

# Responses to the Consultation Paper on Regulatory Framework for OTT services

**Question 1: Is it too early to establish a regulatory framework for Internet/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.**

Internet Services and providers are as much bound by the laws in India like any other businesses operating in this country. The growth of the Internet and the economy that is linked to it is due to the level playing field that the medium provides and the opportunity for permission-less innovation. The stress of the Indian Government on "Digital India" underlines the importance of the Internet for the economy and the growth of India. What the country needs at this stage is to promote Indian enterprise and not to shackle it with licenses and more regulations. Such an approach will help the country achieve the targets planned under the "Make in India" initiative.

What we require are regulations on telecommunications service providers that would protect the principles of net neutrality and maintain its integrity by mandating the providers to not discriminate against any type of content and service. Any regulatory method and rules must preserve a "free and open" Internet that gives everyone in the country the same access to any website hosting legal content, including video, music, photos, social networks, email, and maps.

**Question 2: Should the Internet/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.**

No, companies offering OTT services should not be mandated to obtain separate licenses for providing

their services to users. This is because, they use pathways that are owned by telecommunication operators who already license the spectrum that is used for transmitting the content. Once, the pathway has been licensed, all content should be allowed to freely pass over this pathway with no application-specific discrimination.

Technically there is no difference between data packets whether they carry voice or a web page. Hence, there is no reason to treat them differently. Operationally, a license regime for Internet Services will be problematic as if each country starts adopting such a stance an Internet Service will have to obtain license from each and every country. A telecommunications company operating in one country can interconnect with providers in other countries because of the standards and inter-connect arrangements managed by International Telecommunications Union (ITU). This is not the case in the case of Internet Services.

Governments across the world while negotiating the International Telecommunication Regulations (ITRs) at the World Conference on International Telecommunications 2012 chose to keep Information Services from the ambit of the Regulations and restricted it to only the traditional telephony. Even Indian Telecommunications Operators (represented by the COAI at the conference) were against inclusion of Information Services under the ITRs. The proposal to regulate the OTT players is against the stance adopted by India and the telecommunication companies at an International forum.

The reasoning behind this question is stated to be the lack of level playing field between OTT and telecommunications operators in offering communication services as a result of the various regulatory costs incurred by telecommunications operators. It must be noted that by way of the New Telecom Policy, 1999<sup>1</sup> the Government provided that "For applications like tele-banking, tele-medicine, tele-education, tele-trading, **e-commerce**, other service providers will be allowed to operate by using infrastructure provided by various access providers. No license fee will be charged but registration for specific services offered will be required. These service providers will not infringe the jurisdiction of other access providers and they will not provide switched telephony." The Policy encouraged e-commerce and stated that the requirement to develop adequate bandwidth of the order of 10 Gb on national routes and even terabytes on certain congested important national routes will be immediately

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1 Available at: <http://pib.nic.in/focus/fomar99/fo3103991.html>

addressed to so that growth of IT as well as electronic commerce will not be hampered.

Although the New Telecom Policy 1999 restricted Internet Telephony, in 2012 the Telecom Commission (An executive body responsible for formulation and implementation of the Government's policy in all matters concerning the Telecommunications) approved full VoIP services (without the restrictions that were imposed in 2002 and 2006) for telecommunications operators as part of the Unified License under the National Telecom Policy 2012<sup>2</sup>. NTP 2012 thus provided an opportunity to telecommunications operators with spectrum for broadband wireless, to migrate to Unified License and offer communication services at a lower cost.

The NTP 2012 was notified with a view to formulate a clear policy regime for making available affordable and effective communication systems for citizens, and “enabling seamless delivery of converged services (of voice, data, video, internet telephony(VoIP), value added services and broadcasting services) in a technology and service neutral environment.” (Para 3.1 NTP). It further states “To put in place a framework to regulate the carriage charges, which are content neutral and based on bandwidth utilization. This will also encourage non value added services such as provision of data and information over the mobile platform.”(Para 3.11).<sup>3</sup>

The preamble of the NTP 2012 states “Telecommunications is no longer limited to voice. The evolution from analog to digital technology has facilitated the conversion of voice, data and video to the digital form. Increasingly, these are now being rendered through single networks bringing about a convergence in networks, services and also devices. Hence, it is now imperative to move towards convergence between telecom, broadcast and IT services, networks, platforms, technologies and overcome the existing segregation of licensing, registration and regulatory mechanisms in these areas to enhance affordability, increase access, delivery of multiple services and reduce cost. It will be a key enabler of equitable and inclusive growth. The policy aims to address and enable the coordinated action to respond to the dynamic needs resulting from confluence of telecom, broadcasting and IT sectors.”

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2 Available at: <http://www.livemint.com/Home-Page/FhkmlZq6AOLjfAwPamPMzJ/Telecom-panel-allows-VoIP-under-National-Telecom-Policy.html>

3 Available at: <http://www.trai.gov.in/WriteReadData/userfiles/file/NTP%202012.pdf>

**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.**

In any business, the product matrix and the contribution from each product or service will change over a period of time depending on various factors like technology and customer preferences. The sectoral regulator does not have any role in this market driven scenario.

An analysis of revenue figures of Airtel shows that the Average Revenue Per User (ARPU) for Voice has remained almost steady and has gone up from Rs.154 in the 1st quarter of 2012-13 to Rs.157 in the 3rd quarter of 2014-15. However for the same period Data ARPU has gone up from Rs.40 to Rs.170. There has been a slight dip in the messaging revenue for the period. However, the data figures have shown a huge increase. The following tables that analyse the figures for Airtel, Reliance Infocomm and Idea Cellular show the picture in detail.

