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Subject: ACTO's Counter Comments to TRAI Consultation Paper No.13/2016 dated 22nd June 2016 on Internet Telephony (VoIP).

Dear Sir,

This is with reference to the detailed comments filed vide by Association of Competitive Telecom Operators (ACTO) vide it's letter No. 105/TRAI/2016-17/ACTO dated 5th September, 2016 on TRAI's Consultation Paper No. 13/2016 dated 22nd June 2016 on Internet Telephony (VoIP).

We have reviewed comments received from stakeholders. The comments of some companies (telecom service providers) and their associations have a view which is not in agreement with the comments submitted by ACTO.

In addition to our comments provided vide letter dated 5th September, 2016, we would like to file our counter reply to such comments for the kind consideration of Hon'ble Authority.

We hope that our counter comments (enclosed as Annexure – I) will merit consideration of the Hon'ble Authority.

We strongly urge that TRAI should continue to maintain its earlier stand as stated under its recommendations of August '2008 recommendations and should continue to favourably recommend opening of unrestricted internet telephony without any additional entry fee. In last over 8 years, Indian telecom sector has seen proliferation of players (app providers) which have literally made voice and messaging free (apart from the cost of underlying broadband). TRAI should take cognizance of the march of technology and the current trends and liberalise the current policy framework by convergence of networks and traffic.

Given the proliferation of free apps which enable voice calling and messaging anywhere, the question of additional cost (entry fee) may not be relevant anymore for an operator. As the competition is with the entity which do not operate under any license / regulation, therefore in the larger interest of increasing internet / broadband in our country not only the current cost

structures (license fee and taxes) of existing operators be reviewed and incentivized. Also the current restrictions on licensed operators including the one on VoIP and IP to PSTN interconnection be removed. The removal of IP- PSTN interconnection for ISPs will not only boost the current penetration level of broadband in the country but will also bolster the Digital India initiative of the government.

Thanking you,

Respectfully submitted,

Yours sincerely,
for **Association of Competitive Telecom Operators**

Tapan K. Patra
Director

Encl.: As above

Annexure – I

ACTO's Counter Comments to TRAI Consultation Paper on Internet Telephony (VoIP)

- TRAI in August 2008, has favorably recommended permitting unrestricted internet telephony for Internet Service Providers (ISPs). Specifically Annexure V and VI of the said recommendations proposed amendments under NLD and Internet license in this regard. The said recommendations of TRAI were somehow not accepted by DoT. **We are of the view that since then, there has not been any developments which should bring about any change in TRAI's earlier position as recommended in August 2008.**
- There have been suggestions from stakeholders on levy of suitable entry fee or migration to unified license for existing ISPs to be able to offer unrestricted internet telephony. We would like to humbly submit that internet telephony is already an approved service under the existing ISP license. The issue around removing the current restrictions cannot be seen in isolation which calls for either migration to unified access license or imposition of entry fee. The issue w.r.t. the difference of entry fee between Access and ISP operators had also been rejected by the Authority in its reply to DoT dated 31 March 2009 wherein the TRAI had stated that "Any direct comparison of access service providers and ISPs, due to vast difference in privileges, services, and resources given to them under their respective licenses does not seem to be desirable". (Emphasis Supplied)
- The guidelines for Unified license issued in August 2013 have made migration of existing licensees optional and not mandatory (subject to certain conditions relating to enhancement in the scope of service or expiry of current term etc). The current topic does not relate to enhancement in the scope of service as internet telephony is already part of the existing scope of ISP license. The mere easing of current restrictions cannot be regarded as enhancement to the scope of service.
- Over the years, a lot of technological developments have taken place in the telecom sector which has resulted in more choice to the consumers. The sector has witnessed emergence and proliferation of OTTs and similar application based services which have provided an option to make voice calls / send sms which have been domain of licensed telecom operators.
- Any recommendations to levy entry fee on existing ISPs to offer unrestricted internet telephony and compete with OTT players (who are not licensed and have no obligation to either pay license fee or set up infrastructure) will not be in the best interest of ISPs and will

surely be a issue concerning level playing issue. Given the multiple choice consumer has today (also due to telephony services provided by OTTs) for communication purposes, it may not be a viable proposition for any ISP to pay an entry fee and provide a service which is already available free of cost today.

- The next wave of telecom growth and digital revolution will ride essentially on data. Policies which have helped steered the growth of voice sector may not necessarily be suitable for the growth of data services. Therefore there is a legitimate need for policies to recognize the advent and potential of emerging technologies which will significantly help in proliferation of data services.
- The policy measures will not only open up the data sector, but will also help place India at the helm of technology advancement globally. Our sector is witnessed proliferation of OTT players who are not licensed. These players permit all type of call flow which do not align with the stated routing plan. Ideally there should be a concept of “same service same rule” so that there is a level playing field for all players in the sector. It is not justified that while existing licensed operators continue to be regulated including operate under restrictions (which is current consultation), the other stake holders (OTTs) operate without any regulation. Therefore time has come to accord similar treatment to existing operators, so that they call also compete with OTTs on a equal footing. It is equally important to ensure that there exists parity amongst operators.
- One of the justifications provided in support of imposing entry fee is to restrict fly by night operators. However, the scope of current consultation relates to the ISPs who are existing and have been providing services. Entry fee cannot be a factor to determine whether the current restrictions need to be removed or not. Given the developments in last 8 years, it may not be a significant issue any more. The current imbalance between the licensed operators needs to be removed for a level playing field and provide fair opportunity to compete especially in the wake of proliferation of OTTs.
- The current gap between technology and regulation needs to be bridged. The Policy framework has already envisioned specific objectives in this regard. The National Telecom Policy, 2012 (NTP-2012) has also recognized the need to move towards convergence of voice, data and video to the digital form as below:

