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Regulatory Mechanism for Over-The-Top (OTT) Communication Services and Selective Banning of OTT Services

In response to comments sought by the Telecom Regulatory
Authority of India

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This document is the authors' formal submission to the Telecom Regulatory Authority of India (TRAI). TRAI floated a Consultation Paper on Regulatory Mechanism for Over-The-Top (OTT) Communication Services, and Selective Banning of OTT Services in July 2023 to elicit views from stakeholders and the general public.

Executive Summary

A. Issues Related to Regulatory Mechanism for OTT Communication Services

Over-The-Top (OTT) communication services differ significantly from traditional telecom services and treating them similarly could harm consumer welfare. These services operate globally, and subjecting them to diverse regulations across different regions could hinder their growth and adaptability.

Far from substituting traditional services leading to a loss of revenue, OTT communication services create additional demand for data which generates revenue for telecom service providers. Furthermore, intense market competition among platforms like WhatsApp, Skype, and Signal leads to continual innovation and improved services. Imposing stringent licensing or regulations on OTT communication services poses challenges in complying with diverse regulations globally, inhibiting innovation and consolidation among players, and reducing consumer welfare.

OTT communication platforms are agile and can quickly adapt to market needs, and over-regulation might hinder their ability to serve consumers effectively.

B. Issues Related to Selective Banning of OTT Services

Selective banning of OTT services in certain regions poses both technical and practical challenges. Users can easily sidestep these bans through VPNs and proxies, with some inadvertently opting for malicious services that jeopardise their safety. Banning a popular OTT service can lead to the rise of new platforms, potentially lacking robust content moderation, which can amplify the spread of harmful content. Over time, threatened bans could push users towards P2P or decentralised platforms, which are harder to regulate.

OTT services, beyond entertainment, are vital for communication, especially during emergencies. By banning them, we risk disrupting crucial information flow during crises. Although curbing fake news or malicious communication is essential, bans might push users to less regulated and potentially riskier alternatives. Moreover, such bans could inflict economic hardships, especially on small businesses reliant on these platforms. Constant bans might deter users from embracing OTT platforms, leading to digital exclusion and missed growth opportunities.

In essence, while the intention to deter the communications of malicious actors is valid, selective bans might produce more challenges than solutions.

A. Issues Related to Regulatory Mechanism for OTT Communication Services

Q1: What should be the definition of over-the-top (OTT) services? Kindly provide a detailed response with justification.

Over-the-top (OTT) services can be defined as content, a service or an application that is provided to the end user over the public Internet.

This is the definition adopted by the Body of European Regulators for Electronic Communications (BEREC) in its “Report on OTT Services”² and the Commonwealth Telecommunication Organization (CTO) in its report on “Over The Top (OTT) Applications & Internet Value Chain”³.

The definition is broad enough to encompass the wide range of offerings over the Internet, including communication, media, e-commerce, social media, and web content. It also captures the direct-to-consumer nature of OTT. Unlike traditional services that rely on intermediaries or specific network infrastructure (such as cable TV operators), OTT services are usually accessed directly by users on a device they prefer. Finally, the definition highlights the important feature that OTT services use the public Internet for distribution rather than dedicated or proprietary channels.

Q2: What could be the reasonable classification of OTT services based on an intelligible differentia? Please provide a list of the categories of OTT services based on such classification. Kindly provide a detailed response with justification.

Q2, Q3 and Q4 are answered together below.

Q3: What should be the definition of OTT communication services? Please provide a list of features that may comprehensively characterise OTT communication services. Kindly provide a detailed response with justification.

Q2, Q3 and Q4 are answered together below.

²BEREC. 2016. “| BEREC.” www.berec.europa.eu. June 29, 2016.
<https://www.berec.europa.eu/en/document-categories/berec/reports/berec-report-on-ott-services>.

³ Stork, Christoph, H Sama Nwana, Steve Esselaar, and Martin Koyabe. n.d. “Over the Top (OTT) Applications & the Internet Value Chain Recommendations to Regulators, Policy Makers and Tax Authorities.” <https://cto.int/wp-content/uploads/2020/05/CTO-OTT-REPORT-2020.pdf>.

Q4: What could be the reasonable classification of OTT communication services based on an intelligible differentia? Please provide a list of the categories of OTT communication services based on such classification. Kindly provide a detailed response with justification.

Baldry et al., in their paper titled “The rise of OTT Players - what is the appropriate regulatory response?”⁴ classify the Internet's myriad services (referred to in this document as OTT services) into OTT communication, OTT content, e-commerce, internet services, social media, and web content.

While this classification seems comprehensive, the lines often blur between the different types of services. The nature of information goods, network effects, and economies of scale mean that platforms often vertically integrate complementary products and services into a single offering.

Information goods include communication platforms, media platforms, e-commerce platforms, social media, and online services. Unlike traditional goods, they come with high initial costs (fixed or sunk costs) and negligible marginal costs i.e., the cost of adding new users becomes quite low or even negligible after the initial setup.

