

From: "raunak maheshwari" <raunak.maheshwari@x3me.net>

To: "Akhilesh Kumar Trivedi" <advmn@traigov.in>

Cc: aim@x3me.net

Sent: Tuesday, September 5, 2023 12:48:09 PM

Subject: Extreme Infocom Pvt Ltd's submission on Consultation Paper on Regulatory Mechanism for Over-The-Top (OTT) Communication Services, and Selective Banning of OTT Services

Dear Sir,

I writing on behalf of Extreme Infocom Pvt Ltd. We are a service provider with UL-ISP (A) and UL-NLD authorisations. We had submitted our response on Consultation Paper on Regulatory Mechanism for Over-The-Top (OTT) Communication Services, and Selective Banning of OTT Services however we don't see it published in comments section.

I would request you to consider our views on the same.

I would like to take this opportunity to thank the TRAI for initiating the discussion on this important issue and look forward to engaging on this further.

Thanks and regards,

Raunak Maheshwari

Executive Director

Extreme Infocom Pvt Ltd

+919261199444 (Mobile / WhatsApp / Telegram / Viber)

LinkedIn: www.linkedin.com/in/raunakam

To,
Shri Akhilesh Kumar Trivedi,
Advisor (Networks, Spectrum and Licensing),
Telecom Regulatory Authority of India

Sub: Inputs on the Consultation Paper on Regulatory Mechanism for Over-The-Top (OTT) Communication Services, and Selective Banning of OTT Services

Dear Sir,

Extreme Infocom Pvt. Ltd. is holder of NLD and ISP-A Universal Licences. The company is operating Extreme IXP (www.extreme-ix.org) - India's leading Internet Exchange Provider. Extreme IXP is serving peak traffic of 2 Tbps (www.extreme-ix.org/technical/statistics/) in 35+ Points of Presence across 6 cities - Mumbai, Delhi NCR, Chennai, Bengaluru, Hyderabad and Kolkata.

We're committed to bringing India up to speed and making India a global hub for internet content, services and apps by providing world class peering solutions across all states of India.

We are pleased to learn about the authority's keen interest in further developing the telecom sector to ensure efficiency and operational ease. However, we feel that the current questions under consideration, may potentially affect the development of the telecom sector. Our position is that **licensing should be reserved for services involving the use of scarce resources or posing significant risks to public health, while maintaining a light-touch regulatory approach for fostering a conducive environment for innovation and investments in the telecom and internet industry**. In this regard, opposing the implementation of an onerous licensing regime for internet-based services in the telecom sector, we firmly believe that OTTs (Over-The-Top services) should not be subjected to licensing either. Such excessive regulation would hinder the dynamic nature of innovative services.

Keeping this in mind, we would like to share a few comments and recommendations on the questions pertaining to the passive infrastructure sharing and related issues.

Background

National Telecom Policy - 2012¹ recognized that the evolution from analog to digital technology facilitated the conversion of voice, data and video to the digital form. Increasingly, these were being rendered through single networks bringing about a convergence in networks, services and also devices. Accordingly, the need to move towards convergence was recognised in the said Policy which led to DoT introducing the Unified Licensing regime in India in 2012. Currently the UL² framework covers different authorisations for different services and lays down the licensing conditions for each.

One such service authorisation is for telecom service providers (TSPs), which need a telecommunication service license under the UL as per Section 4 of Indian Telegraph Act, 1885 to offer telecommunication services to their consumers through telecommunication networks. However, of late with the growth in mobile and fixed broadband penetration, a wide variety of Over-the-top (OTT) services have become available to consumers.

In India, initial attempts to analyze the impact of OTT services were made in the year 2015 separately by Telecom Regulatory Authority of India (TRAI) and the Department of Telecommunications (DoT), Government of India. The Authority issued a consultation paper on Regulatory Framework for Over-the-top (OTT) services dated 27.03.2015³ for consultation with stakeholders. Thereafter, after many different consultation papers on different aspects, the Authority released another consultation paper on

¹ https://dot.gov.in/sites/default/files/NTP-06.06.2012-final_0.pdf

² <https://dot.gov.in/sites/default/files/Updated%20UL-AGREEMENT%20up%20to%2031%20Mar%2023.pdf?download=1>