Voice Avg Revenue Per user (ARPU)												
TSP	Units	FY 2012- 2013				FY 2013 -2014				FY 2014- 2015		
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
AIRTEL	Rs.	154	148	153	159	166	160	161	162	166	158	157
Q-o-Q%		0	-3.90%	3.38%	3.92%	4.40%	-3.61%	0.63%	0.62%	2.47%	-4.82%	-0.63%
RELIANCE	Rs.	98	72	84	90	90	92	96	98	103	103	107
Q-o-Q%			-26.53%	16.67%	7.14%	0.00%	2.22%	4.35%	2.08%	5.10%	0.00%	3.88%
IDEA	Rs.	0	0	158	167	174	164	169	173	181	176	179
Q-o-Q%			0.00%	0.00%	5.70%	4.19%	-5.75%	3.05%	2.37%	4.62%	-2.76%	1.70%
Mobile Data Avg Revenue Per user (ARPU)												
ISP	Units	FY 2012- 2013				FY 2013 -2014				FY 2014- 2015		
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
AIRTEL	Rs.	40.00	43.00	47.00	55.00	128.00	129.00	137.00	137.00	139.00	150.00	170.00
Q-o-Q%		0	7.50%	9.30%	17.02%	132.73%	0.78%	6.20%	0.00%	1.46%	7.91%	13.33%
IDEA	Rs.	47.00	50.00	52.00	55.00	54.00	55.00	91.00	104.00	108.00	119.00	126.00
Q-o-Q%		0	6.38%	4.00%	5.77%	-1.82%	1.85%	65.45%	14.29%	3.85%	10.19%	5.88%
Mobile Data Traffic												
ISP	Units	FY 2012- 2013				FY 2013 -2014				FY 2014- 2015		
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
AIRTEL	Mn. Mbs	23,933.80	25,832.00	24,081.40	25,314.40	25,832.00	25,132.20	25,503.00	26,484.30	27,082.70	26,390.50	26,748.50
Q-o-Q%		0	7.93%	-6.78%	5.12%	2.04%	-2.71%	1.48%	3.85%	2.26%	-2.56%	1.36%
RELIANCE	Mn. Mbs	Not Avbl.	17,400.00	22,512.00	27,240.00	37,570.00	31,050.00	37,570.00	41,702.00	50,251.00	55,276.00	65,778.00
Q-o-Q%		0	29.38%	21.00%	0.00%	37.92%	-17.35%	21.00%	11.00%	20.50%	10.00%	19.00%
IDEA	Mn. Mbs	7,175.00	8,744.00	10,040.00	11,421.00	13,791.00	17,452.00	20,840.00	27,299.00	32,516.00	39,428.00	46,077.00
Q-o-Q%		0	21.87%	14.82%	13.75%	20.75%	26.55%	19.41%	30.99%	19.11%	21.26%	16.86%
Mobile Data usage per customer												
ISP	Units	FY 2012- 2013				FY 2013 -2014				FY 2014- 2015		
		Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3
AIRTEL	Mbs	112.00	133.00	161.00	187.00	392.00	429.00	450.00	464.00	495.00	563.00	622.00
Q-o-Q%		0	18.75%	21.05%	16.15%	109.63%	9.44%	4.90%	3.11%	6.68%	13.74%	10.48%
RELIANCE	Mbs	Not Avbl.	232.00	280.00	319.00	342.00	385.00	396.00	648.00	666.00	752.00	834.00
Q-o-Q%		0	20.69%	13.93%	0.00%	7.21%	12.57%	2.86%	63.64%	2.78%	12.91%	10.90%
IDEA	Mbs	140.00	157.00	167.00	163.00	160.00	178.00	309.00	410.00	409.00	447.00	470.00
Q-o-Q%		0	12.14%	6.37%	-2.40%	-1.84%	11.25%	73.60%	32.69%	-0.24%	9.29%	5.15%

**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.**

Internet and OTT players cannot be asked to pay for the use of the telecom networks over and above the data charges paid by customers for the following reasons:

1. The Internet does not work on the "Sender Pays" Principle. This principle mooted by the

European Telecommunication Network Operators Association (ETNO) was rejected by even the European Governments at the World Conference on International Telecommunications held in Dubai in December 2012. Such a proposal was even rejected by the Industry representatives from India.

2. If the OTT players are required to pay the telecommunication companies for the use of their network, then much like indirect taxes, this additional cost will devolve to the end user. This means that in order to compensate for the additional costs of their networks, they will either start charging the end users more for the consumption of their service or shall resort to more advertising both of which are undesirable for users. Thus, the users will be made to bear additional costs on top of the charges they are already paying the telecommunication service providers for use of their network. This means that once having obtained access to the network, they are then charged on the basis of the content that they use. Charging OTT Players and end users on the basis of bandwidth consumption amounts to a double charging for the same service.
3. The additional cost that the content creator will have to pay to ensure access of its content by users may be paid easily by an already established company, but may be impossible for a start-up that is gaining popularity and thus high traffic. This will result in the delivery of the paying content provider's services on a priority basis. (See for example the agreements entered into between Netflix and Comcast and Netflix and Verizon.) As a result, the TSP will have created a fast lane for the paying content provider. However, small and medium sized enterprises may not be able to pay this extra fee and hence, the delivery of their content will be hindered. In many cases, the start-up is utilizing its resources for maintaining the quality of service and further enhancement of its product. But in order to gain popularity and a foothold in the market, it will need to have free access to the market place. If it is required to pay not only for the creation of content but also for delivery of content to the end user, then it will severely affect the quality of product/service being provided.

