



ITU-APT Foundation of India



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To,

Shri. Asit Kadayan,
Advisor (QoS),
Telecom Regulatory Authority of India (TRAI),
Mahanagar Door Sanchar Bhawan,
J.L. Nehru Marg, (Old Minto Road)
New Delhi - 110002, India

Email: advqos@trai.gov.in

Subject: ITU-APT Foundation of India comments on TRAI OTT consultation

Dear Sir,

ITU-APT Foundation of India (IAFI) is a non-profit, non-political registered society, non partisan Industry foundation registered as a society under the Societies Registration Act, 1960.

IAFI is working for last 15 years with the prime objective of encouraging involvement of professionals, corporate, public/private sector industries, R&D organizations, academic institutions, and such other agencies engaged in development of Indian Telecom sector in the activities of the International Telecommunication Union (ITU) and the Asia Pacific Telecommunity (APT).

The Foundation has been recognized as a international/regional Telecommunications organization by the International Telecommunications Union (ITU). IAFI is also having close working relations with similar organizations in many other countries including, Japan, Indonesia and USA.

ITU-APT Foundation of India (ITU-APT) is sector Member of the ITU Development Bureau (ITU-D) and ITU Telecommunication Standardization Bureau (ITU-T) which manifests its usefulness of the Indian Telecom industry The Foundation members are entitled to participate in the activities of ITU-D and ITU-T

Our members include many stalwarts of the telecom sector including many previous secretaries, members, advisors and DDGs of the DOT and Telecom Commission. We also have many corporate members from India and other countries including operators, vendors.

The foundation has been responding to TRAI on many issues of interest and I am pleased to enclose herewith our views and comments on TRAI's OTT consultation at Annex 1

For any further information or clarifications, please contact Ms. Aarush , General Manager of the Foundation at +91 999 979 7700/ +91 997-134-9028 or info@itu-apt.org) or the undersigned.

With warm regards,



Bharat Bhatia (BB)

President

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Annex

IAFI views and comments on TRAI OTT consultation

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.

The Consultation Paper (“CP”) draws parallels between the communication services offered by OTT service providers and TSPs. However, we would like to submit that the services offered by them are widely different and cannot be compared.

Other jurisdictions including UK (through their telecom regulator, Ofcom) have concluded that the use of OTT applications is unlikely to be a sufficiently close substitute for calls to a mobile number.¹ The differences between these services are technical (they operate on different layers – application layer and network layer) well as qualitative. TSPs control the underlying broadband access infrastructure, and are the gatekeepers to broadband internet access and therefore, OTTs themselves.

OTT services can have aspects of communication services, such as messaging. However, most OTT services offer a wide range of functionalities in addition to the communication feature. Due to the variety of services and apps, it is not always easy to distinguish between the primary and ancillary features of an OTT service. As a result, the categories of ‘communication services’ and ‘non-communication services’ are not identifiable categories, and seek to create an artificial distinction. For example, gaming apps (like Call of Duty), payment apps (like PayTM) and social media apps (like Hike) use messaging or calling merely to augment unrelated services and improve the consumer experience. Conceiving “communication services” as a sub-category of OTT applications serves no purpose other than to create an impractical distinction between communication functionalities and non-communication functionalities among OTT applications.

The OTT services depend on the physical infrastructure created by TSPs and generate demand for data – this relationship has been seen as likely to be a virtuous cycle across the digital value chain.² While TSPs can provide their own OTT applications, OTT service providers cannot exercise exclusive right to resources, such as spectrum, right of way to set up infrastructure, access to numbering resources, etc.

¹ p. 29, CP. In reference to the Mobile Call Termination Market Review 2018-2021, available at https://www.ofcom.org.uk/data/assets/pdf_file/0022/111397/draft-statement-mobile-call-termination.pdf.

² WIK-Consult, “Applications and Networks: the chicken or the egg. The role of digital applications in supporting investment and the European economy”, p. 45. Available at https://www.wik.org/fileadmin/Studien/2015/Microsoft_Cloud_framework.pdf.

OTT services also offer many non-traditional and unique features – such as sharing content like GIFs, sharing documents, video calling, geo-tagging images etc. They also contribute more to the economy than basic telecommunication services, and created consumer surplus of Rs. 6.3 lakh crore in India in 2017³.

