

BLURB: This post lists industry stakeholders' views on whether 'over-the-top' and traditional 'telecom services' should be considered similar, especially for regulatory purposes.

'OVER-THE-TOP' AND 'TELECOM' SERVICES – SIMILAR OR NOT? - OUR ANALYSIS OF STAKEHOLDERS' RESPONSES TO TRAI CONSULTATION PAPER

I. PRELIMINARY

On 12 November 2018, the Telecom Regulatory Authority of India (“**TRAI**”)¹ published the Consultation Paper on Regulatory Framework for over-the-top (“**OTT**”) communication services (“**Consultation Paper**”).² This Consultation Paper was deemed necessary due to existing regulatory imbalances between telecom service providers (“**TSP**”) and OTT service providers, especially since the adoption and usage of OTT services have increased exponentially. The Consultation Paper aims to collate views of industry players, civil society, think tanks and other stakeholders to analyse the implications of the growth of OTT services, the relationship between TSP and OTT players, and any reforms that may be needed in the current regulatory framework.³ The TRAI also held an open house discussion on the OTT regulation in May 2019⁴. While the TRAI had earlier announced that it would release its recommendations pursuant to the Consultation Paper by end of May 2019⁵, they are yet to come out.

We have mapped the responses of the various stakeholders to the first question posed in the Consultation Paper, which is reproduced below:

“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.”

We observe that stakeholder responses fall into three broad categories, which are colour-coded as below:

¹ The TRAI was established in the year 1997 in pursuance of TRAI (Ordinance) 1997, which was later replaced by an Act of Parliament, named the Telecom Regulatory Authority of India Act, 1997, to regulate the telecommunication services. The website of the same is <https://main.trai.gov.in/>.

² The TRAI released the 'Consultation Paper on Regulatory Framework for Over-The-Top (OTT) Communication Services' on 12 November 2018. The same is available at <https://main.trai.gov.in/release-publication/consultation>.

³ TRAI, Consultation Paper on Regulatory Framework for Over-The-Top (OTT) communication Services, p. 3, 12 November, 2018. The same is available at <https://main.trai.gov.in/sites/default/files/CPOTT12112018.pdf>.

⁴ TRAI, OHD on Consultation Paper on 'Regulatory Framework for Over-The-Top (OTT) Communication Services, 20 May 2019, available at <https://main.trai.gov.in/events/open-house-discussion/ohd-consultation-paper-regulatory-framework-over-top-ott-1>.

⁵ The Hindu Business Line, TRAI to finalise views on OTT services by May-end: RS Sharma, dated 23 April 2019, available at <https://www.thehindubusinessline.com/info-tech/trai-to-finalise-views-on-ott-services-by-may-end-rs-sharma/article26921268.ece>.

	OTT services are similar to TSP services.
	Question not addressed/vague or qualified response.
	OTT services are dissimilar to TSP services.

Our analysis is based solely on our understanding of stakeholders' comments as submitted to TRAI and as published by the TRAI on its website. We have not reached out to any stakeholder for clarifications, nor has any stakeholder reached out to us. A total of 89 stakeholders submitted responses to the Consultation Paper. These 89 stakeholders comprise of 23 trade associations, 11 telecom service providers, 11 OTT service providers, 40 civil society members.

Per our analyses, 35 stakeholders (9 trade associations, 0 TSPs, 8 OTT service providers and 18 civil society contributors) believe that OTT service providers and TSP services are different and should be regulated differently; 27 stakeholders (9 trade associations, 1 TSP, 3 OTT service providers and 14 civil society contributors) have a qualified or ambiguous opinion or have not addressed the question directly; and 27 stakeholders (6 trade associations, 10 TSPs, 1 OTT service provider and 10 civil society contributors) believe that some OTT services may be similar to legacy TSP services or that they are essentially similar and therefore should be regulated similarly.

The tabulation of stakeholders' positions is based on the responses of the respective stakeholders to the Consultation Paper. Given the breadth of this exercise, a few details may have been lost during the study of the responses. All suggestions and comments, to rectify any such omission(s) or error(s) are duly invited. Full submissions of all stakeholders are available [here](#).

II. STAKEHOLDERS' RESPONSES – AN OVERVIEW

The analysis of the stakeholders' comments finds that there are a few direct responses to the question of which OTT services should be considered similar to TSP services. Most stakeholders have given comments upon whether OTT services should be regulated, instead of which OTT service should be regulated. The mapping exercise has been done accordingly.

This exercise threw up some interesting trends. A majority of the stakeholders (35 stakeholders) are of the opinion that OTT services are not similar to TSP services, or have given qualified answers suggesting that while the two may be considered similar, regulatory parity between the two classes is not the way forward. A recurrent issue that came up in stakeholder responses is the lack of a clear definition of OTT services. Multiple stakeholders have sought to address this by referring to the European Union's ("EU") Electronic Communications Code ("ECC") which distinguishes between Number-Based Interpersonal

Communicational Services (“**NB-ICS**”) and Number-Independent Interpersonal Communicational Services (“**NI-ICS**”). OTT services in the EU fall under NI-ICS which are subject to light touch regulation. Other arguments for regulatory differentiation include different functional offerings; the fact that OTTs rely on TSPs to provide their services and so cannot be competitors; technical and infrastructural differences; ease of switching between different OTT services (as opposed to switching between TSPs, which is difficult); and the difference in business models. A majority of OTT service providers and civil society members have argued for a different regulatory environment for OTTs given that OTTs function as revenue generators for positive impact that OTTs have had on the revenue earned by TSPs through data consumption.

On the other hand, TSPs and cable/Direct to Home (“**DTH**”) companies (27 stakeholders) have vehemently argued for regulatory parity. The argument here is restricted to functional similarity and substitutability of services (i.e. if the services are functionally similar then they should be regulated similarly). Another proposal made by this camp is that all OTT service providers provide services which are similar to services provided under the unified licensing regime of the Telegraph Act, 1885 and hence should be regulated in a manner similar to that of TSP services.

There are a considerable number of responses (27 stakeholders) which give qualified answers such as which OTT services may be considered similar but why there is a strong argument for differentiation. Many stakeholders have simply stated similar and dissimilar services and have not given a reasoning. These have been categorised together with qualified responses since they do not contribute to explaining the overall trend.

We have documented the responses of all 89 stakeholders, with key takeaways from their submissions in a tabular format.

TABLE A: COMPARISON OF STAKEHOLDER RESPONSES

S. No.	REASONS WHY OTT SERVICES ARE DIFFERENT FROM TSP SERVICES	NOT ADDRESSED/AMBIGUOUS/QUALIFIED OPINION	REASONS WHY OTT SERVICES ARE SIMILAR TO TSP SERVICES.
1.	<ul style="list-style-type: none"> INTERNET SOCIETY INDIA CHENNAI (ISOC, CHENNAI) OTT services do not free-ride, instead are revenue generators for TSPs. This makes them distinct. OTT service providers should not be subject to such undue scrutiny and 	<p>CULLEN INTERNATIONAL</p> <ul style="list-style-type: none"> OTT services enable those who do not own networks to monetise their content and to reach end-users. It enables viewers to access traditional linear broadcasting programmes, as well as catch-up and on-demand services that are available on the internet. 	<p>SCHOLARS IN THE MOUNTAINS</p> <ul style="list-style-type: none"> Any OTT platform providing communication services similar to TSP services must be regarded as ‘same or similar to service(s) being provided by the TSPs’. Voice/conference calling services (Skype, Facetime, Google Hangouts, Viber and WhatsApp), messaging services (WhatsApp)

	<p>should be left outside the scope of regulation.</p> <p>Find response here.</p>	<ul style="list-style-type: none"> In countries like Argentina, there is a strong call from industry and other stakeholders to ensure a level playing field between OTT services and telecom operators. <p>Find response here.</p>	<p>and Facebook Messenger) are similar to Short Messaging Service (“SMS”) and Multimedia Messaging Service (“MMS”) features provided by TSPs.</p> <ul style="list-style-type: none"> OTT audio services delivering audio-visual content are ‘functional substitutes’ for licensed radio channels (Akashwani, Red FM, Radio Mirchi etc.). Likewise, OTT audio-video content providers are ‘functional substitutes’ of cable and direct-to-home (DTH) services and channels (Sony, Star, Zee, TataSky, Airtel DTH) who operate with requisite statutory registrations/licenses/approvals. Examples of such OTT services are Netflix, Amazon Prime, Spotify, Gaana.com etc. <p>Find response here.</p>
<p>2.</p>	<p>CENTRE FOR POLICY RESEARCH (CPR)</p> <ul style="list-style-type: none"> There is a difference in services provided and handling of user data. Certain graphics and audio recording and document transfers are unique to OTT services and conventional TSPs do not provide these services, hence they are essentially different. OTT service providers and TSPs use different methods of transmission of data, hence they are essentially different technologies. 	<p>ACT THE APP ASSOCIATION (ACT)</p> <ul style="list-style-type: none"> OTT platforms focus on providing the capacity to end users and are hence different from TSP service providers. OTT service providers bear costs to deliver their application or service. <i>“OTT services reduce consumer costs by stimulating telecommunications network growth which in turn increases demand for uptake of data and the need for more bandwidth. This drives further investment in infrastructure by the TSP.”</i> <p>OTT communication services are the same as traditional TSP communication services since</p>	<p>DISH TV</p> <ul style="list-style-type: none"> The Consultation Paper should include OTT broadcasting services. OTT services should be regulated in a similar manner to TSP services providing similar services. Through OTT services such as Netflix, Amazon Video, Hotstar, Voot, ZEE5, Sony Liv etc. content can be streamed and projected from mobile handsets to television screens, but unlike other broadcasting services, no content regulation is applicable on OTT services, leading to a lot of

