



Representing the ecosystem of Internet -Bharat Model

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Sub: CCAOI's comments on the TRAI Consultation Paper on Regulatory Framework for OTT Communication

Dear Sir,

At the outset, we wish to thank TRAI for giving us the opportunity to submit our comments on the consultation paper, on issues pertaining to the Regulatory Framework for OTT communication.

Please find enclosed a copy of our comments in response to the questions raised in the consultation paper, where responses have been sought.

Thanking you and looking forward for favorable consideration of suggestions in the interest of growth of internet in the country.

Yours very truly,
for CCAOI

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CCAOI's comments on the TRAI Consultation Paper on Regulatory Framework for OTT Communication

CCAOI is grateful for getting an opportunity to present its views on the consultation paper released by the TRAI on issues pertaining to the Regulatory Framework for OTT communication.

Please find below our response to the questions where responses have been sought.

Question 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.

CCAOI Response: The services of OTT service providers and TSPs are different and cannot be compared. Their differences have been listed below:

- Firstly OTT service providers are not substitutes of TSP, rather they are dependent on TSPs especially for access to the TSPs physical networks to provide their services. Since the TSPs control the broadband access infrastructure, they are the gatekeepers not only to broadband internet access and but also for the OTTs.
- Secondly the Telecom networks and the OTT applications operate in different layers (telecom in the network layer and OTTs in the application layer, respectively), offer functionalities on different devices and compete for different groups of customers.
- Thirdly owing to their licenses, TSPs have several exclusive rights that OTT players do not enjoy. These include, (i) the right to acquire spectrum, (ii) the right to obtain numbering resources, (iii) the right to interconnect with the PSTN, and (iv) the right of way to set up infrastructure.
- Fourthly, owing to a highly competitive market in which the OTT apps operative, many times their services are offered free of cost to consumers as a USP or market differentiator, which is unlike the case for TSP networks.
- In terms of exclusive rights, OTTs do not enjoy any exclusive right to deploy their applications, since TSPs can and often do provide their own OTT applications. On the other hand, to deploy a TSP network an OTT application provider would need a license.
- Further, today OTTs often offer diverse functionalities, that do not easily fall into strait jacketed categories. In fact, some of the services today use messaging or calling merely to augment unrelated services and improve the consumer experience. In such a scenario, conceiving “communication services” as a sub-category of OTT applications creates an

impractical distinction between communication functionalities and non-communication functionalities among OTT applications. For example, gaming, document editing, photo sharing, social media and many other fundamentally dissimilar functionalities allow users to communicate with each other.

- Additionally, the features and customer experience provided by OTT services go beyond conventional messaging and communication options provided by TSPs both in terms of features and broader economic impacts.
 - (i) OTT communications applications such as Whatsapp, Hike Messenger, and Google Hangouts etc. provide rich messaging features that are not available through SMS.
 - (ii) A study by WIK reported that for 2017¹, the consumer surplus² for India provided by “Rich Interactive Applications” or “RIA” was a substantial Rs 6.3 lakh crore.³ Further the report stated that for each 10% increase in usage of RIAs there was an average increase of US\$5.6 trillion in global GDP (0.33% of GDP) from 2000 to 2015.⁴ Another study points that a five percent increase in WhatsApp penetration in 2015 is associated with a US\$22.9 billion increase in global GDP.⁵
- Finally we wish to bring to the attention of TRAI, the acknowledgement of European Union to 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 that ride over the network.⁶ The EU created separate regulatory regimes for NB-ICS and NI-ICS, subjecting NI-ICS to lighter touch regulation (e.g. transparency requirements).

¹ In its report “The Economic and Societal Value of Rich Interaction Applications (RIAs) in India”, WIK has stated that RIA usage saves on average 803.9 minutes per week. P. 13, available at https://www.wik.org/fileadmin/Studien/2017/WIK-BIF_Report_-_The_Economic_and_Societal_Impact_of_RIAs_in_India.pdf.

² Consumer surplus indicates economic welfare that people gain from buying and consuming goods or services.

³ Available at <https://www.financialexpress.com/industry/telecom-ott-apps-create-rs-6-3-lakh-cr-consumer-surplus-study/935890/>.

