

**Response on  
Regulatory Framework for Over-The-Top  
(OTT) communication Services**



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**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 following table indicates a comparison of OTT and TSP services. X indicates that such similar service is not provided by the corresponding entity.

<b>OTT Services</b>	<b>TSP Services</b>
<i>Peer to Peer Services</i>	
Calls	Telephony
Messaging	Short Message Service (SMS)
Video calling	Video Calling
Stored audio/ video messaging	×
<i>One-Many Services</i>	
Calls	Group Calling
Messaging	Group SMS
Video calling	Group video calling
Stored audio/ video messaging	×
<i>Broadcast Services</i>	
<i>Messaging</i>	Bulk SMS
<i>Video streaming</i>	Mobile Video
×	Toll and Toll Free Services
×	Emergency Calling Service
×	Roaming across service providers

**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.**

Substitutability can be defined as the provision of a set of services in the absence of the other substitutable service.

<b>Substitutability Factor of OTT services</b>	<b>Justification</b>
Voice over IP, messaging, video calls and video broadcasting.	These are very similar to what Telecommunications and Internet Service Providers (TSPs) provide. In case of broadcast video, TSPs can provide through mobile video services. These are substitutable as these can be provided over the Internet connection over Wi-Fi or any other mode without having a telco connectivity.
Voice over IP with termination on a public switched telecom network / public land mobile network	These are not substitutable as this requires conversion of IP address to the telephone numbering system using a Internet-PLMN/ PSTN bridge. While this service can be provided by Interconnected VoIP, the same cannot be provided by the OTT service provider.
Emergency services that requires interconnection to PLMN/PSTN or other networks that connect devices to Emergency Service Provider.	Since OTT applications are closed apps and do not interconnect with other types of OTT services are PLMN/PSTN, this service is not a substitutable service.
The Toll free 1-800 and 1-900 services.	These services need inter-operability across originating and terminating service providers and services. These cannot be provided by the closed OTT service providers. Hence this service is non-substitutable.
Bulk messaging using broadcast services like SMS/ VoIP	Current SMS/ Voice calls can be substituted by OTT based Messaging/ VoIP apps. This service is substitutable.

**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.**

The OTT service providers indirectly contributing to revenue potential of Telcos, through additional capacity and bandwidth sold. Hence, there is no need for any other form of compensation by OTT firms to Telcos. In fact, it is in the interest of Telcos to partner with OTTs to provide bandwidth intensive services.

**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.**

Inter-operability and interconnectivity using standard protocols is the main objective of TSPs. However, OTTs thrive on proprietary non-interconnected networks. One way to make OTT services substitutable as indicated in section (2) is to have OTTs connect mandatorily to PSTN/PLMN bridge. This will enable calls from OTT app to PLMN/PSTN numbers; this will also facilitate emergency dialing and toll free services. However, this requires interconnection usage charges (IUC) regime to be modified accordingly.

**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.**

Lawful interceptions of OTT services shall be much like that of Internet Service Providers as given in the ISP guidelines. Since the OTT services are slowly replacing the services of TSPs, regulation should allow for lawful interceptions of OTT services as and when required.

Additionally as highlighted in Q2, since bulk SMS is substitutable by OTT bulk messaging services, it stands to reason that OTT messaging apps will also be used for commercial communications and will hence need to be subject to the same monitoring mechanisms that the existing telcos are subject to.

Hence, we believe that in addition to national security, the same safeguards of consumer interest and privacy protection should be applied in substitutable areas like Unsolicited commercial communication.

**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.**

This is regarding the emergency and safety services that are provided by the TSPs on a priority basis as implemented in 911 or Enhanced 911 in the U.S. for a long time. Though such stringent quality regulation is not present in India for emergency services, when you call 112 it is the responsibility of the originating carrier of the call to connect to the nearby ambulance, fire and police departments. This feature is absent on OTTs. In the U.S., the emergency services provisioning is extended beyond wireline and wireless carriers to Interconnected Voice over Internet Protocol (VoIP) service providers that permits users generally to receive calls that originate on the Public Switched Telephone Network (PSTN) and to terminate calls to the PSTN. Since OTT services need not interconnect with PSTN, they are not obliged under regulation to provide emergency services.

Though there are third party services exist that enable OTT services to provide emergency services, it is not mandatory. As TSPs have now been allowed to provide unrestricted Internet Telephony, it is time that we define whether emergency services should be provided only by carriers but also by the Interconnected VoIP providers (i.e. TSPs who provide VoIP services) and OTT service providers!

One such mechanism is to mandatorily require OTT service providers to connect to PLMN/PSTN switch, thereby interconnecting with the Telco network for carrying emergency calls.

**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.**

Level playing field doctrine shall not be used between TSPs and OTTs as the underlying technology, adoption, markets, pricing models, scarce resource utilization, quality of services are very different between the two. Hence it is not prudent to invoke regulation to put them on par!

However, OTTs due to their sheer adoption rate should be responsible for Quality of Service.

By definition OTT services operate at the application layer over the Internet protocol and are independent of the underlying physical network – mobile, landline, or satellite. It is often assumed that any service quality difference one notices is entirely due to the underlying network characteristics. While this may be true in most cases, OTT service providers can also tune various parameters to affect the quality of services rendered. Netflix admitted in 2016 that it has been slowing down its video speeds on several wireless carriers, including Verizon and AT&T, for five years, in order to "protect consumers from exceeding mobile data caps." On the other hand, the OTT providers have been using Content Delivery Networks (CDNs) to speed up their services. In all possibilities these will escape traffic shaping rules that define "Net Neutrality" including in India as these are not perpetrated by the underlying common carriers. What is more important is that the consumers who are affected do not have an appropriate redressal mechanisms similar to what is present in the case of licensed TSPs. Hence along the lines of Quality of Service (QoS) benchmarks set by the regulator for TSPs, QoS metrics and benchmarks need to be defined for OTT services as well. A light touch QoS regulation for OTTs is applicable.

The second important aspect is the Unsolicited Commercial Communication (UCC) regulation that is in force for TSPs since 2007. Though the regulator has not been completely successful in stopping UCC despite implementing measures such as Do Not Disturb (DND) registry, and DND app for consumers, there are penalties associated with UCC offenses. Even in the recent 2018 notification on UCC, the focus is on messages and calls sent by the telemarketers and delivered by the TSPs. Though one might say that OTTs do self-regulate in stopping UCC on their platforms, the "fake news forwards" and unwanted advertisements have come to haunt us. Additionally, the independent Consent Registrar responsible for maintaining customer consent acquisition, registration and verification in the case of UCC regulation is critical to ensuring the privacy protection of Indian consumers. It is time that the OTTs are brought under UCC regulation due to their large scale adoption. Otherwise, we will be left with a regulated UCC for limited TSP messaging and a self-regulation for the burgeoning OTT messaging.

**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.**

Regulators world-wide are struggling to bring OTTs in to any form of regulation as they are typically non-jurisdictional in nature. Further, they constantly innovate and bypass or create new ways to circumvent the regulatory barriers. Most of the Internet companies are trying their best not come under the ambit of EU General Data Protection Regulation by shifting user registries to servers located in Ireland!

While command-and-control regulation of OTTs is definitely not advised, a light-touch regulation that imposes responsibility and liability on OTT service providers on their service offerings and privacy norms is definitely warranted.

**9. ARE THERE ANY OTHER ISSUES THAT YOU WOULD LIKE TO BRING TO THE ATTENTION OF THE AUTHORITY?**

None