We call the TEAI's attention in particular to the European Union's acknowledgment in the revised European Electronic Communications Code of the fundamental differences between "number-based interpersonal communications services" ("NB-ICS"), such as those interconnected with the public telephone network, and "number-independent interpersonal communications services" ("NI-ICS"), which includes non-interconnected OTT communications apps.⁴ The EU created separate regulatory regimes for NB-ICS and NI-ICS, subjecting NI-ICS to lighter touch regulation (e.g. transparency requirements).

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.

We are of the firm opinion that this should not be used as a criterion. Substitutability in itself is a complex criteria: 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 services that are functionally the same;
- (iii) have the same target group of customers;
- (iv) have the same area of operation
- (v) offer services on similar devices.

It is clear that based on a holistic assessment of all of the above criteria, there is no question of considering the two services to be substitutable.

Even if functional similarity were to be treated as the only criteria, consumers do not view OTT communications applications as substitutes for traditional telecom services. Further, mandating regulatory and licensing obligations on a new and growing economy will ignore critical differences between the stage of growth they are at, and hinder the innovation that drives the OTT economy. This economy is expected to grow exponentially and contribute significantly to allied digital sectors such as digital advertising⁵. OTT services are expanding into newer areas each day, providing

³ WIK-BIF, "The Economic and Societal Value of Rich Interaction Applications (RIAs) in India", p. 13. Available at https://www.wik.org/fileadmin/Studien/2017/WIK-BIF_Report_-_The_Economic_and_Societal_Impact_of_RIAs_in_India.pdf.

⁴ European Parliament and the Council of the European Union, *Directive establishing the European Electronic Communications Code*, Article 2 ¶ 6 (July 11, 2018).

⁵ EY, "Digital Opportunity: Indian Media and Entertainment 2017", p. 18. Available at [https://www.ey.com/Publication/vwLUAssets/EY-digital-opportunity/\\$FILE/EY-digital-opportunity.pdf](https://www.ey.com/Publication/vwLUAssets/EY-digital-opportunity/$FILE/EY-digital-opportunity.pdf).

customers with the complete Internet experience; whereby the digital technologies of the future like as artificial intelligence, cloud computing etc. will be accessible to them.

In light of the above, we can see that using substitutability as a measure of comparison will ignore other relevant factors such as nature of telecom and OTT economies, level of competition, maturity of businesses, etc.

Moreover, from our response to question 1, it is clear that OTT services are not substitutes to telecom services. Based on these two factors, we may conclude that extending the existing framework to an environment that it was not designed to address would be harmful, and instead, innovation should continue to guide the OTT economy.

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.

There is no licensing or regulatory imbalance that impacts investment of infrastructure in the telecom networks. In fact, there is no evidence that licensing a subset of OTT services arbitrarily classified as “communications services” would have a beneficial impact on investments. It is much more likely to have a counterproductive impact on the already massive investments that are made by OTT service providers in infusing investments in telecom networks.

Some examples of these are provided below:

- (i) In India, Google and Indian Railways have collaborated to provide WiFi hotspots for users in railways.
- (ii) Amazon operates at least 30 data centres in its global network, of which 2 are in India, and several others are upcoming.
- (iii) Facebook and Microsoft invest heavily in submarine cables.
- (iv) Google and Facebook have collaborated to lay the Pacific Light Cable Network.
- (v) The Telecom Infra Project (“TIP”) which is a collaborative telecom community has co operations between various telecommunications infrastructure players, network operators as well as OTT players, and it encourages the development of better backhaul capacity which is the need of the hour.⁶
- (vi) Several OTT service providers that invest in data centres also lease the same for the use of other players in the market including governments in some cases.

In light of the above, it would be incorrect to state that OTT service providers do not participate in investment of infrastructure, or to characterize them as “free riders” on the backs of investment made by TSPs. It is estimated that OTT investments in infrastructure is fast growing, and the bigger OTT players invested 9% of their 2011-2013 revenues in networks and facilities in the US.⁷ This trend can be replicated in India with the right regulatory environment which would recognize and incentivize greater investments rather than stifle the industry with arbitrarily applicable licenses.

⁶ TIP website, available at <https://telecominfraproject.com/project-groups/#backhaul>.

⁷ “Investment in Networks, Facilities, and Equipment by Content and Application Providers”, September 2014, Published by Analysis Mason, Commissioned by Google.

