



Response to TRAI Consultation  
Paper on Regulatory  
Framework for Over The Top  
(OTT) Communication Services

January 2019

# NASSCOM RESPONSE TO TRAI CONSULTATION PAPER ON REGULATORY FRAMEWORK FOR OVER THE TOP (OTT) COMMUNICATION SERVICES

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## Overview

The Telecom Regulatory Authority of India (“TRAI/ Authority”) in the past conducted a similar consultation process when it issued its earlier Consultation Paper on Regulatory Framework for OTT Services dated 27<sup>th</sup> March 2015 (“2015 CP”).

At the outset, NASSCOM would like to reiterate its responses to the 2015 CP and in particular that “the term “OTT” does not acknowledge the innovation in Internet platforms and services at the application layer, their variety of services and product offering. Instead, the term and its usage seem to imply that they are simply methods of serving. This is limiting and we would request that in India, we should acknowledge and therefore, appropriately refer to OTTs as Internet Platforms and Services in line with the terminology and understanding of Computer Technologists. The belief that it is Internet platforms and apps that ride over the top of telecom networks is misplaced. It is consumers who use telecom networks to access apps and internet platforms. These consumers have contracts with telecom companies and they are using bandwidth that they have paid for at a price that generates profit for telecom companies. In fact, it is these Internet platforms and apps that make it worthwhile for consumers to use the Internet and therefore pay telecom companies for data pack.”

Growth of apps like Facebook, WhatsApp, Skype etc. have all made communication easier and less expensive for the consumers. We do not find a case for introduction of any additional licensing regime. Such a move is likely to hamper consumer's right to choice and innovation and create barriers for service providers.

As noted by the GSM Association and cited by TRAI in its Consultation Paper on the Regulatory Framework for Over - the - Top Communication Services dated November 12, 2018 (“CP”):

*“Regulation should be functionality-based rather than based on structure or technology. That is, regulation should be designed to achieve its objective in the most efficient way (i.e., to be cost effective), without regard to technologies, industry structures, or legacy regulatory regimes.”*

Innovation in some form or other will always threaten others who cannot foresee the opportunity. Whilst Telecom Service Providers (“TSPs”) have all the infrastructure to provide services over the internet, their incentive to invest and compete with these services is impeded due to the current regulatory regime including the fact that any revenues earned by TSPs on services similar to the ones offered by OTTs would get included in their adjusted gross revenues. Therefore, it is submitted that the approach of the regulators if at all should

be to improve the competitiveness of licensed TSPs and close the regulatory arbitrage between them and Internet Platform communication service providers.

NASSCOM submits that its submissions to the 2015 CP largely hold good. Notwithstanding the same, we have responded to the questions raised in the CP keeping in mind the evolution of the telecom service market to a ‘data centric’ one over the last three years.

**Question-wise responses**

**Q. 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 OTT services with descriptions comparing it with services being provided by TSPs.:**

AND

**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.**

**NASSCOM Response:** Fundamentally, the services provided by OTT service providers and those provided by TSPs cannot and should not be treated on par or as being the same. Further, the probability of service having some aspects similar to few services being offered by a TSP should not by itself be regarded as a criterion for the regulation of OTT service providers. We have laid out the reasons for the same below:

**Distinction between TSPs and OTT service providers**

**Technical Differences**

Internet Platforms and Services have typically developed freely without micro-management and with minimal regulatory oversight. This has enabled the ushering in of the digital age with a wide variety of digital applications and services without which modern life would be unimaginable. This in fact has been the cornerstone of the growth of the burgeoning Indian start up ecosystem.

It is important to appreciate the critical difference in the roles played by licensed TSPs and those by operators of Internet Platforms and Services.

The TSPs provide the ‘network layer’ or the physical infrastructure used to deliver data and the Internet Platforms and Services operate the ‘service layer’ or the application operating over the internet.

**Service Differentiation**

TSPs have access to critical numbering resources and spectrum. This is critical, because services offered by TSPs are universally interoperable throughout telecommunication devices (whether smartphones, feature phones or even landlines). TSPs operate traditional telecommunication services using global standards which connect the world with each other, unlike Internet Platform communication services which may only be accessible in those parts of the world that allow such apps over their internet networks.