Network effects and economies of scale heavily influence the value of these platforms. As more users join the platform, its value increases significantly for all users, and the operational costs per user decrease. Platforms often bundle complementary services in one package to capitalise on these effects.

OTT services can also be categorised as personal or enterprise solutions based on their target audience. However, in practice, there can be overlaps in this classification.

Distinguishing between communication platforms and social media platforms can also be complex. For example, WhatsApp and Telegram primarily function as communication platforms, but they also allow users to form communities and share updates like a social media platform. Additionally, they provide opportunities for businesses to offer services and interact with customers.

Therefore, while classifying OTT services or OTT communication may seem straightforward in theory, in practice, it can be challenging due to the multi-modal nature of platforms that often bundle multiple offerings together.

⁴ Baldry, Shirley, Dr. Markus Steingröver, and Markus A. Hessler . n.d. “The Rise of OTT Players - What Is the Appropriate Regulatory Response.” <https://www.afraiti.org/>. Deutsche Telekom Group. Accessed August 2, 2023.

Q5. Please provide your views on the following aspects of OTT communication services vis-à-vis licensed telecommunication services in India: (a) regulatory aspects; (b) economic aspects;(c) security aspects; (d) privacy aspects; (e) safety aspects; (f) quality of service aspects; (g) consumer grievance redressal aspects; and (h) any other aspects (please specify). Kindly provide a detailed response with justification.

OTT communication services are quite distinct from licensed telecommunications services. Treating them on par will have a negative impact on consumer welfare. Some of the implications are discussed below:

Regulatory Aspects:

- Subjecting OTT communication services to similar regulations as traditional telecom services across different geographies could severely hinder their growth and service delivery, severely impacting consumer welfare.

OTT communication services operate across borders. If different geographies were to implement myriad regulations, it could stifle their flexibility and adaptability, crucial traits that have driven their rapid global adoption.

Economic aspects and privacy aspects:

- Demand Creation and Not Substitution: OTT communication services do not simply replace the demand for traditional telecommunication services. Instead, they often coexist and create additional demand for telecom networks, as these services run over the internet, which telecom providers facilitate.
- Intense Market Competition Among OTT Communication Services: platforms like WhatsApp, Telegram, Skype, iMessage, FaceTime, and Signal operate in a highly competitive environment, and many are free for users.

Market forces will determine winners in a dynamic and fast-evolving space such as digital communication. This ensures continual innovation and service improvements that benefit the end users.

- Unique Features of OTT Communication Services: Features like end-to-end encryption, group calling, affordable international calling and messaging, and video calls are not typically offered by traditional telecommunication services.

- Network Effects and Scalability: OTT communication services thrive on network effects where the value of the service increases as more people join. While traditional telecom services have attempted to venture into VOIP and similar offerings, they've struggled to match the scale of OTTs due to these network effects and the lock-in phenomenon.
- Alignment with National Digital Communication Policy (NDCP) 2018: OTT communication services resonate with the objectives of the NDCP 2018, emphasising digital empowerment and improved well-being of the people of India.

The missions outlined in the NDCP 2018 are to Connect, Propel and Secure India. By their very nature, OTT communication services are designed to connect users irrespective of geographical boundaries, have pushed the envelope in terms of technological advancement in communication, and prioritise user security and data privacy, thus advancing the objectives of the NDCP.

- The availability of OTT platforms has allowed for innovative responses from market participants. For example, the use of WhatsApp as a simple ordering mechanism by local Kirana stores as a way to compete against the might of large online grocers. Thus the OTT platform serves as a lever that drives competition and results in improved welfare for both end consumers and smaller market players.

Q6. Whether there is a need to bring OTT communication services under any licensing/regulatory framework to promote a competitive landscape for the benefit of consumers and service innovation? Kindly provide a detailed response with justification.

No, OTT communication services should not be brought under a stringent licensing or regulatory framework.

One of the primary reasons against imposing a regulatory framework on OTT communication services is the challenge of complying with diverse regulations across different geographies. OTT platforms often operate globally, and navigating and adhering to distinct regulations in each country or region can greatly inhibit their ability to innovate and evolve.

Due to economies of scale and high entry barriers, the telecommunications market is oligopolistic. Bringing OTT communication services under similar licensing/regulatory requirements could lead to consolidation among the OTT communication players, which will likely lead to reduced consumer welfare.

Regulatory compliance often comes with associated costs, which could either lead to monetisation strategies that aren't in the best interest of consumers or a reduction in the pace of feature introductions and improvements. Moreover, given their digital nature, OTT communication platforms have the agility and capability to adapt to market needs quickly. Over-regulation could strip them of this agility, ultimately resulting in a disservice to the consumer.

Drawing an analogy between email and traditional postal services clarifies this issue. Email, like OTT communication services, operates over the Internet, offers instant delivery, and is free for most basic services. Postal services, on the other hand, have physical infrastructural requirements, tangible delivery mechanisms, and associated costs. Given their inherent differences, treating email services with the same regulatory rigour as postal services would be inappropriate. Similarly, equating OTT communication platforms with traditional telecom services and imposing analogous regulations could misalign regulatory objectives and the unique characteristics of OTT platforms.

