

BY COURIER/ELECTRONIC MAIL

Date:

To,
Advisor (B&CS)
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
Old Minto Road,
New Delhi – 110 002
Dear Sir,

Re: Submissions to Telecom Regulatory Authority of India ("TRAI") in response to the Consultation on "Consultation Paper on Regulatory Framework for Over-The-Top(OTT) communication Services", 2018.

At the outset, we would like to thank the Authority for giving us an opportunity to tender our views on the **Consultation Paper on Regulatory Framework for Over-The-Top(OTT) communication Services**.

In regard to the present consultation process, we submit that we have perused the said paper highlighting the intricacies of the draft carefully. We hereby submit our comments attached as Annexure. The said comments are submitted without prejudice to our rights and contentions, including but not limited to our right to appeal and/ or any such legal recourse or remedy available under the law.

The same are for your kind perusal and consideration.

Yours Sincerely,



Encl: As above

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BY HAND/ELECTRONIC MAIL

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Re: Submissions to Telecom Regulatory Authority of India ("TRAI") in response to the Consultation Paper on Regulatory Framework for Over-The-Top(OTT) communication Services"

Kind Attention:

**Advisor (B&CS)
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
Old Minto Road,
New Delhi – 110 002**

INTRODUCTION

Technology coupled with digitalization has grown immensely from simple paging communication through an operator to telephonic voice calls and messaging through telecommunication service providers (TSPs) to further evolution of communication via electronic mail to the present advancement to include (VoIP) voice calling, video chatting services, instant message services through chat application (such as WhatsApp, SMS, Facebook messaging, etc) using the network infrastructure of the TSP, making it far more simpler, faster and cheaper than the traditional method of communication. Communications via internet is not only efficient and cost effective but also eradicates issues such as call drop, network issues, and a hole in the pocket over an overseas conventional international voice call or messaging service as provided by TSPs.

With time the telecom technologies especially radio access has advanced. It has moved from initial first generation (1G) of wireless cellular technology in 1980s to support voice only calls, to receiving the first major upgrade from 1G to 2G introducing call and text encryption, along with data services such as SMS, Picture Messages and MMS, with the maximum speed of 2G with General packet Radio Services (GPRS) being 50Kbps and 1Mbps with enhanced Data rates for GSM Evolution (EDGE). The introduction of third generation network (3G) in 1998 ushered in faster data transmission speeds catering usage of cell phones in more data demanding ways, such as video calling and mobile internet access leading to introduction of mobile broadband through 3G cellular technology, with maximum speed of 3G estimated to be around 2 Mbps for non-moving devices and 384 Kbps in moving vehicles. The current standard which is the fourth generation (4G) released in 2008, with a maximum speed of network while the device is moving to be 100 Mbps and 1Gbps for low mobility communication, supports mobile web access, gaming services, HD mobile TV, Video conferencing, 3D TV and other features that demand high speed. While the 4th generation has already driven to a massive advancement of various over the top platforms, the fifth generation (5G) is getting geared up promising significant faster data rates, higher connection density, and much lower latency and energy savings among other improvements.

Thus clearly evident that the global telecom industry due to its dynamic nature has been witnessing continuously changing business and technology environment over the past half century, since its initiation with the telegraph and early voice telephony, the industry has come a long way. The telecom operators today strive to provide seamless and high quality voice, data and multimedia services in a multi device, mobile environment. Traditionally the principle revenue streams for

telecom operators have been voice and messaging (SMS) with data coming in at a far third till recently. But while telcos had been quick to react to previous game changing development such as the internet explosion and the emergence of cellular mobile communications in the 1990s, they seem to have been caught napping in the face of the newest challenge to their revenues, Over The Top (OTT) service providers.

The OTT service providers deliver audio, video and other media over the internet and bypass the traditional operator's network. Since the OTT players do not require any business or technology affiliations with network operators for providing such service, hence as the name rightly suggests "Over The Top" (OTT) application.

OTT player, enabled by technology advances such as smartphones, super-fast IP networks, open source platforms, innovative services, cutting edge functionalities and shift in consumer preferences towards their "freemium" based business models are seeing an ever increasing adoption rate.

Consumers of communications services have increasingly put a premium on a more personalized customer experience and more customizable access to service of their choice. The availability of a wide variety and huge quantity of content has led to the consumer insisting on the right and relevant information and content being made available to him/her at all times. The consumers' demand for convenience has made it necessary for service providers to track the preferences of individual consumers and deliver the information and content accordingly. Rising smartphones and mobile internet penetrations has put the equivalent of a sophisticated and powerful yet personal communication system in the pocket of every consumer. Since the consumers spend a major amount of their time interacting with their smartphones, they want their experience to be unique and one of –a kind.