Ofcom, the telecom regulator of the United Kingdom has also recognized that

*"there are no sufficiently close substitutes for termination of calls to mobile numbers for us to widen the market definition, nor are any likely to emerge over the period covered by this review. This means that, for example, voice calls terminated using Over the Top (OTT) services which do not use mobile number ranges, such as FaceTime, Skype or WhatsApp, are not part of the relevant markets."<sup>1</sup>*

On the other hand, Internet Platform communication services only facilitate communication within their community of users and are often even device specific. Internet Platform communication services typically cannot be used to connect to legacy devices such as landlines, fax machines, or feature phones and thus cannot be treated on the same footing as the service being offered by TSPs.

It is submitted that the Authority has in the past acknowledged the separation of the network layer and the service layer in its Recommendations on 'Regulatory framework for Internet Telephony' dated October 24, 2017 ("Internet Telephony Recommendations"). The Authority stated in Para 3.24 of the Internet Telephony Recommendation:

*"The separation of network and service layers of telecom service offerings is the natural progression of the technological changes in this domain. It is now possible to separate provision of service contents, configuration and modification of service attributes regardless of the network catering to such service."*

Hence, it can be seen that the two layers are materially separate and distinct, both technically and in terms of the services provided. The 'service layer' provided by Internet Platform and Service providers does not substitute the network layer but rather depends on the network layer for access to the consumer.

For these reasons, the two layers must be categorized and regulated differently.

### Competition

From a competition perspective, it is also essential to consider the switching costs borne by a consumer for TSPs versus Internet Platform and Services. A consumer has to face significant inconvenience while porting their mobile connection from one service provider to another. An elaborate process needs to be followed for this purpose. For a wired broadband connection, the switching costs may be even higher, as installation fees would have to be paid to the new operator. In addition, a consumer's choice of TSP may be dependent on availability of network/coverage of the TSP in the consumer's area.

On the other hand, shifting amongst Internet Platform and Service providers is a pure matter of consumer choice which can be exercised several times with nearly no cost and

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<sup>1</sup> Mobile call termination market review 2018-2021 by Ofcom available at [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0011/103340/mobile-call-termination-consultation.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0011/103340/mobile-call-termination-consultation.pdf), last accessed on January 7, 2019.

requiring only the installation of another app. This significant aspect needs to be borne in mind while considering substitutability of such services.

Assessing 'substitutability' in the context of Internet Platforms and Services

The Authority has suggested segregating Internet Platforms and Services on the basis of whether such communication services provided by Internet Platforms and Services are 'substantial' or 'ancillary' to the functioning of the Internet Platforms and Services. We do not believe this is the correct approach.

Internet Platforms and Services have become extremely diverse and versatile; consisting of several features, they may incorporate ancillary communication features, which on a standalone basis may be deemed to be 'substitutable' communication services. The Authority has already stated in its CP that video games with voice and text chat are one such example.

What needs to be seen however, is that with the Internet at the centre of everything, communication has become essential to the functioning of any Internet Platform. For instance, in the video game example, the primary attraction of the video game for consumers may be the co-operative multiplayer options. However, this functionality cannot be utilized without some element of communication services being embedded in the game.

In another example of a classifieds website, if a user of the classifieds website wants to purchase something which has been offered for sale on the website, then the element of the user communicating with the person who has put up the post becomes an essential element to the utility of the Internet Platform.

Currently, the objective of communication, can be achieved through a variety of means. Internet applications like e-mail are one means of doing so and their near instantaneous nature could deem them to be a close substitute of SMS or voice communication provided by licensed TSPs, which is currently regulated. However, any kind of regulation around e – mail would not only be excessive but also impracticable.

Given the rapid pace at which technology is evolving, communication is becoming key feature of most new services and hence it is increasingly becoming nearly impossible to define what services may be said to compete with those being offered by TSPs.

However, as we have demonstrated with examples above, the aspect of communication cannot be easily separated from the overall purpose of the Internet Platforms and Services. Therefore, the versatility and diversity in Internet Platforms and Services should not be reduced to a subjective test of 'substitutability' of communication services to address a perceived regulatory arbitrage in the telecom sector.

Regulation of Internet Platforms and Services needs to be uniform and should not be distinguished based on their use cases as it would hamper innovation. Introduction of additional regulatory obligations for Internet Platform communication services would lead to entry barrier and a net loss to consumer welfare arising from a reduction in competition and will cause discriminatory treatment of the Internet Platform and Services that provide communication services and non-communication services.

**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.**

**NASSCOM Response:** The Authority should appreciate that since its previous consultation on OTT services in 2015, the landscape of the telecom industry has changed completely. Data revenues have taken center stage and legacy voice services are no longer charged on a per minute basis. There has been a clearly observed migration of voice revenues to data revenues. As noted by TRAI in its CP in para 3.3.1.

