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Ref: **ACTO Response to TRAI's Consultation Paper dated November 12, 2018 on Regulatory Framework for Over-the-Top (OTT) Communication Services**

Dear Sir,

With reference to the *Consultation Paper on the Regulatory Framework for Over the Top Communication Services* issued by Hon'ble Authority, Association of Competitive Telecom Operators (ACTO), is pleased to provide its comments.

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

Respectfully submitted,

Yours sincerely,

for Association of Competitive Telecom Operator

Tapan K. Patra
Director

Encl: As above

ANNEXURE-I

ACTO Response to TRAI Consultation Paper on Regulatory Framework for Over-the-top (OTT) communication services

Introduction

The global internet has provided a platform for the development and deployment of a great variety of innovative services. The emergence of online services provided over traditional telecommunications networks – often referred to as “over the top” or “OTT” services – is driving growth, creating jobs, and advancing innovation in the global economy.

OTTs have contributed significantly to the growth of digital economy and have helped placed India as No. 1 country in the world in terms of data usage. Despite India’s pre-eminence, the digital economy has room to expand. Out of a total population of around 1.3 billion, a little over 400 million people have access to internet, providing opportunities for growth for TSPs as well as for other players in the application space like OTTs. Today OTTs are not restricted in the communication space, they are into broadcasting, media and entertainment as well. TSPs, on the other hand, are limited in their ability to provide certain services by inflexible regulation.

While the competition provided by the OTT application providers may lead to disruption to the equivalent service providers, a functional market along with an enabling, forward looking, futuristic and technology neutral policy framework should be able to adapt to the new opportunities:

As per ITU report <https://news.itu.int/impact-of-ott-players/>

*“The ITU proposed that governments could play a significant role in encouraging the transition to new technologies by “creating an enabling environment for the deployment of data networks, ensuring an appropriate level of regulation and applying measures that enable competition on a level playing field with a view to brokering the international agreement of standards able to **assist the creation of a win-win situation for network operators and OTT players**” (ITU, 2017. P.1).”*

In just the last decade alone, network investment has paved the way for an entire Internet ecosystem that offers diversity and volume of content, applications, and services delivered over these advanced networks. Further dynamic advances will continue to occur in response to future technological change and consumer demand, spurred on by new developments, including the Internet of Things, Software Defined Networks, and Big Data Analytics. Handset technology advancement is another factor which has enabled the OTT services delivery to the end user. Migration of mobile from feature-phone to technologically advanced smart phone has allowed data streaming, which is one of the most prominent enabler for any OTT. Smartphone also enhanced the consumer experience which in turn leads to more innovative OTT services and higher data usage for telcos.

The Government of India has a unique opportunity to set the policy agenda in a way that will support growth and add to India’s overall economic development. To see continued and

accelerated investment and development in this market, India's regulatory regime must keep to its current approach of liberalizing and moving towards the creation of a light touch regulatory environment as it progresses to embrace the current and future innovative and technology driven offerings.

With regard to the foregoing, we believe that the best approach would be to refrain from adopting specific regulations on OTTs, and instead rely on high-level principles and existing tools in competition law and consumer protection. It is equally important that the existing players be it in the communication space – licensed TSPs or in the broadcasting space – those who generate content be provided a level playing field in terms of **regulatory neutrality**. The market will not stand to gain by imposing current licensing compliances on OTTs instead the compliances of TSPs should be eased so that they are able to compete effectively in the market.

Therefore, we encourage TRAI to recommend a light touch approach that is proportionate, non-discriminatory and relevant to ensure fair play, and provide level playing field for all stakeholders to compete effectively.

Any recommendation on this subject must be made keeping in mind that we are now in the era of digital communications space where technology and innovation happens every second. So, should we regulate the so called "**permission less and innovation driven ecosystem that has developed on its own**" or we allow consumers to experience these innovations collectively as this will place India at the centre stage of innovation as an emerging hub for new services and technologies. There is no way to define an OTT or an application service. There can be indicative but not an exhaustive list. However, the objectives laid out in the prestigious Digital India, Start-up India, Skill India or smart cities programmes will not be achieved if we do not embrace innovation and applications by making them part of our life. There should not be any regulation which restricts free flow of data whether it emanates from TSPs network or an OTT application. In fact, the current restrictions on IP-PSTN should be removed and there must be interoperability between traffic between TSP and OTT.

Q.1 Which service(s) when provided by the OTT service provider(s) should be regarded as the same or like service(s) being provided by the TSPs. Please list all such OTT services with descriptions comparing it with services being provided by TSPs.

