Responses to the Pre-Consultation Paper on Net Neutrality

We thank TRAI for initiating this pre-consultation process on Net Neutrality. However, as the earlier consultation process on Regulatory Framework for Over-the-top (OTT) services had questions related to Net Neutrality, we hope that the responses submitted for that consultation will also be considered while analyzing this issue. Our responses to this consultation paper are drawn to a large extent from the earlier consultation process as the issues dealt with are largely similar.

One of the basic legal protections for the freedom of the market embedded in the common law is the non-discriminatory principle of public carriage. If firms providing transport services to the public are able to discriminate among shippers or receivers of goods, they can profit hugely, at the expense of other market participants generally, their own cartel allies excepted. So from ferrymen in medieval England to railroad and trucking companies in the 20th century, prohibiting anti-competitive discrimination in transport services for the public is basic to the fair working of the market.

Telecommunications services are not different in this respect from other forms of transport. Regulators in the 20th century dealt with telephone and other such services on a common-carriage basis, in order to prevent anti-competitive collusion. One aspect of the group of ideas sometimes misleadingly called, all together, "network neutrality," is the principle of prohibiting anti-competitive routing practices. As the recent experience of the US Federal Communications Commission has shown, management of a fair Internet is now as fundamental to the free market as the prohibition by other regulators of anti-competitive practices in other forms of transport. The FCC's imposition of common-carriage rules for Internet service providers is a victory for the public interest after a decade of attempts by industry to capture the regulators, to prevent this very outcome.

The integrity of the network — that it provides one indivisible opportunity for everyone connected to it — is its most important feature. As a tool of social development, the Internet allows people with little capital equipment but plenty of ingenuity to build effective businesses from zero. But only if other people can ‘find’ them on the Internet and receive the services they are offering.

Question 1: What should be regarded as the core principles of net neutrality in the Indian context? What are the key issues that are required to be considered so that the principles of net neutrality are ensured?

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*[1]: 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*[2]: No DPI should be allowed unless for specified reasons mandated by law and that should be made transparent.
6. *No Zero Rating*: The practice of Zero rating where content providers pay TSPs to provide end-users free or subsidized access to their websites should be banned.

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-

1 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.

2 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.

discrimination rule that bans all application-specific discrimination.[3]

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

As observed by Professor Tim Wu, Professor of Law at Columbia University, in his seminal paper on net neutrality, the argument for a neutral Internet must be understood as the concrete expression of a system of belief about innovation, whose adherents view the innovation process as a survival-of-the-fittest competition among developers of new technologies.[4] Models of development must not vest control in any initial prospect-holder, private or public, who is expected to direct the optimal path of innovation, minimizing the excess of innovative competition.[5] This innovation theory, according to J H Saltzer et. al., is embodied in the end-to-end network design argument, which in essence suggests that networks should be neutral as among applications.[6] The Internet Protocol suite was designed to follow the end-to-end principle, and is famously indifferent to the physical communications medium below it and the applications running above it. The argument for net neutrality therefore, is anchored in the protection of certain core characteristics of the Internet that have played central roles in making it a quintessential tool for information exchange in the 21st century. It is also important to remember, when speaking of net neutrality from a regulatory perspective, that the spectrum over which Internet data is transmitted is a scarce natural resource, and as such brings with it an obligation on the State to ensure that a non-discriminatory method is adopted for its distribution and alienation, which would necessarily result in protection of national/public interest.

There are several ways in which net neutrality may be compromised by private action, including:

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3 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)

4 Tim Wu, *Network Neutrality, Broadband Discrimination*, Journal on Telecom and High Tech Law, available at: http://www.jthtl.org/content/articles/V2I1/JTHTLv2i1_Wu.PDF, last accessed on July 2, 2016

5 Ibid.

6 J H Saltzer et al., *End-to-End Arguments in System Design*, available at: http://web.mit.edu/Saltzer/www/publications/endtoend/endtoend.pdf, last accessed on July 2, 2016

- Arbitrarily blocking competing online content and services
- Throttling or slowing down access to the content and services of competitors
- Providing higher quality of access to one's own content and services and those of commercial partners
- Zero-rating particular content and services by discounting applicable data charges so as to promote their adoption and use over others
- Imposition of differential tariffs on certain content and services in relation to others

Regulatory prohibition of the above practices is necessary to ensure continued respect for the principle of net neutrality within India.

Question 2: What are the reasonable traffic management practices that may need to be followed by TSPs while providing Internet access services and in what manner could these be misused? Are there any other current or potential practices in India that may give rise to concerns about net neutrality?