**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.**

No, the reason being that at present all Internet transactions including OTT services are governed by the same laws that govern real world transactions for eg. The Indian Penal Code, The Income Tax Act 1961, Competition laws etc. Furthermore, taking into account the increase in growth of transactions (e-commerce, online share trading etc.) on the cyber space and in order to govern all such activities, the Government notified the Information Technology Act 2000 (IT Act) on 17 October 2000. The IT Act specifically encompasses laws relating to the cyber space i.e. electronic and digital signatures, data protection and privacy, cyber crimes. Therefore issues raised in the TRAI paper such as protection of consumer information, hacking of websites and denial of services can easily be addressed by the existing laws. The role of TRAI is to regulate telecommunications services, including fixation/revision of tariffs for telecommunications services which were earlier vested in the Central Government, we do not see how its jurisdiction encompasses a wide variety of laws and regulations from copyright to tax law.

### **Information Technology Act**

*Section 43A and Information Technology (Reasonable Practices and Procedures and Sensitive personal Data or Information) Rules 2011 (Rules 2011)*, provide a framework for protection of data. Every body corporate shall provide for privacy and disclosure of information and must ensure that they have adequate security measures to safeguard their systems from any unauthorized intrusion. Where a body corporate that is possessing, dealing with or handling any sensitive personal data or information in a computer resource owned or controlled by it, is negligent in implementing and maintaining reasonable security practices and procedures and thereby causes loss or wrongful gain to any person, shall be liable to compensate by damages the person so affected. (Section 43A).

*Chapter XI* provides punishment for inter alia tampering with computer source documents, dishonestly

receiving stolen computer resource or communication device, identity theft, cheating by personation, violation of privacy, cyber terrorism, obscenity, child pornography. OTT services, which fall under the definition of intermediaries under the IT Act, shall preserve and retain any such information as may be specified for such duration and in such manner and format as the Central Government may prescribe.

*Section 69* provides the Central and/or State Government power to issue directions for interception or monitoring or decryption of any information through any computer resource. *Section 69 and the Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules 2009* empower the Government to direct an agency to intercept, monitor or decrypt any information stored in any computer resource. S. 69 further provides that any 'Intermediary' or 'subscriber' or 'person-in-charge' of the computer resource shall extend all facilities and technical assistance to carry out the following activities, when called to do so by any agency authorized in this behalf:

- a) provide access to or secure access to the computer resource generating transmitting, receiving or storing the information;
- b) intercept, monitor, or decrypt the information;
- c) provide information stored in computer resource

In addition to the IT Act, all entities carrying out business on the Internet are governed by the same laws as their brick and mortar counterparts.

### **Consumer protection laws**

While e-commerce is already covered under the Consumer Protection Act, according to a report dated 12 December 2014 released by the PIB, in a written reply to a question in Lok Sabha, Finance Minister Arun Jaitley stated that “Government in the Department of Consumer Affairs is considering inclusion of necessary safeguards for protection of rights of consumers of technology based marketing e-commerce, telemarketing etc., as part of the proposed amendment in the Consumer Protection Act 1986.”<sup>4</sup>

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4 Available at: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=113322>

## **Laws governing payment gateways**

Under the *Payment and Settlement Systems Act, 2007* (PSS Act), payment systems include the systems enabling credit cards operations, debit card operations, smart card operations, money transfer operations or similar operations. PSS Act empowers the RBI to govern payment systems operational in the country. PSS provides that only banks and financial institutions/ entities that have specific authorizations of the RBI can undertake such activities.

Among other things, the RBI Directions on intermediaries regulate the nature of accounts that intermediaries can operate i.e. internal accounts, the permitted credit and debits that can be made from such accounts and also provide for specific time limits within which funds must be remitted to a merchant upon receipt of funds from a customer.

Furthermore, taking heed of growing number of incidents of credit card fraud especially via online payment portals, the RBI issued a notification (RBI/DPSS No. 1501/02.14.003/2008-2009) mandating the use of an additional authentication/ validation systems ( 2nd level authentication/3D verification) for online Card Not Present(CNP) transactions (transactions where the card holder does not or can not physically present the card for a merchant's visual examination at the time of giving order and making payment).

## **Local Regulations as regards OTT taxi services**

With regard to the issue raised in Para 7.1.2 (that OTT apps are bypassing regulations), it should be noted that as per the latest amendment to the *Radio Taxi Scheme 2006*, the Delhi Transport Department now covers aggregators such as Uber and Ola. While this is restricted to New Delhi at the moment, as per news reports the Indian Transport Ministry is currently working out a draft to set new, consistent rules to allow app-based taxi hailing services to operate across the country.<sup>5</sup>

In 2013 an association of radio taxis alleged before RBI that Uber was directly allowing customers to make payments to foreign accounts held by it, and as a result,, the RBI issued a directive, which clarified that “merchant transactions (for underlying sale of goods/ services within India) being

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<sup>5</sup> *Indian Officials Drafting National Rules for Uber, Other Taxi Apps*, available at: <http://blogs.wsj.com/indiarealtime/2015/04/08/indian-officials-drafting-national-rules-for-uber-other-taxi-apps/>

acquired by banks located overseas resulting in an outflow of foreign exchange in the settlement of these transactions is not acceptable” (DPSS.PD.CO. No.371/02.14.003/2014-2015). The notification also said that where cards issued by banks in India are used for making CNP payments towards purchase of goods and services provided within the country, such transactions should be settled in Indian currency and the acquisition of such transactions should also be through a bank in India.

### **Laws exclusively dealing with intellectual property issues on the Internet**

*The Copyright Amendment Act, 2012* introduced certain provisions with special regard to protection of artistic works on the Internet. To this extent *Sections 65 and 65B* punish persons found guilty of piracy by using technology to take away somebody's copyright and then use that material to make profits. Any person who circumvents an effective technological measure applied for the purpose of protecting any of the rights conferred by this Act, with the intention of infringing such rights, shall be punished with imprisonment for up to two years and shall be liable to pay fine. Section 65B punishes for altering or removing any rights management information, with up to two years imprisonment and fine.

*Section 52* of the Copyright Amendment Act 2012 also provides for a take-down notice regime under which OTT service providers must block access to any infringing content.