*Shift of voice calls from circuit switched network to IP based networks has resulted in TSPs charging consumers for data services only, while unlimited voice calls are offered as part of bundled tariff packages in a trend that is also likely to continue. In such a scenario, voice calls provided by TSPs using IP networks and voice calls provided by OTT players using Internet might be comparable from charging perspective as both charged on basis of data consumed. In this context, it is unclear whether there is a price arbitrage between OTT and traditional services.*

Despite the lack of availability of comprehensive, data-driven reports on network investments, it appears that India's telecom market is flourishing. In November 2017, the Department of Telecommunications ("DoT") stated<sup>2</sup> that "India now has the second largest network in the world." As of August 2017, India surpassed the 1 billion subscription mark in telephone subscribers, reaching over 1.2 billion, with overall tele-density in India at 93.74%.

Further, network operators are also continuing to announce ambitious investments. Some recent examples are enumerated below:

- **Bharti Airtel.** In September 2018, Bharti Airtel announced<sup>3</sup> plans to invest INR 10 billion (USD 143 million) over the next year in the state of Karnataka alone, along with 13,000 new mobile sites and deployment of 4,5000 km of fiber optic cables between 2018 and 2019.
- **Vodafone Idea.** In June 2018, Vodafone announced<sup>4</sup> an investment of INR 80 billion (USD 1.15 billion) ahead of its merger with Idea Cellular.
- **Jio.** Since rolling out services in September 2016, Jio has reportedly<sup>5</sup> invested at least INR 2.2 trillion (USD 33 billion) in its network. Jio's parent company, Reliance, expects to continue a range of investments in fiber business and fiber-to-the-home, as well as digital services, content, and the Internet of Things (IoT).

<sup>2</sup> Telecom at a Glance. Available at <http://dot.gov.in/telecom-glance>, last accessed on January 5, 2019.

<sup>3</sup> Airtel reveals network investment plans for UP and Uttarakhand, Telecom Lead. Available at: <https://www.telecomlead.com/telecom-services/airtel-reveals-network-investment-plans-for-up-and-uttarakhand-86495>, last accessed on January 5, 2019.

<sup>4</sup> Vodafone to invest Rs 8,000 cr in India in June; monetise Indus stake for additional fund, Times of India. Available at: <https://timesofindia.indiatimes.com/business/india-business/vodafone-to-invest-rs-8000-cr-in-india-in-june-monetise-indus-stake-for-additional-fund/articleshow/64513319.cms>, last accessed on January 5, 2019.

<sup>5</sup> Reliance Industries to further invest in Jio to expand fibre and content network, ET Telecom. Available at: <https://telecom.economictimes.indiatimes.com/news/reliance-industriesfurther-jio-investments-to-based-on-actual-growth-and-performance-fitch/64187995>, last accessed on January 5, 2019.

The digital opportunity is not a zero sum game; all players stand to benefit and the opportunities in this regard are only expanding. There is a virtuous cycle between TSPs and Internet Platform and Communication service providers: rising demand for online services is stimulating even more demand for broadband connections. Innovation in meeting consumer demand is creating value for all players.

Furthermore, it is worth noting that any proposal under which OTT providers are mandatorily required to contribute to network infrastructure would arguably strike at the heart of principles underlying net-neutrality and would completely distort the level playing field for internet services.

TSPs across the world and even those in India are now increasingly moving towards building smarter networks, which in fact will lead to more efficient utilization of the same network.

Such a policy would be akin to requiring electric appliance manufacturers to invest in electricity generation and transmission networks. It needs to be borne in mind that the telecom sector is an infrastructure service. The use of infrastructure services should not carry with it the burden of mandatory investment. This should instead be left to market forces.

**Q. 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.**

**NASSCOM Response:** NASSCOM appreciates the Authority's attempts to foster competition among Internet Platform communication services. However, we believe that any requirement for interoperability should be left to market forces. It is pertinent to note that Internet Platform services have in the past gone through many cycles of boom and bust in terms of market share for different platforms. For instance, Orkut was once a very popular social network Internet Platform which was overshadowed by MySpace, and subsequently by Facebook.

In addition, implementing interoperability would require the creation of technical standards that would work across applications. The wide variety of Internet Platform communication services already available would make the implementation of mandatory interoperability very challenging.

As described earlier, the fact that switching costs from Internet Platform communication services are negligible for consumers means that consumers currently do not face significant barriers while switching to competing Internet Platform communication services.

NASSCOM therefore submits to the Authority that there is no requirement to mandate interoperability among Internet Platform communication services and the same can be left to market forces.