The uniqueness of OTT communication services and their distinctness from traditional communication mediums necessitate a different and more flexible approach to their governance.

Q7. In case it is decided to bring OTT communication services under a licensing/ regulatory framework, what licensing/ regulatory framework(s) would be appropriate for the various classes of OTT communication services as envisaged in the question number 4 above? Specifically, what should be the provisions in the licensing/ regulatory framework(s) for OTT Communication services in respect of the following aspects: (a) lawful interception; (b) privacy and security; (c) emergency services; (d) unsolicited commercial communication; (e) customer verification; (f) quality of service; (g) consumer grievance redressal; (h) eligibility conditions; (i) financial conditions (such as application processing fee, entry fee, license fee, bank guarantees etc.); and (j) any other aspects (please specify). Kindly provide a detailed response in respect of each class of OTT communication services with justification.

No comments.

Q8. Whether there is a need for a collaborative framework between OTT communication service providers and the licensed telecommunication service providers? If yes, what should be the provisions of such a collaborative framework? Kindly provide a detailed response with justification.

No comments.

Q9. What could be the potential challenges arising out of the collaborative framework between OTT communication service providers and the licensed telecommunication service providers? How will it impact the aspects of net neutrality, consumer access and consumer choice etc.? What measures can be taken to address such challenges? Kindly provide a detailed response with justification.

No comments.

B. Issues Related to Selective Banning of OTT Services

Q10. What are the technical challenges in selective banning of specific OTT services and websites in specific regions of the country for a specific period? Please elaborate your response and suggest technical solutions to mitigate the challenges.

Selective banning of specific OTT (Over The Top) services and websites in specific regions for a specific period presents several technical and practical challenges, such as:

- Users can bypass region-specific bans using VPNs and proxies. VPNs encrypt the traffic, making it difficult for ISPs (Internet Service Providers) to identify and block specific content.
- An unintended consequence of bans is also that unaware users might opt for malicious VPNs or proxies that might compromise their safety.
- In the medium term, alternatives can quickly emerge if a popular OTT service gets banned. These new platforms might not have mature content moderation systems, potentially leading to the spread of misinformation, hate speech, or other harmful content.
- In the long term, in sensitive areas, the threats of bans to popular OTT communication services will lead to the adoption of alternative platforms - either P2P networks or federated and decentralised communication platforms which would be harder to block.

Q11. Whether there is a need to put in place a regulatory framework for selective banning of OTT services under the Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rules, 2017 or any other law, in force? Please provide a detailed response with justification.

While the intention of avoiding a complete shutdown of the internet is commendable, a ban on select OTT services will not achieve the desired outcomes of deterring anti-social or terrorist elements. In addition, it will have a lot of unintended consequences. Some of the reasons selective bans on OTT services should be avoided are listed below:

- OTT communication services serve various other legitimate purposes that will also be disrupted due to such a ban. During public emergencies, people rely on OTT platforms for communicating critical information. They coordinate with others, inform friends and family of their safety, and even use these platforms to refute false information. Cutting off such services can hinder effective communication during crises.
- The rapid dissemination of information is an intrinsic feature of the information age. While it can occasionally lead to the swift spread of misinformation, it also has many positive effects as well as discussed above.
- The objective of stopping the spread of fake news or disrupting the communication channels of malicious actors is a legitimate concern. However, many alternative communication services exist that can be adopted if one OTT service is banned, possibly those that might be less regulated, less secure, or even more prone to spreading fake news.
- Bans on OTT platforms will also impose economic losses, especially on small businesses and traders⁵ who use such platforms to conduct their businesses. Frequent bans will lead to hesitation among people to adopt OTT platforms which will lead to digital exclusion and the associated growth opportunities.
- In the long term, recurring bans in sensitive areas, could lead to the adoption of alternative communication platforms which might isolate them from the rest of the population.

⁵ Bagchi, Sohini , and Shouvik Das. 2022. "WhatsApp's One Hour Outage Takes Toll on Small Businesses." Mint. October 25, 2022. <https://www.livemint.com/news/india/whatsapp-s-one-hour-outage-takes-toll-on-small-businesses-11666710531867.html>.

Q12. In case it is decided to put in place a regulatory framework for selective banning of OTT services in the country, (a) Which class(es) of OTT services should be covered under selective banning of OTT services? Please provide a detailed response with justification and illustrations. (b) What should be the provisions and mechanism for such a regulatory framework? Kindly provide a detailed response with justification

No comments.

Q13. Whether there is a need to selectively ban specific websites apart from OTT services to meet the purposes? If yes, which class(es) of websites should be included for this purpose? Kindly provide a detailed response with justification.

No comments.

Q14. Are there any other relevant issues or suggestions related to regulatory mechanism for OTT communication services, and selective banning of OTT services? Please provide a detailed explanation and justification for any such concerns or suggestions.

No comments.