### **Taxation regulations for e-commerce**

In a report dated September 2001, prepared by the High Powered Committee(HPC) constituted by the Central Board of Taxes, stated that the existing laws were sufficient to tax e-commerce transactions and no separate regime for the taxation of such transactions was required. ([source](#)) These are as follows:

- Direct taxes (governed by the Income Tax Act 1961)
- Transfer pricing (Transfer pricing Regulations under Income Tax Act 1961)
- Indirect Taxes which include Service Tax, Sales Tax (CST and VAT), Customs Duty (Customs Act 1962), Central Excise Duty (Central Excise Act 1944)

### **Laws to check FDI issues and frauds by e-commerce companies**

At present the Directorate of Enforcement can conduct investigations under the *Foreign Exchange*

*Management Act 1999 (FEMA)* and *Prevention of Money Laundering Act 2002 (PMLA)*. Such investigations are carried out as and when any credible information, including those relating to frauds committed by e-commerce companies is received. Action under PMLA can be initiated in appropriate cases where a case of fraud by e-commerce company is registered by some other Law Enforcement Agency.

### **Current regulatory status with respect to foreign investments in the e-commerce space:**

- 100% FDI is allowed under the automatic route (i.e. no FIPB approval is required) in companies engaged in b2b e-commerce (Para 6.2.16.2.1 of the Consolidated FDI Policy 2014)
- No FDI allowed in companies which engage in single brand retail by means of e-commerce (Para 6.2.16.3 of the Consolidated FDI Policy 2014)<sup>6</sup>
- No FDI is allowed in companies which engage in multi brand retail by means of e-commerce (Para 6.2.16.4 of the Consolidated FDI Policy 2014) (restrictions are related to sale of goods and not services)

### **Impact of further regulation of Internet/ OTT services**

In October 2011, India made its stance on Internet Neutrality clear at the 66th session of the UN General assembly. India recognized that the Internet was an “unprecedented global medium” that should be “inclusive, democratic, participatory, multilateral and transparent in nature”. India pointed out that the Internet had grown in size and scope, and the task of Internet governance required “quick footed and timely global solutions and policies, not divergent and fragmented national policies.”<sup>7</sup>

Regulations and laws prevailing over telecommunication services such as entry fees, spectrum allocation and charges, tariff regulations etc. cannot be imposed on OTT services for the reason that regulation of websites and apps provided on the Internet would have a direct impact on start-up companies and new entrants who will be forced to comply with regulatory costs notwithstanding the cost of setting up the website in the first place which is very low or even negligible. The Internet provides an opportunity to everyone, be it college students who are constantly coming up with great,

<sup>6</sup> Available at: [http://dipp.nic.in/English/Policies/FDI\\_Circular\\_2014.pdf](http://dipp.nic.in/English/Policies/FDI_Circular_2014.pdf)

<sup>7</sup> Available at: [http://www.itforchange.net/sites/default/files/ITfC/india\\_un\\_cirp\\_proposal\\_20111026.pdf](http://www.itforchange.net/sites/default/files/ITfC/india_un_cirp_proposal_20111026.pdf)

innovative business ideas (social networking website Facebook was set up by Mark Zuckerberg in his hostel dorm room) and even people in rural areas who are able to sell their products on the internet. Over-regulation would mean a loss of all such opportunities and a sudden hindrance to innovation.

**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.**

We would like to point out in the first instance that the security conditions under which OTT service providers are to operate do not fall within the regulatory jurisdiction of TRAI. The broad powers and functions vested in TRAI are enumerated under Section 11 of the Telecom Regulatory Authority of India Act, 1997 (TRAI Act). As per Section 11, TRAI discharges the following functions:

- i. Makes recommendations<sup>8</sup> to the Central Government/licensor on the following matters<sup>9</sup>:
  - a) Need and timing for introduction of new service providers
  - b) Terms and conditions of license to a service providers
  - c) Revocation of license for non-compliance of terms and conditions of license
  - d) Measures to facilitate competition and promote efficiency in the operation of telecommunication services so as to facilitate growth in such services
  - e) Technological improvements in the services provided by the service providers
  - f) Type of equipment to be used by the service providers after inspection of equipment used in the network
  - g) Measures for the development of telecommunication technology and any other matter

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<sup>8</sup> TRAI may make such recommendations *suo motu* or when requested by a telecom licensor. However, these are *non binding* recommendations, and the licensor is at liberty to override them while making any final decisions.

<sup>9</sup> Section 11(1)(a), *TRAI Act*

relatable to telecommunication industry in general

- h) Efficient management of available spectrum
- ii. Ensures that telecommunications service providers comply with license clauses and service obligations; prescribes standards relating to inter-connectivity and quality of service, and ensures that these standards are adhered to at all times<sup>10</sup>
- iii. Levies fees and other charges on telecom services as prescribed by regulations<sup>11</sup>
- iv. Performs such other functions as have been entrusted to it by the Central Government, or as necessary to carry out the provisions of the TRAI Act<sup>12</sup>
- v. Prescribes tariff brackets at which domestic and international telecom services are provided within India<sup>13</sup>

Aside from the above, Section 12(4) of the TRAI Act authorizes TRAI to issue directions to service providers so as to ensure their proper functioning. Section 13 of the TRAI Act also provides that for the discharge of TRAI's functions under Section 11(1)<sup>14</sup>, it may issue such directions to service providers as it may consider necessary. These seemingly wide-ranging powers of TRAI were narrowed down by a proviso to Section 13, which was inserted by the Telecom Regulatory Authority of India (Amendment) Act, 2000. The proviso clarifies that TRAI's powers under Section 12(4) and Section 13 may be exercised only in relation to its functions under Section 11(1)(b)<sup>15</sup>. Lastly, Section 36 of the TRAI Act confers upon TRAI the power to make regulations by notification in order to carry out the purposes of the Act.