⁴ WIK, The Economic and Societal Value of Rich Interaction Applications (RIAs), at I (2017).

⁵ Id. at 32.

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

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.

CCAOI Response:

We believe substitutability is one of the many criteria that should be considered while determining whether comparable regulations should apply on OTTs and TSPs. The other factors that need to be considered such as ubiquity and adoption, consumer welfare, addressable markets, the level of competition, maturity of the industry, the lifecycle of product/services, impact on economy (especially for small business and startups), the level of innovation, nature of the underlying technology and other technical considerations such as whether the service connects to the public telephone network, and switching costs, amongst other factors.

Moreover the term substitutability cannot be reduced to one factor since it has many dimensions, considerations and factors. Apart from the similarity in functions, for determining substitutability in the context of regulation, several other aspects need to be considered such as whether the players are:

- Competing in the same layer (e.g., network layer, application layer, etc.) with comparable rights to resources;
- Offering functionally comparable services;
- Competing for the same group of customers;
- Operating in the same service area; and
- Offering services on comparable devices.

Further, when functionally similar services such as cars, airlines and railways is not regulated together, how can traditional Telecom services and OTT communication applications be regulated under one common regulatory framework?

Besides in a country where access to smartphones and internet is low, discussing substitutability of “OTT” communications apps for traditional services is especially misleading and at this time.

Invoking substitutability between the services to justify regulation or licensing requirements for OTT services will hurt consumers and industry. It will create new barriers to entry for both new apps and service providers by raising the cost of service provision. It may be mentioned that 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.⁷ Ill-conceived regulatory and/or licensing obligations risk throttling Internet-based innovation as well as the nascent start-up ecosystem in India.

⁷ In its report “The Economic and Societal Value of Rich Interaction Applications (RIAs) in India”, WIK has stated that– “In order to protect and sustain this consumer value, innovation and in particular innovation in the internet

It is important to note, that the criterion of substitutability is contrary to the government's current approach. OTT services are already regulated under the IT Act framework, as elaborated in the consultation paper (CP)⁸. While Chapter 4 of the CP has detailed the obligations applicable to TSPs that are not applicable to OTT service providers, however, the areas relevant to OTT services are already regulated by the IT Act and the Rules notified thereunder.

- Lawful interception – governed by IT Act (s. 69, and s. 69B) , the IT (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 and the IT (Procedure and Safeguard for Monitoring and Collecting Traffic Data or Information) Rules, 2009.
- Privacy and security – governed by IT Act and IT (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011

To conclude, we submit that any finding of substitutability based on the test of “substantial functionality” as iterated in Para 2.2.8 of the CP is bound to be flawed, because:

- (i) As it is not a good objective test, it may invite litigation and uncertainty as this determination will depend on vague/varying factors;
- (ii) May probably incentivize OTTs to lower investments in their messaging/voice functionalities in order to prove that these functionalities are ancillary (for the sake of lower regulatory obligations), thus affecting their ability to tackle spam, and address consumer grievances, which will be counterproductive;
- (iii) Encourage bad actors (like spammers and terrorists) to shift their communications to apps providing messaging/voice as ancillary functions since it would be common knowledge that these apps have lower regulatory obligations.

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.

CCAOI response:

At the moment there is no regulatory or licensing imbalance between TSPs and OTTs and the legacy telecommunications regulations are ill-suited for OTT applications.

economy must remain a top priority for policy makers.” P. 5, available at https://www.wik.org/fileadmin/Studien/2017/WIK-BIF_Report_-_The_Economic_and_Societal_Impact_of_RIAs_in_India.pdf.

⁸Chapter 4: Factors relating to the regulatory framework, p. 23.

Further, the poor financial health of the sector, and the resulting consolidation, cannot be attributed to the growth of OTT applications and services, rather it is a consequence of various factors such as,

- Cutthroat price competition between infrastructure providers which has hurt the margins of TSPs; and
- High taxation of TSPs by the Government. This includes 5% USOF, 3% License Fee, ~5% SUC, high spectrum reserve price, 18% GST.