³ <https://www.traigov.in/sites/default/files/OTT-CP-27032015.pdf>

‘Regulatory Framework for Over-The-Top (OTT) Communication Services’ in November 2018. After the consultation process, TRAI had recommended that no regulatory interventions were required at that moment. Thereafter, upon receiving another reference from DoT in September 2022 for reconsideration on ‘Regulatory Framework for Over-The-Top (OTT) Communication Services’, the Authority has now released this consultation paper inviting comments on various issues pertaining to regulatory framework for OTTs. Before answering the specific questions listed in the consultation paper, we put forth our overarching perspective on the related aspects below:

Our perspective on licensing in the telecom sector

Regulation by way of licensing, in the telecom sector, can often amount to over-regulation, impeding the dynamic nature of innovative services such as internet-based services thereby hindering the growth of the digital economy.⁴ To ensure optimal regulation without casting unnecessary compliance burden, licensing should be limited to the following services:

- i) those that involve the use of any scarce or limited resource like spectrum or numbering plans, or
- ii) those that pose significant risks to public health such as copper networks which can cause electrocution, or mobile towers that may cause health concerns due to radiation beyond a certain threshold.

Other digital communication networks or services may be subject only to general authorization. Typically, under a general authorization, individual authorizations are not required except for specific services where special permissions may be required, as explained in the preceding paragraph. Under this construct, general conditions to provide services along with basic rights and obligations are defined, and entities which qualify under the general conditions can launch services by notifying the competent authority, without applying for explicit approval.

Even in economies with developed and thriving telecommunication and internet industry such as the EU, individual license is granted [only in certain specific situations](#) namely access to radio frequencies or number; access to public or private land; mandatory provision of publicly available telecommunications services and/or public telecommunications networks and where the licensee has significant market power.⁵

Moreover, for the services that fall in the aforementioned categories warranting a license, the licensing conditions should be light-touch and not onerous. The following paragraphs briefly outline such regulation:

➤ Light-touch regulation

The conditions and obligations applied under any form of authorization should be fair, transparent, and proportionate, without any discrimination. This principle holds true not only for general authorizations but also for individual licensing of services that involve the use of scarce resources or pose a threat to public health. In the case of individual licensing, it is imperative to ensure that the imposed conditions are designed to minimize the compliance burden for the concerned entities.

Even global best practices have shown a preference for a light regulatory approach as regards licensing. For instance, as per the 1997 EU Licensing Directive, the licensing regime should ensure that licensing conditions are transparent and constitute the *lightest possible regulation, compatible with the fulfilment of applicable requirements*⁶. Introducing burdensome licensing requirements

⁴ <https://www.cci.gov.in/images/marketstudie/en/market-study-on-the-telecom-sector-in-india1652267616.pdf>

⁵ Article 7, [EU Directives](#) on a common framework for general authorizations and individual licences in the field of telecommunications services, 1997

⁶ Clause 4, page 1, [EU Directives](#) on a common framework for general authorizations and individual licences in the field of telecommunications services, 1997

would deviate from these practices and potentially discourage international investments and collaborations.

Moreover, barriers to entry through regulation could be detrimental to the establishment and emergence of new technologies and services such as OTTs including the overall development of the internet industry in India. It is thus imperative to keep not just the OTTs but the entire telecom industry lightly regulated and to ensure that the cost and compliance burden is not so onerous that it keeps away innovation and investments. In fact, **it was noted in the [National Digital Communications Policy, 2018](#) itself that removing regulatory barriers and reducing the regulatory burden that hampers investments, innovation and consumer interest is a policy goal for India.**

Thus, conditions for both general authorisation and individual license should be fair, transparent, and proportionate as burdensome licensing requirements would not only deviate from global best practices, but will also be misaligned with the policy goal of reducing regulatory barriers and fostering a conducive environment for growth in India, as outlined in the National Digital Communications Policy, 2018. In this background, we answer some of the specific issues raised in the present consultation paper in the following section:

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

Before delving into the specifics of OTT communication service, we would like to emphasize the need for clear, precise, and well-defined definitions within statutes, regulations, and policies. In crafting laws and regulations, it is crucial to adopt a nuanced and meticulous approach to defining key terms. Definitions should be narrow and specific, leaving no room for ambiguity or misinterpretation. This ensures that all stakeholders, including industry players, regulatory bodies, and consumers, have a common understanding of the terms used.

