

New Delhi, 13 January 2016

To,  
Mr. Vinod Katwal  
Advisor (F&EA)  
Telecom Regulatory Authority of India  
Mahanagar Doorsanchar Bhawan,  
Jawahar Lal Nehru Marg,  
New Delhi – 110002

**Subject:** Submission of counter- comments on TRAI's Consultation Paper on Differential Pricing for Data Services

Dear Sir,

The Digital Empowerment Foundation (DEF) wishes to thank the Hon'ble Authority for the opportunity to submit our counter-comments on the Consultation Paper on Differential Pricing for Data Services.

Digital Empowerment Foundation is a New Delhi-based not-for-profit organisation. It was born out of the deep understanding that marginalised communities living in socio-economic backwardness and information poverty can be empowered to improve their lives almost on their own, simply by providing them access to information and knowledge using digital tools.

We recognise unhindered and universal access to the internet as a key driver of development and empowerment amongst the digital excluded masses in India.

My colleagues, Ms. Ritu Srivastava and Mr. Rajat Kumar, who have drafted our response, can provide additional material and DEF is happy to provide any further support to TRAI.

Yours sincerely,



Osama Manzar  
Founder & Director  
Digital Empowerment Foundation

**Question 1: Should the TSPs be allowed to have differential pricing for data usage for accessing different websites, applications or platforms?**

**No.** Telecom Service Providers should not be allowed to introduce differential pricing for data usage for accessing different websites, applications or platforms.

1.1 It would also be against the principles of non-discrimination as laid down in the Telecom Policy, 2012 and the Telecommunication Tariff (Thirty Third Amendment) Order, 2004. The Telecom Policy 2012 identifies telecom as a non-discriminatory platform for providing access. The policy has a “*mandate to use common platform for interconnection of various networks for non-discriminatory and non-exclusive access*”.

1.2 The Policy also aims to transform the socio-economic scenario through accelerated, equitable & inclusive economic growth by laying special emphasis on providing affordable & quality telecommunication services in rural and remote areas. The policy does not see any conflict or compromise between affordability and quality of telecommunication services.

1.3 Similarly, the Telecommunication Tariff (Thirty Third Amendment) Order of 2004 clarifies the interpretation of the principle of non-discrimination. It says that differential tariffs assuming the nature of vertical price squeeze would not be permissible. “*An operator with significant market power can often squeeze the margins of competitors by raising wholesale prices (upstream market) paid by competitors while at the same time lowering retail prices (downstream markets) on competitive services. Such ‘squeezes’ on the margins of competitors imposed by the pricing strategy of the operator with significant market power could materially affect competition.*”

1.4 Additionally, any such move would be **contrary to the Principles of Network Neutrality** which can be broadly be defined as “***Service providers cannot censor/ block or throttle access to any legal content, applications, services, or non-harmful devices or determine how users use internet for any sort of consideration; whether cash, kind or other***”. DEF has submitted its comments on the Consultation on Regulatory Framework for Over-the-top (OTT) Services/ Internet Services and Net Neutrality in April 2015. A copy of that submission is presented in **Annexure 1**.

1.5 Like many other developing countries including India, mobile Internet has played **vital role in civic participation** and engaging citizens in various activities. According to the Ericsson Consumer Lab Report, mobile video usage in India is evolving with mobile broadband users spending 61% more time on video apps compared to non-users. One third of consumers, smartphones are the only screen they use to view online mobile videos. The most popular way consuming mobile videos is through **chat apps – 1 in 3 individuals watch videos shared by friends**. Consumers prefer to stream videos rather than download, but **buffering or stalling interrupts** 4 out of 10 mobile videos. Video based learning **provides an opportunity** to the vast number of **illiterate and semi-illiterate individuals** in India. Differential pricing that discriminates against access to videos and similar types of content would inherently exclude these individuals.

1.6 According to the recently released World Development Report, 2016 ([Source](#)), India has 1.063 Billion people without access to the internet. Introducing first time users with limited or a bundle of websites and apps will make them **reluctant to switch new services** and it will also **constrain** them in their **freedom of selecting services**. This is against the nature of the free telecom market. Differential pricing will **skew the market** forcing websites and applications out of business by unfairly driving traffic towards lower cost destinations. It would also increase the entry cost, therefore hindering or obstructing start-ups from establishing themselves in the market. **Further licensing will also increase the cost of innovation and will further discourage start-ups**.