Additionally, under the recent reforms, India's telecom players can now determine the nature, scope, and scale of their investments in the market based on their own commercial considerations. Because the Authority forbears on end user tariffs, TSPs are free to set price of Internet access for their subscribers. And thanks to liberal norms for entry, exits, and mergers, players continue to invest in one or more parts of the industry. There have been substantial investments in optical fiber networks in recent years.⁹

Also, the investments made by TSPs in the 4G networks are primarily due to revenue opportunities offered by providing data services for accessing OTT applications. Today OTT music, video functionalities continue to drive growth of data and the accompanying revenues for TSPs. The growth of OTT apps has in fact expanded and not reduced the avenues for greater revenues for TSPs. With OTTs offering progressively richer services, incentives for investment in networks will increase further. This will attract and make available greater funds to enable deployment of newer technologies and investment in network capacity and quality.

Further, there are reports which highlight the investment OTT apps are already infusing in the networks, facilities, and equipment of the internet. For example, a study by Analysis Mason in 2014 found such investment to be significant in the US context – between approximately USD28 billion and USD36 billion annually from 2011-2013, with a blended average in the region of USD33 billion per annum.¹⁰

Additionally OTTs providers have driven investment in this sector by building physical facilities such as data centres, fibre networks, servers and routers. There is a wide array of advanced and expensive physical equipment that underpins the operation of the internet, which requires significant investment, and much of it is carried out by OTT players and their network service providers.¹¹

⁹See V. Ganesh, T. Thomas, Why India needs a fibre network now more than ever, The Hindu Business Line (Feb. 26, 2018) (“in the past three years, India’s fibre consumption as surged at 27 per cent [compound annual growth rate]”).

¹⁰Investment in Networks, Facilities, and Equipment by Content and Application Providers, Published by Analysis Mason, Commissioned by Google (September 2014)

¹¹Ibid

OTTs have been contributing to the overall Indian economy apart from TSPs significantly. A study conducted by WIK-BIF found that that “rich interaction applications” like WhatsApp, Facebook Messenger, Google Hangouts and Hike created a consumer surplus of US\$98 billion (INR 6.3 lakh crores) in India. This is equivalent to 4.3% of India’s GDP of US\$2264 billion (INR 147 lakh crores) in 2016.¹² Another study, by ICRIER in 2017, determined that during the period 2015-16, OTTs contributed a minimum of USD 20.4 billion (Rs. 1357.6 billion) to India’s GDP. The study forecasts that by 2020, OTTs could contribute a minimum of USD 270.9 billion (Rs.18275.9 billion) to India’s GDP.

The OTT communications applications have also enabled small businesses to grow in India and abroad. For example, ShanmugaPriya has grown a business selling sarees on WhatsApp that now includes more than 2,000 resellers, across the globe.¹³

We therefore reiterate that focusing only on the impact of OTTs on TSP revenues would present an incomplete picture of the positive impacts of OTTs on consumers and the overall economy. Raising barriers for OTT players could hamper innovation in digital applications, and raise costs for users and the economy at large, instead of spurring investment.

Rather, we, at CCAOI are of the view that the Authority should **focus more on unshackling TSPs from the unnecessary and expensive regulation** which severely limits their ability to invest in networks. Additionally, the Authority should also incentivize OTTs to invest more in their part of the ecosystem.

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.

CCAOI Response:

In terms of **Interoperability among OTT services**, lack of interoperability, or the ability of users to switch between OTT services, has not been seen as a serious barrier to competition. Unlike TSPs who need to interconnect and interoperate, as they offer essential services, including emergency services to large populations, OTTs do not provide such services that need interoperability.

¹²“The Economic and Societal Value of Rich Interaction Applications in India,” <https://www.wik.org/index.php?id=934&L=1>

¹³See Tanvi Dubey, This woman entrepreneur is earning millions selling sarees via WhatsApp, YourStory (Nov. 14, 2018), available at <https://yourstory.com/2018/11/woman-entrepreneur-selling-sarees-whatsapp>.