As evident from the above, the powers and functions vested in TRAI by its parent legislation do not envision the prescription of security conditions under which TSPs, ISPs or OTT service providers are required to operate. TRAI's role is confined rather, to making non-binding recommendations with respect to a specific set of subject matters, in addition to discharging certain administrative and

10 Section 11(1)(b), *TRAI Act*

11 Section 11(1)(c), *TRAI Act*

12 Section 11(1)(d), *TRAI Act*

13 Section 11(2), *TRAI Act*

14 See i, ii, iii, iv above

15 See ii above

oversight functions.

Moreover, Section 43A of the Information Technology Act, 2000 and the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 already govern the use of data by various entities that collect personal data. The access of user data by Law Enforcement Agencies for national security purposes is also provided for under Sections 69 and 69B of the Information Technology Act, 2000 read with the Information Technology (Procedure and Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 as well as the Information Technology (Procedure and Safeguards for Monitoring and Collecting Traffic Data or Information) Rules, 2009. The Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011 mandate the service providers to provide a privacy policy detailing the aspects related to collection of personal data.

On the question of compliance where the OTT player is based outside India, the Information Technology Act has broad territorial jurisdiction that extends to computer networks outside the country as well. Under Section 75 of the Act, this jurisdiction can apply to an offence or contravention (say that of sensitive data protection rules) as long as it involves a computer, computer system or computer network located in India.

However, the privacy and data protection regime in India is still very weak and in some cases non-existent. In order to ensure that the personal information of users is protected, India will have to draft a data protection law in line with international standards. However, this is beyond the ambit of the current consultation.

**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**

Internet/OTT players have to comply with Section 43 A of the Information Technology Act, 2000 while collecting personal data. They also have to adhere to the procedures laid out in the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or

Information) Rules, 2011.

Cyber Security has to do a lot with increasing awareness of users in addition to increasing the security features of applications. However, these are matters which are beyond the purview of TRAI and this consultation paper.

**Question 8: In what manner can the proposals for a regulatory framework for OTTs in India draw from those of ETNO, referred to in para or the best practices? And, what practices should be proscribed by regulatory fiat? Please comment with justifications.**

European Telecommunications Network Operators' Association (ETNO) is a trade association which works for the benefit of European telecommunications network operators. The raison d'etre of such organizations is biased as one of the primary purposes for their existence is to attempt to influence public policy in a direction favorable to the group's members. For this reason alone, a regulator should examine, study carefully, learn and in some instances emulate the recommendations of its counterparts in other countries but propriety demands refraining from recommendations made only by Industry groups.

We do urge that closer attention be paid to the European Commission's status report on the implementation of the regulatory framework for electronic communications, the regulatory approaches of Netherlands which has one of the world's most robust broadband infrastructure and has successful regulatory framework, the co-regulatory approach of the Norwegian Post and Telecommunications Authority (NPT). We believe that regulatory issues in countries such as Chile and Brazil are comparable and offer great examples.

Further, principles governing OTT services as advocated by ETNO were rejected by International Telecommunications Union at the World Conference on International Telecommunications (WCIT-12) and criticized by many as merely favoring the incumbent telecommunications service provider. ETNO's proposal received no support from any European Government at WCIT-12 - some condemned it outright - and the proposal did not make its way to the final treaty.

Several substantive arguments were made against ETNO's proposal to introduce a new IP interconnection ecosystem based on end-to-end Quality of Service (QoS) delivery and the Sending Party Network Pays principle. Some of these arguments are outlined below:

- The elevation of ETNO's proposal by explicit reference in an international treaty runs the real risk of shifting the balance of negotiating leverage between market participants and inducing an abuse of market power by TSPs in relation to terminating traffic. The resulting shifts in market power would increase the need for regulatory oversight and potentially require regulatory intervention.<sup>16</sup>
- ETNO's interconnection philosophy is fundamentally at odds with the principles of connection-less packet switched networks underlying the success of the Internet to date, based on decentralization and simplicity. Over the Internet a guaranteed end-to-end QoS offer is technically and commercially infeasible.<sup>17</sup>
- ETNO's proposed end-to-end SPNP approach to data transmission is totally antagonistic to the decentralized efficient approach to data transmission of the Internet. The connection-oriented nature of end-to-end SPNP, with its focus on charging based on the actual volumes or value of the traffic, would represent a dramatic change from the existing charging framework operating on the Internet. Furthermore, if other charging practices became widespread which enabled Internet Access Providers connecting end-users to set abusive charges for interconnection out of a monopoly position, this situation would need to be addressed.<sup>18</sup>

**Question 9: What are your views on net-neutrality in the Indian context? How should the various principles be dealt with? Please comment with justifications.**

We believe that the term "Network Neutrality"- although popular-- is misleading and provides excuses

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16 Body of European Regulators for Electronic Communications, *BEREC's comments on the ETNO proposal for ITU/WCIT or similar initiatives along these lines*, available at: [http://berec.europa.eu/files/document\\_register\\_store/2012/11/BoR\\_%2812%29\\_120\\_BEREC\\_on\\_ITR.pdf](http://berec.europa.eu/files/document_register_store/2012/11/BoR_%2812%29_120_BEREC_on_ITR.pdf)

17 *Ibid.*

18 *Supra.* 15

that purport to justify discrimination over the network. We recommend using the term "Network Integrity". Semantics aside, whether the usage is neutrality or Integrity, it must be defined clearly. Any rules that are adopted must ensure that user choice is preserved, do not discriminate on the basis of kind of applications, do not restrict freedom of speech and expression, keep the entry barriers low and promote innovation. When nation's wealth, like spectrum, is being dealt with either by the Union, State or its instrumentalities or even the private parties, like service providers, they are accountable to the people and to the Parliament. Parliamentary democracy also envisages, inter alia, the accountability of the Council of Ministers to the Legislature. This was held by the Supreme Court, while deciding the scope and ambit of powers of the Department of Telecommunications, TRAI and CAG in the case of *Association of Unified Tele-Service Providers & Ors. vs. Union of India*<sup>19</sup> where it was also ruled that “State actions and actions of its agencies/instrumentalities/licensees must be for the public good to achieve the object for which it exists, the object being to serve public good by resorting to fair and reasonable methods. State is also bound to protect the resources for the enjoyment of general public rather than permit their use for purely commercial purposes. Public trust doctrine, it is well established, puts an implicit embargo on the right of the State to transfer public properties to private party if such transfer affects public interest. Further it mandates affirmative State action for effective management of natural resources and empowers the citizens to question ineffective management”.