Further as the consumer's demand for content has accelerated, service providers have been trying to match the supply of content to the demand. At the same time they have to develop capabilities to deliver their content to consumers distributed across geographies, technologies, platforms and devices. This has led to rapid advances in content distribution capabilities. Nowadays, content be it audio or video is readily available on different platforms such as Netflix, YouTube, Amazon prime which contributes approximately half of the internet traffic. While availability of content and rising penetration of smartphones and mobile internet were the major contributing factors towards the focus on content distribution, the need to satisfy consumer expectations in regard to convenience

and customer experience have forced service providers to maintain this focus and keep improving their content distribution

Though the OTT players utilize the telecom operator's network and infrastructure and since OTT service usage requires subscription of Data pack thus driving the data revenue. Another major factor which is shaping the consumer trend is the huge availability of content through OTT providers such as Youtube, Netflix, Amazon Prime, etc. These OTT services providers offer large amount of content at very low cost to its customers and allows them to watch movies and TV programs as per their convenience and preference. While OTT players are the front end for the consumer, Content Delivery Network (CDN) are the essential backend responsible for delivering this content. CDNs are proxy web servers that deliver content to the end user based on the proximity to the end user. Since, the content is distributed depending upon the proximity to the end user, these CDN servers are located in different geographical regions. Thus CDN hosting system allows OTT players to transmit the content to the end users as quickly and as efficiently as possible, which in turn helps in enhancing the consumer experience. OTT players are just not providing the streaming services but are also producing their own original content. The ability to stream this content on multiple internet connected devices like smartphones, PCs, Laptops and smart Tv is an added facility provided by the OTTs.

Content owners have also played a very important role in driving the adoption of OTT services by reducing the time it takes a film to go from theatrical release to availability for purchase on Electronic sell through(EST). Movies on an average are getting released within 3 months after theatrical release on the internet platforms which brings additional revenues for producer and increases demand for movie on Demand (MoD). The increased video traffic has put pressure on the telecom network and in order to tackle these issues operators need to invest in acquiring more spectrums and upgrading their existing infrastructure.

Further OTT players have two advantage over mobile and cable network operators: they can have beneficial arrangements with telecom infrastructure providers and they are not subjected to restrictive regulatory regimes however still covered by the established law of the land including the information technology act. This allows OTT player to adopt innovative and flexible and agile business model which are far more optimized. Since OTT players do not have to comply with Telecom Regulations they are able to provide inexpensive/ free of cost services to their customers and are thus able to realize an exponential growth in their consumer base. The limits placed on OTT

players already exists addressing the security and privacy concerns associated with user data which come under the ambit of the information technology Act, 2000 and Information Technology (Reasonable security Practices and Procedures and Sensitive Personal Data or Information), 2011.

OTT services can flourish in the telecom ecosystem by way of telecom operators offering affordable data packages to ensure an open and neutral internet experience for their customers. Telecom operators can benefit not only from analyzing consumer trends but also from the factors that are leading to adoption of OTT services. This can help them in service development, marketing strategies etc.

The most determining factor of the growth of OTT services will be the government and regulatory stance towards them, therefore in our view, it is important to keep in mind at all times that high speed Internet access, the opportunities it offers for the development of new business models such as OTTs and their implications for telecom operators essentially foretell a technological revolution. Throughout history, technological revolutions have had 'winners' and 'losers', but finally what should be considered is the ultimate aggregate effect on the welfare of society at large. Therefore, TRAI should facilitate this process and should not implement measures that could hinder it.

RESPONSE TO ISSUES FOR CONSULTATION:

1. Which service(s) when provided by the OTT service provider(s) should be regarded as the same or similar to service(s) being provided by the TSPs. Please list all such services with descriptions comparing it with services being provided by TSPs.
 - A. While OTT applications cannot be offered without access to the physical networks that *only* TSPs deploy, the two main services provided by the OTT service provider(s) that can be listed as same or on similar footing as being provided by the TSPs are:
 - i. Voice calling: most OTT services that offer voice calling facilities using VoIP have also either included the features offered by OTT messaging services in their list of offerings or had started off as a messaging service in the first place. Players like Google Hangout, Whats App, Facebook Messenger, Skype, Telegram, JioChat Messenger and Hike Messenger make it possible for users to have their phone, social and OTT service Contracts integrated flawlessly on one place and let users communicate with these contacts over voice or text, share content and handle communications over multiple devices. Even large business industries have began to prefer OTT services as being offered over enterprise telcos offerings. One reason for this is the extent to which such services make collaborative work possible. With OTT players offering premium services to businesses with features like zero advertising, live chat customer support, group screen sharing and group video chatting, many organizations are choosing them over the considerably higher priced solutions that telcos offer for similar communication needs.
 - ii. Messaging: Telecom operators have not only remained rigid with SMS and MMS pricing but they have also not really tried to innovate with the feature of these services. SMS has stayed limited to a number of character text messaging services while MMS to a one to one multimedia messaging services that is much more expensive compared to even the SMS. Compared to this, OTT messaging services offer consumers a feature rich experience combining capabilities like exchanging multimedia pictures, videos and audio in addition to text, group chats, voice messages, location sharing etc. There are no limits attached to the size of text messages and the ones one multimedia content are sufficient for most purposes. To put it simply, OTT messaging services have succeeded in offering much more value to the consumers than telcos' SMS and MMS services ever did. In addition to offering a better experience through the various additional features mentioned, OTT services