1.7 We **oppose** any model where TSPs have a **say or discretion to choose content** that is made available at favourable rates, speed etc. TSPs should **not** be allowed to price different kinds of services differently, for example higher prices for video streaming, accessing ecommerce website etc., thereby segmenting the Internet. **These cardinal principles remain applicable even in cases where differential pricing is proposed in partnership with a platform provider**.

1.8 Finally, in agreement with our colleagues from other civil society stakeholders, we consider the **free** provision of **key public, emergency and other essential services**, as determined by the regulator **a suitably empowered and independent committee** as notified by the competent authority (and regularly revisited) and **not a private company** – whether a TSP or an application provider – not only acceptable but also necessary. However, to differentiate these services from “zero-rated”, it should be termed as **“digital public & essential services”**.

**Question 2: If differential pricing for data usage is permitted, what measures should be adopted to ensure that the principles of non-discrimination, transparency, affordable internet access, competition and market entry and innovation are addressed?**

2.1 Differential data pricing will be **impossible** to regulate, monitor or measure and, therefore, any policies adopted to ensure principles of transparency, non-discrimination etc. are **bound to fail**. Therefore, we do not recommend any such move by TRAI.

2.2 Most of the content available on the Internet is in English and does not reflect the local culture, varied social needs, linguistic differences etc. prevalent in India. Innovations in local content creation are very critical for India's development and for ensuring the **availability of relevant & effective content**. In a country like India, there are 22 official languages, 122 major languages and 1599 other languages. Therefore, in India, it is important that users are not only **content consumers but also content creators**. Relevant content should be promoted to allow for **greater inclusion** of the currently digitally excluded masses of India. This inclusion can only happen when individuals are **free to choose** the platform on which they create or consume content.

2.3 An example of the innovations in content that individuals are able to create when they have free, unlimited and unfettered access has been seen in Baran. There are seven public access centres that are connected using a community wireless network. In case internet access is interrupted or relevant content is unavailable on the net, individuals are able to create locally relevant content and share this material through mobile phones (narrow-casting) amongst each other. They also upload this content to the net when access is restored.

2.4 Forcing Internet based services to pay extra for using a particular network will further affect end-users and hamper the digital ecosystem completely. Charging extra for certain and specific apps or services will further **overburden end-users** which leads them to not use the services at all. The point to be considered is that access to internet depends on interconnectivity and the users being able to have a **seamless experience** – differential pricing will **destroy the basic integrity** of the Internet and also **kill innovation** in creating **content** and emerging content providers in India.

2.5 Further, allowing TSPs to introduce a set of content under differential pricing would create a scenario where the **subscriber is denied a choice**. The TSP or the content provider who acts as the

**gate-keeper decides** the websites the subscriber can access. This would **limit the understanding** of the new user about the Internet and only helps to **further the commercial interests** of a select few corporates included in the zero-rated/ differentially priced bouquet of services.

**Question 3: Are there alternative methods/technologies/business models, other than differentiated tariff plans, available to achieve the objective of free internet access to the consumers? If yes, please suggest/describe these methods/technologies/business models. Also, describe the potential benefits and disadvantages associated with such methods/technologies/business models?**

31. We have **no disagreements** with any alternative methods/technologies/business models that aim to achieve the objective of **free internet access except** those that violate any of the tenets of **network neutrality and/or implement differential pricing or traffic management.**

3.2 Traffic management techniques were enumerated in the Consultation Paper on Regulatory Framework for Over-the-top (OTT) Services/ Internet Services and Net Neutrality published by TRAI in April 2015. However, as per our submission presented in Annexure 1, any traffic **management techniques utilised should exclude** the following:

- Blocking Content e.g. spam, illegal website content
- Throttling/ degrading some types of traffic e.g. P2P
- Priority given to some service provider's content or application over others (perhaps for a fee. Potential revenue for ISPs) and
- Blocking rival content or application e.g. rival IPTV services

3.3 All **traffic management techniques/ methodologies** that can be used by ISPs and TSPs should be based on suitable methodologies **recommended by TRAI.** Further, any traffic management techniques utilised should be **subject to scrutiny by TRAI or a suitably empowered and independent committee** as notified by the competent authority. This committee should include representatives from **civil society organisations and other network neutrality advocates.** Efforts should be taken to ensure there is **no conflict of interest.**

3.4 Access to Internet is increasingly being regarded as a **Human Right** in international discussions and some countries have reflected this perception in legislation. The **Hon'ble Prime**

**Minister**, during the launch of the Digital India Plan also stated that the **Internet is a human right**. The Digital India Plan also approaches universal Internet access as a key activity vertical.