Spectrum has been considered to be a natural resource by the Supreme Court of India in a number of cases. The courts have held time and again that spectrum belongs to people, and State, its instrumentalities or licensee, who deal with the same, hold it on behalf of the people and are accountable to the people. The State is therefore bound to act in consonance with the principles of equality and public trust and ensure that no action is taken which may be detrimental to public interest. This was held by the Supreme Court in *Centre for Public Interest Litigation v. Union of India & Ors.*,<sup>20</sup> where the issue for consideration before the court was whether the Government has the right to alienate, transfer or distribute natural resources/national assets otherwise than by following a fair and transparent method consistent with the fundamentals of the equality clause enshrined in the

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19 (2014) 6 SC 110

20 (2012) 3 SCC 1

Constitution. In this case the court held that “When it comes to alienation of scarce natural resources like spectrum etc., it is the burden of State to ensure that a non-discriminatory method is adopted for distribution and alienation, which would necessarily result in protection of national/public interest”.

We recommend that a neutral Internet be guided by the following principles:

1. *No Application Based Discrimination*: TSPs should not discriminate Internet traffic based on content, any applications or classes of applications or services
2. *No Paid Prioritization*<sup>21</sup>: TSPs should not be allowed to favor some content or traffic over another for any consideration, no "fast lanes" should be allowed.
3. *No Throttling or blocking*: All content should be treated equally and TSPs should not intentionally slow down the speed of some content or speed up others based on the type or TSP's preference.
4. *Transparency in traffic management*: The traffic management principles adopted by the TSPs should be transparent and application-agnostic and should primarily be used to achieve a legitimate traffic management purpose and not a discriminatory commercial purpose.
5. *No Deep Packet Inspection*<sup>22</sup>: No DPI should be allowed unless for specified reasons mandated by law and that should be made transparent. 2012 3 SCC 1
6. *No Zero Rating*: The practice of Zero rating where content providers pay TSPs to provide end-users free or subsidised access to their websites should be banned.

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21 Paid prioritization is a financial agreement in which a content provider pays a provider of Internet services to essentially jump the data queue at congested points. The practice also involves internet providers prioritizing their own content or that of an affiliate over data from a competing edge provider. With finite bandwidth capabilities, the creation of “fast lane” entails the implicit creation of an accompanying “slow lane” for other data not being sped up. Ultimately only a limited group of providers are able to pay for such priority, resulting in anti-competitive practices, hindering innovation and undermining of consumer rights.

22 DPI is the form of packet filtering that examines the data part of a packet as it passes inspection point, searching for protocol non-compliance, viruses, spam, intrusions or defined criteria to decide whether the packet may pass or if it needs to be routed through a different destination, or , for the purpose of collecting statistical information. DPI enables advance network management, data mining, blocking, prioritizing traffic and allows providers of Internet services to gather statistical information about use patterns by user group. Internet access providers can use this to implement tiered service plans and tailor their offerings to individuals subscribers based on their usage, which in turn increases their Average Revenue Per User. Service providers may thus have profit motives to analyze what their subscribers are viewing, and be able to use such information to their financial advantage.

Beyond rules that prevent TSPs from blocking applications or content, non-discrimination rules are a key component of any net-neutrality regime. The Regulator should encourage a non-discrimination rule that bans all application-specific discrimination, but allows application-agnostic discrimination.<sup>23</sup>

Research shows that adoption of a non-discrimination that prohibits application-specific discrimination would make it impossible for network providers to distort competition among content providers. This provides certainty to potential innovators that they will have a fair chance in the market place- thus encouraging innovation. Such a rule will allow users, and not TSPs to choose how they want to use the network and which applications they want to use. An application-agnostic allows TSPs to offer certain forms of Quality of Service (discussed in detail under Question 12 ) that offer the same potential societal benefits as other discriminatory or provider-controlled forms Quality of Service without the social costs. Further, this rule allows TSPs to freely engage in application-agnostic ways of managing congestion. (Ref Background note)

A trend that is beginning to catch attention is the practice of “zero-rating” where content providers pay TSPs to provide end-users free access to their websites. Especially in the Indian context where cost of access is a bigger concern than the speed of access such practices, which seem attractive in the short-term, can have a drastic societal impact if not banned. Consumer access to the Internet is limited to what the TSP decides, thus limiting consumer choice. Small, medium and start up businesses who may not be able to afford the cost charged by TSPs will be excluded from a wide audience thus preventing fair competition. Free expression will be affected if content providers are unable to easily communicate and conduct business without interference from third parties. An example is [www.internet.org](http://www.internet.org), an initiative of Facebook.com and Reliance Infocomm in India, which provides free access to websites a total of 38 websites, including Facebook<sup>24</sup>. If TSPs can charge application providers to be zero-rated, the incentive is tilted towards lowering fixed-pay bandwidth caps or increase the per-byte price for unrestricted Internet use in order to make it more attractive for application providers to pay for zero-

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23 Discrimination is application-specific if the discrimination is based on the specific application or content (e.g. Skype is treated differently from Google Voice), or based on classes of applications or content (e.g. Internet telephony is treated differently from a mail)

24 Internet.org is an initiative by Facebook (aimed at developing countries) that was launched by TSP Reliance in India. The service is accessible to Reliance subscribers only and provides free access to a total of 38 websites. Internet.org has been criticized for violating net neutrality and favoring Facebook's own services over its rivals. On 15 April 2015 several partners of the Indian internet.org quit the program for this reason.

rating. If a new start up cannot pay to be included in the coveted "zero-rated" group, it is deprived of the eye-balls or target users and potential customers.