Secondly, there is no evidence of consumer harm owing to the lack of interoperability of OTT applications. Since most of the OTT services are available at zero or low cost and the market is highly competitive, there is a very low switching cost. That is why consumers easily switch from one app to another, wherever there are alternatives available. In fact, this has been reiterated by the Competition Commission of India in their order in the case between Vinod Kumar Gupta and Whatsapp Inc.¹⁴ stating:

“The Commission also observes that there are no significant costs, preventing the users to switch from one consumer communication apps to another. It may be due to the following reasons:

- (i) all consumer communication apps are offered for free of cost or at a very low price (mostly free),*
- (ii) all consumer communication apps are easily downloadable on smartphones and can co-exist on the same handset (also called ‘multi homing’) without taking much capacity along with other apps,*
- (iii) once consumer communication apps are installed on a device, users can pass on from one app to its competitor apps in no-time,*
- (iv) consumer communication apps are normally characterised by simple user interfaces so that costs of switching to a new app are minimal for consumers, and*
- (v) information about new apps is easily accessible given the ever increasing number of reviews of consumer communication apps on apps store like google play store etc.”*

Also, the OTT economy is very competitive owing to low entry barriers.. A new mobile app requires minimal staff, capital investment and infrastructure. Moreover the rise of cloud-computing platforms has dramatically decreased the time and capital necessary to start and scale an online service.

The above factors all make it easier for new services to compete with established products on the merits, and to do so quickly. This constant competition has led to a high rate of churn among the most popular online services.¹⁵

Additionally, India has a robust antitrust regime that is equipped to deal with issues relating to abuse of dominance. The Competition Commission of India, associated with the Competition Act, 2002 is the competent forum to address such matters. Thus, no regulatory measures based on a notion of perceived consumer harm will be justified.

In terms of **Interoperability between telecom and OTT services**, the issue has already been examined by TRAI in its Recommendations on Regulatory Framework for Internet Telephony¹⁶ published in 2017, where in its recommendations, the Authority has noted that the present regulatory framework permits Unified Access Service Licensee(UASL), Cellular Mobile Telecom Service (CMTS) licensees and Unified Licensee (access service) to provide unrestricted Internet Telephony, which extends to both PC to Phone and Phone to PC calls within India as well as abroad. Additionally, ISPs in India are presently permitted to provide one-way PC-to-

¹⁴Case 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>.

¹⁵See David S Evans, Attention Rivalry Among Online Platforms, 9 J. Competition L. & Econ. 313, 318-21 (2013).

¹⁶ Available at https://traai.gov.in/sites/default/files/Recommendations_24_10_2017_0.pdf.



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Phone Internet Telephony service for International Long Distance outgoing calls only on PSTN/PLMN to such countries where termination of Internet Telephony calls is permitted. Thus, telecom and OTT services are already interoperable, to the extent provided above.

Additionally, trying to force interoperability of OTT apps with traditional network-based services may result in the possibility that the OTT services lose their innovative features and functions currently available in the apps.

Question5. 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.

CCAOI Response:

Firstly, it is of utmost importance to de-link the issues related to lawful interception from encryption. Encryption today is a bigger issue, especially with the growing digital commerce, banking etc. and requires greater deliberation among all stakeholders.

As per the current regulatory mechanism lawful interception of OTT communication addressed by the provisions of the Telegraph Act, which permits lawful interception of all data 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.

Further, the IT Act addresses the issue of lawful interception through the following provisions: Section 69 which gives the government power to intercept, or monitor or decrypt any computer resource; and Section 69B which empowers the government to monitor and collect traffic data or information through any computer resource for cyber security. There are various rules such as the Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009, and Information Technology (Procedure and safeguard for Monitoring and Collecting Traffic Data or Information) Rules, 2009 which further elaborate on the scope of these powers. In addition, Section 166A of the Code of Criminal Procedure empowers investigating authorities to request for information in possession with a person located outside India. Therefore, there is no need for any additional rules in this regard.

On the subject of **Encryption**, we are of the opinion that the encryption methods and other security related measures instituted by several OTT players for safe guarding the privacy of the users are important and necessary. This helps build user confidence and use the services without concerns of being constantly monitored.

Research suggests that it is in the national interest to encourage the use of strong encryption policies by OTT service providers, and that its social benefits must be weighed against the perceived costs to law enforcement access.¹⁷

Additionally, this is in line with the Supreme Court declaring the right to privacy to be a fundamental right in India, of which informational privacy is a critical facet. We believe OTT service providers seeking to safeguard informational privacy through the usage of several security measures, including a variety of encryption methods should be encouraged.