We are now in the era of digital communications space where technology and innovation happen every second. Given the pace of technology evolution, there is no way to define an OTT or an application service., the objectives laid out in the prestigious Digital India, Start-up India, Skill India or smart cities programmes will not be achieved if we do not embrace innovation and applications by making them part of our life.

Although there is not a single prevailing global definition of the term, OTT services can be defined as communications and content delivery services and applications that end users access using their own internet connections. Typically, providers of OTT services do not supply network access on their own to end users. These services are an increasingly important element of the broadband value chain and are diverse and fast evolving, providing solutions that were previously unavailable or unaffordable to many people and businesses. OTT services provide users, developers, and SMEs around the world with access to jobs, education, news, trading platforms, productivity tools, enterprise services, app stores, and entertainment choices that were unheard of just a decade ago.

There can be an indicative, but not an exhaustive list. Unlike traditional local and long-distance services, unified communications platforms and mobile calling solutions typically include unlimited voice capabilities and are available as unregulated and free of charge over-the-top offerings (OTT), allowing easier entry by new and non-traditional competitors. Several factors influence the customer decision on which one type of solution is preferred, including such things as capital and expense budgets and the degree of in-house technical expertise.

For example, among the key trends in the business VoIP and UC&C market are:

- Enterprises and Contact Centers are going through technology refresh and transformation (migration and virtualization) as they utilize IP/SIP capabilities to provide new features (e.g., resiliency features that keep in progress calls from dropping) and reduce the number of traditional voice lines and usage of long distance. Customers purchase converged Voice and Data services to improve overall economics.
- There is a growing trend in today's workforce toward reliance upon mobile devices to perform job functions. The younger generation is entering the workforce with the expectation of a highly mobile environment.
- The market is also evolving to a set of holistic UC&C capabilities that encompass voice, instant messaging & presence, and web/video/audio conferencing capabilities. Contemporary forms of business VoIP can be a seamless UC&C application on their wide area IP networks, featuring integrated voice, instant messaging, email and conferencing capabilities, and that are quickly evolving as full-blown "computer" applications, limited only by the talents of applications developers.
- With the rise of UC&C, voice is much more likely to be assessed as part of a company's IT and end user strategy instead of being compartmentalized solely as part of a telecom plan.

The list of same or similar services as being provided by TSPs and OTTs may be prepared today, and it will not be valid tomorrow. Services have been decoupled from network layer to OSI layer 4-7. Innovation of new services is happening on daily basis. The deployment of SDN will further enhance proliferation of new services. It is no more in the control of either TSPs or Regulators. Thus, preparing a list in this regard will be a futile exercise. For example, fax was very popular communication service, with the advent new way to send information, very soon it may not exist at all as it has happened in case of type writer. Similarly, introduction of Short Messaging Service (SMS) wiped out the Paging Industry.

Instead there is an urgent need to review the current licensing framework to align it with emerging technology trends and remove the artificial restrictions that are imposed on the service offerings of the TSP's.

Q.2 Should substitutability be treated as the primary criterion for comparison of regulatory or licensing norms applicable to TSPs and OTT service providers? Please suggest factors or aspects, with justification, which should be considered to identify and discover the extent of substitutability.

Substitutability is not a productive criterion with which to compare the regulatory frameworks around TSPs and OTT services. Consumers view OTT as offering better price/performance than the services for which they substitute. Usually OTT services are less expensive / virtually free than an equivalent service or offers better value overall. The OTT voice services are not a natural substitute of traditional voice services, and similarly instant messaging services are not a natural substitute of SMS. These services cannot connect to a traditional PSTN / switched voice network.

Q.3 Whether regulatory or licensing imbalance is impacting infusion of investments in the telecom networks especially required from time to time for network capacity expansions and technology upgradations? If yes, how OTT service providers may participate in infusing investment in the telecom networks? Please justify your answer with reasons.

With the rapid convergence of services and platforms, asymmetric regulation of telecom licensees and OTT providers, can harm consumers by keeping telecommunications providers from competing vigorously and nimbly in the face of fast-changing consumer preferences, thus distorting the competitive landscape with no countervailing benefit. The preferred approach is to remove such regulatory asymmetries remove unnecessary regulation of all providers, by recognizing where technology and market changes have removed the former dominance of telecommunications providers, and rules originally designed to prevent the abuse of market power no longer make sense.

Thus, there is an urgent need for significant regulatory reforms in the telecommunications sector which should be part of the TRAI's agenda, to allow service providers to have the flexibility to offer innovative services to consumers on the principle of equality.