When considering reasonable traffic management practices that may need to be followed by TSPs while providing Internet access services and in what manner could these be misused, there are several important issues to consider. Traffic management has a direct impact on issues like access, privacy, freedom of speech. It is imperative for TRAI that it must thoroughly assess citizen impact of net neutrality and traffic management in terms of its long term as well as short term effects.

An approach towards traffic management with the prime focus being provision of better quality of services, 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. Such traffic management practices will lead to the Internet being divided into different tiers, based on quality of services while also affecting the overall baseline quality of services, being degraded in favor of higher tiers for consumers who can afford to pay for them.

This would lead to low-income consumers not having the same choice of services, and could find that the quality of service that they receive is negatively affected by prioritization in favor of consumers who are able to pay for a better quality of service. Such prioritization while affecting the

baseline quality of services being degraded will also affect the low-income consumer's overall experience of what the Internet is, having a much larger impact in a country like India where access to itself is a big issue. Thus, an approach towards traffic management with the prime focus being provision of better quality of services could lead to TSPs discriminating between different income-consumers & affecting the neutral character of the Internet.

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.

Another issue[7] includes the whole public sector on the Internet. A huge number of Government departments and agencies are putting forms & information online. In future, it may extend to video content that explains important public information. Other entities include publicly funded institutions, which also use the Internet to distribute their content & services. Thus, traffic management could also impact how citizens access these services in the future.

Moreover, if Quality of Service (QoS) based traffic management is ever allowed, it should allow application-agnostic discrimination. 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.[8] 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:

- The different classes of services are offered equally to all applications and classes of applications;
- The user is able to choose whether and when to use which class of service;
- 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

7 Ofcom's discussion document on Traffic Management & 'net neutrality', available at: http://stakeholders.ofcom.org.uk/binaries/consultations/net-neutrality/summary/netneutrality.pdf

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

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.

The Internet's original architecture was based on the layering principle and on the broad version of the end-to-end arguments.[9] As a consequence of that design, the Internet was application-blind i.e. 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. 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.[10] Considerations such as preventing the transmission of unsolicited communications and blocking access to objectionable content must not form part of permissible traffic management practices, as these usually involve the use of Deep Packet Inspection techniques that grant access to the contents of data packets in addition to their headers. As access to the contents of data packets (which may carry sensitive personal information) takes place without the knowledge or consent of users, such practices constitute gross violations of the users' right to privacy. Therefore, Traffic Management should be used only for technical reasons to provide users a better experience by prioritizing some data packets to facilitate the Internet's best-effort data delivery process and there should not be any commercial consideration for this.

There is also a need for greater transparency in traffic management practices adopted by Indian ISPs, as non-transparency in this regard would not only make room for the discreet deployment of anti-competitive and impermissible traffic management techniques, but also deprive users of crucial information that would determine their choice of service provider. In the present scenario, ISPs are

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

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

under no obligations – regulatory or otherwise – to disclose details on the traffic management practices in active use. This stands in stark contrast to the prevalent practices in external jurisdictions, including the United States of America, where the Federal Communications Commission's Open Internet Order 2010 requires ISPs to "disclose the network management practices, performance characteristics, and terms and conditions of their broadband services"[11]; the United Kingdom, where prominent ISPs have signed up to a voluntary Code of Practice that requires each one to produce a comparable table of traffic management information called a Key Facts Indicator[12]; and Brazil, where the Marco Civil da Internet (Internet Bill of Rights) asks Brazilian ISPs to "provide transparent, clear and sufficiently descriptive advance-notice to users of the traffic management and mitigation measures adopted, including those related to network security".[13] Imposition of similar transparency obligations on Indian ISPs is necessary to prevent the deployment of unfair and anti-competitive traffic management techniques and to inform user-choice. The information provided to the consumers should be worded simply and not buried under reams of legal and technical jargon that are difficult to decipher.

Aside from the lack of transparency in traffic management, a number of previous content and service offerings by Indian ISPs and content providers have raised net neutrality concerns. This included the prevalent practice of zero-rating, both through dedicated platforms such as Facebook's Free Basics and Airtel Zero and through zero-rated access packs for particular websites such as Facebook and Twitter. While such practices have now been halted, thanks to TRAI's prohibition of differential data tariffs through its Regulation against differential pricing, service providers have been attempting to call the Regulations into question and circumvent its prohibition in creative ways including by claiming confusion regarding the permissibility of differentially priced content and services delivered over Closed Electronic Communications Networks. Multiple letters have reportedly been written to TRAI by ISPs and other industry consortia over the question of offering non-neutral services over CECNs despite the Regulations being amply clear on the fact that the use of CECNs to circumvent the prohibition on discriminatory tariffs will not be permitted. We wish to highlight these attempts at obfuscating the application of the Regulations as activities that raise concerns regarding potential net neutrality violations.

