

**RESPONSES TO ISSUES FOR CONSULTATION SET FORTH BY THE CONSULTATION PAPER ON REGULATORY FRAMEWORK FOR OVER-THE-TOP (OTT) COMMUNICATION SERVICES**

Q.1 Which service(s) when provided by the OTT service provider(s) should be regarded as the same or similar to service(s) being provided by the TSPs. Please list all such OTT services with descriptions comparing it with services being provided by TSPs.

**Exotel Response:**

Services provided by an OTT service provider/OTT platform that are '**functional substitutes**' for a legacy communication services provided by a licensed telecommunications service providers (TSP) should be regarded as 'same or similar to service(s) being provided by the TSPs'.

OTT service providers providing the following types of services should be considered as 'functional substitutes' of legacy services of TSPs:

- (i) **Voice Calling Services:** Some OTT service providers provide voice calling services and internet telephony, where voice is transported over the public internet as packet switched traffic. Examples of such OTT players are Skype, Facetime, Google Hangouts, Viber and WhatsApp. These OTT services are functional substitutes for the legacy voice calling services provided by licensed TSPs like Reliance, Airtel, Vodafone.
- (ii) **Conference Calling Services:** Voice calling OTT service providers such as Skype, Facetime, Google Hangouts, and WhatsApp often also provide conference calling services where the consumer can add more than two persons on the voice call. Such a service is also provided by licensed TSPs like Reliance, Airtel, Vodafone.
- (iii) **Messaging Services:** Some OTT service providers provide instant messaging services through public internet using the Internet Protocol (IP) technology. Examples of OTT messaging services include WhatsApp and Facebook Messenger. These instant messaging OTT services are functional substitutes for the legacy short service messaging (SMS) and multi media messaging (MMS) services provided by licensed TSPs like Reliance, Airtel, Vodafone.
- (iv) **Video and Audio Content Services:** Certain OTT service providers/platforms engage in broadband delivery of video and audio content over the internet, without a cable or satellite service operators being involved in the control or distribution of the video and audio content itself. In this OTT service delivery model, the licensed TSP is responsible for providing the transport medium i.e., its network for travelling of IP packets. The OTT audio content providers are 'functional substitutes' of licensed radio channels (which is also a telecommunication service) such as Akashwani, Red FM, Radio Mirchi etc.. Likewise, OTT audio-video content providers are 'functional substitutes' of cable and direct-to-home (DTH) (which literally is also a telecommunication service) and channels like Sony, Star and Zee as well as DTH services such as TataSky, Airtel DTH, who operate with requisite statutory registrations/licenses/approvals. Examples of audio-video content OTT service providers include Netflix, Amazon Prime, Spotify, Gaana.com etc.

Q.2 Should substitutability be treated as the primary criterion for comparison of regulatory or licensing norms applicable to TSPs and OTT service providers? Please suggest factors or aspects, with justification, which should be considered to identify and discover the extent of substitutability.

**Exotel Response:**

The category of OTTs that provide services that are literally or substantially 'functional substitutes' of TSPs' legacy services have been defined as Communication based OTTs below. In our view, to build a regulatory framework for Communication based OTTs, regulatory comparison with regulatory framework applicable to TSPs should be a starting point. Obligations similar to certain types of regulatory obligations applicable to TSPs, such as maintaining confidentiality of customer data, privacy and data protection obligations and customer redressal mechanisms, should also be made applicable to Communication based OTTs.

Factors that, in our view, should be considered in order to identify and discover which OTTs should be categorised as Communication based OTTs (based on 'functional substitutability' with legacy services of TSPs) has been discussed below.

We have also defined OTTs other than Communication based OTTs below, which has been defined as Non-Communication OTTs and advocated minimal regulation of these Non-Communication OTTs.

**Categorisation of OTT services**

OTT service providers can be divided into two broad categories:

- (i) **Communication based OTTs:** Voice calling, messaging and conference calling OTT service providers, that are literally or substantially 'functional substitutes' of legacy services provided by licensed TSPs are hereafter referred to as "**Communication based OTTs**".

Communication based OTTs can be further divided into 2 categories. The *first category* is that of personal communication technology solution providers such as WhatsApp, Viber, Facebook etc. ("**Personal Communication OTTs**") that provide voice calling, internet telephony and messaging services (as of now free of cost in India). These categories of services provided by the OTT service provider(s) should be squarely regarded as same or similar to service(s) being provided by the licensed TSPs as these are 'functional substitutes' of the TSPs' legacy services.