have unlocked the potential of an attribute today's consumers are increasingly demanding - convenience. Through features like auto-sync with the user's entire contact list including phone contacts as well as those on social networks and other OTT services, sorting messages into conversations and eliminating the need to send multiple messages due to character limits these OTT messaging services have made it convenient for users to communicate with other in any way they want to.

- B. However it is important to note that OTT services such as Whatsapp, Skype, Facebook Messenger, Telegram, Google Hangouts, JioChat Messenger and Hike Messenger create dynamic ecosystems that enable user interaction in ways that are not possible through traditional TSPs. For instance, unlike TSPs, OTT services facilitate group chats, payments, and sharing of high-definition photos and videos. There are also OTT services that may be used for specific purposes, including for "business interaction" This integration of various functions on a single platform allows OTT services to offer a one-stop solution to users' communication needs and creates added value by reducing the time and money they spend on transactions, searches and information gathering. Further, unlike TSP networks, OTT apps operate in a highly competitive market in which it is easy and often cost-free for consumers to switch between competing apps, and many consumers access multiple OTT communications apps from one device (thus, the rationale underpinning many legacy telecommunications regulations does not apply to OTT communications applications).
- 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.**
- A. Substitutability cannot be treated as the primary criterion for comparison of regulatory or licensing norms applicable to TSPs and OTT service providers. It is agreed that services provided by OTT service providers such as voice calling and messaging have certainly to an extent substituted the conventional services as were provided by TSPs, However, TSPs and OTTs function differently, wherein OTT providers rely on the global internet and access

network speeds as provided by TSPs. As rightly pointed out by the Authority, the growth in OTT services and the consequent increase in data traffic is also growth for TSPs business.

- B. Substitutability is only one of the many criteria that should be considered in determining whether comparable regulations should apply on OTTs and TSPs. Substitutability is a complex process - it comprises many considerations and factors and shouldn't be simply reduced to one factor. Besides functional similarity, several considerations are important for determining substitutability in the context of regulation. For example, the players must: (i) compete in the same layer (e.g., network layer, application layer, etc.) with comparable rights to resources; (ii) offer functionally comparable services; (iii) compete for the same group of customers; (iv) operate in the same service area; and (v) offer services on comparable devices. Invoking substitutability between the services for regulation or licensing requirements for OTT services will hurt consumers and industry. It will create a new barrier to entry for both new apps and service providers by raising the cost of service provision. Low barriers to entry, the open nature of the Internet, and rich interactions and experiences that OTT application and content providers enable are key to the continued growth of the digital economy. Thus, there are different restriction for TSPs and OTT providers.

Thus services provided by an OTT service provider and TSPs should not be treated in power as competition, rather TSPs should be considered as a backbone to the services being provided by OTT service providers, regulations and licensing provisions as laid on TSPs should include provisions to enhance and support the services as are being provided by OTT platforms. With Digital India initiative, there shouldn't be any restrictive norms to regulate the services of OTT, except for the laws of data security and privacy policies as already in existence, governing services provided by OTT service providers.

- 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 upgradation? If yes, how OTT service providers may participate in infusing investment in the telecom networks? Please justify your answer with reasons.**

- A. Restrictive regulations and licensing would always impact infusion of investments as required, therefore there should be enough flexibility provided in the sector to lure

investors to invest in the sector, which certainly enhance investment which inter-alia would help from time to time for network capacity expansion and technology upgradation, as it being the need for the hour, especially with globalization and vast demand and expansion of OTT services across. It would be outdated to say that OTT service providers do not participate in infusing investment in telecom networks as in this globalised world, the demand for data consumption is mostly driven by the consumption of online services that are created globally. To cater to this growing demand, OTT providers are already investing in the global infrastructure required to host and carry content, and make it accessible to end users. It is worth to mention that the amount of revenue that OTT providers invest as a proportion of their revenue is high.