It should also be borne in view that all mobile data is estimated to increase by eight times between 2016 to 2022, which is a CAGR of 40 per cent, due in large measure to the proliferation of new and advanced OTT services. Total fixed data traffic is also forecast to increase by 20 per cent per annum over the same period.⁸ This is only possible due to the innovation in OTT services – such growth opportunities would not exist if the telecommunications sector in any country was still restricted to voice and SMS services alone.

Therefore, OTT services should be seen as drivers of investments and revenue in the telecommunications sector – and not as competitors suffering from a regulatory “imbalance.”

As regards the issue of TSPs, the issue of low margins, cutthroat prices, outdated regulatory regimes etc. need to be addressed separately and the regulatory regime needs to be made more flexible in order to allow for pricing / technology innovations and collaborative approaches by TSPs.

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.

Interoperability is a subject matter of competition and should be regulated by the Competition Commission of India, with applicability of anti-trust laws, if and when the need arises.

It should also be noted that interoperability among TSPs is justified on the ground that they connect most of the population and the lack of interoperability will handicap communication. However, OTT service providers do not provide essential services or operate critical infrastructure. Hence, there is no corresponding public policy argument to justify interoperability among OTT services.

In addition to the above, we believe that the OTT economy is highly competitive and as such, no measures are required to increase competition. Consumers switch very easily between different applications due to their low cost and minimal switching costs. Further, one device is easily able to operate multiple services of similar variety (called ‘multi-homing’), due to which consumers can access multiple applications without any difficulty⁹. Hence, there are no competition concerns arising in this regard, in the same way they do for telecommunications services.

Any regulation aimed at the imposition of uniform standards on OTT services for achieving interoperability, would work to the detriment of such services, as the service providers may not be able to make their services more unique and useful for their users. Standardisation of this kind may keep out innovation. It is important to note that innovation in relation to communications has

⁸ Ericsson, “Mobility Report on the Pulse of the Networked Society”, November 2016. Available at https://www.abc.es/gestordocumental/uploads/internacional/EMR_June_2016_D5%201.pdf

⁹ *In re* Vinod Kumar Gupta and Whatsapp Inc. Case no. 99 of 2016, available at <https://www.cci.gov.in/sites/default/files/26%282%29%20Order%20in%20Case%20No.%2099%20of%202016.pdf>

created value for network providers as well as consumers,¹⁰ and thus, it should continue to guide developments in this area.

In fact, the OTT economy can be argued to be more competitive than TSP services which means that concerns regarding mandating interoperability may be misplaced. There is a stream of new entrants in the online space because the barriers to entry for online services are low. A new mobile app requires minimal staff, capital investment and infrastructure. The rise of cloud-computing platforms has dramatically decreased the time and capital necessary to start and scale an online service. Therefore, the regulatory concerns for making apps interoperable on ground of competition concerns may be misplaced at this stage.

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.

No, there should not be provisions pertaining to lawful interception of OTT communication in addition to the provisions for interception that are already present. In this context, it is important to highlight that the Code of Criminal Procedure, 1973 (“CrPC”) and Information Technology Act, 200 (“IT Act”) both contain relevant provisions allowing for law enforcement access to records that are held by OTT service providers.

Some of these provisions are highlighted below:

- CrPC
 - Section 91 – summons to produce documents
- IT Act
 - Section 69 - Power to monitor or decrypt any computer resource;
 - Section 69A – takedown obligations
 - Section 69B – Monitor and collect traffic data or information through any computer resource
 - Various rules and regulations issued under the IT Act.

It is clear that there are sufficient safeguards in a number of laws which are likely to ensure that to the extent that law enforcement requires any kind of access to be facilitated; such access may be enabled by OTT service providers.

If the existing mechanisms are deemed to be insufficient, then it is also possible to consider reforms to make these provisions better enforceable through undertaking consultations with relevant stakeholders.

However, it would not serve “national interest” to focus on weakening existing security measures in order to make interception easier. This would have several undesirable outcomes which would end up hurting national interest, as follows:

¹⁰ Brian Williamson, “Next generation communications & the level playing field – what should be done?”, June 2016, p. 14. Available at <http://www.ccianet.org/wp-content/uploads/2016/06/Next-Gen-Comm-Level-Playing-Field.pdf>

- By design, security features built into OTT communications systems and other service systems ensure customer interest by safeguarding their data and encouraging them to repose trust in the OTT service providers.
- Any weakening of the security features, including encryption policies, would potentially give rise to concerns about violation of the right to privacy of users.
- Cybercrimes may proliferate if security features are weakened.
- Lawful interception may give rise to questions of surveillance which need to be balanced against the legitimate expectations of privacy and freedom of speech of internet users, as well as commercial freedom of internet application providers.