OTTs are offering innovative voice and data services, which may be complementary or in competition with the traditional service offerings of TSPs. Under the current model, the TSPs network is leveraged for delivery of the OTT services, and TSPs are heavily regulated due to restrictive license terms and conditions, roll out obligations, security considerations, license fees and other compliance obligations. The OTTs do not operate under any such restriction or tax regime.

Thus, there is a critical need to amend existing license terms and conditions and regulations to bring regulatory parity to the treatment of service offerings of OTTs and TSPs. Licensing of OTT communication services may not be a right step at this stage when OTT services are one of the prime mode of innovations for the telecom sector in this Country. Instead of bringing OTT players under licensing regime, the regulatory and licensing regime of licensed service providers be relaxed for level playing field by allowing similar services to TSPs as that of OTT on same conditions.

TRAI should permit PSTN and mobile telecommunications network operators to offer their own OTT applications without subjecting them to legacy telecommunications regulations. TSPs, mobile operators and OTT service providers should likewise be transparent about the potential impact of OTT services on as the underlying fixed or mobile broadband internet access services and should offer services on a non-discriminatory basis.

The TRAI should support the removal of present restrictions on the provision of Internet Telephony Services to (and from) the PSTN and PLMN by ISPs within India. The converged voice, data and video capabilities for Internet Telephony, will support the Indian economy by ensuring it remains a competitive location for telecom-dependent industries to operate, and by promoting the manufacture of and investment in Internet Telephony equipment and software. By contrast, the continuation of existing limitations on the provision of Internet Telephony in India will impede both economic growth and consumer benefits.

Government should continue the investment-friendly policies that have brought the vast expansion of network facilities till date and new services throughout the world and allowed this critically important global communications medium to flourish and benefit the global community in ways that would have been unimaginable twenty years ago.

Q.4 Would inter-operability among OTT services and inter-operability of their services with TSPs services promote competition and benefit the users? What measures may be taken, if any, to promote such competition? Please justify your answer with reasons.

Many of OTT services are provided in close user groups and interoperable with all telecom network and consumers benefit from interoperability, where technologically feasible. However, such interoperability should not be a regulatory mandate. Instead, the regulator should remove the artificial restrictions in the license conditions for IP-PSTN switching. Most of the countries have done it but in India, it has made progress but restrictions still prevail with close user group services/ applications.

Q.5 Are there issues related to lawful interception of OTT communication that are required to be resolved in the interest of national security or any other safeguards that need to be instituted? Should the responsibilities of OTT service providers and TSPs be separated? Please provide suggestions with justifications.

We recognize that governments have a legitimate interest in addressing important objectives such as national security, public safety, law enforcement, and preventing harm to children.

We also believe that legal regimes should encourage technological changes by establishing fair, accountable and uniform procedures to govern when and how private companies may be compelled by a government to provide user information.

ACTO believes that a fair, accountable and uniform set of rules should govern when and how companies may be compelled by government to provide information. Together with industry groups, civil society organizations, and think tanks, we have advocated for rules that balance the legitimate interests of state authorities with the privacy, security, and trust of our customer. Various government and law enforcement officials in India and worldwide should be discouraged from seeking ad hoc access to communication and security technologies to facilitate surveillance and interception operations beyond that which is permitted under the law.

The Telegraph Act permits lawful interception of all data traffic (including OTT traffic) by licensed TSPs and ISPs. Further, interception of all data traffic is already happening at international landing stations and does not require additional intervention from the regulator.

While encryption policies in the country are well stated in the IT ACT and its amendments, however we believe that encryption framework should support technological innovations and support new technologies. Further, strong encryption policies by OTT service providers and its social benefits must be weighed against the perceived costs to law enforcement access.

Encryption is key to ensure security of networks, and TSPs also need to have the flexibility to deploy strong encryption policies on par with OTTs, especially in wake of new services like SDWAN. Similarly, the responsibility to decrypt traffic encrypted by OTT applications running on TSPs' networks should not be shouldered by the TSPs alone as they do not have any control on the application platform of OTT players, and thus OTTs should also be responsible to provide assistance to law enforcement, if they are encrypting the data channels.

Q.6 Should there be provisions for emergency services to be made accessible via OTT platforms at par with the requirements prescribed for telecom service providers? Please provide suggestions with justification.

Firstly, OTT services are provisioned in Close User Group. To provide emergency services, it is required to route the call/message to the nearest authority like fire department, police, hospitals etc. Towards this, the first bottleneck in India is full fledged IP-PSTN connectivity is not permitted.

CUG users are prohibited to terminate IP call/message in the PSTN. Most of the countries don't have this restriction.