11 Federal Communications Commission, *Open Internet Order, 2010*, available at: https://www.gpo.gov/fdsys/pkg/FR-2011-09-23/html/2011-24259.htm, last accessed on July 2, 2016

12 OfCom, *Improving Traffic Management Transparency*, November 24, 2011, available at: http://consumers.ofcom.org.uk/news/improving-traffic-management-transparency/, last accessed on July 2, 2016

13 Article 9, Marco Civil da Internet, translation available at: https://www.apc.org/en/blog/marco-civil-brazilian-internet-bill-rights-english, last accessed on July 2, 2016

Question 3: What should be India's policy and/or regulatory approach in dealing with issues relating to net neutrality? Please comment with justifications.

What we require are bright-line 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.

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."[14] Subsequently, a Committee constituted by the Department of Telecommunications in May 2015 to enquire into the issue of net neutrality in India presented its findings in a 110 page report titled "Net Neutrality: DOT Committee Report".[15] The report observed among others that user rights on the Internet need to be ensured so that TSPs/ISPs do not restrict the ability of the user to send, receive, display, use, or post any legal content, applications, or services on the Internet, or restrict any kind of lawful Internet activity or use, and that the functioning of competitive markets in network, content and applications must be ensured by prohibiting and preventing practices that distort competition. Following this, the Prohibition of Discriminatory Tariffs in Data Services Regulations, 2016 were issued by TRAI in February 2016, which prevented TSPs/ISPs from offering and charging discriminatory tariffs on the basis of content, indirectly solidifying regulatory respect for the principle of net neutrality.

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. 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*[16] where it was also ruled

14 Available at: http://www.itforchange.net/sites/default/files/ITfC/india_un_cirp_proposal_20111026.pdf

15 Department of Telecommunications, *Net Neutrality: DOT Committee Report*, May 2015, available at:http://www.dot.gov.in/sites/default/files/u10/Net_Neutrality_Committee_report%20(1).pdf, last accessed on July 2, 2016

16 (2014) 6 SC 110

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.*,[17] 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 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”.

There are several ways to enforce the principles of Net Neutrality, including the following:

a) 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.

b) 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 respecting obligations into TSPs' service licenses. Giving

17 (2012) 3 SCC 1

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.

c) 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.

Question 4: What precautions must be taken with respect to the activities of TSPs and content providers to ensure that national security interests are preserved? Please comment with justification.

The current legal framework for communications surveillance in India, surveillance of telephone networks is provisioned by Section 5(2) of the Indian Telegraph Act, 1885 read with Rule 419A of the Indian Telegraph Rules, 1951, while surveillance of Internet networks is provisioned by 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.

These legislations collectively lay down the substantive and procedural frameworks under which Law Enforcement Agencies may collect communications data and meta-data from communications service providers. In the case of TSPs, their respective service licenses contain clauses that further outline certain security conditions in support of the broader legislative framework.

Setting aside the procedural laws and license clauses, even a perfunctory examination of Sections 69 and 69B of the IT Act will tell us that the Law Enforcement Agencies' surveillance powers under these Sections extend to “any information stored on a computer resource”, regardless of the characteristic attributes of said computer resource. Further, the Sections require any person/intermediary in charge of the computer resource to extend all surveillance-related assistance to Law Enforcement Agencies when called upon to do so, and failures in this regard are punishable with imprisonment for up to seven years and fines.

By virtue of the IT Act's broad definition of the term “computer”, literally any data that is

generated, stored or transmitted over any hardware (including servers, PCs, laptops, phones and tablets) or even software is capable of being surveilled by Law Enforcement Agencies, and the obligation to assist Law Enforcement Agencies in this regard accrues to all persons/intermediaries in charge of said hardware/software (including all OTTs, whose traffic traverses India).

On the question of compliance where the TSP or a content provider 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 offense or contravention (say that of sensitive data protection rules) as long as it involves a computer, computer system or computer network located in India.

Granted, there might be some difficulties in ensuring compliance by overseas players, but this is hardly endemic to India or its regulatory setup. The Internet, on account of its border-less nature routinely throws up jurisdictional challenges such as these, but it is important to bear in mind that regulatory efforts aimed at their redressal must not fundamentally alter the underlying principles of the Internet. Mutual Legal Assistance Treaties with specific provisions on the procurement of surveillance data from overseas communications service providers could be a more sustainable solution.

Question 5: What precautions must be taken with respect to the activities of TSPs and content providers to maintain customer privacy? Please comment with justification.