	Find response here .	their primary purpose is to provide real-time person-to-person telecommunication voice services by using the network infrastructure (e.g., Utilizing a telephone number) of a TSP. Find response here .	unregulated and non-compliant content being aired. <ul style="list-style-type: none"> • Both Internet Protocol Television (“IPTV”) and OTT services transmit TV content over the internet, which is an IP network, and thus both function on the application layer. Further, both require reliable data transfer and are IP-based. Thus, the set of protocols and the channel of transmission for both technologies is the same. • The Ministry of Information & Broadcasting defined IPTV in a 2006 order (reproduced at page 5 of the stakeholder’s response) as per which OTT falls under the definition of IPTV and therefore the regulations governing IPTV services should apply to OTT services as well. Find response here .
3.	VOICE ON THE NET COALITION (VON COALITION) <ul style="list-style-type: none"> • OTT services allow for group chatting, game-room chatting, which TSPs do not. Live streaming is possible through OTT services but not TSP services. • OTT services will not replace traditional TSP services. Find response here .	CENTER FOR DEMOCRACY & TECHNOLOGY (CDT) <ul style="list-style-type: none"> • Regulation should be based on the functionality of services. • Many OTT services include features unrelated to traditional communication services. Thus, the EU approach of categorizing services (as mentioned in the Consultation Paper) by the relative dominance of the communication and non-communication aspects of services may have unintended consequences. • Such an approach may incentivise OTT services to shift the relative dominance of their 	VISHNU V. KRISHNAN <ul style="list-style-type: none"> • It is the erstwhile primary function of serving as a voice calls and text carrier that OTT services have taken over. • The specific OTT services which are similar to TSP services are too many to list. Find response here .

		<p>platforms to non-communication services to avoid regulation.</p> <ul style="list-style-type: none"> • TRAI's attempt to exhaustively list all OTT services that are the same as or similar to TSP services is unfeasible as the TSPs' service offerings change or new communication-enabling services emerge. Alternatively, the TRAI could describe the communication services currently provided by TSPs before looking for analogues in OTT services. This would assist in comparison and help evaluate the extent to which similar OTT services need regulation. <p>Find response here.</p>	
<p>4.</p>	<p>THE DIALOGUE</p> <ul style="list-style-type: none"> • OTT services use data packets to provide their services, whereas TSP services use traditional telecom architecture. • TSP services can be offered both as network services as well as application services, whereas OTT services can only be offered as the former. • OTT services are not covered under the definition of 'telegraph', and so cannot be governed by the TRAI. <p>Find response here.</p>	<p>MOTION PICTURE ASSOCIATION (MPA)</p> <ul style="list-style-type: none"> • Adoption of the 'same service' parameter to compare TSP services and OTT services and to, therefore, apply traditional regulatory and licensing requirements to new technologies will be a huge step backwards. • Instead, existing regulations need to be overhauled to accommodate the potential of data services as the future. • India has a vibrant start-up culture and OTT services add value in billions by enhancing the productivity of businesses and enhancing the quality of life. • Traditional regulation would stifle innovation, stymie the growth of the start-ups. 	<p>VODAFONE IDEA LIMITED</p> <ul style="list-style-type: none"> • All services offered by OTT service providers that may also be provided under the scope of various telecom licenses/authorizations should be regarded as same or similar to services provided by TSPs. Sample examples given in Annexure-1 of the response (reproduced at page 18 of the stakeholder's response). • The EU framework also clubs all interpersonal communication services (reproduced at page 6 of the stakeholder's response) together. • OTT services which are similar to TSP services are access services (such as collection, carriage, transmission and

		Find response here .	delivery of voice and/or non-voice messages), internet telephony, services including IPTV, broadband services, triple play i.e. voice, video and data, voice mail, unified messaging services, video conferencing, cell broadcast, value-added services and supplementary services. Further, OTT services may also be similar to national long distance and international long distance services, VPN services, and calling card services provided by TSPs. <ul style="list-style-type: none"> • Same/similar services should also cover services that will potentially be provided by TSPs in the future. Thus, the definition of OTT services needs to be future agnostic and must cover as many services that may substitute or supplement telecom services as permitted to licensed telecom operators under license conditions. • OTT players also compete with IPTV services. Find response here .
5.	INTERNET SOCIETY INDIA DELHI CHAPTER (ISOC, DELHI) <ul style="list-style-type: none"> • OTT services rely on TSPs for their physical networks. • OTT services function in the application layer whereas TSP services function in the network layers. • TSPs have exclusive rights to provide conventional telecom services whereas 	ALL INDIA AAVISHKAR DISH ANTENNA SANGH (REGD.) <ul style="list-style-type: none"> • The proactive attitude of the TRAI with regard to OTT services is commendable and facilitative legislation is the need of the hour. • OTT services are different from Cable TV insofar as the former is available only through broadband internet, therefore oversight by the Wireless Planning & Coordination Wing of the 	BHARTI AIRTEL LIMITED <ul style="list-style-type: none"> • Substitutability of services is the primary criterion for comparison of the regulatory and licensing framework between TSPs and OTT service providers. • High-speed mobile broadband networks have enabled independent third parties such as OTT service providers to provide voice/video calling and messaging services.

	<p>OTT service providers do not have exclusive privileges.</p> <ul style="list-style-type: none"> • OTT services are available on a wider variety of devices such as tablets, whereas TSPs are not. • Even the EU recognises the distinction between NB-ICS and NI-ICS which goes to show that OTT and TSP services are different. <p>Find response here.</p>	<p>Ministry of Communications and the Network Operation & Control Center is necessary.</p> <ul style="list-style-type: none"> • OTT services neither fall within the category of a 'Broadcast Service' nor 'Telco' but since this leads to the airing of content, some oversight is required. • Regulations must be future agnostic and amenable to innovation. • Some nominal fees by way of registration should be levied. <p>Find response here.</p>	<ul style="list-style-type: none"> • On the demand side, any voice/video call or a message exchange done via the TSP's network or through an OTT service serves the same purpose. • For declaring any service as a substitutable OTT communication service, the TRAI may check if communication with an individual or a group of target people may happen through the OTT service instead of the standard TSP service. • The EU adopted a definition of 'interpersonal communication services' which includes the direct interpersonal exchange of information via an electronic communications network between a finite number of people, where the persons initiating/participating in the interaction determine its recipients. This definition would exclude broadcasting, general websites, content, web-hosting, gaming and unidirectional information services (such as Twitter), while it would include Voice over Internet Protocol ("VoIP") services, video calls, text messaging (WhatsApp, SMS, Facebook Messenger, etc.) and emails. The above definition should be adopted in the Indian context as well. • Social media and gaming applications providing ancillary communication services do not create a substitutable voice/video calling or messaging service compared to TSP services, and so should not fall within the category of OTT
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			<p>communication services. The TRAI may decide the category of such services on a case-by-case basis.</p> <ul style="list-style-type: none"> The definition of OTT communication services should be flexible and periodically reviewed on the basis of the evolution of the market structure, technological developments, innovations and the extent of substitutability created by such services. <p>Find response here.</p>
<p>6.</p>	<p>INDIA INTERNET FOUNDATION (IIFON)</p> <ul style="list-style-type: none"> OTT and TSP services are inherently different. Therefore, they should not be regulated as similar. However, OTT service providers still needs to be regulated in order to make their dealings more transparent. Find response here. 	<p>CONFEDERATION OF INDIAN INDUSTRY (CII)</p> <ul style="list-style-type: none"> The EU has proposed expanding the definition of electronic communication services ("ECS") to include 'interpersonal communication services'. And the same should be adopted in the Indian context to provide clarity on what an OTT service is. The revised EECC also recognises the difference between NB-ICS and NI-ICS and places higher regulatory obligations on NB-ICS than NI-ICS. Under the 'Regulatory Fitness and Simplification Agenda' of EU (REFIT agenda), the EU has sought to simplify and reduce the administrative burden on communication services in order to avoid overregulation. Find response here. 	<p>MAHANAGAR TELEPHONE NIGAM LIMITED (MTNL)</p> <ul style="list-style-type: none"> All communication services which TSPs are authorised to provide under their licences should be considered similar to TSP services. Further, if services provided by OTT service providers are similar services which are the main revenue source for TSPs, they should be regulated similarly. For this purpose, VoIP, IM services, video and audio streaming services may be considered similar to TSP services. <p>Find response here.</p>