Applying the same to the issue at hand, it is our submission that the OTT communication should be defined to be those OTT Services that enable interpersonal communication. Thus, we suggest that OTT Communication Service should be defined to refer to *an internet-based service that primarily facilitates interpersonal communication through various modes, including video, voice, and messaging. This service is accessible through an application and operates over the public Internet, utilizing the network infrastructure of TSPs to enable seamless and real-time communication between users.*

However, while defining such service, it is important to understand that OTT Communication Service is not a substitute for traditional TSPs in any manner whatsoever. OTT services are dependent on the underlying networks of TSPs, and hence are not in the same relevant market. The difference between TSPs and OTT communications services will further be detailed in our response to Question no. ___ below. Therefore, these two services cannot be considered substitutes of TSPs' services as is being made out by TRAI in the current paper. The definition should be limited to identifying those internet-based services that facilitate interpersonal communication via the aforesaid media over an app using the network infrastructure of TSPs.

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.

Before subjecting entities to licensing at par with others, we emphasize the paramount importance of understanding the inherent differences between these entities before implementing any licensing framework. For instance, in this case, it becomes imperative to understand OTTs viz-a-viz TSPs. Such differences may encompass technical, operational, economical, regulatory, and other aspects. These differences will be elaborated in detail in the subsequent sections. A well-informed understanding of these distinctions is crucial to ensure a fair, transparent, and effective regulatory approach.

Licensing decisions should not be based on a one-size-fits-all approach, but rather on a nuanced understanding of the unique characteristics and contributions of each entity. Disparities between OTT communication services and traditional telecom services must be taken into account to tailor licensing requirements appropriately. Economic disparities and differing regulatory contexts also play a significant role in shaping the licensing framework.

Additionally, consumer impact and the potential effect on innovation and investment in the telecom and internet industry need to be carefully evaluated. A comprehensive assessment of the implications of licensing is crucial to prevent undue burdens, maintain a level playing field, and foster a competitive and sustainable digital communication landscape.

We compare OTTs viz-a-viz TSPs on various counts below:

(i) Regulatory aspects: TSPs play a pivotal role in providing telecommunication services, relying on scarce resources such as numbering resources, spectrum, and physical infrastructure. Consequently, strict licensing and regulation by DoT, if at all, may be justified to ensure oversight and compliance with regulatory requirements. On the other hand, OTTs operate on the public internet and do not depend on scarce resources or establish core network infrastructure, warranting a distinct regulatory approach.

OTT communication services are subject to different laws, including the Information Technology Act, 2000 (IT Act), and associated rules and regulations like the SPDI Rules, Interception Rules, Blocking Rules, CERT-In Rules, CERT-In Directions, and Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 ('IG Rules'). As per the IG Rules, OTT platforms also have to adhere to a Code of Ethics which has been laid down therein. Moreover, the recent Digital Personal Data Protection Act, 2023 (DPDP Act) and proposed Digital India Act (DIA) are likely to regulate OTT communication services from a privacy rights perspective.

Given the plethora of existing laws governing OTT communication services, the focus should be on harmonizing these regulations rather than imposing onerous obligations under a telecom framework. Such a step could increase costs and hamper the ease of doing business for OTT communication services.

(ii) Economic aspects: OTT service providers contribute significantly to the revenue growth of TSPs, challenging the notion that OTT services merely free ride over underlying network infrastructure. Increase in the use of OTT service has also contributed to the increase in data usage thereby enhancing the revenue for the TSPs. Essentially, the rising popularity and user reliance on OTT services have driven internet usage in India, generating a new revenue source for TSPs. Statistics demonstrate the tangible benefits accrued to TSPs, with wireless ARPU growing by 44% from INR 98 to INR 141.14

between 2012 and 2022⁷, and monthly wireless data usage growing by approximately 156 times from 92.4 million GB to 14.4 trillion GB from 2014 to 2022⁸. In the same period, the average revenue from data usage per wireless subscriber per month in the country increased by about 5.6 times from Rs. 22.19 to Rs. 125.05.⁹ The increasing demand for OTT services directly correlates with the surge in internet access, leading to a substantial revenue boost for TSPs.

Studies further substantiate these findings, highlighting the growing demand for data services in India's vast telecom market. Internet subscriptions have seen remarkable growth, from 248 million in 2014 to 820 million in September 2022, with projections of reaching 1 billion by 2025.¹⁰

Notably, BEREC's analysis¹¹ discredits the notion of free riding between OTT service providers and TSPs. Instead, it emphasizes their interdependence, where the growing demand for content drives an increased need for internet access. Accounting for these differences in the contribution made by various sectors to the internet ecosystem is vital when examining the relationship between OTT and TSPs.