The Information Technology Act,2000 specifically encompasses laws relating to the cyber space i.e. electronic and digital signatures, data protection and privacy, and cyber crimes to name a few. With respect to maintenance of privacy, TSPs and content providers have to comply with Section 43A of the Information Technology Act, 2000 while handling sensitive personal data, along with adhering to the procedures laid down in the Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information) Rules, 2011.

The above mentioned laws are applicable to a body corporate, which includes companies, firms, sole proprietorship, or even individuals engaged in providing commercial or professional services. The 2011 Rules on reasonable security practices enumerate the process for collecting, handling, and securing sensitive personal data of users, such as passwords, financial information, medical history, biometrics, etc. Moreover, the rules mandate an inclusion of a Terms of Service for all platforms engaged in collecting personal information about their users. Section 43A provides for a recourse to

the user when the data handler, in this case the TSP or the Content service provider has failed to adequately implement the security safeguards and has subsequently caused wrongful loss to the user or wrongful gain to another. In addition, the IT Act, 2000 provides for Section 72A, under which disclosure of information, knowingly and intentionally, without the consent of the person concerned and in breach of the lawful contract is punishable with fine & imprisonment.

Specifically for TSPs that are also Internet Service Providers (ISPs), their license agreement with Department of Telecommunication (DoT) prohibits an encryption beyond 40 bits on their platform by users without prior approval of the DoT. For secure financial transactions, transmission of other sensitive personal data, and maintenance of privacy in general, it should be permissible to freely use encryption standards higher than 40 bits.

Both the TSPs and the Content Service Providers are intermediaries as per the Section 2(w) of the IT Act, 2000, and inevitably collect certain personal information about their users. Where protection and handling of sensitive personal data has been covered to a reasonable extent under the 2011 Rules; personal information (demographic information, email addresses, date of birth, and the like), along with meta data (location information, IP address, etc.) has not been accounted for substantially under the IT Act. These categories of information are the most widely collected, and shared amongst businesses, and internationally as well.

On a comparative note, the Federal Communications Commission (FCC) in the United States promulgated regulations for Protecting the privacy of customers of Broadband and other Telecommunication Services in March 2016, and sought comments from the public as well. These rules apply to Internet Service Providers (ISPs) and contain provisions that aim to provide customers the required tools to make informed decisions regarding their privacy while they are using internet services. A few significant provisions in this regulation is the three tier system of consent; notifications at the time of data breach; and prohibition on making services contingent to surrendering the privacy.

- Consent: This Regulation details a three tier system of consent to be followed by the ISP; first, where the customer provides the ISP with inherent consent to use their personal information to perform the essential service of sending information to its destination, or intimate about billing cycles; second, the customer has the option of 'opt-out' from permitting the ISP to use their personal information to market other communication related

services; and third, that the ISP will need specific explicit consent by the customer, i.e. an 'opt-in' for any other use of their personal information.[18]

- Data Breach Notification: In addition, this Regulation proposes a strict notification regime to the customer, as well as certain law enforcement agencies, in instance of a data breach, within a stipulated time frame of 10 and 7 days respectively. The law enforcement agencies are to be notified if the personal information of more than five thousand people is believed to have be breached.[19]
- Prohibition from making services contingent on a customer surrendering their privacy: This rule was put in place to ensure that in situations of less competition among ISPs, customers are not daunted by a 'take it or leave it' approach, where service providers make their services contingent to certain waiver of consumer's privacy.[20]

Although these regulations only cover ISPs and not Content Service Providers, these do serve as a point of reference for domestic regulators seeking to provide for adequate user privacy safeguards in the digital world.

Currently, the IT Act, 2000 although covers some ground with respect to data protection, the privacy and data protection regime in India requires an overarching law. In order to ensure that the personal information of users is protected, a foundational and comprehensive data protection law is required for India that can delineate the rights, and responsibilities of both users and data processors will provide the requisite guidelines for TSPs & CSPs for safeguarding the privacy and personal data of their customers. As the sectoral regulator for the telecommunications industry, and having conducted multiple public consultations that addressed the issue of user privacy in telecom services, TRAI would be well-placed to make a formal recommendation to the Indian legislature outlining the need for overarching privacy and data protection laws.

Question 6: What further issues should be considered for a comprehensive policy framework for defining the relationship between TSPs and OTT content providers?

The issue over functioning of Closed Electronic Communication Networks (CECN) is one that has

18 Federal Communications Commission, *Protecting the Privacy of Customers of Broadband and other Telecommunications Services*, para. 107, available at: https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-39A1_Rcd.pdf, last accessed on July 5, 2016
19 Ibid., para. 236
20 Ibid., para 258

to be considered for a comprehensive policy framework for defining the relationship between TSPs & OTT content providers. In the Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016, the proviso to Section 3(2) exempts data services provided over "closed electronic communications networks" (CECNs) from the general prohibition on differentially priced data services. While the proviso does make it clear that the prohibition would still apply if CECNs are leveraged in such a manner as to circumvent it, some industry players and consortia have been observed attempting to obfuscate this understanding by claiming a lack of clarity as regards the ambit and application of the proviso.