3.5 Following this approach, it is recommended that the licensing terms of TSPs should also include a **basic minimum data quota** for all mobile users. While an argument can be made regarding utilising USO funds to offset the costs, we agree with our colleagues from civil society that, as per **TSPs own logic** in pushing zero-rated services, citizens that get free data quota are expected to keep **aspiring for higher data usage** and better data services and thus such a practice of **'free data quota' will only bring more revenue** for them in the long term.

1. The Government of India should focus on the **immediate and complete rollout of the National Optic Fibre Network** across the 2,50,000 Gram Panchayats in India. Additionally, the power to administer/ outsource the last mile should be turned over to these local self-governance bodies on the **condition of free supply** to community institutions like **primary health centres, post-offices, school, hospital, anganwadi**, etc, and a basic free data quota for all as mentioned above. These locations could also be converted into wireless access points to expand the impact of internet access
2. We recommend to use the existing infrastructure including Common Service Centres (CSCs), State-level Suvidha Kendras, railway stations, panchayat offices and other info-kiosks should be converted to **public access points with subsidised access rates** to maximise the inclusion of socio-economic weaker individuals. Existing infrastructure should be converted to **wireless access points** instead of creating new infrastructure for access points.
3. Based on examples from across India and other nations, we suggest the following non-exhaustive list of alternative methods/technologies/business models:
  - a. Internationally, Guifi.net in Catalonia, Spain and AlterMundi in Argentina are creating **decentralised wireless networks** that are maintained by communities themselves. AlterMundi also approaches providing Internet access in a way that is similar to DEF's methodology.
  - b. Guifi.Net allows individuals on the network to **share their internet access** to other individuals on the network.
  - c. Engaging with civil society organisations working to provide Internet access in rural areas, especially media dark zones. DEF is leveraging community wireless network approach through its Wireless for Communities programme, and used low-cost Wi-Fi

equipment and unlicensed spectrum to provide Internet access in remotest regions of the country. This way, **DEF has created community wireless networks** in more than 10 locations using various entrepreneurship models:

- i. In Baran, Neechlagarh, Guna, Shivpuri, Chanderi, Hodhangabad, Nagaon and Nalbari, free, unlimited & unfettered internet access is provided at the public access hubs, which are outfitted with computers and training materials. In most of locations, these hub centres are also Wi-Fi zone where communities are using mobile phones for accessing the Internet. In result, **it has enabled first time users to explore the Internet as an open and free platform instead of limiting them in bundle of services**. If any individual desires to have Internet access at home, the original ISPs connectivity plans are offered to them.
- ii. In Tolinia, apart from **free, unlimited & unfettered** internet access at the public access hub, visitors to the area are sold coupons that allow them internet access for a chosen duration (1/2 Day/ 1 day/15 days/30 days etc).
- iii. AirJaldi in Dharamshala is another prominent example of leveraging community-based wireless networking to provide internet access.

3.6 We recommend using the **unlicensed spectrum** to address the **gap of last mile access** in media dark areas to create community wireless networks. The above stated examples create a strong case for the use of frequency white spaces that should be promoted and that do not cause harmful interference to licensed applications in specific frequency bands.

**Question 4: Is there any other issue that should be considered in the present consultation on differential pricing for data services?**

4.1 One of the key arguments that TSPs have made to support differential pricing is that it would offset the loss that TSP make on transmitting video data and VOIP versus their tradition voice revenues. Our response to their fundamental assumption is below

4.2 In consideration to data – it is a series of 0's and 1's. A telecom network sees all data as a series of 01's and 1's. The key advantage of the internet, it does not care what the data is ultimately



going to be assembled into – picture; text; voice and message. Therefore, the cost of carrying 1GB of text data and 1 GB of video data on the internet is exactly the same [[Source](#)].