<p>7. SOFTWARE FREEDOM LAW CENTRE (SFLC)</p> <ul style="list-style-type: none"> • TSPs have the exclusive rights to commercialize spectrum which cannot be done by OTT services. • TSPs provide the infrastructure over which OTT services travel. • The core task of TSPs has historically been to transmit information. • TSPs and OTT service providers both provide communication services, but this is a broad category which covers ancillary communication features such as collaborative document editing, comments on a webpage or communication within a video game as well. The EU's ECC disregards such ancillary communication services. • Communication OTT services should be limited only to those services where communication is the primary objective of the service. • TSP networks and OTT service providers have diverged in the services that they provide. OTT services now include stickers, video calls etc. whereas TSPs now primarily provide a pipeline for the internet. • TSPs have started offering services similar to those provided by OTT service providers such as voice calls, video content over the internet and 	<p>CONSUMER VOICE</p> <ul style="list-style-type: none"> • Only voice communication and messaging services can, if at all, be considered to be similar to the services being provided by TSPs. • Due to technological advances, these services are now carried through the internet and do not exist "<i>per se</i>". • With interactive broadcasting, the same services may be available through alternate channels. <p>Find response here.</p>	<p>RELIANCE COMMUNICATIONS LTD. (RCOM)</p> <ul style="list-style-type: none"> • All online services which have substituted traditional telecommunications services such as voice telephony and messaging services should be regarded as the same or similar to service(s) being provided by the TSPs. • OTT services can be grouped into three broad groups namely: <ul style="list-style-type: none"> ➤ VoIP for voice calling and video chatting services; ➤ Instant Messaging services- chat application; and ➤ Video and Audio-conferencing services. • OTT services available in the market have certainly captured a significant market share. Prime examples are SMS and international voice. A significant amount of international voice traffic has been shifted to voice calling and video chatting services. • Substitutability should be treated as the primary criterion for comparison of regulatory or licensing norms applicable to TSPs and OTT service providers. <p>Find response here.</p>
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	<p>should, therefore, be regulated under the Information Technology Act, 2000.</p> <ul style="list-style-type: none"> • TSPs are now using spectrum not to provide traditional services but to provide data services to facilitate OTT services. • TSPs now offer tariffs with unlimited voice communication, in which regard, OTT service providers are incapable of competing with TSPs. <p>Find response here.</p>		
<p>8.</p>	<p>COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION (CCIA)</p> <ul style="list-style-type: none"> • TRAI should not apply restricting, telecom-style regulations to OTT services. • The definition of OTT is imprecise and different from that of traditional telecom services. Thus, regulations cannot uniformly be formulated for TSP and OTT service providers. • OTTs are characterised by a distinct evolutionary history and faster development. • Greater competition is faced by OTT services, all proposed regulations should account for this. <p>Find response here.</p>	<p>DR. V SRIDHAR</p> <ul style="list-style-type: none"> • OTT services with similar TSP counterparts: <ul style="list-style-type: none"> ➤ Calls ➤ Messaging ➤ Video calling ➤ Group Calling ➤ Group SMS ➤ Group video calling ➤ Bulk SMS ➤ Mobile Video • Services without similar counterparts: • OTT services allow for recorded audio/ video messaging (P2P and One to Many) which TSP services do not. • TSP services allow for toll and toll-free services which OTT services do not. • TSP services allow for emergency calling services which OTT services do not. 	<p>TATA COMMUNICATIONS LIMITED (TCL)</p> <ul style="list-style-type: none"> • OTT services which may replace TSP services should be regarded as similar services. Some examples are Skype, WhatsApp, Viber, IMO, and Facebook Messenger. • Many OTT services are directly providing ISPs and non-ISPs with access to internet-based content. Such OTT service providers are also connecting with Indian ISPs, other foreign telecom operators and non-ISP entities which is not permitted by the existing regulatory framework since they bypass licensing and taxation regimes of the country and pose threats to national security as well. Such interconnection/internet peering services are comparable to internet access services provided by licensed ISP service providers in India and their legality needs an

			<p>examination to assess the risk of revenue pilferage and the airing of unregulated content.</p> <ul style="list-style-type: none"> • A few OTT players have started announcing network connectivity offerings in selected markets akin to TSPs in India. These services shall be required to be reviewed under existing regulatory and other compliance requirements, currently applicable to all licensed TSPs in India. <p>Find response here.</p>
<p>9.</p>	<p>ASIA INTERNET COALITION (AIC)</p> <ul style="list-style-type: none"> • TSPs can exercise a higher degree of control on their subscribers, as compared to OTT service providers. Subscribers have the liberty to switch options with OTT services, butnot with TSP services. OTT services are free. OTT services rely on the infrastructure of TSPs. • Multiple OTT services can be accessed from a single device as opposed to TSP services. • OTT services provide additional functions such as group chats and document sharing. • TSP and OTT services function in different layers (network and application). 	<p>ASSOCIATION OF COMPETITIVE TELECOM OPERATORS (ACTO)</p> <ul style="list-style-type: none"> • An OTT or an application service cannot be accurately defined, due to the pace of technology evolution. • A list of same or similar services as being provided by TSPs and OTT service providers may be prepared today, but it will not be valid tomorrow. This list can be indicative, but not exhaustive. Thus, preparing a list in this regard will be a futile exercise. • Instead there is an urgent need to review the current licensing framework to align it with emerging technology trends and remove the artificial restrictions that are imposed on the service offerings of the TSP's. <p>Find response here.</p>	<p>BHARAT SANCHAR NIGAM LIMITED (BSNL)</p> <ul style="list-style-type: none"> • OTT services providing voice calls, video calls, messaging and conferencing services may be regarded as similar to TSP services. • OTT players have developed internet applications to deliver such services. Such OTT services use the existing TSP infrastructure. <p>Find response here.</p>

	Find response here .	<ul style="list-style-type: none">• There is no universal definition of OTT services, but they may be understood to be services that users access using their own internet connections, mostly provided by the TSPs.• Many solutions/opportunities (access to jobs, education, news etc.) have been made available by OTT service providers.• OTT platforms provide unlimited voice capabilities at no cost, allowing easier entry by new players.• The choice between OTT and TSP services depends on multiple factors such as capital and expense budgets and the degree of in-house technical expertise.• Many enterprises and contact centers are migrating to OTT services to incorporate resiliency features (fewer call drops).• Customers are purchasing converged voice and data services to improve overall economics.• It is difficult to create a technology agnostic list of such similar services with services being decoupled from the network layer to the service layer. The deployment of SDN will further enhance the proliferation of new services.	
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		<ul style="list-style-type: none"> There is an urgent need to review the current licensing framework to align it with technology trends. 	
10. CONSUMER UNITY AND TRUST SOCIETY INTERNATIONAL (CUTS) <ul style="list-style-type: none"> OTT service providers and TSPs are different in terms of costs incurred in using them; OTT service providers provide value-added services, OTT services allow for easier access and have features that TSP services do not, such as document sharing and group chats. <p>Find response here.</p>	THE FEDERATION OF INDIAN CHAMBERS OF COMMERCE AND INDUSTRY (FICCI) <ul style="list-style-type: none"> The Consultation Paper provides the definition of OTT services adopted in various jurisdictions. The TRAI's attention is invited to the EU's revised EECC that recognises the distinction between NB-ICS and NI-ICS, and it places higher regulatory obligations on NB-ICS than NI-ICS. Further, TRAI's attention is invited to the move of the EU to reduce the administrative burden on communication services in order to avoid over-regulation. TSP regulations should be simplified and the administrative burden on communication services should be reduced. The EU approach to ECS should be adopted in India. <p>Find response here.</p>	RELIANCE JIO INFOCOMM LIMITED (RJIL) <ul style="list-style-type: none"> OTT services which are functionally similar to TSP services should be regarded as similar services. TRAI should adopt the EU classification to define OTT services, as per which any OTT platform that enables direct one-to-one communication using any of the communication means should be treated as comparable to the TSPs. Such communication would include voice including VoIP, video calls, text messaging, e-mails and file transfer facilities. The definition of OTT services should be flexible to accommodate rapidly changing technologies, as it will allow existing and new companies to grow. The TRAI may also recommend a provision for the periodic review and analysis of operating OTT services to expand the scope of the definition. <p>Find response here.</p>	
11. ACCESS NOW <ul style="list-style-type: none"> OTT services travel on top of a network provided by TSPs, unlike TSP services 	THE ASSOCIATED CHAMBERS OF COMMERCE AND INDUSTRY OF INDIA (ASSOCHAM)	CONSUMER PROTECTION ASSOCIATION, HIMMATNAGAR (CPA)	

