



January 4, 2019

Shri. Asit Kadayan, Advisor
Telecom Regulatory Authority of India
Mahangar Door Sanchar Bhawan
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Re: VON Coalition Submission on the TRAI Consultation Paper on Regulatory Framework for Over-The-Top (OTT) Communication Services

Dear Mr. Kadayan:

The Voice on the Net Coalition (“VON”)¹ respectfully submits these comments in response to the Telecom Regulatory Authority of India’s (“TRAI”) Consultation Paper on Regulatory Framework for Over-The-Top (“OTT”) Communication Services.² As the Consultation Paper notes, the popularity of OTT services has grown tremendously as broadband Internet has become increasingly accessible. OTT growth also tracks the growth in mobility, as people and their devices are no longer tethered to fixed line.

VON agrees with the Consultation Paper’s observation that “permissionless innovation has made the Internet what it is today,”³ and reiterates⁴ that a light touch approach for regulating OTT services will keep barriers to entry at a minimum, which in turn encourages greater innovation, competition and investment in broadband infrastructure.

DISCUSSION

The past few years have seen unprecedented growth and innovation in the OTT space, making universally available a wide variety of communications tools that integrate voice, video, data, text and chat. These tools make it easier for people to work, learn, keep in touch with loved ones, and access healthcare, and are effectively reducing the technology divide between cities

¹ VON is the leading advocacy organization for the Internet communications industry, working with policymakers to develop policies that support the availability and adoption of Internet communications products and services. For more information, see www.von.org.

² TRAI Consultation Paper on Regulatory Framework for Over-The-Top (OTT) Communication Services (2018) (“Consultation Paper”).

³ Consultation Paper at 10.

⁴ VON Coalition Submission on the TRAI Consultation Paper on Internet Telephony (Sept. 2, 2016) at 1.

and rural communities. For people with disabilities, OTT features and functionalities have made communication more accessible than ever.⁵

OTT is not telecommunications as we have known it for the past 100 years; thus, its features make comparisons with Telecom Service Providers (“TSPs”) difficult. By offering fundamentally different functionalities and services, OTTs are not simply substituting for TSPs. Further, OTT services may or may not be interoperable with other OTTs or even interconnected with a traditional public network. Some may be integrated into customer premise hardware and software, and ancillary to other service offerings. These differences in technology, functionality, availability, pricing, protocols and services suggest they may not fit neatly into a traditional regulatory framework.

As a result, OTTs, particularly information services like Voice over Internet Protocol (“VoIP”) and Communications Platform as a Service (“CPaaS”), should operate with minimal regulation. As the Consultation Paper observes, many other nations that have reviewed the state of OTT have recognized that a “light touch” approach, such as no licensing requirement,⁶ is the most effective way to promote innovation and competition.

VON encourages TRAI to recognize and consider the fundamental differences between the technology, services and opportunities that make OTT services distinct from TSP services.

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.

OTT is not conducive to a like-for-like comparison to services provided by TSPs because OTT services are generally not replacements for TSP services.

VoIP is not just a single service, but can describe a variety of integrated capabilities and features. For example, businesses leverage VoIP to create closed user groups, allowing employees to easily and efficiently call and message each other across locations. In another setting, such as video games, players utilize VoIP to chat and coordinate with other players from around the world. Generally, VoIP does not replace traditional voice calling, but may offer separate, complementary features, including the capability to be used from any broadband connection in the world; voice mail to text; simultaneous notification of calls to multiple devices; the ability to transfer seamlessly between desk phones and wireless phones; file sharing; integrated chat, conferencing and video calling; and the capability to be used from an app on a mobile device or through software downloaded onto a laptop or notebook. As a result, VoIP is fundamentally dissimilar to traditional voice services.

Similarly, the emerging CPaaS platform is also not comparable to specific TSP services. CPaaS is not a substitute for any specific TSP offering, but is used as a building block to create

⁵ *Benefits of VoIP: Connecting People with Disabilities to New Opportunity*, VON Coalition, http://www.von.org/secpgs/02_benefits/benefits_06_disabilities.html.

⁶ Consultation Paper at 31.

innovative and efficient communication services that are integrated into other innovative services.⁷ Common examples like ride-hailing or banking applications leverage CPaaS to offer in-app user-facing voice, text and instant messaging communications. Clearly such services are not replacements for traditional TSP services.

Video is another popular OTT service that can be delivered over various platforms that are distinct from any TSP service. For example, live streaming platforms give individuals the unique ability to produce and share original content. Video conferencing has revolutionized the way businesses and individuals communicate. These services do not substitute for anything currently available from TSPs.

The inherent differences between OTT and traditional TSP services make comparisons unproductive. Moreover, any attempt to classify these services today will likely be obsolete in the short term as new and innovative offerings are continually made available.

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.

No response.

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.

No. As the Consultation Paper notes, growth in the OTT sector has led to growth in the TSP industry.⁸

OTT service providers require access to existing infrastructure and a path to their customers. OTT use has prompted a shift in investment toward higher capacity data services to consumers and corporate customers. This demand has resulted in significant investment in backbone services and Internet aggregation, for which TSPs are compensated. OTT service providers and their customers pay for this additional capacity.