- B. Further, OTT providers also have a positive indirect impact on investments in telecom networks. Increasing demands for OTT services have fuelled demands for the underlying telecommunication services. This has in turn increased revenue opportunities for TSPs.
- C. Infusion of investments in the telecom networks for network capacity expansions based on technology upgrades is not solely dependent on regulatory or licensing regimes in the country. Even though TRAI has been proactive in regulating tariffs, most TSP services are either under forbearance or offered well below defined tariff ceilings, indicating healthy business offerings driven by competition within TSPs.

4. Would inter-operability among OTT services and also 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.

- A. As stated above, OTT service providers and TSPs should not be compared with each other with the intent of competition between the services provided, as the services provided by OTT Service Providers are dependent on TSPs. Rather interoperability of TSPs with OTT services would be a boon and benefit the users, for instance by bundling the services of TSPs with OTTs or TSPs partnering with OTT service provider to reach out more consumers efficiently would certainly further enhances revenues for OTTs as well as TSPs. However such inter-operability should be left upon the market forces and should not be brought within the ambit of any regulations.

B. When it comes to the OTT market, consumers have a vast range of choices at low to zero costs because the market is highly competitive and has low switching costs. Consumers find it extremely easy to acquire knowledge about different apps and switch from one to another. Further, the OTT economy is arguably more competitive than TSP services. The products offered are typically software-based, which means they can be rolled out, adopted, and built upon much more quickly (and cheaply) than industrial products.

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

A. All the services offered by the OTT service provider rides on on global internet services offered by TSPs which are already. being governed under the ambit of Information technology act, 2000, and are well aligned with all applicable guidelines or safeguards for national security, therefore, there need not be any further regulations or laws to restrict or limit the functioning of OTT service providers. Currently, there is no private network allowed to be run by OTT providers of their own so all the underlying network supporting OTT services are managed, controlled and provided by TSPs. Additional lawful interception for OTT providers would hence be meaningless, unless OTT providers are allowed/enabled to create their own network independent of TSPs.

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

A. No such additional provisions are required as OTT providers do not offer any 'telecom services' and OTT services are highly dependent on the level/QoS of internet access to the end user which is controlled and managed by TSPs. The last mile (broadband, wireless or fixed line) access to user can be offered by the TSP only as they provide & control the last mile. Any such obligation for OTT providers will be meaningless as they would not be in a position to support the very purpose of emergency services in the absence of their ability to manage the last mile access to the users. 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. Thus, mandatory provisions of emergency services by OTT providers may be considered to be made accessible at a later stage, as presently, it is premature to implement such provisions.

7. If there an issue of non-level playing field between OTT providers and TSPs providing the 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 regulations(s) and license(s) with justifications.

- A. At the outset, we believe there is no “non-level playing field” between OTT service providers and TSPs, as OTTs and TSPs provide different services, do not operate in the same network layer, and because – as discussed above – there are fundamental technical and business differences between traditional services and apps. As stated prior, OTT services and TSPs services as provided cannot be placed in the same parameters.
- B. Competition laws, consumer protection laws and information technology laws already govern the relevant facets of internet services, so it would be incorrect to characterize this market as unregulated. Additionally, OTT service providers thrive on the open and unbound nature of the Internet which leads them to constant innovation. By attempting to regulate OTTs in the above manner, individuals, companies and entire industries that rely on various OTT services would find their costs increasing disproportionately. Keeping the Internet open, decentralized, and free of barriers is critical to helping Indian businesses remain competitive in today’s increasingly digital economy.
- C. Moreover, licensing requirements or other heavy-handed regulatory obligations could create barriers to entry and expansion for app providers, particularly start-ups that lack the resources to obtain a license or establish locally in every country where their applications are provided. . Licensing requirements could also impair the ability of Indian businesses to use online applications to grow and reach more people. The global reach of online applications makes them useful to business, including small businesses, because it enables companies to reach a larger potential customer base that extends beyond India’s borders. This increases their business and collectively expands the Indian economy.

8. In case, any regulation or licensing condition is suggested to made applicable to OTT service providers in 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.

A. Not Applicable

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

Through Digital India, the Indian government wants to transform the country into a digitally empowered society, recognizing the enormous social and economic potential of the internet and it is important to note that much of the value created by the internet is only because of its open and inclusive nature. Thus, regulating OTT services will truncate the open internet and dilute its ability to fuel innovation. This in turn will affect the government's Digital India programme, which relies heavily on the ability of online services to create opportunities.