	<p>which function through the network of their own infrastructure.</p> <ul style="list-style-type: none"> The regulation of TSPs is based on the premise that public goods are being exploited, which is not the case with OTT services. There is no limit to the number of OTT service providers which may exist while there are limits to the number of TSP service providers. <p>Find response here.</p>	<ul style="list-style-type: none"> The EU has proposed expanding the definition of ECS to inter alia include 'interpersonal communication services' (reproduced @ <i>page 2</i> of the Response). The stakeholder proposes that the new definition of electronic communication services proposed in the EU, may be adopted in the Indian context as well. The EU's revised EECC has expanded the ECS to include NB-ICS and NI-ICS. Within this framework, the EECC places higher regulatory obligations on NB-ICS than NI-ICS. Further, under regulatory fitness and simplification, the EU has sought to avoid overregulation of communication services. <p>Find response here.</p>	<ul style="list-style-type: none"> OTT services can be defined as any service provided over the internet that bypasses traditional operators' distribution channel. VoIP: Skype, Viber, etc. SMS: WhatsApp, Kakao Talk, Line, Telegram, etc. Apps: search portals, news portals, banking, weather, shopping, etc. Cloud Services: Dropbox, Google Drive, Apple iCloud, etc. Internet Television (Video streaming): Netflix, Hulu, YouTube, Amazon Instant Video, etc. <p>Find response here.</p>
12.	INFORMATION TECHNOLOGY INDUSTRY COUNCIL (ITI) <ul style="list-style-type: none"> TSPs have exclusive rights to provide their services whereas OTT service providers do not. SMS and OTT messaging services evolved from different technologies. OTT services provide additional services like group chat, notifications etc. OTT and TSP calling services are different. OTT services may or may not use numbering resources and may not 	CELLULAR OPERATORS ASSOCIATION OF INDIA (COAI) <ul style="list-style-type: none"> Calling (voice and video) and messaging services provided by OTT services are the same as those provided by TSPs, however, several platforms provide multiple functions, thereby making them difficult to categorise. With the evolution of OTT services, the definition of ECS is becoming more difficult to interpret and this provides greater flexibility for interpretation. 	CABLE OPERATORS WELFARE FEDERATION INDIA (COWF INDIA) <ul style="list-style-type: none"> All "<i>OTT communication services (VoIP) providing real-time person to person, M2M telecommunication services using the network infrastructure of the TSP, and application services such as multimedia, content on demand services (gaming), messaging, trade and commerce services (e-commerce, radio taxi, financial services), cloud services (data hosting and data management platforms or applications), social media etc., using the network</i>

	<p>require the same systems to connect callers as TSP services.</p> <ul style="list-style-type: none"> Traditional audio-visual service providers have been regulated with different considerations, viz. use of scarce public resources, which cannot be extended to OTT services. <p>Find response here.</p>	<ul style="list-style-type: none"> It is important to have a technology agnostic definition of ECS which is future proof and lays the correct foundation for regulation. VoIP and messaging are forms of ECS which can potentially substitute TSPs. But substitutability of a service is only one of the important criteria for comparison between TSPs and OTT services. TRAI should incorporate the definition of 'interpersonal communication services' as proposed by the EU into the definition of ECS. The compartmentalisation of OTT services into 'Communication' and 'Non-Communication' services on the basis of whether the functionality forms a 'substantial' or 'ancillary' part of the service/platform may be applied to the Indian ecosystem. The definition of the OTT 'communication' services should be reviewed on the case to case basis to determine the extent of substitutability with TSP services. <p>Find response here.</p>	<p><i>infrastructure of the TSP</i>" are similar to TSP services.</p> <ul style="list-style-type: none"> OTT television such as IPTV services should fall under "<i>distributor of television channels</i>" or "<i>distributor</i>" as defined in the TRAI (Eighth) Tariff Order of 2017 and its associated regulations. <p>Find response here.</p>
13.	<p>CYBER CAFE ASSOCIATION OF INDIA (CCAOI)</p> <ul style="list-style-type: none"> OTT platforms rely on TSPs for their physical infrastructure. TSP and OTT services function in different layers (network and application, respectively). TSPs have exclusive rights to acquire spectrum and numbering resources, 	<p>RAJEEV SHARMA</p> <ul style="list-style-type: none"> The arguments for ensuring a level playing field between OTT and TSP services are flawed and seem driven by the commercial interests of TSPs. TSPs collect data tariff whereas OTT services are available for free. The revenue of Telecom telecom players has grown with e-commerce, utility payments, 	<p>BROADCASTING CORE GROUP OF INDIAN ELECTRONICS & SEMICONDUCTOR ASSOCIATION</p> <ul style="list-style-type: none"> OTT services similar to TSP services are: <ul style="list-style-type: none"> ➤ VoIP services like WhatsApp. ➤ SMS services through WhatsApp, Facebook. ➤ Linear Video Content like Netflix and Hotstar.

	<p>whereas OTT service providers have no such exclusive privileges.</p> <ul style="list-style-type: none"> • Richer functionality is offered by OTT platforms, viz. group chats. • The EU recognises the difference between NB-ICS and NI-ICS as well. <p>Find response here.</p>	<p>banking sector using SMS services commercially. OTT platform calls have better quality and lower drop rates than TSP provided calls inside buildings etc. thereby providing value to consumers.</p> <p>Find response here.</p>	<ul style="list-style-type: none"> ➤ Social networking video, audio and images. • Emergency services could be effectively implemented through OTT platforms. • Smart-home services on the OTT platform through set top boxes have been launched in some networks. <p>Find response here.</p>
<p>14.</p>	<p>KOAN ADVISORY GROUP</p> <ul style="list-style-type: none"> • Substitutability is an inaccurate standard to guide the regulatory framework for OTTs. • The Telegraph Act, 1885 regulates the use of 'telegraphs' as defined thereunder to ensure tight control and restrict non-governmental use and operation of telegraphs. OTTs are not subject to similar considerations. • Indian jurisprudence reiterates that spectrum is regulated since it is a scarce natural/public resource. No such consideration informs OTT services. • The jurisprudence on substitutability as fleshed out by the Competition Commission of India is nuanced and must be explored in depth before conflating OTT and TSP services. • European jurisprudence also distinguishes between OTT and TSP services. 	<p>OLX INDIA PVT LTD</p> <ul style="list-style-type: none"> • OTT services may offer multiple functions on their platforms. The EU proposes a test to categorise the communication function of an OTT service as 'substantial' or 'ancillary' (reproduced @ <i>page 1</i> of the Response at page 1 of the stakeholder's response). • Both substantial and ancillary service providers use TSPs' network infrastructure, however, only substantial OTT services compete with their traditional telecommunication businesses and therefore should be regarded as the same or similar to TSP services. Non-communication OTT services should not. • It would be arbitrary and anti-competitive to conflate substantial and ancillary communication functions in OTT services since nearly all OTT services incorporate an element of communication. <p>Find response here.</p>	<p>ALL LOCAL CABLE OPERATOR ASSOCIATION, DELHI</p> <ul style="list-style-type: none"> • Broadly OTT services can be classified as: <ul style="list-style-type: none"> ➤ OTT Communication Services: OTT VoIP, OTT messaging, etc. ➤ OTT Television Services: OTT IPTV • All "<i>OTT communication services (VoIP) providing real-time person to person, M2M telecommunication services using the network infrastructure of the TSP, and application services such as multimedia, content on demand services (gaming), messaging, trade and commerce services (e-commerce, radio taxi, financial services), cloud services (data hosting and data management platforms or applications), social media etc., using the network infrastructure of the TSP</i>" can be considered similar to TSP services. • OTT television such as IPTV services should also fall under "<i>distributor of television channels</i>" or "<i>distributor</i>" as defined by the TRAI.