As an example, in the United States, the FCC's light touch regulatory approach (including no licensing requirement for OTT service providers) has been a vital cornerstone in a virtuous cycle that has led to significant broadband investment and expansion. This limited regulatory regime has helped lead to better, cheaper and more popular services, while increasing the availability of broadband.

⁷ Joe Hewitson, *What is CPaaS? (Communication Platform as a Service)*, Vonage Business, <https://www.vonage.com/business/perspectives/what-is-cpaas-and-why-should-you-care/>.

⁸ Consultation Paper at 11.

OTT users are also broadband subscribers. Rather than inhibit investment in broadband infrastructure, increased IP traffic and a light touch regulatory approach have led to greater investment. Between 2016 and 2017, revenue derived from OTT services in the United States increased by 41%.⁹ During that same period, broadband capital expenditures increased from \$74.8 billion in 2016 to \$76.3 billion in 2017.¹⁰ A vibrant OTT environment has stimulated investment in broadband.

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.

Government-mandated interoperability may not promote innovation and increase utility to consumers, and would inherently pick winners and losers without the benefit of market testing through competition. Further, interoperability requirements may present broader challenges between domestic TSPs, and OTTs, which are often global in nature. Such regulation may foist inconsistent interoperability requirements on OTTs, which could harm competition by decreasing efficiency and creating customer confusion. As was the case with global mobile standards, industry-driven standardization efforts will manifest in situations where the market finds interoperability to be beneficial and desirable.

Further, interoperability among OTT services and TSP services may be technologically infeasible in some circumstances. Unlike traditional wireline or mobile phone services that connect users via E.164 telephone numbers, which works best if all users can reach each other, OTT services are naturally distinct and unstandardized. As a result, interoperability would have to be specific to each application and use case. OTT's feature-rich environment is based on the ability to create new and custom services, rather than build out from a preorganized infrastructure.

The market, rather than regulatory fiat, should determine whether OTT services should be interoperable.

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.

OTT presents no new issues related to lawful interception. By definition, OTT services operate over a mobile or fixed broadband service which will always include fixed points of

⁹ Mike Farrell, Study: U.S. OTT Revenue Climbed 41% in 2017, MultiChannel News (Apr. 17, 2018), <https://www.multichannel.com/news/study-us-ott-revenue-climbed-41-in-2017>.

¹⁰ Patrick Brogan, U.S. Broadband Investment Rebounded in 2017, USTelecom (Oct. 18, 2018), <https://www.ustelecom.org/sites/default/files/documents/USTelecom%20Research%20Brief%20Capex%202017.pdf> (“Traffic growth will be driven by consumer and business use of streaming media, faster 5G mobile networks, the growing Internet of Things, and cloud-based services.”).

interconnection.¹¹ As a result, mobile or fixed service providers will always be part of the ecosystem. As TSPs are subject to lawful interception obligations, there should exist the ability to track persons of interest. OTTs can and should be expected to work with TSPs to fulfill lawful interception obligations.

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 justifications.

There is no need to make emergency services accessible via OTT platforms because, as discussed, these services are generally not replacements for phone services. Moreover, for OTT services that originate from apps on mobile phones, calls to emergency services can typically be routed through the end user's mobile service provider.

In the United States, interconnected VoIP providers are required to provide emergency calling, as these services are used in lieu of traditional phone services.¹² However, an emergency calling requirement would not make sense, for example, for CPaaS services where voice may be an ancillary component of the offering. Similarly, certain closed user groups that permit calling or texting, and that are not otherwise connected to the public phone network, would not have the capability to route calls to public safety agencies. Moreover, the users would have no expectation of making an emergency services call through one of these applications.

Q.7. Is there an issue of non-level playfield 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.

No. VON agrees with the GSMA's observation that strong market competition offers the most level playing field for all stakeholders.¹³ VON is not advocating additional regulation for TSPs. To the extent that TSPs offer OTT services, they should not be subject to regulations that were not otherwise applied to stand-alone OTT providers. Indeed, TSPs could be encouraged to expand broadband capabilities if one of the benefits was the ability to offer unregulated, or lightly regulated OTT services. A light touch regulatory environment will contribute to a robust, pro-consumer playing field for OTTs and TSPs alike.

Q.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

¹¹ Consultation Paper at 5.

¹² See *IP-Enabled Services; E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245, ¶ 23 (2005). The FCC defines interconnected VoIP as a service that: (1) Enables real-time, two-way voice communications; (2) Requires a broadband connection from the user's location; (3) Requires Internet protocol-compatible customer premises equipment (CPE); and (4) Permits users generally to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network. 47 Code of Federal Regulations § 9.3.

¹³ Consultation Paper at 32-33.

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

No response.

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

No.

CONCLUSION

VON urges TRAI to recognize the important differences between OTT and TSP services as it considers economic and regulatory issues relating to OTT services. Thank you for the opportunity to participate in this consultation. Please contact the undersigned should you have any questions.

Respectfully Submitted,

_____/s/_____

Glenn S. Richards