**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.

**NASSCOM Response:** We strongly agree that issues relating to national security and the nation's interest are paramount. That said, we do not see a case for additional security measures or regulations to be instituted specifically for Internet Platform communication service providers. We say this for the following reasons:

*Existing regulatory framework for telecom operators*

Obligations for lawful interception already exist for TSPs, under the terms of the Indian Telegraph Rules, 1955 and under the terms of the Unified License. As stated in our responses to Questions 1 and 2 – the Internet Platform and services are dependent on the telecom network to be ultimately transmitted by the user.

As telecom operators are already required to subject their networks to lawful interception obligations, law enforcement authorities have the power to intercept any messages transmitted on the TSPs network via such Internet Platform applications.

The TRAI in its CP has referenced Internet Platform and Services that use encryption. For such Internet Platforms and Services, the law empowers the Government to order the interception and decryption of information through any computer resource. Through the powers under Section 69 of the Information Technology Act, 2000 (“**IT Act**”), the Central Government may require a “subscriber or intermediary or any person in-charge of the computer resource” to provide access to the relevant computer resource and also ‘intercept, monitor and decrypt’ information as the case may be. This provision, along with the Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 (“**IT Rules**”) lays down the necessary regulatory framework for the State and Central Governments to engage in lawful interception of data being transmitted over Internet Platform communication services.

As the TRAI may be aware, the Ministry of Home Affairs recently issued a notification under the IT Act granting powers to ten law enforcement agencies to seek access to computer resources for the purposes of interception, monitoring and decryption.<sup>6</sup>

Viz. security concerns relating to the identity of subscribers is unknown, most Internet Services and Platforms providing communication services today use an one time password (OTP) based authentication system to authenticate the user by send an SMS or call to the registered mobile number. Given that the DoT itself has recognized usage of an OTP based authentication system as being adequate for the purposes of Know Your Customer (KYC) for public WiFi, the same logic may also be used in relation to such Internet Services and Platforms.

**Conclusion**

Existing regulations adequately cover lawful interception concerns that may arise from a national security perspective. Additional regulations specifically governing Internet Platform communication services are unnecessary and may not be practical to implement given the

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<sup>6</sup> Ministry of Home Affairs (Cyber & Information Security Division), Order S.O. 6227(E) available at: <http://egazette.nic.in/WriteReadData/2018/194066.pdf>, last accessed on January 6, 2019.

challenges of distinguishing between ordinary Internet Platforms and Services and Internet Platform communication services (see our response for Questions 1 and 2 above).

Hence, the Authority may suggest alternative measures, such as additional capacity and capability building measures by law enforcement authorities within the existing regulatory framework to tackle national security concerns.

**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.**

**NASSCOM Response:** Internet Platform communication services can only be accessed by end users through the network layer and quality of services provided by the TSPs to the end user is critical for this purpose.

The last mile (broadband, wireless or fixed line) access to user is the enabler for any emergency services and hence, control in terms of network availability and quality of service rests solely with the TSP. Imposing any regulatory obligations on Internet Platform communication service 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 which is in the hand of the TSPs.

Existing models of emergency services by Internet Platform services demonstrate this. For example, SOS services provided by Ola and Uber, wherein, if the passenger taps the emergency button, an instant message is sent out to the incident response teams, pre-defined emergency numbers of the passenger and in some cases even to the police control rooms; this instant message is dependent on the TSPs' network and hence we believe that mandating access to emergency services is only necessary at the level of TSPs.

It is also pertinent to note that major TSPs are on the verge of launching voice over Wi-Fi<sup>7</sup> and with the clarification issued by the DoT with respect to Internet Telephony dated June 19, 2018, access to the TSPs' networks will be possible even in the remote chance where access is only available over Wi-Fi and not through Access Networks.

In this regard, the Authority may also consider its recommendations on Internet Telephony, wherein para 3.63 recognised the limitations of Internet Based Services and recommended the following:

*"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."*

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<sup>7</sup> BSNL plans voice telephony over WiFi services with 'Carpet' network. Available at: <https://economictimes.indiatimes.com/industry/telecom/telecom-news/bsnl-plans-voice-telephony-over-wifi-services-with-carpet-network/articleshow/67391268.cms>, last accessed on January 7, 2019.

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.

NASSCOM Response: No

Q.8 In case, any regulation or licensing condition is suggested to be 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.

NASSCOM Response: As we have not suggested any additional regulation or licensing conditions for Internet Platform communication services, we have not answered this question.

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

NASSCOM Response: No