(iii) Security and safety Aspects: OTT communication services, like all other internet-based services, are already subject to robust security measures making additional security regulations from the Department of Telecommunications (DoT) unnecessary. Services like WhatsApp, Signal, and Telegram utilize strong end-to-end encryption (E2EE) protocols, such as AES and RSA, to ensure secure communication and protect user data. These encryption methods are regularly audited by external third parties for added assurance. OTT communication services also have introduced additional verification features (such as two-step verification), as well as heightened privacy controls (such as reporting and blocking options).

Section 69 of the IT Act empowers the Government to intercept, monitor or decrypt any computer resource. This provision also lays down a penalty of imprisonment up to seven years for an intermediary who does not provide assistance to the Government in interception or monitoring. Additionally, Section 69A of the IT Act empowers the Government to issue directions to any intermediary for blocking public access of any information in any computer resource. The provision also prescribes a punishment of imprisonment up to seven years for failure to comply with such direction. Further Section 69B of the IT Act also empowers the Government to monitor and collect traffic data or information through any computer resource for cyber security. Thus, under the laws governing OTTs currently, there are adequate safeguards to ensure compliance with public safety and security measures.

Furthermore, the IT Act 2000, along with associated rules and cybersecurity guidelines issued by CERT-In, already establishes security guidelines for OTT communication services. The IT Act 2000 and IT (Intermediary Guidelines and Digital Ethics Code) Rules, 2021 provide a comprehensive framework for data privacy, protection, and user consent. Furthermore, the recently passed DPDP Act, 2023 aims to establish stronger privacy safeguards for handling of personal data by all digital services, including OTT communication services. They are also subject to content takedown guidelines by the IT Rules 2021, which ensure user safety. Thus, as such, there is no requirement for additional regulations from DoT in this regard.

(iv) Privacy aspects: As mentioned earlier, OTT service providers are already obligated by privacy-related regulations outlined in the SPDI Rules and the DPDP Act, 2023. Once the stipulations of the DPDP Act, 2023 are formally implemented, it will establish a comprehensive data privacy framework. Any additional or separate regulation of OTTs based on telecommunication laws would create a

⁷ TRAI's reports titled 'The Indian Telecom Services Performance Indicators' for October-December 2012 and October-December 2022, accessible at <https://traai.gov.in/release-publication/reports/performance-indicatorsreports>

⁸ As indicated at page 31 of the present Consultation Paper based on information furnished by TSPs to TRAI

⁹ TRAI's report titled 'The Indian Telecom Services Performance Indicators' for October-December 2014 and October-December 2022, accessible at <https://traai.gov.in/release-publication/reports/performance-indicatorsreports>

¹⁰ https://icrier.org/pdf/State_of_India_Digital_Economy_Report_2023.pdf

¹¹ <https://twitter.com/SFLCin/status/1686616958953803777>

situation of dual regulation, which falls beyond the primary scope and intention of telecommunication laws, should such regulation be enacted.

(v) Quality of service aspects: Traditional TSPs are bound by Quality of Service (QoS) conditions by TRAI due to the challenges associated with switching providers. The use of phone numbers as essential identifiers and the need to physically visit stores for switching create friction for customers. The mandated license ensures QoS conditions are met to retain customers and maintain service quality.

In contrast, OTT communication services operate on the internet, enabling effortless switching between services. This high substitutability creates a fiercely competitive market, where OTT providers must focus on delivering high-quality service to retain customers. For example, users have the option to instantly switch from one OTT communication app to another based on requirements, service offered and features, amongst the many such as WhatsApp, Telegram, Signal and other such apps. The market-driven QoS system ensures OTT service providers continuously innovate and maintain high service standards, benefiting users.

(vi) Redressal of consumer grievance aspect: Paid/subscription-based OTT communication services fall under the purview of the Consumer Protection Act 2019, as they offer services for a consideration. Grievances related to payments, service quality, and misleading advertising can be addressed through consumer complaints before the appropriate consumer fora.

OTT communication services are already subject to grievance redressal measures under existing laws like the Consumer Protection Act, 2019 (for paid online services) and the IT Rules (for intermediary services). As such, there is no need for a separate customer grievance redressal mechanism, and additional obligations in this regard are unnecessary.