While the TRAI has identified several concerns with the manner in which OTT services are being used to “spread rumour” by miscreants, we believe that it may be counterproductive to weaken security features and strengthen interception mechanisms as a response to the same. Instead, the applications themselves should be left to respond to this need by modifying their features in a way that makes it difficult for persons to misuse their services. This is a technical and policy decision that needs to be left to each service provider based on its specific purpose and deployment of technology.

In this regard, steps have already been taken by various OTT service providers. Currently, certain messaging apps are trying out features in beta version for Android, which will help users identify suspicious links, spam and fake news. Auto detection features based on link content – that is, whether the link that a user receives is fake or spam – are also being tested out. These steps should be further encouraged.

We do not observe any concern raised by TRAI that can be addressed by even more intrusive interception regimes. We believe that the solutions to these problems lie elsewhere and are already being explored. It would be advisable not to compromise the privacy of users and security of systems without addressing a corresponding harm.

In this regard, it is appropriate for TSP and OTT players to have differential responsibility given that they invest in different parts of the digital economy and the technical aspects also vary. Therefore, there should be no importing of additional regulatory constraints from one regime to another.

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.

Emergency services are part of the essential services that are provided by TSPs as they connect large populations across the country. However, OTT services do not enjoy this kind of access or criticality.

Further, there is a need to consider the technological differences between TSPs and OTT service providers. Emergency services require location information, which is based on GPS and tower location. TSPs have access to both, and are thus able to identify the location of the users.

On the contrary, OTT services can have locational information only if the users have allowed GPS data to be collected, and also updated it. Additionally, most public-safety answering points (PSAP) are currently not equipped to handle incoming emergency communications from OTT services that are

not interconnected with the Public Switched Telephone Network (PSTN). In order to receive emergency communication, they will have to upgrade their IT systems and invest in new technologies.

Further, at this stage, most public-safety answering points (PSAP) are currently not equipped to handle incoming emergency communications from OTTs that are not interconnected with the PSTN. Therefore, mandating emergency calling services from OTT service providers may prove to be an exercise in futility. In fact, what would be more fruitful would be for OTT service providers to clearly inform users on their websites that emergency services are not available on their platform.

We would like to reiterate TRAI's own recommendation in its Consultation on Regulatory Framework for Internet Telephony, in which it 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."*

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.

There exists no such concern of "non-level playing field" between OTT service providers and TSPs since the playing field is different for them. As explained in responses 1 and 7, they are not competitors, do not provide the same services, and operate in different network layers. One is an enabling service for the other.

While the regulations and licenses that are applicable to TSPs may be accompanied by a set of obligations, they are equally a matter of accessing certain rights and privileges as elaborated upon in the response to Q.1. This regulatory approach is informed by an assumption that telecommunications connectivity is a critical infrastructure whose access needs to be ensured at the same universal level as other facilities like roads and waterways. Much in the same way all critical utilities are treated under a different regulatory regime, the provision of telecommunications too is heavily regulated.

To the extent that the present regulatory regime no longer serves the interests of the sector, they may be revised. TRAI may reconsider burdensome license clauses that restrict operations of TSPs and prevent them from exercising flexibility in terms of their pricing and technology.

However, such a regulation should not be informed by a desire to "level the playing field" between two different varieties of market players. This could lead to overlapping regulatory regimes and a host of separate laws governing different types of OTT players. The regulation of TSPs should continue to

be informed by its separate status as a critical utility which acts as the underlying enabling service for OTT services.

Licensing requirements would be particularly harmful in this regard. Licensing requirements or other regulatory obligations, especially those tied to local presence, could create barriers to entry and expansion for app providers, particularly start-ups that lack the resources to obtain a license or incorporate local entities in all countries of operation. This could result in Indian consumers not being able to access the full benefit of global online applications, depriving the Indian public of innovative and useful technology. It may result in subverting the promise of the open internet and leave India out of the global surge of innovation.

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.

No, as we have not suggested any regulation in Q. 7.

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

There are no other issues.