The *second category* is that of enterprise communication technology solution providers ("**Enterprise Communication OTTs**") that provide optimized communication technology solutions to businesses such as conferencing, IVR etc.. Currently, the Enterprise Communication OTTs are regulated to an extent by the Audiotex and Voicemail License ("**Audiotex License**"). The Audiotex License enables the Enterprise Communication OTTs to provision the services with the help of interconnection agreements with licensed network service operators ("**NSOs**") or TSPs. Services are provided by the Enterprise Communication OTTs service provider(s) in tandem with resources obtained from TSPs, such services should also be regarded assimilar to service(s) being provided by the TSPs, however their regulatory

treatment must be slightly varied from Personal Communication OTTs. Our views on the OTT Regulatory Framework have been expressed as a response to question 7.

***Extent of Substitutability:*** OTT service providers whose main service or a substantial part/essential part of the service is a functional substitute of TSP legacy services, must be considered as ‘functional substitutes’ and therefore be required to comply with regulatory framework for Communication OTTs (that is proposed to be developed). To identify and discover whether a part of the OTT service that is ‘functionally substitutable service’, actually is enough to categorize an OTT as a Communication OTT and should thus be required to comply with regulations governing such Communication OTT services (OTTs providing services that are functional substitutes of the TSP legacy services such as Communication OTTs), the following questions may be asked: *Is the ‘functionally substitutable service’ core to OTT’s main service? Can a consumer use the core service without using the ‘functionally substitutable service’ at all and still get the same user experience? Does the consumer get automatic access to the ‘functionally substitutable’ service while using the core service of the OTT service provider?*

For eg: categorising WhatsApp is easy as its main service is a literal ‘functional substitute’ of TSP’s legacy services such as voice calling, SMS and MMS. On the other hand, although Facebook’s main service may be a social media platform however it’s Facebook messenger is an essential part of its social media service. The nomenclature or description of the business activity of the OTT service provider must not be relied upon; the regulators must understand the nature of the services provided by the OTT in question.

(ii) **Non-Communication OTTs:** OTT platforms that provide all other types of OTT services, such as e-commerce websites, blogs etc (hereinafter referred to as “**Non-Communication OTTs**”). The regulatory framework for the Non-Communication OTTs should be minimal.

The government should issue rules for regulation of OTTs (read more in response to Question 7) and these Non-Communication OTTs should be required to comply with the OTT rules. This would be sufficient to regulate the OTT industry without stifling the spirit of innovation.

Further, all the above OTTs should also be required to comply with data protection, encryption and cybersecurity related regulatory and legal standards (which should also be clearly set out in the OTT rules). Having said that, it is important to note that law cannot predict the direction commercial technology will take and therefore it must be kept in mind that the regulatory framework for the OTT industry is minimal so that technological innovation, use case innovation and business model innovations are supported by the legal system and are not stifled by regulations.

Q.3 Whether regulatory or licensing imbalance is impacting infusion of investments in the telecom networks especially required from time to time for network capacity expansions and technology upgradations? If yes, how OTT service providers may participate in infusing investment in the telecom networks? Please justify your answer with reasons.

**Exotel Response:**

The OTT services have revolutionised the communication and entertainment landscape. Enabled by internet protocol (IP) (a technology that has facilitated the separation of carriage from content), OTT service providers have been using existing networks rolled out by TSPs to deliver content or services to consumers, without any involvement of the network owners i.e., the TSPs in the transaction. Consumers of telecommunications services have adopted OTT services (accessed through public internet) as their preferred mode of communication and source of entertainment. Especially because the OTT services are generally accessible at little to no monetary cost. Therefore, growth of the OTT services has been beneficial to the advancement of the communications industry as well as the consumers. However, the lack of clarity in the regulatory framework governing the OTTs has been a challenge not only to TSPs but to OTTs as well, which is elaborated below.