The Hindu Business Line Report states that average 3G subscriber data usage is 688 MB and 216 MB for 2 G subscriber [[Source](#)].

The wholesale price of international connectivity is on average Rs.30000 per month for 2Mbps specifically for small operators. For big operators, the price is much lower. Therefore, for 2Mbps bandwidth for a month, it converts to around Rs.5-10 per GB. That means TSPs need to pay Rs. 5 per GB for net downloads.

However, the profit per GB = Rs. 250 [[Source](#)]

The profit on per MB

$$\frac{250}{1024} = .244 \sim 24 P$$

Therefore, profit on 688 MB (3G)

$$0.244 \times 688 = \text{Rs. } 167.9 \text{ per month per GB per subscriber}$$

Similarly, for 2G

$$0.244 \times 216 = \text{Rs. } 52.70 \text{ per month per GB per subscriber}$$

According to the COAI website [[Source](#)], the annual gross revenues of the mobile have risen from Rs 969 Billion in FY 10 to Rs 1351 Billion in FY 13. The year on year growth is presented in the table below.

Gross revenues	FY10	FY11	FY12	FY13
(In Rs. Billion)	969	1022	1185	1351

The CAGR of gross revenue from voice and data services for the Indian telecom industry over the period of FY 10 to FY 13 is 8.66%. Therefore, it is **INCORRECT** to say that the growth of Internet/OTT impacting the traditional revenue stream of Telecom operators.



**Annexure 1: DEF response to the Consultation on Regulatory Framework for Over-the-top (OTT) Services/ Internet Services and Net Neutrality (April 2015)**

**Dated 24 April 2015**

**To,**

Dr. Rahul Khullar,  
Chairman,  
Telecom Regulatory Authority of India  
Mahanagar Doorsanchar Bhawan,  
Jawahar Lal Nehru Marg, (Old Minto Road )  
New Delhi – 110002

**Dear Sir,**

Re: Digital Empowerment Foundation (DEF) response to the Consultation on Regulatory Framework for Over-the-top (OTT) Services/ Internet Services and Net Neutrality

Digital Empowerment Foundation (DEF) is thankful for providing us the opportunity to submit our views on the consultation paper on the Regulatory Framework for OTT Services, Internet Services and Network Neutrality released on March 27, 2015 by the TRAI (referred to as the “Internet Licensing Paper”). We are signing onto this letter and the supporting submissions on the specific queries listed in the Internet Licensing Paper. Before proceeding to the submissions which we wish to make some general comments on the paper itself.

Any consultation paper is aimed at providing a background to a reader which is neutral and helps them arrive at an informed opinion. This is unfortunately absent from the Internet Licensing Paper. It seems to have been drafted catering exclusively to the interests of the telecom industry. The interests of ordinary internet users should precede any corporate interests or arguments for profit. Also the interests of the technology industry which is giving a high degree of growth to the Indian economy are largely ignored. The Internet Licensing Paper makes broad assumptions and takes statements by the telecom industry without any verification or the demonstration of empirical proof. It further then poses questions on the basis of them. Naturally they are skewed in the favour of telecom companies. Further, the way the paper is structured is a cause of concern. Experts like us are demanding network neutrality laws to protect against discrimination in traffic data and blocking and double charging on

specific internet services. To this the TRAI has posed question on the licensing of such services itself. By doing so, it has adopted an extremely regressive position which is contrary to user interest. The signatories to this, clearly want two things. First, no licensing of Internet Services and second network neutrality regulations to be issued urgently. This is our clear position and of many other supporting organisations and individuals. Further detail on this is provided in answers to the specific queries listed in the Internet Licensing Paper below.

We request that a transparent process with respect to this consultation may be followed to inspire greater confidence and trust. You are requested to publicly publish our response on the TRAI website as has been done in the past when any member of the public has commented. Further the TRAI is requested to issue a specific response to submissions after collating the concerns which arise from them before making any recommendation.