**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.**

The issue of traffic management has been dealt with too narrowly in the consultation paper. It talks about the need for traffic management as a measure to provide better quality of services and primarily focuses on potential benefits to a specific set of consumers. However, there are several important issues to consider. Traffic management has a direct impact on issues like access, privacy, freedom of speech. Such an approach would not necessarily bring benefits to consumers who do not have much control over the speeds that they receive, including consumers in rural areas who are restricted by technology or low- income consumers who cannot pay for better quality of service. These consumers would not have the same choice of services, and could find that the quality of service they receive is negatively affected by prioritization in favor of consumers who are able to pay for a better quality of service. Thus, TRAI must thoroughly assess citizen impact of net neutrality and traffic management, its long term as well as short term effects. It may also be noted that in the longer term this approach may create barriers to entry for providers that wish to develop and deliver new content and services but cannot pay telecom operators for prioritization of their content, which could stifle innovation.

Moreover, if Quality of Service (QoS) based traffic management is ever allowed, it should prohibit application-specific discrimination, but allow application-agnostic discrimination. The Internet's original architecture was based on the layering principle and on the broad version of the end-to-end arguments<sup>25</sup>. As a consequence of that design, the internet was application-bind – it was unable to distinguish among the applications on the network – and, as a result, it was unable to make distinctions among data packets based on this information. The Internet's application blindness is one of the factors that have fostered innovation in the past and made the internet more valuable for users and for society.

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25 David D. Clark, *The Design Philosophy of DARPA Internet Protocols*, COMPUTER COMM.REV., Aug 1988, p. 106

It also contributed to the Internet's ability to improve democratic discourse, facilitate political organization and action, and create a decentralized environment for cultural and political interaction in which anybody can participate. Today, technologies such as Deep Packet Inspection have removed the application-blindness of the network. They allow network providers to identify the applications and content on their networks and to control their execution.<sup>26</sup>

Studies show that application agnostic discrimination does not constrain the evolution of the network more than is necessary to reach the goals of network neutrality regulation<sup>27</sup>.(Ref. Background note) It provides room for networks to evolve in that it allows network providers to offer certain (though not all) forms of Quality of Service. In particular, it allows network providers to offer different classes of service if they meet the following conditions:

1. The different classes of services are offered equally to all applications and classes of applications;
2. The user is able to choose whether and when to use which class of service
3. The network provider is allowed to charge only its own internet service customers for the use of the different classes of services

A provider of Internet services, who is allowed to charge for QoS has an incentive to degrade the quality of the baseline, best-effort service to motivate users to pay for an enhanced type of service. To mitigate this problem, any network neutrality regime that allows network providers to charge for QoS should require the regulatory agency in charge of enforcing the network neutrality rules to monitor the quality of baseline services and set minimum quality standards if the quality of the baseline service drops below appropriate levels.

**Question 11: Should the Telecom Operators be mandated to publish various traffic management techniques used for different OTT applications? Is this a sufficient condition to ensure**

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26 Network Based Application Recognition and Distributed Network-Based Application Recognition, CISCO SYS., [http://www.cisco.com/c/en/us/td/docs/ios/12\\_2s/feature/guide/fsnbarad.pdf](http://www.cisco.com/c/en/us/td/docs/ios/12_2s/feature/guide/fsnbarad.pdf) (last visited April 23, 2015).

27 "Network Neutrality and Quality of Service- What a Non-Discrimination Rule Should Look Like" by Barbara Van Schewick

### **transparency and a fair regulatory regime?**

While such transparency is important, it is unlikely to be sufficient in ensuring fairness and such rules cannot be a substitute for substantive rules against discrimination. There are a number of limitations – consumers should be able to understand and compare information about traffic management, weigh it up against other information relevant to their purchasing decision, and potentially switch their communication provider. However, even if the most actively engaged consumers make decisions about their broadband package or provider using information on traffic management provided as a result of enhanced transparency, the outcomes could disadvantage other groups of consumers, for instance those who are less able to pay and those who less actively engaged. Before any such practices can be put into place, thorough consideration must be given to consumer as well as citizen interests. Before deciding upon what can information can be useful, there needs to be an understanding of whether the very process of traffic management is in fact necessary.

### **Question 12: How should the conducive and balanced environment be created such that Telecom Operators 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.**

This question is based on the presumption that the Internet in its current form is inadequate to incentivize network infrastructure and innovation among CAPs. The TSPs contention that unless there is a revenue flow, they do not have an incentive to maintain or upgrade the network is unfounded. In fact research shows that if the principles of net-neutrality are abolished, TSPs stand to gain from the arrangement, as a result of extracting the preferential access fees from content providers<sup>28</sup>. The research finds that incentive for TSPs to invest in infrastructure is higher under a neutral regime. It justifies this with the finding that a non-neutral regime allows TSPs to profit from greater congestion, undermining their return on infrastructure expansion. TSPs would profit from a congested Internet in which some content providers will be more than willing to pay an additional fee for faster delivery to users. Content providers would be compelled to pay TSPs to get their information to end-users. But the end-users

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28 H K Cheng, S Bandyopadhyay and H Guo, *The Debate on Net Neutrality: A Policy Perspective*, available at: <https://net.educause.edu/ir/library/pdf/CSD4854.pdf>

would be unlikely to see the promised upgrades in speed. (Ref. Background Note)