**A. Gap in OTT regulatory space is a challenge to TSPs network expanding and upgrading capabilities:**

The core concern of TSPs is that OTT service providers use infrastructure for which they do not pay, and that they are therefore “free-riding” on expensive assets built by the TSPs (network operators). Change in service usage pattern in the communication space has left TSPs faced with two core challenges:

(i) **Revenue related Challenges:** TSPs face tough competitive pressure from Communication based OTT services (those functionally similar to the TSP’s legacy services such as voice calling, SMS and MMS). Most Communication based OTTs provide similar services at little to no monetary cost and therefore the telecommunication consumers prefer to use the OTT communication services over paying for the legacy services of the TSPs. The OTT services use the networks of the TSPs without any cost. Also, unlike OTTs, TSPs have regulatory and statutory obligations such as maintaining confidentiality of consumer data, restrictions on interception of data and use of consumer data for any purposes other than that of providing the services to the consumer. Therefore, TSPs don’t have the option to use consumer’s data to develop OTT products and make up for their lost revenue. Further, as India has adopted a pro-net-neutrality approach (and in our view, rightly so) and this restricts TSPs from charging the OTT service providers for preferential treatment of their services riding on the TSPs networks. [Ga1] [IB2]

This has obviously chipped away at the revenues generated by TSPs through legacy services previously and the regulatory environment limits opportunity for generation of revenues by other means (that OTTs can use at present). Not only this, the TSPs are faced with challenges such as innovating their traditional business models or risk losing market share or, in the more extreme cases, being driven out of the industry.

(iii) **Carriage Capacity related Challenges:** OTTs, and in particular OTTs providing audio-video content (such as Netflix, Amazon Prime, Youtube etc.) have stimulated an insatiable hunger for high internet speeds in the consumers which TSPs strive to satisfy. In order to cater to the demand for data services/internet (which has been growing at unprecedented speeds enhanced by mobile/smartphone penetration), the TSPs are required to - **expand their network capacities and upgrade network**

**technologies** – in order to increase their data carriage capacities and avoid losing consumers to a competing TSP.

It is clear that there is a valid and urgent need to infuse investments in the telecom networks of our country for network capacity expansions and technology upgradations, especially to make India ready for next generation technologies (such as 5G and Internet of Things). The telecommunications sector comprises of the following stakeholders: network service operators (“NSOs”) such as access service providers/TSPs; OTT service providers; and consumers/subscribers. All stakeholders should have the obligation to make financial contributions so that re-investments can be made into network capacity expansions. Even though Communication based OTT service providers may be providing services functionally substitutable to TSP legacy services, or OTT services may be riding on the TSP networks, it is neither fair nor practical to impose network rollout obligations on the OTT service providers. We have proposed a fair and reasonable OTT Regulatory Framework in response to Question 7 which states that in the first phase, OTTs should be required to obtain an authorisation/registration and eventually, in the second phase the authorisations/licenses/registrations should be done away and OTT services should continue to be regulated by specific OTT rules (which the government should develop).

In the course of the first phase (*discussed above and discussed further in response to question 7 below*), OTTs should take requisite approvals and be required to pay fees to the government and the government should use the OTT contributions and invest it into enhancing network capacities by giving subsidies or incentives to TSPs. Alternatively, OTTs should also have the option (and be encouraged by law) to work out a commercial arrangement with the TSPs for using their networks, which will provide TSPs with some direct revenue from the OTTs. It should also be mentioned that these interconnection agreements/commercial arrangements between OTTs and TSPs should be regulated. TSPs should not act unreasonably and unfairly during negotiation of such agreements with OTTs and execute them in a time bound manner. This contribution by the OTT industry (either directly to the government or to the TSPs) should be mandatorily re-invested back into enhancing India’s network carrying capacities.

**B. Gap in OTT regulatory space poses challenge to investment in OTT players:**

The future growth of the communication sector depends upon creating a harmonious balance between the legitimate needs of all the stakeholders (subscribers, NSOs and OTTs). In the last decade, we have experienced unprecedented innovation and growth in the OTT industry which has not only impacted the overall growth and advancement of the communication sector, but also all other sectors of the economy. However, in the OTT space, the Communication based OTTs in India – especially the Enterprise Communication OTTs (defined in response to Question 2 above) – continue to face challenges posed by an incomplete regulatory framework. While, it can be stated with much confidence that most if not all Personal Communication OTTs in India (i) do not have any approvals/licenses/registrations to provide services using the TSPs’ networks; and (ii) have neither entered into any interconnection agreements with TSPs. However, same is not the case with Enterprise Communication OTT services segment. Most Enterprise Communication OTTs – (i) obtain registrations/licenses (such as an OSP registration or an Audiotex License or a UL (VNO) license – for the lack of regulatory clarity around their industry), and also (ii) enter into agreements with TSPs, for amongst others numbering resources and

data services, crucial for these Enterprise Communication OTTs to be able to provide services to their customers. Therefore, they contribute to the government revenues as well as to the revenues of the TSPs. Despite this, Enterprise Communications OTT service providers have to face difficulties of building a business in India in an environment that does not grant them clear legal recognition and regulatory clarity. **In fact, it must be noted that, not only does the present regulatory framework not recognise Enterprise Communications OTTs specifically; even the current discourse (including this Consultation Paper on Regulatory Framework on OTT Communication Services) does not recognise the Enterprise Communication OTTs as a unique OTT segment nor discusses its unique regulatory challenges.**