	Find response here .		Find response here .
15.	<p>INTERNET FREEDOM FOUNDATION (IFF)</p> <ul style="list-style-type: none"> The narrow definition of OTT services is rejected. The alternate term internet applications and services as used in the 'SaveTheInternet' campaign is encouraged. The phrase OTT does not yet have any universal definition, which may defeat the purpose of such regulation. <p>Find response here.</p>	<p>JURIS CORP</p> <ul style="list-style-type: none"> The following OTT services may be considered the same or similar to the services provided by the TSPs: <ul style="list-style-type: none"> ➤ VoIP service which transmits voice calls over the internet instead of traditional circuit transmissions. However, OTT services also offer video calling services which TSPs do not provide. ➤ Instant messaging services. However, these services differ from TSP services in that OTT messaging services allow for broadcast messages, voice and video messages, messages using geolocation information and photo, audio or video sharing as well. The Consultation Paper only focuses on OTT communication services which may be considered similar to TSP communication services. However, the clubbing is debatable as the OTT services possess various distinguishable characteristics, which are not offered by TSPs in traditional form, for instance, geolocation. Further, the means of transmission of the respective services are distinguishable on the basis of their technical and infrastructural processes. 	<p>VIKKI CHOUDHRY</p> <ul style="list-style-type: none"> All "OTT communication services (VoIP) providing real-time person to person, M2M telecommunication services using the network infrastructure of the TSP, and application services such as multimedia, content on demand services (gaming), messaging, trade and commerce services (e-commerce, radio taxi, financial services), cloud services (data hosting and data management platforms or applications), social media etc., using the network infrastructure of the TSP" should be considered similar to TSP services. IPTV services should fall under "distributor of television channels" or "distributor" as defined by the TRAI. <p>Find response here.</p>

		<ul style="list-style-type: none"> Therefore, despite the functional similarity between OTT and TSP services, they are not identical. <p>Find response here.</p>	
16.	THE CENTRE FOR INTERNET AND SOCIETY (CIS) <ul style="list-style-type: none"> Even if OTT services and TSP services achieve the same goal, they should be subject to different regulatory treatment since they are architecturally different. EU's test for identifying those OTT services which are not similar to TSP services is inadequate. The test is that those OTT services which have communications' functionality only as an ancillary part of their offerings should not be considered similar to TSP services. This opposition to this test is based on the understanding that the OTT service may be modified to make any non-communication offering the main offering of the OTT service, while retaining the communication offering as well, only to circumvent this test. OTT services also offer several features not available in TSP communication services, hence they are functionally different and must be treated as such. For instance, functionally similar OTT services offer greater privacy than TSP services. 	J. SAGAR ASSOCIATES (JSA) <ul style="list-style-type: none"> OTT communication services (voice calling and video chatting services) can be regarded as similar to TSPs services. VoIP services offered by OTT service providers compete with the traditional voice services offered by TSPs, thus establishing a non-level playing field for the players in terms of the various compliances and restrictions. However, OTT service providers cannot be placed at par with TSPs, in so far as licensing requirements are concerned. A light touch regulatory approach should be adopted towards VoIP services, with a focus on critical aspects alone such as national security, data privacy, QoS quality of service, etc. TSPs should also derive some form of revenue benefits from the OTT service providers since their network infrastructure is being leveraged. The current model of charging only for data transfer may not be suitable in the context of OTT services. <p>Find response here.</p>	LT COL (VETERAN) VC KHARE, CABLE TV INDUSTRY OBSERVER <p>The following OTT services are similar to TSP services:</p> <ul style="list-style-type: none"> OTT communication services (VoIP) providing real-time person to person telecommunication services using the network infrastructure of the TSP. Application services such as media services (gaming). Trade and commerce services (e-commerce, radio taxi, financial services). Cloud services (data hosting and data management platforms or applications). Social media etc., using the network infrastructure of the TSP. <p>Find response here.</p>

	Find response here .		
17.	AMERICAN CHAMBER OF COMMERCE IN INDIA (AMCHAM) <ul style="list-style-type: none"> • Number-independent (OTT) communication services relying on broadband infrastructure cannot be regarded as similar to TSP services. • OTT services such as WhatsApp, Skype, and Telegram etc. allow innovative user interaction such as group chats, payments, sharing of high-definition photos and videos, and business interaction. • The distinction between communication OTT providers and non-communication OTT providers is artificial and flawed since such compartmentalisation is impractical. • Selective regulation of millions of OTT applications would further be practically extremely difficult and would stifle the development of such services. • OTT services increase revenues of the TSPs. Find response here .	BSA THE SOFTWARE ALLIANCE <ul style="list-style-type: none"> • A broad definition of OTT services could affect a wide range of internet-enabled services, such as cloud computing which would be inconsistent with the considerations raised under the Consultation Paper and even beyond the jurisdiction of the TRAI. • Imposing regulations on OTT communication services could have greater negative consequences than intended. • OTT services depend on access to the internet, provided by TSPs and also drive demand for internet access and data. • The goal of the Government of India to enhance internet access might be impeded by policies that may raise costs, reduce competition or availability of services, and otherwise suppress demand for internet access. • Therefore, wider consultations must be held on this question. Find response here .	RAJIV KHATTAR <ul style="list-style-type: none"> • A TSP can also offer services similar to those offered by OTTs using its own app. • Theoretically speaking, the following services offered by OTT service providers and TSPs are similar: <ul style="list-style-type: none"> ➤ Voice Services ➤ Messaging services Find response here .
18.	INTERNET & MOBILE ASSOCIATION OF INDIA (IAMAI) <ul style="list-style-type: none"> • OTT services rely on physical infrastructure provided by TSPs. 	ALT DIGITAL MEDIA ENTERTAINMENT LTD <ul style="list-style-type: none"> • The “same service, same rules” paradigm is highly regressive. 	NATIONAL CENTER FOR HUMAN SETTLEMENT AND ENVIRONMENT, BHOPAL (NCHSE, BHOPAL)

	<ul style="list-style-type: none"> • OTT services transmit data over internet protocol networks whereas TSP services function in a circuit-switched public switch telephone network (“PSTN”) architecture. • OTT services deliver messages over IP networks as opposed to traditional SMS services, which utilize dedicated infrastructure. Therefore, since OTT services and TSP are different architecturally, they should be regulated differently. • TSPs have the exclusive rights to acquire spectrum, obtain numbering resources, interconnect with the PSTN, and set up network infrastructure, whereas OTT service providers do not. • TSPs can operate in both the network and application layers, whereas internet companies are restricted only to the application layer. <p>Find response here.</p>	<ul style="list-style-type: none"> • A definition of OTT should be technology agnostic. • The Body of European Regulators for Electronic Communications (“BEREC”) in its report has defined OTT service as <i>“content, a service or an application that is provided to the end user over the public internet”</i>. This definition focuses on the delivery of the service rather than its nature and thus has a greater outreach. • It even includes the possibility that content may arrive from a third party (OTT provider) without any intervention from the Internet Service Provider (“ISP”). • It envisages a situation where the ISP may also provide its own OTT services or may also choose to partner with OTT providers. • Adopting this definition might enable and foster a healthy regulatory environment in the country. Further, in adopting a broad definition, we also run a risk of overlapping services and service providers. <p>Find response here.</p>	<ul style="list-style-type: none"> • All services using internet access, services through a telecommunication network, operation e.g., digital information in term of text, sound, image, animation, music, video, movie, games should be treated under OTT. These can be in combination or part. <p>Find response here.</p>
19.	THE NATIONAL ASSOCIATION OF SOFTWARE AND SERVICE (NASSCOM) <ul style="list-style-type: none"> • The TSPs provide the ‘network layer’ and the OTT services operate in the ‘service layer’. The TRAI has in the past acknowledged this difference in its 	CENERVA, LONDON, UK <ul style="list-style-type: none"> • Certain features of OTT voice services are substitutable for TSP services. For example, a WhatsApp call is similar to a mobile call. However, this does not make them substitutable, for example because WhatsApp 	INDUSLAW <ul style="list-style-type: none"> • TSP has not been defined anywhere. ‘Telecommunication service’ has been defined under the Telecom Regulatory Authority of India Act, 1997. Therefore, any person providing telecommunication services would be considered as a TSP.