Secondly, with the current available infrastructure, it is not possible to maintain the same positioning and routing information for emergency calls. It requires an improved local and centralized in country infrastructure. Moreover, OTT services are not provided from a fixed location.

Thirdly, with the availability of many alternatives, given the wide spread growth of smart phones 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.

TRAI has also not mandated for the provisions for emergency services in case of internet telephony vide TRAI Recommendations on Regulatory Framework for Internet Telephony dated 24th October 2017.

"In view of the above, the Authority recommends that the access service providers providing Internet Telephony service may be encouraged to facilitate access to emergency number calls using location services; however, they may not be mandated to provide such services at present. The subscribers may be informed about the limitations of providing access to emergency services to Internet Telephony subscribers in unambiguous terms."

From a policy perspective, however, business and residential customers alike should have access to emergency services, where technically feasible.

The TRAI should encourage carriers, device manufacturers, software developers, and OEMs to work cooperatively to support the development of standards-based emergency calling number dialing facilities that include voice delivery, call back address capabilities and dispatch able address capabilities.

In the case of enterprise customers, until the industry has developed this technical capability, ACTO considers that 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 can make informed decisions concerning their purchase and use of Internet Telephony, provided there is adequate disclosure of the capabilities and limitations of these services. Where emergency service access is not available – because, for example, a nomadic use capability precludes the transmission of location information – service providers should be required to make users aware of this and business customers should be free to purchase the service. If the TRAI does wish to go further, it should adopt only minimum standards for Internet Telephony services to business customers that are technologically feasible and necessary to ensure access to emergency services, without foreclosing future developments.

Q.7 Is there an issue of non-level playing field between OTT providers and TSPs providing same or similar services? In case the answer is yes, should any regulatory or licensing norms be made applicable to OTT service providers to make it a level playing field? List all such regulation(s) and license(s), with justifications.

Q.7 and Q.8 are addressed together.

Q.8 In case, any regulation or licensing condition is suggested to made applicable to OTT service providers in response to Q.7 then whether such regulations or licensing conditions are required to be reviewed or redefined in context of OTT services or these

may be applicable in the present form itself? If review or redefinition is suggested, then propose or suggest the changes needed with justifications.

ACTO members don't support for any additional regulation. Even there is an imbalance, it can be addressed in many ways without putting additional regulation.

Strong market competition offers the most level playing field for all stakeholders. To the extent that TSPs offer OTT services, they should not be subject to regulations that were not otherwise applied to stand-alone OTT providers. Indeed, the TSPs could be encouraged to expand broadband capabilities if one of the benefits was the ability to offer unregulated or lightly regulated OTT services. A light touch regulatory environment will contribute to a robust, pro-consumer playing field for OTTs and TSPs alike.

Q.9 Are there any other issues that you would like to bring to the attention of the Authority?

Enterprise services should not be subject to consumer regulation: To the extent any regulation of OTT services is considered, we encourage TRAI to evaluate the differences between business customers, who raise different economic and safety policy considerations, from individual consumers. In the event the TRAI adopts mandatory requirements concerning emergency service access and service quality for Internet Telephony services, Internet Telephony services to business customers should be placed in a separate service category and exempted from these requirements. The capabilities of these internet-based services can create unprecedented efficiencies for business in India by converging voice, data and video applications to create new services to assist call center operations, remote tele-worker applications, and video or IP conferencing. At the same time, OTT business services should not be subject to levels of consumer protection and emergency service access.

Provided there is adequate disclosure of the capabilities and limitations of these services, business customers are likely to make informed decisions concerning their purchase and use of Internet Telephony. We encourage the TRAI to support the deployment of OTT services to business customers, and the widespread benefits to the Indian economy likely to result from such deployment, by forbearing from the application of traditional public voice regulation to these services with respect to requirements relating to emergency service access and service quality.

Privacy: Privacy legislation should establish a consistent framework for all companies that collect and use personal information. In a connected world where individuals use multiple devices and services from different providers, the most effective way to protect consumers is through one set of rules which apply to the processing of personal data. As TRAI undertakes this review of OTT services, we urge the TRAI to avoid establishing policies for data management and retention that are unique to OTT services. Privacy regulations that apply to only one set of technologies or industry players create customer confusion and distort competition.