Amidst this imminent problem, the home-grown OTT industry in general (including Enterprise Communication OTTs) which primarily comprises of start-ups, finds obtaining investments a challenge and has to spend a lot of time, energy and money on handling concerns around regulatory issues. The inconvenience caused by - an incomplete regulatory environment coupled with unresponsiveness of the concerned authorities to give the necessary clarity on gaps in regulations in writing - is also a considerable factor that dissuades investment in the communication sector.

Our understanding is that regulations are meant to be used as a means to foster growth, innovation and remove unnecessary impediments. In this light, while we move closer to defining the way forward for the communications industry in India through a new OTT Regulatory Framework, we strongly feel that it is essential that a specific regulatory regime be developed for Communication based OTTs. We believe that such a regime will help maintain a harmonious balance in the communication sector which will add to its growth and development. It is also submitted that the time is ripe for such a regulatory intervention, failing which the spirit of innovation and industriousness in India will diminish, whereas externally funded initiatives will survive and thrive.[Ga3]

Q.4 Would inter-operability among OTT services and also inter-operability of their services with TSPs services promote competition and benefit the users? What measures may be taken, if any, to promote such competition? Please justify your answer with reasons.

**Exotel Response:**

It is common knowledge that Communication based OTTs engaged in providing Personal Communication services have revolutionised communication. Due to the innovative OTT service products, national and international communication has become extremely affordable, accessible, quick and convenient. Other than making long-distance communication convenient for families, this has given tremendous boost to expansion of start-ups and medium sized businesses in India and helped them do business internationally at a reasonable cost. Therefore, there is no doubt that Communication OTT services have vastly benefited the consumers of the communications industry. This development in the communication space has also led to a healthy competition between OTTs and TSPs which has resulted in innovation both in technology, communication products (Eg: technological innovations that use existing networks smartly) and business models.

Q.5 Are there issues related to lawful interception of OTT communication that are required to be resolved in the interest of national security or any other safeguards that need to be instituted? Should

the responsibilities of OTT service providers and TSPs be separated? Please provide suggestions with justifications.

**Exotel Response:**

**Security requirements - National security in the context of OTT players:** From a security and interception perspective, the Communication based OTTs should be required to provide the regulator access to their applicable systems and be subject to the same security obligations as the NSOs/TSPs. Currently, WhatsApp and similar communication solution providers continue to operate freely over the internet without any security obligations. Notifying specific rules that govern the security obligations of OTTs; and bringing Communication based OTTs within the ambit of the unified license regime through an authorization, or requiring them to register will help address the prevailing security concerns over the use of such services.

**Encryption related Regulations:** On a separate note, India must also notify its rules governing standards of encryption. India has been lacking for long on this account. It is time that uniform encryption rules are notified at the earliest. India should require its OTT businesses to comply with best global encryption standards. This will help Indian industry to easily expand and grow its business in the developed world like Europe and United States of America.

Q.6 Should there be provisions for emergency services to be made accessible via OTT platforms at par with the requirements prescribed for telecom service providers? Please provide suggestions with justification.

**Exotel Response:**

All Communication based OTT services should make provisions for connection to emergency service numbers. This should include all Communication based OTT services that “uses or connects to” national numbering plans to provide OTT services. Example: WhatsApp services, which function by using the consumer’s Mobile Station International Subscriber Directory Number (MSISDN) (mobile number) as the consumer’s address.

For public good, TSPs were mandatorily required to support access to emergency numbers. But, the legacy services provided by the TSPs have limitations and cannot connect to emergency services if the subscriber doesn’t have access to a mobile network. For the same reasons (public good), OTT service providers should also be mandated to support access to emergency numbers - through the mobile network and where network access is lacking, then through internet (such as Wi-Fi and broadband). One of the ways in which Communication OTT services could support access to emergency numbers when there is access to TSP network is, by redirecting a customer trying to access emergency numbers, from the OTT application dialer to the phone’s dialer. This will enable the call to go through to the TSP’s networks. Today, as technology is available to do so, OTT service providers should make changes in their product codes to allow their customers in distress to reach out to/send distress messages/distress signals to emergency services using public internet especially in situations where TSPs network may not be accessible.