<p><i>“Internet Telephony Recommendations”.</i></p> <ul style="list-style-type: none"> • TSPs have access to numbering resources and spectrum, making them universally interoperable throughout telecommunication devices (whether smartphones, feature phones or even landlines). • TSPs operate globally, unlike OTT communication services which operate only in internet-connected parts of the world. • Ofcom, the telecom regulator of the United Kingdom also recognizes that there are no sufficiently close substitutes for legacy TSP communication services to justify an expansion of the definition of the relevant market (to include OTT services). • OTT communication services may be restricted to a community or device and cannot be connected with legacy devices such as landlines, fax machines, or feature phones and thus cannot be treated. • Switching from one TSP service provider to another is costlier and may be guided by considerations of coverage whereas shifting OTT service providers is a pure matter of consumer choice with no associated costs. <p>Find response here.</p>	<p>calling is only available between WhatsApp users.</p> <ul style="list-style-type: none"> • TRAI must gather and analyse further evidence on the question of substitutability. • Consumer research will help better understand the use of OTT services and the patterns of substitution between them. <p>Find response here.</p>	<ul style="list-style-type: none"> • On this basis, instant messaging, VoIP and voice calling services on internet-based applications may be considered similar to TSP communication services. VoIP may even be a perfect substitute. • ‘Communication services provided by OTTs’ need to be clearly defined since 'telecommunication services' under the TRAI Act, 1885 specifically exclude broadcasting services. • OTT communication services are distinct from OTT ‘application services’ which are based on the content posted on the platform (such as music, video, and text) and are available to the general public. Since these are not one-on-one services, such OTT services should not be considered similar to TSP services. • OTT communication services are similar to traditional TSP services with the exception that they are provided over the internet. <p>Find response here.</p>
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<p>20.</p>	<p>ITU-APT FOUNDATION OF INDIA (ITU-APT)</p> <ul style="list-style-type: none"> • The ITU-APT Foundation has relied on the jurisprudence in countries like the UK (through their telecom regulator, Ofcom) to conclude that have concluded that OTT and TSP services are not substitutable. • They operate in different layers – OTT service providers in the application layer and TSPs in the network layer. • OTT service providers rely on the infrastructure provided by TSPs to provide their services. • OTT services offer more functionality compared to TSP services, thereby making it difficult to distinguish between its primary and ancillary features. Conceiving “communication services” as a sub-category of OTT applications creates an impractical distinction. • While TSPs can provide their own OTT applications, OTT service providers cannot exercise the exclusive right to resources, such as spectrum, the right of way to set up infrastructure, access to numbering resources, etc. • OTT services also offer many unique features – such as sharing documents, video calling, geo-tagging images etc. 	<p>GTPL HATHWAY P LTD</p> <ul style="list-style-type: none"> • Each type of OTT service viz. (i) messaging and voice services (communication services); (ii) Application ecosystems (mainly non-real time), linked to social networks, e-commerce; and (iii) Video/audio content should have different regulatory parameters. • However, video/audio content should be treated at par with regulations applicable to IPTV, DTH, Cable and HITS. <p>Find response here.</p>	<p>PRASAR BHARTI</p> <ul style="list-style-type: none"> • OTT services provide video/audio content along with video and broadcast services including live, delayed, as well as on-demand delivery of radio and television services that are comparable with the services being provided by licenced Broadcasters. <p>Find response here.</p>
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	<ul style="list-style-type: none"> • They contribute more to the economy than basic telecommunication services and created a consumer surplus of Rs. 6.3 lakh crore in India in 2017. • The EU has acknowledged in the revised European Electronic Communications Code the fundamental differences between NB-ICS, and NI-ICS with the latter being subject to lighter touch regulation (e.g. transparency requirements). <p>Find response here.</p>		
21.	BROADBAND INDIA FORUM (BIF) <ul style="list-style-type: none"> • OTT applications that do not provide any-to-any connectivity (meaning connectivity across networks, across speeds, and across interfaces) are not the “same or similar” to TSP services. • The substitutability of OTT communications apps for traditional services is misleading since the majority of users do not have access to smart devices. • OTTs are not substitutes of TSPs; they depend on them. • Consumers have limited choices in their TSP and there are costs associated with switching whereas OTT services can easily and freely be switching between. • Consumers access multiple OTT services from one device thereby 	SONY PICTURES NETWORKS INDIA PVT LTD (SPN) <ul style="list-style-type: none"> • The Department of Telecommunications Committee Report on Net Neutrality, 2015 classifies the OTT services into OTT communication services (VoIP) and OTT application services (gaming, financial services, cloud services, social media etc.). Of this, the former compete with TSP services while the latter do not. • OTT players do not meet licensing and regulatory obligations while TSPs have to. • OTT services do not depend on TSPs but on the internet to provide their services. • OTT services are free of cost. Hence, the mode of operation, revenue generation and the nature of offerings of OTT communication services and TSPs are different. Thus same 	GSMA <ul style="list-style-type: none"> • OTT communication services which are perceived by the customers as functional substitutes to TSP communication services may be considered as the same or similar to service(s) being provided by the TSPs such as voice/video telephony and messaging services. • OTT messaging applications such as WhatsApp Facetime or Viber, which use a mobile internet data connection may also be considered similar to TSP messaging services. • The reasons to choose one or another depend on many parameters viz. coverage, price, user-friendliness, and additional features like creating and managing distribution lists etc. • The most relevant OTT services that are similar to the services provided by TSPs are

	<p>distinguishing them from legacy TSP services.</p> <ul style="list-style-type: none"> • TSPs have several exclusive rights that OTT players do not enjoy such as the right to acquire spectrum, to obtain numbering resources etc. • TSPs can and often do provide their own OTT applications whereas OTT service providers cannot deploy a TSP Network. • Conceiving “communication services” as a sub-category of OTT applications creates an impractical distinction. For example, gaming, document editing, photo sharing, social media and many other fundamentally dissimilar functionalities allow users to communicate with each other but cannot be clubbed with or regulated as telecommunications services. <p>Find response here.</p>	<p>yardsticks should not be applied to TSP and OTT services.</p> <ul style="list-style-type: none"> • OTT services add tremendous social and economic value through benefits such as ease of communication, access to information, entertainment and business opportunities, improved transparency and e-governance solutions. • TSPs themselves have benefitted from increased data consumption and are also allowed to offer their own OTT services. <p>Find response here.</p>	<p>those which the EU calls ECS, as defined. These should be regulated by the TRAI, falling within the telecommunication sector. These encompass internet access services and interpersonal communications services.</p> <ul style="list-style-type: none"> • Interpersonal communications services are further subdivided between “number-dependent” and “number-independent” services. The former includes standard telephony services, while the latter encompasses OTT services like Skype, WhatsApp, etc. <p>Find response here.</p>
<p>22.</p>	<p>SHARECHAT Distinctions covered under 3 broad heads:</p> <ul style="list-style-type: none"> • Monopoly Power • Unique services • Nature of communications. <p>[Refer comparative table here.]</p> <p>Find response here.</p>	<p>ANKIT YADAV</p> <ul style="list-style-type: none"> • Not addressed. <p>Find response here.</p>	<p>INTERNET SERVICE PROVIDERS ASSOCIATION OF INDIA (ISPAI)</p> <ul style="list-style-type: none"> • A numberof OTT services are similar to TSP services but they have no regulation/taxation/compliance requirements on them. For example: <ul style="list-style-type: none"> ➤ VoIP/Video Calling – Such services are free on applications like Google Duo, WhatsApp, WeChat, IMO, Facebook, Skype, Facebookmessenger and other

			<p>messenger services but these similar services are taxed to TSPs/ISPs.</p> <ul style="list-style-type: none"> ➤ Messaging Services – Music Applications like Saavan&Wynk; Gaming platforms are common. • Any value added service provided is charged and taxed by the government whereas any OTT content provider gets them without any related regulatory compliances. • Many OTT providers are directly interconnecting with ISPs and other non-ISP entities and providing them with internet-based content, thereby playing the role of a backbone ISP albeit without the necessary licenses of ISP, international long distance (“ILD”)&gateway approval. • OTT service providers are also connecting, at some of the informal internet exchanges, with Indian ISPs, other foreign telecom operators and other non-ISP entities. The existing regulatory framework does not allow for such direct interconnections since they bypass the licensing and taxation regimes of the country and pose a threat to national security as well. Such interconnection/internet peering services are comparable to internet access service provided by ISP licensed service providers in India. • This may result in traffic going unmonitored and pilferage of revenue to the exchequer since in an ordinary situation this peering would have been sold as an Internet-leased
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			<p>Line service/Internet Access Service by one of the licensed ISP operators with the international gateway.</p> <ul style="list-style-type: none"> • A few OTT players have started announcing network connectivity services in selected markets. These services are similar to those provided by TSPs in India for connecting a customer's location to OTT's data center locations. Such services shall be required to be reviewed under existing regulatory and other compliances requirements, currently applicable to TSPs. <p>Find response here.</p>
23.	<p>U.S. INDIA STRATEGIC PARTNERSHIP FORUM (USISPF)</p> <ul style="list-style-type: none"> • TSPs exercise greater control over their end subscribers while OTT services are offered purely on “opt-in” basis. • TSP's services are chargeable whereas OTT services are usually free. • OTT services rely on TSPs for their infrastructure. • Telecom networks and the OTT applications operate in different layers, network and application accordingly. • TSPs have several exclusive rights that OTT players do not enjoy such as the right to acquire spectrum, right to obtain numbering resources etc. 	<p>CHIRAG AGGARWAL</p> <ul style="list-style-type: none"> • OTT services should not be regulated. <p>Find response here.</p>	<p>EXOTEL TECHCOM PVT. LTD.</p> <ul style="list-style-type: none"> • ‘Functional substitutability’ should be the test of similarity of services provided by TSPs and OTT Platforms. • Some such services are: <ul style="list-style-type: none"> ➤ Voice calling and conference services and internet telephony, through Skype, Facetime, Google Hangouts, Viber and WhatsApp which are functional substitutes to legacy voice calling services provided by licensed TSPs like Reliance, Airtel, Vodafone. ➤ Some OTT services provide messaging services through the internet such as WhatsApp and Facebook Messenger which may substitute legacy SMS and MMS services provided by licensed