We wish to submit that the Regulations in general and the proviso to Section 3(2) in particular are both well-grounded in reason, and leave no room for ambiguities in their interpretation. As per the Regulations, differentially priced data services offered over the open Internet stand prohibited at all times, whereas such pricing arbitrages in internal CECNs that are separate and distinct from the open Internet will be allowed and will attract no financial disincentives from the regulator. Attempts at circumventing this regulatory premise are easily identifiable as such – offering content from particular content providers at discounted rates over a CECN to the subscriber base of a TSP for instance, is a clear circumvention of the prohibition on differential pricing.

That being said, we submit that it would nevertheless be beneficial in the interest of precluding further efforts at obfuscation and compromise to clearly outline the scope of exemption under Section 3(2) by way of illustrative examples of both permitted and prohibited uses of CECNs as a means of data delivery at differential tariffs.

We reiterate that TRAI is the apposite sectoral regulator for the telecommunications industry, and having already laid down a model Regulation against differentially priced data services, the focus going forward must be on ensuring its sound implementation rather than entertaining unfounded exhortations for its reconsideration.

Moreover, the earlier consultation on Regulatory Framework for Over-the-top (OTT) services overlaps with the current consultation process. Hence, it is important to have a definite road map and to have a time-bound plan to finalize the process. The comments and counter-comments provided in the earlier consultation on Regulatory Framework for Over-the-top (OTT) services will have to be considered with the present pre-consultation paper.

Concept note

I. Executive summary

This concept note is intended as a comprehensive support document to our comments on the Consultation paper. After examining net-neutrality in the Indian context, the concept note outlines two distinct academic research papers – the first concerns an economic model aimed at addressing the question of incentives for ISPs to expand their infrastructural capacities in the absence of net-neutrality, and the second focuses on whether legislative or regulatory action is need to limit the ability of TSPs/ISPs to interfere with OTT content that is transmitted over their networks. A few existing foreign legislations that impart legal force to the principles of net-neutrality are examined next, namely legislations from Chile, European Union, Netherlands, Slovenia, Brazil and the United States of America. The concept note then summarizes two relevant judgments by the Supreme Court of India, where the Court discusses the idea of spectrum as a natural resource and the State's obligation to envision non-discriminatory methods for their distribution and alienation. Lastly, zero-rated service platforms are examined from a competition law perspective.

II. Net-neutrality in the Indian context

The Internet offers a lot of potential and opportunities for sustainable development.[1] Research shows that access to Internet provides individuals and firms a vital resource that facilitates innovation, learning and efficiency, all of which lead to greater productivity and thus, greater economic growth. The positive impacts associated with the Internet are possible because of the neutral nature of the Internet. If NN was done away with, TSPs would begin to charge users different prices for access to different content, such as music, videos, e-mail, chat etc., each of which requires a different amount of bandwidth. Lower-income internet users, Small and Medium Enterprises (SMEs) and start ups would be excluded from parts of the Internet, while higher income users and large companies would have continued access to all internet content. The economic benefits would be concentrated in the hands of rich individuals and established firms who can afford more expensive content. Start ups and SMEs who will no longer be able to leverage the full

1 Haiyan Qian, Director of Division for Public Administration and Development Management of the UN Department of Economics and Social Affairs, UN News Services 2012

benefits of the internet would find it even more difficult to compete with established firms.

Why Net-neutrality is good for the Indian Economy- A neutral internet offers a global platform to everyone to access information, products and services stimulates fair competition and innovation. There will be equal access to the internet for small and medium enterprises and start ups. Net-neutrality stimulates consumer choice, without having TSPs make these choices for them. At a time when India is making efforts to encourage Information and Communications Technology (ICTs), undermining net-neutrality would lead to the creation of new barriers to the online marketplace.

A two-tiered Internet will carry negative consequences for content providers and other start up businesses on the Internet. Companies that cannot pay an extra fees to telecom operators to ensure rapid access to their pages run the risk of losing markets, local businesses could end up being completely excluded from the global marketplace. A non-neutral internet will lead to the inclusion of rich content providers and exclusion of others. Innovation would be stifled making the Internet a privilege for those who can afford it.

There is a demand for “fast lane” internet in certain sectors; this enables content providers to ensure priority delivery of their content. Tele-medicine is one such example.