Q.7 Is there an issue of non-level playing field between OTT providers and TSPs providing same or similar services? In case the answer is yes, should any regulatory or licensing norms be made applicable to OTT service providers to make it a level playing field? List all such regulation(s) and license(s), with justifications.

**Exotel Response:**

For all the reasons that have been discussed in detail in the responses above, there is a need to put in place a regulatory framework governing OTTs, that also puts to rest TSPs concerns and creates harmony in the communication space. Our inputs on the OTT Regulatory Framework (including the proposed licensing norms and key regulatory obligations) and other concerns have been discussed in detail below.

**Building a Regulatory Regime for OTTs**

***OTT Rules under the IT Act***

The ideal scenario would be recognizing the OTT services industry/ application services through specific rules/regulations (“**OTT rules**”) that clearly state that such OTT service providers do not require a license/ authorization for providing the services in India. We recognize that there may be concerns around national security, and therefore propose that the OTT rules should impose security obligations on the OTTs which are similar to those imposed on network service operators (NSOs)/ TSPs. The Information Technology Act (“**IT Act**”) provides for specific rules that regulate intermediaries (“**Intermediary Guidelines**”). These to some extent regulate the OTT industry also. Therefore, in our view notifying specific OTT rules under the IT Act would help create a clear and complete regulatory framework for OTTs in India.

**However, (in light of the concern discussed in response to Question 3 above) it is important to re-iterate that because of the unique nature of Enterprise Communication OTTs, the regulatory framework for OTTs (i.e., the OTT rules that are eventually drafted and enforced) must specifically recognise Enterprise Communications OTTs as a separate category of OTTs and set out clear and complete regulatory framework that will govern the Enterprise Communication OTTs. To achieve this, it is crucial that the current discourse on OTTs expressly recognises the Enterprise Communication OTTs as a unique OTT segment and discusses its unique regulatory challenges and difficulties. This is important for encouraging and supporting home-grown Indian Enterprise Communication OTT services that can fearlessly innovate and develop the capabilities to take Indian Enterprise Communication products to the world.**

Further, the government is also in the process of issuing a Data Protection Act. The OTT rules should also mandate all OTTs to comply with the Data Protection Act and rules (when finally issued). Such a regulatory framework will help address the concerns of all the stakeholders and national security.

***Addressing the aftermath of the license raj – Communication based OTT registration or authorization under the license regime***[Ga4] [IB5]

While standalone OTT rules would be the best case scenario. However, we as a country continue to cope with the aftermath of the license raj. The general mindset in our country continues to remain that if a business model/ technology service is not licensed or authorized or registered by the government, it is illegal. Therefore, the DOT should chart out a two phase road map for the Communication based OTTs. In the *first phase*, the Communication based OTTs could be brought under the umbrella of the Unified License regime through a specific authorization (this will also resonate with the idea of one nation and one license for all services) or the Communication based OTTs could be subject to a specific registration requirement under the proposed OTT rules; and, in the *second phase* such a requirement (license/ registration) should be done away with, thereby not requiring the OTTs to obtain any license or registration (The proposed OTT rules would be able to address all legitimate concerns). The second phase will also help add to the 'ease of doing business in India' objective.

### **Scope of services under the OTT Authorization or Registration**

***Convergence of voice, video and text etc.*** - Communication based OTTs should be allowed to use any technology to provide any kind of communication service (voice, video, text), internet telephony, messaging, data services, digital streaming, broadcasting (IPTV) or any new age communication based service which may be developed in the times to come.

All the communication based OTTs should be required to submit a service description at the time of obtaining the authorization/ registration, and as and when such an OTT intends to expand the scope of its services it should be required to intimate DoT.

In the event a communication based OTT plans to introduce a new technology service (which does not find a mention in the OTT authorization/ registration guidelines) it should be required to obtain the consent of DoT which should not be unreasonably withheld. In the event the regulator decides to withhold such a permission; it should be required to give a well - reasoned order based on principles of natural justice. Such a decision should be made in a time bound manner. TEC (along with a committee of leading technology and telecom academicians in India) should act as a facilitator in the decision making process of DoT with respect to any new technology service that a communication based OTT proposes to introduce in India.