Yours sincerely,

Osama Manzar

Digital Empowerment Foundation

**Question 1: Is it too early to establish a regulatory framework for OTT services, since internet penetration is still evolving, access speeds are generally low and there is limited coverage of high-speed broadband in the country? Or, should some beginning be made now with a regulatory framework that could be adapted to changes in the future? Please comment with justifications.**

**Answer 1: Not required Regulatory Framework**

### **A. RE-FRAMING THE QUESTION**

1.1 We put our strong recommendation on re-framing the term “OTT (Over-the-top)” services that is extreme generalization of the wide variety of “Internet platform and services”. It only takes into the account the way it is served to the end user. However, it does not take into the account the various other complexities included which is a great disservice. Therefore, we strongly recommend using the term “Internet platforms and Services”.

### **B. JUSTIFICATION**

1.2 According to IIM Ahmedabad Study 2011-2012 “the per capita income for urban Indian residence is 118750 per year versus rural is 45798 per year” [[Source 1](#)]. Internet usage in rural area stands at 7% less than half of India users are from rural area.

1.3 The average cost of mobile internet access in India is Rs. 860 for post-paid for 8.33 GB and pre-paid Rs. 868 for an average 6.2GB however; it takes into an account the cost of datacard access [[Source 2](#)].

1.4 B & C mobile circles are recording 75% of the mobile data consumption using 2G services [[Source 3](#)]. Apparently, these B & C circles belongs the highest density and severe challenges in socio-economic development.

## C. REPLY

- 1.5 Therefore, it is **NOT REQUIRED** to establish a Regulatory Framework because as mentioned in the Chapter 2 under section 2.9 and 2.13 “the internet is still in evolving stage” and there is first need for providing access to the last mile users with choice and affordability instead of forcing them to choose the carrier without providing transparency on hidden charges.
- 1.6 The Consultative Paper refers that legal compliances are not applicable to internet platforms. These platforms are similar to MVAS (Mobile Value Added Services) according to TRAI’s Consultation on MVAS dated 21st July, 2011. Many TSPs argued that no regulation is necessary for internet platform. TRAI 2011 Consultative paper recommended that *“Telecom Service Providers should provide uniform access to their infrastructure to the VAS providers through mutual agreement, and stressed the need to publish charges for VAS and maintain transparency in billing. However, it observed that there was no need for a licence/registration for VAS providers.”* [[Source 4](#)]
- 1.7 Regulation or licensing to these services will lead to increase the cost of access; hence it will degrade the user experience at the first go. The top 10 apps (such as Facebook; Whatsapp; Facebook messenger; PayTM; YouTube; FlipKart; TrueCaller; HotStar;) are presently providing either through free or freemium model. The only consistent cost to users is data cost. Therefore, if any regulation happens, it will automatically increase Paid<sup>1</sup> or Paidmium<sup>2</sup> models.
- 1.8 Since these companies are generating revenue on the basis of advertisements. Therefore, it will affect mobile app startups by enforcing them to either increase the cost of advertisements or increase the access fee. Thus, it will again directly affect end users.

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<sup>1</sup> Paid download with no in-app purchases

<sup>2</sup> Paid download with in-app purchases

1.9 There is need to establish supporting mechanism for providing uniform access – the factors are trust; confidence; transparency; accountability and qualitative services;

**Question 2: Should the OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) be brought under the licensing regime? Please comment with justifications.**

**Answer 2: Not required licensing on any form of internet platforms and services**

### **REFRAMING**

2.0 The consultative paper presumes internet based communication services and platforms are two different things. Fundamentally both are same thing – many internet services use communication services for driving consumer engagement.

### **JUSTIFICATION**

2.1 The National Telecom Policy 1999 abolished the licensing procedure of POP3 email services which was under the National Telecom Policy 1994. The NTP 1999 identified that there is no need for licenses or additional registration for web based email service providers to proliferate web based email services in India [[Source 5](#)].

### **REPLY**

2.2 Therefore, it is NOT REQUIRED to have license for internet based communication service providers because of the following reasons:

- a. Internet based communication service providers provide their service using the network provided by telecom operators. The spectrum used by telecom operators to utilize to offer this network on “PIPE” is already licensed. Spectrum can be used for data; voice; and SMS. In-result, the cost of licensing will be borne by end-users. Hence, there is no need for additional licensing.