*“6. Telecommunications is no longer limited to voice. The evolution from analog to digital technology has facilitated the conversion of voice, data and video to the digital form. Increasingly, these are now being rendered through single networks bringing about a convergence in networks, services and also devices. Hence, **it is now imperative to move towards convergence between telecom, broadcast and IT services, networks, platforms,***

technologies and overcome the existing segregation of licensing, registration and regulatory mechanisms in these areas to enhance affordability, increase access, delivery of multiple services and reduce cost. It will be a key enabler of equitable and inclusive growth.” (Emphasis Supplied)

The NTP-2012 has further identified specific strategies in the area of Licensing, Convergence and Value Added Services as below: Therefore this is the right time to frame policies and regulations in such a manner which helps achieve the stated objectives of NTP 2012.

3.1. To orient, review and harmonise the legal, regulatory and licensing framework in a time bound manner to enable seamless delivery of converged services in a technology and service neutral environment. Convergence would cover:

3.1.1. Convergence of services i.e. convergence of voice, data, video, Internet telephony (VoIP), value added services and broadcasting services.

3.1.2. Convergence of networks i.e. convergence of access network, carriage network (NLD/ILD) and broadcast network.

3.1.3. Convergence of devices i.e. telephone, Personal Computer, Television, Radio, set top boxes and other connected devices.

3.15. To enable and enforce the VOIP facility to enhance consumer affordability. (Emphasis Supplied)

The vision of the prestigious Digital India programme of our Government is centered on 3 key areas:

- Digital infrastructure as a utility to every citizen
 - Governance & Services on Demand
 - Digital empowerment of Citizens
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- The policy / regulations have an important role in realizing the above vision. One of the ways this can be realized is by migrating to a converged digital infrastructure which does not distinguish between networks and traffic. It allows seamless flow of traffic and becomes a powerful tool in the hands of every citizen for their digital empowerment.
 - The policy / regulatory framework should proactively ensure and remove any possible bottleneck which may come in the way of a seamless digital infrastructure which is there to empower citizens and act as a utility tool. No matter what network / device / service the citizen use, the digital infrastructure should embrace the same.
 - If citizens have to get into the quagmire of issues relating to which hand set to use, which network to use, what is allowed, what is not allowed, then it will be difficult for them to make

optimum use of the infrastructure. Therefore in order to truly realize the above stated vision, it is important that policies and regulations should be technology oriented, future proof, and more importantly permit convergence of all types of traffic for the larger benefit of the consumer.

- TRAI should continue to recommend removal of the current restrictions on internet service provider to terminate calls on public network in India. TRAI should permit interconnection by internet service providers with access service providers as well as carriers. The terms of interconnection should be based on mutual agreement between parties. While recommending such steps, TRAI should also consider framing a sustainable numbering regime which conforms to E.164 numbering plans as well as future requirements. The NNP 2003 may be suitable amended as appropriate. Lastly there should not be any regulation around quality of service.

The responses from some companies (Telecom Service Providers) and associations have different view of the submissions made by ACTO. The responses having different views are built on questioning TRAI's authority to call for this consultation paper while giving suggestion to migrate to unified license, Entry fees, Numbering system, termination charges, QoS, emergency services, security risk, arbitrage opportunities and revenue loss by the existing licensees. Our responses to these points are as follows:

1. Entry fees:

Internet Telephony per se as a service is permitted under the existing internet license. However its delivery to customer is restricted to the stated scenarios only. Recommending removal of such restriction will not be a new service. Instead this is just a flexibility to an already existing service. Any attempt to impose entry fees to an existing service under an existing license is not justified. It also impacts the business viability of operators. DoT in January 2006, had permitted provision of internet services as well as unrestricted internet telephony under the access license. **This was done without imposing any additional entry fee on access service providers.**

Contrary to what was done in 2006, the current consultation is only about removing the current restriction to an existing service and not adding new service. In view of the above and from simple comparison perspective, there should not be any entry fee charged. If there are any issues with the cost structures of access service providers then those need to be reviewed

separately. However the same should not have any implications for other operators. Any dispensation provided to an operator for a service should be accorded same treatment to all operators.

Further, it is worthy to reiterate that the issue w.r.t. the difference of entry fee between Access and ISP operators was out rightly rejected by the Authority in its reply to DoT dated 31 March 2009 wherein the TRAI had stated that “Any direct comparison of access service providers and ISPs, due to vast difference in privileges, services, and resources given to them under their respective licenses does not seem to be desirable” an ISP license does not include allocation of any spectrum to ISPs as part of the license and therefore their entry fee is low. Therefore, on account of different basic aspect of two licenses, the entry fee cannot be compared. NO additional entry fees should be charged to ISPs to allow unrestricted internet telephony services.