Also, the use of secure mode for communication serves to reduce the risk of cyber-crimes. Strong encryption prevents enormous losses that could otherwise take place when unauthorized access is attempted through increasingly sophisticated tools by cyber criminals.

We therefore, **request TRAI to make a recommendation that the Government work on a comprehensive encryption policy rather than dealing with it in a piecemeal manner for communication OTTs only.**

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.

CCAOI response:

Emergency services should only be offered by TSPs. Looking at the way the OTT platforms provide the service today, it may not be advisable that they offer emergency services like TSPs.

- Firstly, many OTTs may not have the provision to track the Geo-location of their users or the information may be encrypted.
- Secondly, OTTs are supposed to take the permission of their user for enabling the location functionality. Without permission it is illegal to track the location. Further, even if they do have permission from the user, they may not be able to provide the granular Geo-location of their users.
- Thirdly, since the TSPs own the network, they can easily locate the exact position of the user. Location is based on GPS information and tower location information. Since TSPs have both the information, they can therefore route calls properly.

¹⁷See CSIS Technology Policy Paper (2017): https://csis-prod.s3.amazonaws.com/s3fs-public/publication/170221_Lewis_EncryptionsEffect_Web.pdf?HQT76OwM4itFrLEIok6kZajkd5a.r.rE,

- Fourth and most importantly, most public-safety answering points (PSAP) are currently not equipped to handle incoming emergency communications from OTTs that are not interconnected with the PSTN. It would need an upgradation of IT systems to be able to accept emergency calling from all OTTs.

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.

CCAOI response:

As stated in our response to Question 1, the TSPs and OTTs differ substantially. Not only do they provide different services, but also operate in different layers of the network. Further, there are fundamental technical and business differences between the two. Therefore, we believe there is no question of “non-level playing field” between them.

- Firstly OTTs offer an array of different services that users can access by using the data services provided by TSPs. This is one of the fundamental differences between the two. In that light the regulatory regime of apps providing communications or any other function or service over the Internet, cannot be compared to the provision of internet access services per se.
- The service provided by TSPs that is both voice and data are essential resources and therefore their regulation should be fundamentally different from the regulation of OTTs.
- As explained competition, consumer protection and information technology laws already govern the relevant facets of internet services, so it would be incorrect to characterize this market as unregulated. On the contrary, OTTs depending on the nature of services they provide are governed by a far broader range of laws and regulations. Any further addition and that too applicable for of a different industry would result in incoherent regulatory governance.
- A potential license regime for OTTs would have effects even for end users, since typically licensing obligations result in an increase in compliance costs for the licensees, and payment of hefty license fees and other charges. Further the current open nature of internet and regulatory regime has helped OTT providers focus on innovation. Any attempt to impose further regulation will hamper the small entrepreneurs and innovators as it would disproportionately increase costs, create conflicts between the rigid regulations and disruptive nature of these services, which in turn would deprive society of many of the services, which we today enjoy due to this innovation.

- Licensing requirements or other heavy-handed regulatory obligations can also create entry level barriers especially for start-ups that lack the resources, young entrepreneurs and app makers. 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.
- 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. Licensing requirements could fragment applications and services provided over the Internet and therefore erode the utility and usefulness of a global outlet for Indian businesses. Keeping the Internet open, decentralized, and free of barriers is critical to helping Indian businesses remain competitive in today's increasingly digital economy.

Question 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.

CCAOI response:

Since we have not suggested any regulation or licensing conditions in response to Q. 7, therefore no review or redefinition is required.

We once again reiterate, **that regulations governing telecommunications should not be automatically extended to online applications** because of the fundamental technical and business differences between traditional services and apps.

Rather, we would strongly urge TRAI to consider **reducing the legacy regulatory barriers on TSPs, especially license fees, spectrum usage charges, other levies and taxes, to improve the business case for TSPs** - A less burdensome regulatory regime will benefit all stakeholders as well as the economy at large.

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

CCAOI response: At the moment there are no other issues.