- b. Most of non-communication services on the internet offer real-time chat or video interaction features for the benefit of customers. If license regime will happen, it will automatically affect these services. Hence first-time user who is still exploring will not be able to bear the cost.
- c. Low-cost model are essential for any kind of innovation or startups who are providing communication services. Any form of regulation or licensing will increase the entry cost, therefore it will also hinder or obstruct startups to establish them in the market. Further licensing will also increase the cost of innovation and it will further discourage startups.

**Question 3: Is the growth of Internet/OTT impacting the traditional revenue stream of Telecom operators/Telecom operators? If so, is the increase in data revenues of the Telecom Operators sufficient to compensate for this impact? Please comment with reasons.**

Answer 3: The answer to this question is NO the growth of Internet/OTT will not affect the revenue models of Telecom Operators.

## **REFRAMING**

3.1 The Consultative Paper presumes that data revenues fall under the traditional revenue streams category as per the Unified Access License Agreement [[Source 6](#)]. Therefore, it is incorrect to say that increase in data revenue will affect traditional revenue streams.

## **JUSTIFICATION**

3.2 In consideration to data – it is a series of 0's and 1's. A telecom network sees all data as a series of 01's and 1's. The key advantage of the internet, it does not care what the data is ultimately going to be assembled into – picture; text; voice and message. Therefore, the cost of carrying 1GB of text data and 1 GB of video data on the internet is exactly the same [[Source 7](#)].

3.3 The Hindu Business Line Report states that average 3G subscriber data usage is 688 MB and 216 MB for 2 G subscriber [[Source 8](#)].

3.4 The wholesale price of international connectivity is on average Rs.30000 per month for 2Mbps specifically for small operators. For big operators, the price is much lower. Therefore, for 2Mbps bandwidth for a month, it converts to around Rs.5-10 per GB. That means telcos need to pay Rs. 5 per GB for net downloads.

However, the profit per GB = Rs. 250 (According to [Source 7](#))

The profit on per MB

$$\frac{250}{1024} = .244 \sim 24 P$$

Therefore profit on 688 MB (3G)

$$0.244 \times 688 = \text{Rs. } 167.9 \text{ per month per GB per subscriber}$$

Similarly for 2G

$$0.244 \times 216 = \text{Rs. } 52.70 \text{ per month per GB per subscriber}$$

According to the COAI website [\[Source 9\]](#), the annual gross revenues of the mobile has risen from Rs 969 Billion in FY 10 to Rs 1351 Billion in FY 13. The year on year growth is presented in the table below.

Gross revenues	FY10	FY11	FY12	FY13
(In Rs. Billion)	969	1022	1185	1351

The CAGR of gross revenue from voice and data services for the Indian telecom industry over the period of FY 10 to FY 13 is 8.66%. Therefore, it is **INCORRECT** to say that the growth of Internet/OTT impacting the traditional revenue stream of Telecom operators

**Question 4: Should the Internet/OTT players pay for use of the Telecom Operators network over and above data charges paid by consumers? If yes, what pricing options can be adopted? Could such options include prices based on bandwidth consumption? Can prices be used as a means of product/service differentiation? Please comment with justifications**



**Answer 4:** The answer to this question is NO as it is already mentioned in Answer 3 that data revenues of Telecom operators is already an upswing.

### **JUSTIFICATION**

4.1 According to Morgan Stanley Report that data revenue is likely to contribute about 23% of telecom operators' overall revenues over the next two years [[Source 10](#)].

4.2 Another study conducted by AT Kearney and Google that telecom operators are expected to earn an additional USD 8 Billion in revenues by 2017. The study also reveals that data revenue will grow at around 70% and new digital VAS streams are expected to grow exponentially [[Source 11](#)].

4.3 Forcing internet based services to pay extra for using a particular network will further affect end-users and hamper the digital ecosystem completely.

4.4 Charging extra for certain and specific apps or services will further overburden end-users which leads them not to use the services at all. The point to be considered is that internet depends on interconnectivity and the users being able to have seamless experience – differential pricing will destroy the basic integrity of the Internet.

**Question 5: Do you agree that imbalances exist in the regulatory environment in the operation of Internet/OTT players? If so, what should be the framework to address these issues? How can the prevailing laws and regulations be applied to Internet/OTT players (who operate in the virtual world) and compliance enforced? What could be the impact on the economy? Please comment with justifications.**

**Answer 5:** No regulatory imbalances exist in the regulatory environment in the operation of internet platforms and services. Prevalent laws and legal regulations apply equally to Internet platforms and services and even enforcement is implemented, equally, through them. Any imbalances which do exist are due to the nature of the service itself. This is a feature of the market economy.