TRAI should continue to work with MeitY on the data protection consultation to ensure that India adopts policies that allow India to remain a leader in the information and communications technology sector. ACTO believes it is important that an Indian data protection law avoid restrictions on cross-border data flows that will undermine this status. In our previous comments, we highlighted the value of cross-border data flows to the Indian and global economies and encouraged the Government to ensure that the legislative framework provide for

transfer mechanisms that are predictable, interoperable, and based on internationally recognized best practices. Agreements such as the APEC Cross-Border Privacy Rules System and the OECD Privacy Framework are positive examples of accountability-based frameworks which rely on internationally accepted data protection principles and allow governments to take an active role in monitoring adherence. We urge ACTO to work with MeitY to consider incorporating aspects of these systems into the data protection bill.

No Mandatory Service Levels: To the extent any regulation is considered, TRAI also should avoid any mandated service quality levels for OTT services. These services are different from traditional PSTN/PLMN voice services which use a fundamentally different technology as well as different service attributes, with different capabilities and limitations and raising different policy considerations. The quality of voice calls the Internet is frequently different from the quality of traditional voice services for a range of reasons, and even low-quality Internet Telephony may offer sufficient cost advantages over traditional voice services for many users to be willing to make this price-quality trade-off. Mandated service quality levels could also limit the development and usage in India of innovative services converging voice with other data applications and devices. A light-handed regulatory approach to Quality of Service will help promote innovation in a competitive market. It may, however, be helpful for OTT providers to notify users that these services may not provide the same voice quality as traditional services and thus allow users to make an informed decision concerning usage.

Non-Geographic Numbering: Both types of E.164 numbers should be available for allocation to all Internet Telephony providers, including ISPs, UASPs and CMSPs. By preserving a reasonable ability to obtain geographic numbers, and by also establishing a non-geographic number range reserved to encourage deployment of a numbering resource specifically for this service, the TRAI will best allow Internet Telephony providers a long-term ability to innovate and increase customer demand.

The availability of geographic numbers is likely to encourage wider usage of Internet Telephony, which in turn will promote efficient, innovative and affordable services. For end users who are more comfortable with a recognisable number range, a geographic number may be desirable, and excessive restrictions on which operators can obtain such numbers would raise an unnecessary barrier to competitive entry. Several initiatives should be considered to minimize any adverse impacts on geographic numbering resources. For example, the TRAI could set aside initial number blocks for Internet Telephony services in each geographic area with allocation at possibly 1,000.¹ This approach is competitively and geographically neutral and is a proportionate response to concerns with number exhaustion. Additional blocks for Internet Telephony would need to be made available to meet demand, even if that triggers code changes in some areas. If demand for new geographic numbers overheats, then at that point the TRAI could consider “conservation” measures, such as allocating numbers for all services in smaller blocks. This would alleviate exhaustion concerns but might introduce a technical complication for traditional services and should not be introduced until demand for Internet Telephony and impact on the numbering plan is clearer.

New non-geographic number ranges for Internet Telephony services should also be made available, if Internet Telephony services are not constrained only to a non-geographic number range. Non-geographic numbers may create efficiencies that improve the ability of new Internet

¹ In the United States, allocation of numbers in blocks of 1,000 has been generally implemented. *See, e.g., FCC Releases Telephone Numbering Resource Utilization Report, over 61 Million Numbers Saved Through Thousand-Block Pooling*, FCC News, (rel. Dec. 11, 2003) (http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/utilizationjun2003.pdf).

Telephony providers to obtain and use number resources. For Internet Telephony applications that rely significantly on the service for mobility or long distance and international use, a non-geographic number may be desirable given the independence of the number from concepts of distance or fixed location. The TRAI should establish the non-geographic number range for Internet Telephony with low entry barriers for obtaining number blocks, as this will foster Internet Telephony deployment. The TRAI should, however, bear in mind that, as more and more voice services migrate to IP, artificial segregation of Internet Telephony services behind a non-geographic number range is unlikely to be sustainable in the long term. As such, the TRAI should not segregate IP Telephony numbers from traditional telephony numbers.

CONCLUSION

OTTs are offering innovative voice and data services, which may be complementary or in competition with the traditional service offerings of TSPs. Under the current model, the TSPs network is leveraged for delivery of the OTT services, and TSPs are heavily regulated due to restrictive license terms and conditions, roll out obligations, security considerations, license fees and other compliance obligations. The OTTs do not operate under any such restriction.

Thus, there is a critical need to amend existing license terms and conditions and regulations to bring regulatory parity to the treatment of service offerings of OTTs and TSPs. Licensing of OTT communication services may not be a right step at this stage when OTT services are one of the prime mode of innovations for the telecom sector in this Country. Instead of bringing OTT players under licensing regime, the regulatory and licensing regime of licensed service providers be relaxed for level playing field by allowing similar services to TSPs as that of OTT on same conditions.