### **Strategy to take India to the world stage - Encouraging Start Ups in the Telecom and Technology Space by creating a specific zone - "e-space"**

In order to ensure that India remains relevant and ahead in the communication space it is important that the regulations should provide for a special telecom and technology innovation space ("**e-space**"). Start-ups that register in the e-space should be permitted to experiment and create network technologies and services in a licensing free environment. The proposed e-space will create a level playing field for the start-ups and give them an environment that is conducive for discovery, innovation and growth. The e-space will also address concerns around security and transparency. While all the start-ups may not turn into profitable business ventures. However, each start-up's experience will contribute towards making India a thought leader in the technology and telecom space. The residents of the e-space could also be asked to contribute towards development projects for India.

The e-space will help India enter the world stage in the telecom and technology space. **The e-space will also help provide data and information that will help India develop a future ready regulatory framework.** Given the extent of talent that India has, the e-spaces would become the most sought after destination for foreign investment. This will also help fix the brain drain problem. The regulations around creation of e-spaces could also provide for a e-space fund which could be used to help the start-ups sustain themselves.

### **III. Doing away with the OSP registration**

The scope and purpose of the OSP registration should be objectively evaluated under the new OTT Regulatory Framework. As per our understanding, such an objective evaluation will lead to the removal of the requirement of obtaining an OSP registration.

However, if after such an evaluation, a decision is taken to continue the OSP registration, it is absolutely pertinent that the scope of services that fall within the ambit of the registration requirement should be stated clearly. Currently the OSP registration terms and conditions define an OSP as an Application Service Provider. Further, the OSP terms and conditions define Application Services as *“tele-banking, tele-medicine, tele-education, tele-trading, e-commerce, call centre, network operation center and other IT Enabled Services, by using Telecom Resources provided by Authorised Telecom Service Providers”*. However, the terms and conditions do not define IT Enabled Services. This results in a lot of uncertainty in terms of the scope and applicability of the OSP registration requirement. Also, the structure of the OSP terms and conditions is not conducive to innovation in the enterprise communication space and is standing in the way of building future ready use cases for the enterprises that are being unnecessarily subjected to the requirement of obtaining the OSP registration.

Q.8 In case, any regulation or licensing condition is suggested to made applicable to OTT service providers in response to Q.7 then whether such regulations or licensing conditions are required to be reviewed or redefined in context of OTT services or these may be applicable in the present form itself? If review or redefinition is suggested then propose or suggest the changes needed with justifications.

#### **Exotel Response:**

The OTT rules should include consumer grievance response and redressal mechanisms equivalent to those to which the licensed TSPs are subjected to. This is good for the public and in keeping with the DoT's objective of protecting the interests of the consumers.

Q.9 Are there any other issues that you would like to bring to the attention of the Authority?

#### **Exotel Response:**

One of the critical need of the hour is to create a business-friendly environment in the communication space. A few points that flow out of this mission are discussed below:

**(i) Written clarification and response process:** In the telecommunication regulatory space, we foresee the notification of several new rules and regulations. Given the pace at which we are witnessing

technological evolution, it is understandable that the rules, regulations and the license/ authorization/ registration terms and conditions that govern, and will govern the communication will remain work in progress. Experience with several new acts, rules and regulations across different sectors has shown repeatedly that between the letters of law there will be unanswered questions and the need for timely clarifications. Further, one of the greatest hurdles in the communication space has been the lack of regulatory clarity. Therefore, it is critical that the decision-making authorities such as DoT and TRAI create a committee which provides clear written clarifications and responses on regulatory issues and concerns impacting businesses in a time bound manner. Such written clarifications and responses should be straight forward and clear. The creation of such a committee will help India become a thought leader in the digital space.

(ii) **Provision of a consolidated handbook of laws governing the communication space:** For a business to be compliant, it is essential that they should have easy access to the laws that govern their space. Unfortunately, in the communication space this has not been made possible so far. Something as critical as the telegraph rules are not available in the public domain. It is also pertinent to point out that the principal regulations, terms and conditions and rules available on the DoT and TRAI website do not reflect the amendments that are made through subsequent notifications. It would benefit the businesses greatly if all amendments are transposed into the principal regulations, rules and license terms and conditions. The requirement for updating the amendments into a single document is critical. The consolidated FDI circular is a good example for the communication space regulations as well. This will help the businesses become more compliant.

Further, in this digital era it is also reasonable to expect that a consolidated handbook of the laws governing the digital space should also be available for download free of cost. This handbook should also include all specifications, annexures and other documents referred to in the acts, rules, regulations, license terms and conditions etc. (such as the TEC specifications).