The miracle of the Internet is that it allows individuals to be connected on a global platform, irrespective of their location. But if TSPs were to divide their networks into fast lanes and slow lanes, the simple nature of the internet would go through a severe change. In order to have a global audience and offer satisfactory services, content providers may have to negotiate with thousands of TSPs throughout the world, ultimately locking out smaller companies that do not have the means to afford fee imposed by TSPs. On the other hand, TSPs will have profit incentives to charge their competitors heavily to access fast lanes. Another issue with a two-tiered internet is that TSPs could be tempted to make slow lanes slower intentionally in order to encourage companies to move to fast lanes.

In the tele-medicine context, tele-health and electronic record data exchange are the two primary areas of health care that would suffer if TSPs are allowed to charge higher prices for faster transmission speeds. Having to pay more for priority data access could reduce information sharing in health care and lock small innovative health care start ups out of the market.

The e-Governance initiative of Govt. of India is totally based on ICT which has the potential to offer citizen centric services. The application of e-governance in health care can monitor and

improve the quality of health care services, make the system efficient, transparent and cost effective as it will bring healthcare providers, policy makers, professionals and the public on a common platform. Government of India has launched Village Resource Centers (VRCs) using communication and remote sensing satellite provided by Indian Space Research Organisation (ISRO) to give essential and intelligent services to 600,000 villages. The villagers will get information on agriculture, health, education, natural resources through VRCs.[2] All of these programs presume an internet built with net neutrality. However, if health care was to be given prioritized access, the “fast lane” costs would be imposed on either patients or the doctors providing access. On the other hand, slow lanes will ensure that poor patients will not be able to have access to certain services, for the reason that their doctors do not have the budget to afford the fast lane.

Content and Application Providers (CAPs) that earn by advertising and other business models should be charged. CAPs are the strongest advocates for NN. If a particular TSP were to threaten to charge a Google or Amazon, they could withdraw the service from that TSP. The loss of this service could result in possible loss of clients for the TSP to other TSPs that have access to these services. While the CAP may lose access to the TSP’s subscriber base, however, the largest CAPs are now so big and have such a diverse set of users internationally that such a move would have little impact on their overall revenue. This argument is strongest when there is a vibrantly competitive retail broadband market.

There are two primary faults in this approach – It fails to take into account local businesses, start ups and SMEs who will loose out on potential market space as a result of failure to pay TSPs for priority access. Secondly, it must be noted that content providers are in a weaker position than TSPs. There are plenty of content providers available to end-users to chose from, so if a TSP blocks access to one content provider's service, substitute services would quickly fill up that space. However, considering the significantly lesser number of TSPs available to choose from, shifting to another TSP altogether is seldom done by customers.

Over and above the arguments made above, net-neutrality is particularly important in the Indian context for several reasons:

1. The rate of internet penetration is still quite low in India, therefore priority should be providing access for all citizens but the quality of access cannot be compromised in favor of arguments like "some access is better than no access".. However, it is equally important that

2 Available at: http://telemedindia.org/egov.html

access be given to a neutral internet, so that increased broadband penetration continues to lead to higher GDP growth. A two-tiered market will slow this process.

2. Prioritization of information on technical factors such as speed will also affect information flow.

3. Services like VoIP offer new technologies at accessible costs and have immediate applications for improving services that will directly help bridge the digital divide as they improve communications. Establishment of such services will be severely limited if net neutrality is not explicitly protected in India.

III. Reports and studies

"*The Debate on Net Neutrality: A Policy Perspective*"[3] is a study carried out in 2009 by the Warrington College of Business Administration at the University of Florida and Mendoza College of Business at the University of Notre Dame. In the back drop of proposals by broadband providers in the US demanding fees from websites for preferential access to end-users, while arguing that they have put resources to maintain and upgrade the physical infrastructure to provide services to consumers while the popular web sites have thus far gotten a 'free ride' on their resource, the research develops a game-theoretic model to address the question of incentives for ISPs to expand their capacity without net neutrality. While taking both neutral and a non-neutral regime into consideration, the study makes the following propositions:

1. Under a non-neutral regime, the gains are not experienced equally. While the monopolist ISP gains if no net-neutrality were in place, the content providers are definitely worse off. Consumer surplus does not change or is higher in the short-term, and in the latter case, while a majority of consumers are better off, a minority is left worse off with larger wait time to access their preferred content.

2. ISPs invest in broadband infrastructure to reach the socially optimal level under net neutrality, but when there is no net neutrality, the ISPs either under-or-over invests in infrastructure.

3. There are a number of problems with the assertion that charging content providers would increase network investment, in particular (source):

3 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

i. Charging content and application providers may reduce innovation and investment in such applications, which are the driver of demand for enhanced network access.

ii. Development of premium data services could incentivize network operators to ensure capacity remains scarce, which may in turn reduce network investment rather than stimulate it.