	<ul style="list-style-type: none"> • OTT service providers provide rich messaging features that are not available through SMS. • OTT service providers account for consumer surplus to the tune of approximately Rs 6.3 lakh crore. • OTT services that may be used for specific purposes, including for “business interaction” while TSP services do not. • It is easier for consumers to switch between OTT services and many consumers access multiple OTT services from one device making legacy telecommunications regulations inapplicable. • The EU acknowledges the fundamental differences between NB-ICS such as OTT services and NB-ICS such as TSP services. <p>Find response here.</p>		<p>TSPs like Reliance, Airtel, and Vodafone.</p> <ul style="list-style-type: none"> ➤ OTT services may also offer broadcast services over the internet provided by TSPs and may functionally substitute licensed radio channels such as Akashwani, Red FM, and Radio Mirchi etc. ➤ OTT audio-video content services such as Netflix, Amazon Prime, Spotify, Gaana.com etc. are ‘functional substitutes’ of cable channels like Sony, Star and Zee as well as direct-to-home services such as TataSky, Airtel DTH, who operate with requisite statutory registrations/licenses/approvals. <p>Find response here.</p>
<p>24.</p>	<p>DISCOVERY COMMUNICATIONS INDIA (DCIN)</p> <ul style="list-style-type: none"> • OTT services cannot be offered without the physical infrastructure that TSPs provide. • The two main OTT services that can be considered similar to TSPs services, namely voice-calling (through players like Google Hangout, WhatsApp, 	<p>RAJAT KUMAR AGARWAL</p> <ul style="list-style-type: none"> • TRAI has been established for consumer welfare and should undertake that function properly. <p>Find response here.</p>	<p>HOME DIGITAL NETWORKS</p> <ul style="list-style-type: none"> • All “<i>OTT communication services (VoIP) providing real-time person to person, M2M telecommunication services using the network infrastructure of the TSP, and application services such as multimedia, content on demand services (gaming), messaging, trade and commerce services (e-commerce, radio taxi, financial services),</i>

	<p>Facebook Messenger, Skype, Telegram, Jorhat Messenger and Hike Messenger) and messaging services.</p> <ul style="list-style-type: none"> • At the same time, there are differences between the same services provided by OTT and TSP services. In terms of calling, OTT services allow content sharing and use over multiple devices. In terms of messaging, TSP messaging services have character limits and MMS functions are exorbitant. OTT messaging services also allow the exchange of multimedia pictures, videos and audio, location sharing etc. and therefore offer much more value and convenience to their consumers. • Businesses prefer OTT services owing to the possibility of collaborative work together with group screen sharing and group video chatting. • OTT services can easily and freely be switched while TSP services cannot. • Multiple OTT services can be accessed from one device whereas this is not the case with TSP services thereby undermining the rationale for regulatory parity. <p>Find response here.</p>		<p><i>cloud services (data hosting and data management platforms or applications), social media etc., using the network infrastructure of the TSP</i>” are similar to TSP services</p> <ul style="list-style-type: none"> • OTT television (Internet Protocol Television) (IPTV) services should also fall under “<i>distributor of television channels</i>” or “<i>distributor</i>” as defined in the TRAI (Eighth) Tariff Order of 2017 and its associated regulations. <p>Find response here.</p>
25.	TIMES NETWORK	P S NATARAJAN <ul style="list-style-type: none"> • No direct answer or opinion. 	MULTICAST LIMITED <ul style="list-style-type: none"> • All “<i>OTT communication services (VoIP) providing real-time person to person, M2M</i>”

<ul style="list-style-type: none"> • TSP services reside in the network layer, while OTT services run in the application layer. • They offer different functionalities on different devices and compete for different groups of customers. • Functional similarity insufficient, technical and architectural differences important. • OTT services cannot be offered without access to physical infrastructures that only TSPs deploy. • TSPs also have the exclusive rights to acquire spectrum, obtain numbering resources, interconnect with the PSTN, and set up the network infrastructure. • Most TSPs already provide online services in addition to network access. • OTT services provide expansive experiences to customers that go beyond conventional messaging and communication options such as WhatsApp, Hike Messenger, and Google Hangouts providing 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. • OTTs drive TSP data growth and revenue, which has led to massive 	<ul style="list-style-type: none"> • Suggests that it is necessary to work on the existing definition of OTT services to be able to tackle the issue from all angles. 	<p><i>telecommunication services using the network infrastructure of the TSP, and application services such as multimedia, content on demand services (gaming), messaging, trade and commerce services (e-commerce, radio taxi, financial services), cloud services (data hosting and data management platforms or applications), social media etc., using the network infrastructure of the TSP” are similar to TSP services.</i></p> <ul style="list-style-type: none"> • OTT television (Internet Protocol Television) (IPTV) services should also fall under “<i>distributor of television channels</i>” or “<i>distributor</i>” as defined in the TRAI (Eighth) Tariff Order of 2017 and its associated regulations. <p>Find response here.</p>
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	<p>investments in 4G networks (and will also justify future 5G investments).</p> <ul style="list-style-type: none"> • 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. <p>Find response here.</p>		
<p>26.</p>	<p>MOZILLA CORPORATION</p> <ul style="list-style-type: none"> • There is no compelling case for uniform regulation of OTT and TSP services. Such an exercise may create legal uncertainty which may further chill innovation, undermine security best practices, and eventually, hurt the promise of Digital India. • In May 2015, the Indian Department of Telecommunications OTT and TSP services should not be subject to similar regulatory frameworks. The TRAI should reach the same conclusion. • The analysis of the impact of OTT services on TSP services is lacking. Further, revenue generation for TSPs by OTT services is ignored. And interoperability and privacy requirements should be dealt with 	<p>AJAY PERI</p> <ul style="list-style-type: none"> • OTT services should not be regulated or licensed. • These regulations when implemented will be against general consumer interest and will only serve to increase the profits of the telecom corporations. <p>Find response here.</p>	<p>PAYTM</p> <ul style="list-style-type: none"> • Following services by the OTT providers may be regarded as the same or similar to services provided by TSPs – <ul style="list-style-type: none"> ➤ Personal Messaging – Messages among individuals ➤ Messages from Businesses – Messages from businesses to Individuals ➤ Calling (video and voice). <p>Find response here.</p>

	<p>holistically rather than with a narrow focus on OTT providers.</p> <ul style="list-style-type: none"> • The “same or similar service(s)” standard mooted by the TRAI is flawed since TSPs are expanding into wider service offerings such as entertainment services or news services which would then expand the scope of any policy to include OTTs that provide similar services as well. • The TRAI recognized that TSPs and OTT service providers deliver calling and messaging services using different technical mechanisms and infrastructure. • The business models of OTT and TSP services are different as well. • Regulatory parity may also imply licensing requirements for OTT services which Mozilla strongly opposes. • The ECC distinguishes between NB-ICS and NI-ICS and does not recommend uniform regulation for them. • On security requirements, the ECC decided against regulatory parity since OTT service providers do not exercise actual control over the transmission of signals over networks as traditional TSPs do. 		
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	<ul style="list-style-type: none"> • The EU did not introduce additional requirements for number-independent OTT service providers. • Even emergency warnings for OTT service providers have been postponed till 2020 on account of technical burdens. • TRAI should look into such international precedent that has been concluded after extensive consultations. <p>Find response here.</p>		
27.	<p>ZEE ENTERTAINMENT ENTERPRISES LTD.</p> <ul style="list-style-type: none"> • OTT service providers and TSPs rely on different architectural frameworks. • TSPs can operate in both network and application layers whereas OTT service providers can function only in the latter. <p>Find response here.</p>	<p>PRIYANK CHANDRA</p> <ul style="list-style-type: none"> • The suggestive definition of OTTs in the Consultation Paper may not be appropriate, especially in light of some examples where TSPs would never have ventured, like Taxi, Food, etc. • Players falling within the definition of OTT services and proving to be a direct substitute to TSP services are voice, telephony, messaging services and computer to computer communication technology. Facebook is one such valid example which provides chat services, something monopolised by TSPs in early 2000 in the Indian market. • An easier method for identifying such services is to regard OTT services using TSP infrastructure as being similar to TSP services while other OTT services or mobile apps, providing supplementary services using 	<p>IIMA – IDEA TELECOM CENTRE OF EXCELLENCE (IITCOE)</p> <ul style="list-style-type: none"> • A detailed comparative table of the OTT services which can and cannot be said to be similar to TSP services is given (reproduced at page 3 of the stakeholder's response). • 'Communication' services can be said to be similar or same to TSP services whereas application and video/audio services are different from traditional TSP services. • The OTT services that are similar to TSP services are majorly the 'communication' services, since they are directly competing with the primary business of TSPs. Communication services have highly impacted the revenue of TSPs. Cellulars Operators Association of India have also reported that TSPs loose around 15% of their revenue to OTT service providers.