**Question 6: How should the security concerns be addressed with regard to Internet/OTT players providing communication services? What security conditions such as maintaining data**

**records, logs etc. need to be mandated for such Internet/OTT players? And, how can compliance with these conditions be ensured if the applications of such Internet/OTT players reside outside the country? Please comment with justifications.**

6.1 The above question does not fall under the legal jurisdiction of the TRAI as laid down by the Telecom Regulatory Authority of India Act, 1997. The questions above fall in the legal ambits of the Telegraph Act, 1885, Information Technology Act, 2000, Information Technology (Procedure and Safeguard for Interception, Monitoring and Decryption of Information) Rules, 2009 and Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011.

6.2 Law enforcement, security agencies and courts have appropriate mechanisms in place to ensure proper logging on personal data/ records by OTT players. Further, Section 91 of the Code of Criminal Procedure, 1973, empower these agencies to compel OTT provider to provide any information as stated in Rule 3(&) of the Information Technology (Intermediary Guidelines) Rules, 2011.

**Question 7: How should the Internet/OTT players offering app services ensure security, safety and privacy of the consumer? How should they ensure protection of consumer interest? Please comment with justifications.**

**Answer 7:** With increasing public knowledge of the implications of breaches of privacy and security of consumer data, internet/OTT app providers are increasingly wary of the negative backlash that they face in case of any such breach.

7.1 Taking this into cognizance, the Government of India has proposed the creation of the Right to Privacy Bill, which covers extra-territoriality of data, data transfers and enforcement mechanisms. Section 43(A) of the Information Technology Act, 2000 has to do with the collection of personal data. Further, any OTT application that collects private data has to follow the rules laid down in the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011.

7.2 It is our opinion that this topic is outside the purview of the TRAI for reasons laid down in our response to Question 6.

**Question 10: What forms of discrimination or traffic management practices are reasonable and consistent with a pragmatic approach? What should or can be permitted? Please comment with justifications.**

Answer 10: The mere mention of the word discrimination in data traffic management practices is an affront to the concepts of network neutrality.

10.1 However, acceptable traffic management techniques should exclude the following (from Figure 5.1 on Page 86 of the consultation paper):

- Blocking Content e.g. spam, illegal website content
- Throttling/ degrading some types of traffic e.g. P2P
- Priority given to some service provider's content or application over others (perhaps for a fee. Potential revenue for ISPs) and
- Blocking rival content or application e.g. rival IPTV services

10.2 All traffic management techniques/ methodologies that can be used by ISPs and TSPs should be based on suitable methodologies recommended by TRAI. Further, any traffic management techniques utilised should be subject to scrutiny by TRAI or a suitably empowered and independent committee as notified by the competent authority. This committee should include representatives from civil society organisations and other network neutrality advocates. Efforts should be taken to ensure there is no conflict of interest.

**Question 11: Should the TSPs be mandated to publish various traffic management techniques used for different OTT applications? Is this a sufficient condition to ensure transparency and a fair regulatory regime?**

Answer 11: The answer is yes for the parent question and no for the nested question.

11.1 Under any reasonable network neutrality rules, the publishing of traffic management rules should be mandated. These traffic management techniques should be based on the list of exclusions

mentioned in our response to Question 10. However, merely publishing the traffic management techniques used by TSPs will not ensure transparency in the process. A framework of punitive measures and fines should be created and strongly enforced on TSPs that violate the rules of appropriate network traffic management.

**Question 12: How should the conducive and balanced environment be created such that TSPs are able to invest in network infrastructure and CAPs are able to innovate and grow? Who should bear the network upgradation costs? Please comment with justifications.**

Answer 12: Publically available data from TSPs and other sources show that revenues and profits of these companies have been growing over the past 3 financial years [[Source 12](#)]. This has been further highlighted in our responses to questions 1 to 5.

