTN then there is no basis to submit that ISP does not need to migrate to UL (Access Authorisation) with applicable terms and conditions, entry fee, Performance Bank Guarantee and Financial Bank Guarantee and set-up independent network to provide such services.
  - b. It is a fact that the ISP license /authorization does not allow them to offer unrestricted Internet Telephony; thus if an ISP provider is desirous of offering unrestricted Internet telephony, it must take /migrate to the appropriate license, i.e. the Access service license/authorization.
  - c. Hence, it is imperative that only entities that obtain a UL with authorization for access services be allowed to offer unrestricted internet telephony and pay additional amounts as prescribed under that license to be able to offer Internet Telephony services.
  - d. Also, ISP should be allowed to offer internet telephony only on the access network built by them and should ensure that they meet all licensing requirements like Security, numbering, routing etc.

4. **Emergency call:** Some of the stakeholders are of the view that providing the location information to the police station when the subscriber is making Internet Telephony call to Emergency number under VOIP is not possible and hence the same should not be mandated.
- a. The 'Emergency number calling' is a critical facility which cannot be overlooked. It is mandatory for all UL/UASL – whether existing or new – to provide this service. An access licensee providing telecom services (including Internet Telephony) is bound to provide Emergency services access to its customers over its own network or through commercial tie-ups.
  - b. Further, we believe that DoT has mandated the handset suppliers to manufacture GPS enabled handsets w.e.f 1st Jan, 2018. Since majority of the Internet Telephony calls will be based on mobile devices with broadband Internet connectivity having GPS facility, the location information can be provided by the Internet Telephony service provider, while originating the call to emergency numbers.
5. **OTT Internet Telephony (VOIP) :** Some stakeholders have given their comments with respect to the Internet Telephony to be provided by the OTT players or the non-licensees. In this regard, we would like to make following submissions:
- a. **Re contention that VOIP services do not Bypass the existing Licensing Regime:** we would like to submit that despite the fact that TSPs are the ones who are required to (a) invest heavily in creating the access infrastructure for the internet, (b) acquire the customers through proper verification processes, (c) be held accountable for ensuring the Quality of Services for the desired user experience, and (d) pay huge levies in the form of license fee, spectrum charges, and capital expenditure to maintain networks, the TSPs role is now being envisaged to be 'Passive'. In contrast, unlicensed entity/OTT player are merely riding on the networks of TSPs in India. In addition, the licensed TSPs are subject to various security conditions, various licensing conditions and TRAI's customer centric regulations; these entities (currently with respect to restricted Telephony) do not comply with. **Thus, a severe Regulatory imbalance exists between OTT communication players and the Telcos, which needs to be addressed at the earliest.**
  - b. **Re contention that the telecom infrastructure that delivers VoIP is already under Surveillance and Blocking Regulations – No further security provisions required:** In this regard, we would like to submit that:
    - i. At present, there is a widely differing treatment accorded between telcos and OTT players as regards security compliance requirements on similar services. It should be noted that extensive and stringent security conditions are laid down and required to be met by the licensed telcos. These include:

- Taking permission/approval of the licensor for any new service
  - Setting up Lawful Interception and Monitoring (LIM) systems
  - Restriction on switching of domestic calls/messaging from outside the country
  - Restriction on sending user information abroad
  - Gives the Licensor the right to inspect the sites/network used for extending the service
  - Providing necessary facilities for continuous monitoring of the system, not employing any bulk encryption equipment; taking prior evaluation and approval of Licensor for any encryption equipment for specific requirements
  - Switching/Routing of voice/messages in P2P scenario
  - Responsibility for ensuring protection of privacy of communication and confidentiality of subscriber information
  - Quality of Service, Unsolicited Commercial communications, Complaint Redressal Mechanism, etc.
- ii. There is undoubtedly a need to ensure that these inequities are addressed and there is level playing field between the TSPs and the OTT communication service providers. This may be done by ensuring that the regulatory framework applicable to OTT communications services is the same as that applicable to the communications services provided by TSPs.
- c. **Re contention that VOIP is not cannibalizing the TSPs Revenue:** In this regard, we would like to submit that the growth of OTT communication services is impacting the traditional revenue streams of the TSPs. The growth in data revenues is insufficient to address this erosion. Going forward, with the increasing penetration of Smartphones, this trend will only accelerate, thus further adversely impacting the financial viability and business sustainability of the TSPs. The implication of the revenue will be largely due to substitution of voice and messaging service:
- i. **Messaging substitution:** Instant messaging services and other social networking tools are affecting SMS revenues, and SMS is becoming less important for many consumers. As mobile Internet is steadily growing as a key revenue generator, SMS is slowly declining as a significant revenue opportunity. According to research firm Ovum, the Indian telecom operators may lose USD 3.1 billion in SMS revenues by the end of 2016.
  - ii. **Voice Substitution:** Voice revenues are expected to suffer because of VoIP-based OTT offerings. In India, around 75% of revenues are generated by voice. Several OTT players have already had an impact on mobile VoIP growth and on the total voice market.
  - iii. **Data revenues do not compensate for fall in revenues from OTT services:** According to an industry research, the number of mobile operators generating revenues from OTT services by charging for data is falling year-on-year. TRAI has itself highlighted in its Consultation Paper on Regulatory Framework for Over-the-top (OTT) services released on March 27, 2015, the fact increased data usage fails to