On the other hand, currently TSPs earn profits from attracting customers – mostly end users – using their computers for e-mail, browsing, social networking, downloading movies and music. For most end-users speed of access is important and they will be willing to pay for it. That gives TSPs motivation to improve their services and better compete for users. Study shows that by guaranteeing the openness of the internet, innovations in this space will continue to increase be it new internet based services or attractive apps. As a consequence, the demand for faster and better access to the Internet will grow, generating more value for TSPs and stronger incentive to invest in enhanced network capacity. (Ref. Background Note)

It is also important to consider the role of the government in the context of investment in infrastructure. To this extent it must be noted that the Universal Service Obligation Fund (USOF) was given statutory status by way of the Indian Telegraph (Amendment) Act 2003. This was done to provide the resources for meeting the Universal Service Obligation(USO) set out in the New Telecom Policy 1999. At present the resources for implementation of USO are raised through a Universal Service Levy (USL) which has presently been fixed at 5% of the Adjusted Gross Revenue (AGR) of all Telecom Service Providers except the pure value added service providers like Internet, Voice Mail, E-Mail service providers etc.<sup>29</sup> In addition, the Central Govt. may also give grants and loans. However, the data provided by the USOF<sup>30</sup> shows how the government has failed to allocate the funds generated optimally. Therefore, there is need to re-consider how the resources that are currently available to the government could be better utilized.

The FCC in its 2011 report and order concluded that the open internet is likely to help rather than hinder network investment, it states:

*“Some commenters contend that open Internet rules are likely to reduce investment in broadband deployment. We disagree. There is no evidence that prior open Internet obligations have discouraged investment; and numerous commenters explain that, by preserving the virtuous circle of innovation, open Internet rules will increase incentives to invest in broadband infrastructure.”*

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29 Available at: [http://www.usof.gov.in/usof-cms/usof\\_home\\_contd.htm](http://www.usof.gov.in/usof-cms/usof_home_contd.htm)

30 Available at: [http://www.usof.gov.in/usof-cms/usof\\_fundstatus.htm](http://www.usof.gov.in/usof-cms/usof_fundstatus.htm)

**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.**

No, TSPs should not be allowed to impose non price based discrimination on services. If they are allowed to do so, two forms of misuse may arise: either they throttle the speed of competing services or block them entirely.

By way of illustration, if a telecom company imposes data caps on downloads or streaming of content but then makes a condition that streaming content via its own IPTV will not count towards data usage, then such action may be discriminatory. Secondly, if the TSP throttles the speed of a free VoIP service like Skype then the users will have to resort to the TSP's telephony services that have proven to be more profitable for the TSPs than revenue through data usage. Therefore, if the TSPs are allowed to make non price based discrimination, it makes business sense for them to promote their own services and they will end up discriminating against many user friendly services.

**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.**

There is no requirement for a differential pricing for data access and OTT communication services. Communication services provided over the Internet work in the same way as any other Internet service. The data packets do not differ based on the type of service and there is no need to charge them differently. A user paying for a data service should be able to enjoy the entire services that he wishes to use on the Internet without any restrictions.

Artificial restrictions imposed on services a user can access results in lesser choices to a user and stifles innovation. Attempt at causing such restrictions will also have a detrimental effect on freedom of speech as well as privacy. Privacy of users could be affected as Providers will be forced to resort to

techniques like Deep Packet inspection to identify the services consumed by the user.

**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.**

As explained earlier, communication service is just another data packet and is in no way different from other services. The distinction of the services as Internet services and communication services is a forced differentiation and does not have any technical basis. There is no valid reason to treat OTT communication service players as Bulk User of Telecom Services.

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

There is no requirement for a separate framework to encourage India specific OTT apps. What is needed is transparent and light-weight regulation. No attempts should be made to thwart innovation and ingenuity by imposing hurdles like licenses. There is a great demand for India specific content and applications and this demand will fuel new apps and services. Insistence of the net neutrality principles will ensure the growth of startups developing these apps and services.

**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.**

As explained earlier there is no requirement to license App based/OTT communication service players. Hence there is no reason to consider this categorization of services.

**Question 18: Is there a need to regulate subscription charges for App based/OTT communication**

**services? Please comment with justifications.**

There is enough competition in the app space and the subscription charges are market driven. There is no need for a regulation in this area.

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

The non-communication App based/OTT players have to comply with various laws in the country from the provisions in the Information Technology Act, 2000 and Rules made thereunder to the taxation laws. There is no need for any further regulation to be imposed on these players.

**Question 20: Are there any other issues that have a bearing on the subject discussed?**

Another important issue to be considered is the modality of giving legal effect to the principles of net-neutrality. There are several ways in which this could be done, including the following:

- In exercise of its powers under Sections 11(1)(b)(v) and 36 of the TRAI Act, TRAI could issue a set of legally binding regulations that embody and thereby enforce the principles of net-neutrality, and the DOT could amend the license terms under which TSPs operate, mandating strict observance of said TRAI regulations.
- Based on responses received to the consultation paper, TRAI could [in exercise of its powers under Section 11(1)(a) of the TRAI Act] make recommendations to the DOT concerning the incorporation of net-neutrality friendly obligations into TSPs' service licenses. Giving effect to the recommendations and incorporating relevant terms into service licenses would cement the TSPs' obligation to respect the principles of net-neutrality in their conduct.
- In exercise of its powers under Section 11(1)(a) and based on the responses to the consultation paper, TRAI could make recommendations before the Central Government to enact a new central legislation or amend an existing legislation such as the Indian Telegraph Act in order to

mandate strict adherence by TSPs to the principles of net-neutrality. Giving effect to these recommendations would again oblige TSPs to respect the principles of net-neutrality at all times.