12.1 The current growth of data revenue has been acknowledged by various TSP executives in public press releases. The Morgan Stanley report on Indian telecoms [[Source 13](#)] provides some excerpts of such statements:

- “Data is the next growth leg. We expect data contribution to more than double to ~23% of overall revenues (vs. 10% currently) in the next two years. Data revenues should grow at a ~40% CAGR over F14-F18, leading to a 384 bps increase in industry revenues to 12.3% over the period.”
- “Voice and data rates are the lowest for Indian operators as compared to Asian counterparts and the difference between voice rate per minute and data rate per MB is not significant. Thus, the risk of data cannibalizing voice is very low.”

12.2 According to a BBC report [[Source 14](#)], mobile subscribers in India have amongst the lowest call quality in the world. This is usually due to the spectrum economy in India. However, this topic is not under the purview of this consultation paper.

**Question 13: Should telecom operators be allowed to implement non-price based discrimination of services? If so, under what circumstances are such practices acceptable? What restrictions, if any, need to be placed so that such measures are not abused? What measures should be adopted to ensure transparency to consumers? Please comment with justifications.**

Answer 13: Our answer is no for the parent and all nested questions. Under the principles of net neutrality, any discrimination of services by TSPs should be forbidden. Any discrimination is against the true character of the internet and the guiding principle of treating data equally.

13.1 However, if data traffic management techniques as recommended in our response to Question 11, are implemented, it should be ensured that they are applied to all services and not the data transmitted through a particular service. Any TSP violating this principle should be liable to penalties and fines similar to those in our response to Question 10.

13.2 However, content based discrimination allows deep packet inspection of traffic that allows network operators to intercept consumers' internet activity. This is detrimental to the rights to privacy for the individual.

**Question 14: Is there a justification for allowing differential pricing for data access and OTT communication services? If so, what changes need to be brought about in the present tariff and regulatory framework for telecommunication services in the country? Please comment with justifications.**

Answer 14: There is absolutely no justification for a proposal to allow differential pricing for data and access & OTT Services and is strongly opposed. Any such proposal goes against the principles of network neutrality.

**Question 15: Should OTT communication service players be treated as Bulk User of Telecom Services (BuTS)? How should the framework be structured to prevent any discrimination and protect stakeholder interest? Please comment with justification.**

Answer 15: No. This question is again a reframing of previous questions, principally Question Nos. 1, 2, 4, 5, 6, 8, 13 and 14. The responses to these questions may be referenced for justifications. It also not understood why the TRAI is posing the same question repeatedly.

**Question 16: What framework should be adopted to encourage India specific OTT apps? Please comment with justifications.**

Answer 16:

16.1 Any regulatory framework for encouraging India specific internet platforms and services requires two regulatory measures:

- First; no additional regulation on internet platforms and services and
- Second; a strong network neutrality law that promotes innovation and preserves lower entry barriers.

16.2 The growth of India specific OTT apps has been due to the neutral nature of internet networks that are being threatened with the repeated infringements of net neutrality by TSPs and ISPs.

A recent article (The Huffington Post India, 2015) collates some statements from successful Indian start-ups in which they are strongly opposed to any proposal to license internet platforms.

**Question 17: If the App based/OTT communication service players are to be licensed, should they be categorised as ASP or CSP? If so, what should be the framework? Please comment with justifications.**

Answer 17: This proposal threatens the free and open nature of internet communications which are to the benefit of users in India.

**Question 18: Is there a need to regulate subscription charges for App based/OTT communication services? Please comment with justifications.**

Answer 18: There is no need to regulate subscription charges for app based/ OTT communication services.

18.1 The costs of internet based services have largely remained low in India. The majority of consumers in India are highly price-sensitive. The low subscription cost, coupled with the lowering costs of mobile handsets in India has caused the growth of these services to be far higher than those in other economies. This also creates a market that regulates itself with regards to price.

18.2 Any attempt to regulate these charges by the Authority would compromise the competition in the market and would raise the costs of subscription.

18.3 This would further harm the interests of users who are coming online for the first time who may not be in a position to pay the high costs.

**Question 19: What steps should be taken by the Government for regulation of non-communication App based/OTT players? Please comment with justifications.**

Answer 19: No steps should be taken by the Government for any additional regulation of non-communication App based/OTT players. There is no reasonable justification for any interest which can possibly be served by any further regulation. This question is a mere reframing of Question No. 1 and 3. It is not understood why the same question is being rephrased and then being put repeatedly. (MediaNama, 2015)