compensate for loss of revenues to TSPs arising due to OTT services. Further, these services also put strain on the network, thus requiring further investments.

**d. Re contention that PC to PC VoIP (whether provided via the public internet or over managed IP networks) is not subject to telecom regulation;**

- i. We would like to state that the comment from certain stakeholders that PC to PC VoIP is not subject to telecom regulation is incorrect. The PC to PC calling has been explicitly mentioned in the Unified License under the Internet Service. The relevant extracts from the Unified License are mentioned as below:

*“(ii) The Licensee may provide Internet Telephony through Public Internet by the use of 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 TEC or International Standard in India to PSTN/PLMN abroad.*

*c) Any device / Adapter conforming to TEC or International Standard connected to ISP node with static IP address to similar device / Adapter; within or outside India”*

**e. Re contention that TSPs never used this opportunity to develop their own VOIP services:**

- i. We would like to submit that views expressed by some stakeholders regarding the VOIP services not being provided by TSPs in context of wireless networks do not take into account various technical facts about 2G networks.
- ii. The constraints related to narrow channel bandwidth in GSM networks, Jitter in IP, latency made it unsuitable to provision VoIP over narrow bandwidth 2G Networks.
- iii. The constraints mentioned in the above point would have led to QoS issues on VoIP over 2G wireless Networks.
- iv. Moreover, in absence of suitable IP header compression technology integrated in 2G technologies, the VoIP packets would have consumed significantly higher spectrum resource on wireless networks as compared to circuit switched technology.
- v. The above facts were taken into consideration by standard making bodies like ETSI/3GPP etc. and therefore, circuit switched technology was used to provide voice

over the 2G wireless networks which was suitable at that time world over not just in India.

**Our Request w.r.t OTT Communication:**

- a. We wish to submit that while we acknowledge the role of OTT communication players, however, it is pertinent to note that some of the services that are offered by the OTT Communication players such as messaging/instant messaging and VOIP telephony are perfect substitutes of the services that are being offered by the TSPs under UASL/UL.
- b. There is thus a need to address the various regulatory imbalances and ensure Regulatory Neutrality, between TSPs and OTT players. For this, the Authority should **apply the principle of, “Same services, Same rules”**. Only under such an environment, the TSPs will get a fair chance to compete with OTTs on similar pricing and terms.
- c. We request TRAI to also consider our response to TRAI Consultation Paper No.2 /2015 on Regulatory Framework for Over-the-top (OTT) Services dated 24<sup>th</sup> April 2015 and come up with its recommendation on the issue at the earliest. We would like to hereby highlight some key points that need the consideration of the Authority:
  - Regulatory Framework for OTT players need to be prescribed.
  - Promulgation of similar regulatory mechanism for all providers, including OTT players regarding National Security, public order, decency and morality, protection of privacy, data protection, public safety and disaster management.
  - Analyzing the impact of growth in OTT on the traditional revenue stream of TSPs
  - Discuss whether OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) be brought under the licensing regime
  - Discussion on Commercial Negotiations: Similar to the mutual commercial agreements between the DTH infrastructure providers and content providers, TSPs too should have the freedom of commercial negotiation with OTTs communication players who are utilizing the TSPs’ network and bandwidth for delivery of its services.
  - Pricing model and options, i.e. bandwidth / time / website access based, to be adopted for the commercial agreement between the TSP and the OTT service provider and the same should be left to the mutual arrangement between them.
  - Security Issues: Security concerns, maintaining data records, logs etc. and ensuring security, safety and privacy of the consumer data as well as their compliance by OTT Communication players needs to be addressed.

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