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

Keeping the aforementioned policy goal in mind, we believe that the same regulatory principle ought to apply to OTTs, who should not be subjected to licensing framework unless they use scarce resources or pose a threat to public health. Here, it also becomes pertinent to note International Telecommunications Union (ITU)'s recommendations wherein it was suggested that the government should reduce regulatory burdens for TSPs instead of increasing regulations for OTTs in order to level the playing field.¹²

‘Same service, same rules’ principle ignores functional differences

The concept of "same service, same rules" assumes that there is an overlap in the services provided by both markets. The supposed advantage of this approach is to create a level playing field by subjecting all entities offering similar services to the same regulations. In the case of OTTs, the argument has often been that there is a lack of a level playing field between telecom and OTT communication services as the OTTs are not subjected to similar levels of regulation even though their services are similar to that of TSPs. However, this type of regulation overlooks the operational and technological distinctions between platforms, making it misaligned to the intended goal of the said principle. These differences prevent one service from being a direct substitute for the other. For instance, services provided by OTTs cannot fully replace those offered by TSPs. In the relevant market for these entities, TSPs function to offer internet access, whereas digital service providers operate with the aim of enabling the exchange of content over the internet.

There are also operational differences between the two. TSPs [possess exclusive rights to spectrum](#) and network infrastructure, which is the basis for licensing. These services are characterised by high entry

¹² ITU-T (2019) Collaborative framework for OTTs. Retrieved on October 14, 2022, from <https://www.itu.int/ITU-T/recommendations/rec.aspx?rec=13595>

barriers, reduced competition, and exclusivity in business operations. On the other hand, OTTs, as the name suggests, are built on top of telecommunication services and are also reliant on these TSPs to deliver their service. These services are characterised by hyper competition and low entry barriers. Furthermore, unlike TSPs, communication on OTTs is not done via circuit-switched Public Switched Telephone Network (PSTN).¹³ Regarding service quality, OTTs cannot operate independently of the network provided by TSPs. Moreover, unlike TSPs, OTTs do not provide guaranteed connectivity. Under the UL regime, TSPs are required to ensure reliable connectivity to emergency services like fire, police and ambulance, exempting emergency calls from charges. However, OTT services lack guaranteed connectivity as they rely on telecom networks. TSPs operate on the “network layer” whereas OTTs operate on the “application layer”. TSPs also act as [gatekeepers](#) of the internet, and the quality of service offered by an OTT platform relies largely on the underlying network's quality. Thus, licensing OTTs uniformly alongside TSPs would encompass services or functionalities that do not apply to OTTs thereby undermining the foundation of the "same service" argument.

Implications of licensing

Implementing a licensing regime for such services such as OTTs by categorising them as ‘telecommunication services will hinder the growth of existing services in this domain. Additionally, it will create significant entry barriers for new players and negatively impact the growth trajectory of this emerging sector. Moreover, any concerns such as lawful interception, safety and security, etc., are anyway addressed under the IT Act and corresponding Rules. Excessive and additional regulation may enable bad actors to move to unregulated platforms instead thereby possessing greater threat.

Proposing a licensing regime for any new or existing service, especially internet-based services would entail additional costs, including entry fees, periodic license renewals, in addition to compliance with existing laws like the Information Technology Act and other sectoral regulations. The additional financial burden will then pass on the end consumer ultimately making the services expensive for the consumer. Such an additional license or registration process would increase entry barriers and adversely affect the ease of doing business for these services and reduce competition and innovation.

Regulatory overlaps

Apart from their fundamental differences, internet-based services should be excluded from the scope of regulation also due to their existing regulation under the Information Technology Act, 2000 (IT Act). The Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021 (IT Rules) already impose specific compliance and reporting requirements on these services.

Introducing additional regulation on the same subject matter from different government departments or regulators could lead to regulatory arbitrage and overlapping jurisdiction that will further obscure policy objective¹⁴. Thus, a licensing regime for such services may be considered over-regulation, resulting in increased compliance and a significant financial burden.

Cases that warrant restrictions

While in most situations minimum restrictions should be the norm, we would also like to acknowledge that there are certain situations where some restrictions on technical/commercial agreements are desirable. For example, in cases where one entity enjoys significant market power, or builds a gatekeeping position for itself in the market, it becomes incumbent on the authorities to ensure that the entity does not misuse its market power to the detriment of other ecosystem players. Thus, while we acknowledge the need to license certain services as specified in this section, we believe that in no case should onerous licensing conditions be imposed in a blanket manner to all players.