"Network Neutrality and Quality of Service - What a Non-Discrimination Rule Should Look Like"[4] by Barbara Van Schewick, Director, Stanford Law School's Center for Internet and Society, is a study that focuses on whether legislative or regulatory action is need to limit the ability of providers of internet access services to interfere with the applications, content and services on their networks. It looks into the implications of a non-discrimination rule and proposes a framework that policy makers and others can choose among different options for net-neutrality rules. It attempts to explain how different non-discrimination rules affect network providers' ability to offer quality of service and which forms of QoS, if any, a non-discrimination rule should allow. It makes the following observations:

A. A network neutrality rule should meet the following criteria:

1. It should preserve the factors that have allowed the Internet to serve as a platform for application innovation, free speech and decentralized economic, social, cultural and political interaction in the past:

i. User choice: Users independently choose which applications they want to use, without interference from network providers.

ii. Innovation without permission: Innovators independently choose which applications they want to pursue; they do not need support or “permission” from network providers in order to realize their ideas for an application.

iii. Application Blindness: The network is application blind. An application blind network is unable to distinguish among the applications on the network, and, as a result, is unable to make distinctions among data packets based on this information.

iv. Low costs of application innovation: The costs of application innovation are low. It should not constrain the evolution of the network more than is necessary to reach the

4 B V Schewick, *Network Neutrality and Quality of Service – What a Non-Discrimination Rule Should Look Like*, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1684677

goals of network neutrality regulation.

2. It should make it easy to determine which behavior is and is not allowed to provide much needed certainty for industry participants.

3. It should keep the costs of regulation low.

B. The application-agnostic discrimination approach strikes the best balance between social benefits and social costs: The paper shows that any measure that singles out an application or class of applications for differential treatments tilts the playing field against some applications or classes of applications and interferes with users' decisions about how to use the network, creating significant social costs. At the same, network providers can usually realize their legitimate goals using application-agnostic means that are not similarly harmful to application innovation, user choice, or the Internet's ability to reach its social, cultural or political potential.

C. By legitimizing a broad range of discriminatory conduct (that is, all conduct that is application-agnostic), the rule gives network providers great flexibility to realize legitimate goals such as congestion management, price discrimination, or product differentiation, albeit through means that do not interfere with the values that net-neutrality rules are designed to protect. For example, during times of congestion, a network provider could give one person a larger share of the available bandwidth than another, for example because this person pays more for Internet access or has used the Internet less over a certain period of time. But it could not throttle the bandwidth available to a specific online video application.

D. Application- agnostic network management coupled with user controlled prioritization gives network providers the tools they need to maintain the quality of the Internet experience for all users, even during times of congestion, while preserving the application-blindness of the network and the principle of user choice to the extent possible. Network providers would be able to prevent aggressive users from overwhelming the network and enforce fairness among users by allocating bandwidth among users in application-agnostic ways. But how users use the bandwidth available to them, and whether they would like to give some of their applications priority over others, would be choices left to the users. At the same time, the reasonable network management exception provides a safety valve that allows network providers to react in more application-specific ways if a problem cannot be solved through application-agnostic means. The proposed rule 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 (1) the different classes of service 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; and (3) the network provider is allowed to charge only its own Internet service customers for the use of the different classes of service.

In her paper, Ms. Schewick goes on to differentiate between two types of non-discrimination rules, one that would ban discrimination that causes harm to users or harm to competition and one that bans all application-specific discrimination. The paper concludes that the non-discrimination rule that bans all application-specific discrimination meets the criteria for a good non-discrimination rule, based on the following observations :

1. It should protect the factors that have fostered application innovation in the past to ensure that the Internet can continue to serve as an engine of innovation and economic growth in the future
2. It should protect the factors that have allowed the Internet to improve democratic discourse and to provide a decentralized environment for social and cultural interactions in which anyone can participate
3. It should not constrain the evolution of the network more than is necessary to reach the goals of network neutrality regulation.
4. It should make it easy to determine which behavior is and is not allowed to provide much-needed certainty for industry participants.
5. It should keep the costs of regulation low.

