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Advisor, Quality of Service (QoS)
Telecom Regulatory Authority of India (TRAI)
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Re: Response to TRAI Consultation Paper on a Regulatory Framework for Over-The-Top (OTT) Communication Services

Dear Shri Kadayan,

Greetings and wish you a healthy new year from the U.S.-India Business Council (USIBC)!

Let me start by thanking you for your flexibility in extending the deadline for this consultation paper. USIBC also expresses our deep appreciation for TRAI's open and transparent public consultation process. Furthermore, I hope to meet you during your next visit to the United States, perhaps at the U.S.-India Information and Communications Technology (ICT) Working Group (ICTWG) scheduled for early February in Washington DC where TRAI could discuss OTT and other issues with your U.S. regulatory counterparts.

With respect to the OTT consultation, USIBC offers the following recommendations, underscoring that there is an urgent need to review the current licensing framework to align it with emerging technology trends and remove the artificial restrictions imposed on the service offerings of telecommunication service providers (TSPs). This would increase end-users options of newer service offerings at a competitive price and lead to further innovation and growth. Competition Commission of India (CCI) is the best way to achieve these goals.

1) OTT services and telecom services are not similar:

Telecom services and OTT applications operate in layers of the telecommunications network as defined by the International Standards Organization (ISO) Open Systems Interconnection (OSI) model¹ where telecom services reside in the network layer, while OTT services run in the application layer. Further, the two services offer different functionalities on different devices, and compete for different groups of customers. Thus, any similarity of OTT and those offered by telecom service providers (TSPs) should depend not only on the underlying function served but also the technical and architectural frameworks.

To expand on these differences, OTT services cannot be offered without access to physical infrastructures that only TSPs deploy. In addition, OTT providers do not control the internet access points, and are dependent on network providers for reaching out to their customers. TSPs also have the exclusive rights to acquire spectrum, obtain numbering resources, interconnect with the PSTN, and set up network

¹ https://en.wikipedia.org/wiki/OSI_model

infrastructure. Further, most TSPs already provide online services in addition to network access. Thus, while TSPs can operate in both the network and application layers, pure OTTs only operate as part of the application layer. OTT services also provide expansive experiences to customers that go beyond conventional messaging and communication options provided by TSPs so applications such as WhatsApp, Hike Messenger, and Google Hangouts provide rich messaging features not currently available through traditional short messaging services (SMS) offered by TSPs.

USIBC emphasizes that OTT services have a broad, positive economic impact. For example, a 2017 WIK report estimates that each 10% increase in OTT usage leads to an increase of \$5.6 trillion in global GDP (0.33% of GDP) based on research from 2000 to 2015². Another study showed that a 5% increase in WhatsApp penetration in 2015 is associated with a \$22.9 billion increase in global GDP³. In addition to these direct economic benefits, OTTs drive TSP data growth and revenue, which in turn, has led to massive investments in 4G networks (and will also justify future 5G investments). A vibrant OTT segment, therefore, not only would increase India's innovation economy, but also substantiate planned investments of 5G and other advanced connectivity solutions such as smart cities.

2) Reduce the Regulatory Burden on TSPs rather than Increasing it on OTTs:

Instead of focusing on regulation, domestic policymakers and regulators should promote innovation, investment, and consumer benefit that results from OTT usage. An appropriate and successful regulatory approach should balance critical societal objectives with the benefits of OTTs to consumers. Unnecessary and unproven regulation stifles innovation and investment, dampens competition, and harms consumers. Rather than expanding outmoded, burdensome regulations to new technologies such as OTTs, domestic regulators should seek to streamline regulatory burdens on TSPs to enhance competition. Telecommunication operators should have the flexibility to offer innovative communication services that are not encumbered by traditional telecommunications regulation, so long as the services are offered in a way that do not impede access to competitive alternatives.

So before adopting any new rules, domestic policymakers should first consider whether there is consumer harm, and whether there are existing legal and regulatory frameworks that address the matter at hand. For example, OTT services are already subject to regulations around consumer protection, data security, and competition. Further, OTTs offer a range of services from messaging apps to social media sites to cloud services so it is unwise to compile them under one umbrella regulatory framework.

Thus, domestic authorities should remove any unnecessary or outdated regulatory barriers to allow interested parties to form partnerships to invest in, build, and operate infrastructure (e.g., wholesale backhaul networks). At the same time, any partnership agreements between OTT players and operators should be kept voluntary and should not be mandated by regulation. TRAI should also rely on market-driven solutions that best ensure a healthy ICT sector, and focus on mutually beneficial interdependence between network providers and service providers.

OTT services also allow users to easily switch between services. This is because *these apps are free of cost (or at a very low price), easily downloadable on smartphones and have simple user interfaces*. Constant new entry is a feature of the online space because the barriers to entry for online services are low. *On the other hand*, TSPs offer essential services including access to emergency services. If TSP services did not interoperate or interconnect, potentially large populations would be cut off from communications and life-saving access to emergency services. Technology is already organically moving toward technical interoperability, with Windows apps that can 'talk' to Android and iOS apps

² Dr. Rene Arnold et al. The Economic and Societal Value of Rich Interaction Applications in India. Broadcast India Forum. November 2017. Access [here](#)

³ Rosie Mate and Greg Rafert. The Global and Country-level Economic Impacts of WhatsApp. Analysis Group. Access [here](#)

and vice versa. Music apps across platforms allow sharing of media, playlists, etc. Crucially, these developments are not in pursuance of any regulatory mandates, but in response to market conditions. In addition, India has a robust antitrust law that can target abuse of dominance. Thus, regulatory measures to address consumer economic harm are not necessary.

The interoperability between telecom and OTT services has already been examined by the TRAI. 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 personal computers (PC) to phone, and phone to PC calls within India as well as abroad. Additionally, internet service providers (ISPs) in India are presently permitted to provide one-way PC-to-phone Internet Telephony service for International Long Distance outgoing calls only on public switched telephone network (PSTN) and public land mobile networks (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.

3) Lawful interception:

The Telegraph Act permits lawful interception of all data traffic (including OTT traffic) by licensed TSPs and ISPs. Further, lawful interception of all data traffic is already happening at international landing stations, and does not require additional intervention from the regulator. The requirements for lawful interception should be *delinked from the discussion around encryption*, which is a much larger issue with implications for commerce, banking, etc., and requires discussion with a larger number of stakeholders. Strong encryption policies by OTT communication service providers should be encouraged, and its social benefits must be weighed against the perceived costs to law enforcement access.

4) Emergency Management Services:

In order for OTTs to provide emergency services, the calls would need to be routed through TSPs. However currently, voice over internet protocol (VOIP) to PSTN interconnection is not allowed in India. Meanwhile, some OTTs offer innovative service related to security and safety for individuals that were only possible under advancements of digital technology. For example, location based services based on Global Positioning System (GPS) tracking services like safe transport, distress and emergency response management have enabled faster response for law enforcement agencies, and other such service providers.

USIBC stands committed to assist you in your efforts by providing additional information or clarification. In the meanwhile, please do not hesitate to contact me or my staff: Jay Gullish, jgullish@usibc.com, in Washington, D.C., and Abhishek Kishore, akishore@usibc.com, in New Delhi. I would like to personally thank you for your leadership, and the Council and its members hope to discuss these recommendations at your convenience.

Warm regards,



Nisha Biswal
President
U.S.-India Business Council