¹³ https://thedialogue.co/wp-content/uploads/2023/06/RESEARCH-REPORT_-Convergence-of-Internet-and-Telecom--The-Dialogue.pdf

¹⁴ <https://onlinelibrary.wiley.com/doi/epdf/10.1111/rego.12504>

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.

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.

Collaboration between Telecommunication Service Providers (TSPs) and Over-The-Top (OTT) providers can indeed be beneficial for both parties and consumers. However, it is crucial to ensure that this collaboration is based on mutual understanding and market forces, rather than being mandated or regulated by the government.

A voluntary collaborative framework allows TSPs and OTTs to enter into agreements based on their own commercial interests and capabilities. This approach allows for flexibility and adaptation to market dynamics, preventing the need for government regulation, while maintaining an open and neutral internet ecosystem.

Moreover, such a market-driven collaboration fosters transparency between TSPs and OTTs. The terms and conditions of their agreements are established through negotiations, making it easier for consumers and regulators to understand the nature of the collaboration. This transparency helps maintain mutual trust. The market itself acts as a powerful mechanism to drive collaborations between TSPs and OTTs. Both parties have incentives to collaborate when it benefits their businesses and customers. By allowing market forces to guide these partnerships, it encourages innovation, competition, and flexibility in meeting the evolving demands of consumers. Moreover, OTTs and TSPs already work in a collaborative manner depending on the needs of the market. For instance, TSPs supply the transmission capacity, while OTT apps offer content that drives user demand for this capacity. They rely on each other for operational success. Creating transmission infrastructure without content to transmit is not a viable business model, just as developing content without transmission capability is not feasible. Moreover, the content provided by OTTs is a key driver of demand for the transmission capacity provided by TSPs, as it increases end-user demand for greater bandwidth. A [lesson](#) may be borrowed from the example of the 'Sending Party Network Pays' in South Korea. This system is reportedly failing as it has resulted in subpar content and network services, elevated user costs, reduced diversity of online content, and even created obstacles for entry into the OTT services sector.

In this context, the International Telecommunication Union (ITU) has issued recommendations on 'Enabling environment for voluntary commercial arrangements between telecommunication network operators and OTT providers'¹⁵ and on 'Collaborative framework for OTTs'¹⁶. Instead of mandating specific arrangements, the ITU emphasizes the benefits of collaboration and encourages stakeholders to engage in cooperative initiatives. This approach allows for greater flexibility and adaptability to diverse market conditions. In these papers, ITU recommends its member States to collaborate with stakeholders for competitive, innovative, and investment-friendly international telecommunication ecosystems. They should assess the impacts of OTT services on economies, policies, and consumer welfare, considering regulatory frameworks and incentives to create enabling policies for fair competition between network operators and OTT providers, potentially reducing regulations on traditional services. ITU also encourages mutual co-operation between OTTs and network operators. In its paper on 'Economic impact of OTTs on national telecommunication/ICT markets', ITU observes that the relationship between TSPs and OTT service providers is already complementary given the collaborative efforts between the two regarding investment in network infrastructure.

Thus, fostering a collaborative framework between TSPs and OTTs based on mutual understanding and market forces allows for a fair and transparent environment. By avoiding government mandates and regulations, the market can naturally drive beneficial partnerships that promote competition, innovation,

¹⁵ Recommendation ITU-T D.1101; <https://www.itu.int/en/ITU-T/studygroups/2013-2016/03/Pages/ott.aspx>

¹⁶ Recommendation ITU-T D.262; <https://www.itu.int/en/ITU-T/studygroups/2013-2016/03/Pages/ott.aspx>

and consumer welfare. The ITU's recommendations serve as a valuable guide for encouraging voluntary commercial arrangements between the two parties.

In conclusion, the need to bring OTT communication services under a licensing/regulatory framework to promote a competitive landscape or for the benefit of consumers and service innovation is not justified actually contrary to creating a competitive landscape especially when they are neither a threat to public health nor do they use scarce resources. The principle of "same service, same rules" overlooks the operational and technological differences between OTTs and TSPs, making it an inappropriate basis for regulation. Imposing a licensing regime on OTTs would hinder the growth of the sector, create entry barriers, and burden end consumers with additional costs. Furthermore, such services are already subject to regulation under the Information Technology Act, making additional licensing redundant and potentially leading to regulatory overlaps.

Embracing a flexible regulatory approach, where necessary licensing is applied judiciously, and general authorization is the norm, will foster an environment that encourages investment, fosters competition and innovation in this sector thereby enabling growth of our digital economy.