2. Migration to unified license:

As we have stated in our response, regulatory imbalance exists between TSPs as some are having permission for unrestricted VOIP but other TSPs are NOT allowed. To remove this imbalance migration cannot be the acceptable solution at all as different licenses are issued at different point of time to cater different services and to ensure completion for the benefit of customers. By having restrictions on connectivity, benefits are not reaching to the customers due innovation in technology. Even the guidelines for Unified License issued in August 2013 did not mandate migration of existing licensees subject to certain conditions. The scope of current consultation does not relate to any of those conditions.

No migration can be mandated unless the term of existing license expires or on expansion of scope of service..Existing licenses are duly signed contracts with the DoT and cannot be changed in between the existing term. The contracts have to be duly honoured by both the parties – DoT and Existing Licensee. Any change in the terms and conditions of the license can be done only if it is in the interest of national security, in the consumer interest and is for the proper conduct of telegraph. None of these is true and applicable in the current issue of consultation. Existing license agreements are legally binding contracts between the licensor and licensee. Any change disrupts the investment pattern, upsets business cases, impacts service provision and will lead to a uncertain and unpredictable regulatory and investment environment.

3. Security requirements:

In regular telephony services the security and consumer protection standards have been defined and are generally found adequate. With regard to VoIP services there is no one-to-one relation between the service and the physical infrastructure. VoIP is just another IP service conveyed in the IP networks and anyone with access to the network can tap the signal and actively damage the integrity of the message and the signal. To assure privacy the VoIP provider can implement end-to-end encryption, which is not 100% secure but can establish security levels comparable to those of regular telephony. The encryption will on the other hand prevent the authorities from lawfully tapping the VoIP signal. Different models for a solution to this can be found. But the most future proof solution will connect this type of security issue to IP connections generally, and VoIP will then be treated as a sub-set of the general solution. Some of the specific measures to address security requirements are outlined below:-

- a. A security audit can be conducted prior to the implementation to fix the potential vulnerabilities.
- b. Hardware/Software equipment such as, Firewall, Intrusion Detection and/or Prevention System (IDS / IPS) can be deployed in addition to the encrypted underlying network that will carry voice traffic.

In fact when the security concerns have been considered and addressed while recommending opening of internet telephony for mass market, it is difficult to comprehend why IP-PSTN interconnection has not been recommended to be allowed. The compliance issues as advised from time to time can certainly be addressed based on discussions.

4. Emergency services & location of subscriber to be mandated:

Technology to this facility with VoIP is still under development or trial stage and also requires improved local and centralized in country infrastructure. By having an alternative, given the wide spread growth of smartphones and other handheld devices, applications for emergency assistance which provide location information and type of assistance required are being trialed and should be available more universally in the future. Such applications could replace/complement voice based emergency calls systems.

Although it might be possible to provide this but at present it should not be mandated and keep for future possible consideration as some other alternatives are already available. Emergency number dialing facilities should not be mandated for Internet Telephony services to business customers, since those customers are unlikely to require traditional levels of emergency service access for these services. Business customers are able to make informed decisions concerning

their purchase and use of Internet Telephony, provided there is adequate disclosure of the capabilities and limitations of these services.

5.QOS services:

Some companies/associations have asked for QoS for Internet Telephony on the lines it has been mandated for other telecom services and the access operator providing such service should be responsible for end-to-end QoS for its services to consumers.

First of all, VOIP is not a full fledged telecom service. Although, it is possible to provide measurable QoS in managed VOIP but for unmanaged, 'best-effort' VoIP, QOS depends upon the bandwidth and server capacities available in the end-to-end network. The important thing is the transparency with regard to the quality of services provided. A best effort service provider has no means to guaranty QoS at the network level. It can offer easy nomadic use or favorable pricing to differentiate its services and attract consumers. However, it is important for the consumers to have knowledge about the different QoS provided.

Currently, ITU is setting international standards for performance objectives in IP networks with a reference architecture (Y.1542) that assigns critical service performance parameters to the various network elements to provide an end-to-end QoS regime for internationally-delivered services. In the future, it is up to national regulatory (and industry self-regulatory) bodies to convert the Y.1542 reference architecture and performance quotas into a national architecture with national network elements, in the form of industry guidelines.

6. Numbering resources for Internet Telephony & Illegal termination:

VoIP services will co-exist with traditional public telephony for many years before the transition to all VoIP is completed. More than half the countries responding to an ITU survey said the use of fixed service (E.164) numbering is permitted. Keeping in mind the difficulty in dealing with ip addresses for making internet telephony calls and higher cost of devices to ip address calling, a separate numbering resource should be allocated for internet telephony services, this is essential for the exchange to figure out interconnection charges as well as to facilitate identification of locations, number portability in the near future.. Since Internet telephony supports CLI, it is desirable that Internet telephony service providers for the benefit of subscribers also provide calling line identification.