		<p>mobile data for non-voice and P2P communication should be regarded as different from TSP services.</p> <p>Find response here.</p>	<p>Find response here.</p>
<p>28.</p>	<p>U.S. INDIA BUSINESS COUNCIL</p> <ul style="list-style-type: none"> • TSP and OTT services run in different layers. • They offer different functionalities on different devices and compete for different groups of customers. • OTT services cannot be offered without access to physical infrastructures that only TSPs deploy. • TSPs also have the exclusive rights to acquire spectrum etc. which are not available to OTT services. • OTT services provide rich messaging features which are not offered by TSPs. • OTT services drive TSP data growth and revenue. <p>Find response here.</p>		
<p>29.</p>	<p>TIMES INTERNET LIMITED</p> <ul style="list-style-type: none"> • OTT service providers and TSPs operate in separate markets. • TSPs offer their services through physical infrastructure by using radiofrequency spectrum. Whereas OTT service providers offer their services over the internet. 		

	<ul style="list-style-type: none"> • OTT service providers enjoy no exclusive privilege over public resources and operate in a highly competitive marketplace with comparatively far fewer entry barriers. • OTT services rely on infrastructure provided by TSPs. • OTT services directly drive the revenues of TSPs. • Prima facie similarities in services do not imply they are comparable or substitutable from a consumers' perspective. • OTT services offering communication functions exist as a supplement to the traditional TSP services. • The services of OTT service providers and TSPs must be evaluated separately. <p>Find response here.</p>		
30.	MEDIANAMA <ul style="list-style-type: none"> • It is difficult to distinguish between communication and non-communication OTT service providers. For example, Instagram provides both communication and non-communication facilities. • Loss of revenue to a telecom operator does not sufficiently indicate substitutability since there is no actual movement. 		

	<ul style="list-style-type: none"> • OTT service providers and TSPs rely on TSP infrastructure to provide their services. • Telecom operators have certain exclusive rights (right of way, spectrum etc.) which OTT service providers do not. • There is a limitation in terms of how many players can actually provide telecom services, as opposed to infinite competition on the internet. • OTT service providers and TSPs function in different layers of the TCP/IP model. • Several TSP services also allegedly substituted traditional services like the traditional radio, but are not licensed as traditional radio. • Wherein OTT services can completely replace TSP services such as with 'Interactive VoIP(i-VoIP)' light licensing is appropriate. <p>Find response here.</p>		
31.	STAR INDIA PVT. LTD. <ul style="list-style-type: none"> • There is no discernible legal or technical rationale for holding that OTT and TSP services are substitutable. <p>Find response here.</p>		
32.	MICROSOFT		

	<ul style="list-style-type: none"> • ‘OTT services’ is a broad term that captures potentially every type of service on the internet. TRAI should refrain from using this term and clarify the particular services it seeks information about. • The ECC does not use the term “<i>over the top</i>” but refers to three types of relevant “electronic communications services” ECS – (i) internet access service; (ii) interpersonal communications services; and (iii) services that are engaged wholly or mainly in the conveyance of signals. OTT services would fall in the second category here. • Consumers view OTT and TSP services very differently. • OTT services are not substitutes for or functionally equivalent to traditional telecommunications services. • OTT services provide greater functionality such as video chats, document and file sharing etc. <p>Find response here.</p>		
33.	SANDEEP PILLAI <ul style="list-style-type: none"> • OTT and TSP services are essentially different due to lack of interoperability with TSPs. <p>Find response here.</p>		

34.	DHANANJAY SAHEBA <ul style="list-style-type: none"> • OTT and TSP services are not similar. There is ambiguity in the scope of services provided by TSPs which creates further confusion. <p>Find response here.</p>		
35.	CENTRE FOR COMMUNICATION GOVERNANCE (CCG) <ul style="list-style-type: none"> • The Internet is a universal platform made possible by the usage of spectrum and therefore should only be used for further general public good, and must exclude any commercial considerations. • There is no basis for implementing a licensing regime for OTT services. • Online content providers do not fall within the scope of the Telegraph Act and therefore cannot be regulated as content transmitted over a telegraph. • On the other hand, value-added services extended by TSPs are provided by Indian telegraphs and can, therefore, be regulated. <p>Find response here.</p>		

ABBREVIATIONS OF NAMES OF STAKEHOLDERS

Sr. No.	Names of Stakeholders	Abbreviation
1.	INTERNET SOCIETY OF INDIA, CHENNAI	ISOC, CHENNAI
2.	THE APP ASSOCIATION	ACT
3.	VOICE ON THE NET COALITION	VON COALITION
4.	CENTRE FOR DEMOCRACY & TECHNOLOGY	CDT
5.	CENTRE FOR COMMUNICATION GOVERNANCE	CCG
6.	INTERNET SOCIETY INDIA, DELHI CHAPTER	ISOC, DELHI
7.	MOTION PICTURE ASSOCIATION	MPA
8.	INDIA INTERNET FOUNDATION	IIFON
9.	MAHANAGAR TELEPHONE NAGAR LTD.	MTNL
10.	COMPUTER & COMMUNICATION INDUSTRY ASSOCIATION	CCIA
11.	SOFTWARE FREEDOM LAW CENTRE	SFLC
12.	RELIANCE COMMUNICATION LIMITED	RCL
13.	ASIA INTERNET COALITION	AIC
14.	CONFEDERATION OF INDIAN INDUSTRY	CII
15.	TATA COMMUNICATION LIMITED	TCL
16.	BHARAT SANCHAR NIGAM LIMITED	BSNL
17.	RELIANCE JIO INFOCOMM LIMITED	RJIL
18.	IIMA-IDEA TELECOM CENTRE OF EXCELLENCE	IITCOE
19.	INFORMATION TECHNOLOGY INDUSTRY COUNCIL	ITI
20.	CONSUMER PROTECTION ASSOCIATION, HIMMATNAGAR	CPA, HIMMATNAGAR
21.	ASSOCIATION OF COMPETITIVE TELE OPERATORS	ACTO
22.	CELLULAR OPERATORS ASSOCIATION OF INDIA	CAOI
23.	FEDERATION OF INDIAN CHAMBER OF COMMERCE & INDUSTRY	FICCI
24.	CABLE OPERATORS WELFARE FEDERATION INDIA	COWF, INDIA
25.	THE ASSOCIATED CHAMBERS OF COMMERCE AND INDUSTRY OF INDIA	ASSOCHAM
26.	INTERNET FREEDOM FOUNDATION	IFF
27.		CCAOI
28.	CENTRE FOR INTERNET AND SOCIETY	CIS
29.	AMERICAN CHAMBER OF COMMERCE IN INDIA	AMCHAM

30.	JYOTI SAGAR ASSOCIATES	JSA
31.	THE NATIONAL ASSOCIATION OF SOFTWARE AND SERVICE	NASSCOM
32.	NATIONAL CENTRE FOR HUMAN SETTLEMENT AND ENVIRONMENT, BHOPAL	NCHSE, BHOPAL
33.	ITU-APT FOUNDATION OF INDIA	ITU-APT
34.	INTERNET SERVICE PROVIDERS ASSOCIATION OF INDIA	ISPAI
35.	BROADBAND INDIA FORUM	BIF
36.	US INDIA STRATEGY PARTNERSHIP FORUM	USISPF
37.	DISCOVERY COMMUNICATIONS INDIA	DCIN
38.	SONY PICTURES NETWORKS INDIA PRIVATE LIMITED	SPN