IV. International legislations on net neutrality

Chile

In August 2010, the Republic of Chile became the first nation in the world to incorporate provisions preserving net-neutrality into its books of law. Three new Articles[5] were added to the General Law of Telecommunications, which imposed the following core obligations and prohibitions on Chilean

5 Articles 24H, 24I and 24J, *Ley General de Telecommunicaciones*, available at: http://www.leychile.cl/Navegar?idNorma=29591

ISPs:

- ISPs may not arbitrarily block, interfere, discriminate, hinder or restrict the right of any Internet user to use, send, receive, or offer any legal content, application or service through the Internet, or any legal Internet activity or use. Content, applications and services may not be arbitrarily distinguished based on their origin or ownership. This does not preclude ISPs from adopting measures necessary for the purposes of traffic management and network administration within their respective service zones, provided such measures are not likely to affect fair competition.
- ISPs may block access to certain content, applications or services upon the express request of users, at the users' cost. However, under no circumstances will such blocks arbitrarily affect CAPs.
- ISPs may not limit the right of users to use any kind of hardware peripherals on their networks, so long as they are legal and do not damage the network or quality of service.
- ISPs must publish on their websites all information related to Internet access offered, its speed and quality of connection, making distinctions between national and international connections, and shall include information about the nature and guarantees of service.

In addition, the Chilean *Subsecretaria de Telecommunicaciones* (Under-Secretariat of Telecommunications) in May 2014 prohibited zero-rated services as being violative of the principles of net-neutrality.

European Union

The European Parliament voted the EU Commission's September 2013 proposal on its first reading in April 2014 and the Council adopted a mandate to negotiate in March 2015. Following the adoption of the Digital Single Market Strategy by the Commission in May 2015, Heads of State and Government agreed on the need to strengthen the EU telecoms single market. After 18 months of negotiations, the European Parliament, Council and Commission reached two agreements on the end to roaming charges and on the first EU-wide rules on net neutrality on 30 June 2015[6], to be completed by an overhaul of EU telecoms rules in 2016. Specifically, Article 3 of EU Regulation

6 European Commission Press Release Database, available at: http://europa.eu/rapid/press-release_MEMO-15-5275_en.htm

2015/2120[7] sets the basic framework for ensuring net neutrality across the entire European Union.

These regulations essentially enshrine[8] the principle of net neutrality in the following manner:

- Every European will be able to have access to the open internet and all content and service providers will be able to provide their services via a high-quality open internet.
- Under these rules, blocking, throttling and discrimination of internet traffic by ISPs generally is not allowed in the EU, but in three exhaustive exceptions:
  - compliance with legal obligations;
  - integrity of the network;
  - congestion management in exceptional and temporary situations.
- All traffic has to be treated equally. This means, for example, that there can be no paid prioritisation of traffic in the internet access service. At the same time, equal treatment allows reasonable day-to-day traffic management according to objectively justified technical requirements, and which must be independent of the origin or destination of the traffic and of any commercial considerations.

However, the regulation's text has been criticized as offering loopholes that can undermine the regulation's effectiveness.[9] As a response, in June 2016, the Board of European Regulators of Electronic Communications (BEREC) released a set of draft guidelines[10] on the Implementation by National Regulators of Regulation 2015/2120. Broadly, the guidelines provide greater clarity on a few terms used in the Regulation, exempt IoT and M2M connectivity services from the scope of the Regulation, clarify the users' right to use their own terminal equipment, lay down two tests regarding the permissibility of traffic management practices (non-discrimination, proportionality), elaborate on the exemption of specialised services from the Regulations, and generally provide for the following[11]:

7 Eur-Lex.Europa.eu, availble at: http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32015R2120&rid=2

8 EU Actions, available at: https://ec.europa.eu/digital-single-market/en/eu-actions-net-neutrality

9 'EU net neutrality laws fatally undermined by loopholes, critics say', available at: https://www.theguardian.com/technology/2015/oct/27/eu-net-neutrality-laws-fatally-undermined-by-loopholes-critics-say

10 Draft BEREC Guidelines, available at: http://berec.europa.eu/eng/document_register/subject_matter/berec/public_consultations/6075-draft-berec-guidelines-on-implementation-by-national-regulators-of-european-net-neutrality-rules

11 'New EU net neutrality guidelines are a pragmatic next step', available at:

- The recognition that prioritisation and traffic management can be beneficial not only for so-called specialised services, but also for certain (ex - delay-sensitive) applications on the public internet.[12]
- The recognition that traffic management may be appropriate not only as a short-time expedient, but also a long-term or continuous basis.[13]
- On the practice of zero-rating (where an internet service provider applies a price of zero to the data traffic associated with a particular application or category of applications (and the data does not count towards any data cap in place on the Internet Access Service), the Guidelines generally call for case by case assessment based on a defined list of criteria.[14]

Netherlands

After Chile, Netherlands in June 2012 became the second nation in the world to accord legislative protection to the principles of net-neutrality. Following widespread reports in 2011 that a handful Dutch ISPs had been engaging in discriminatory blocking of services such as VoIP and instant messaging, Article 7.4a[15] was added to the Telecommunications Act, whereby ISPs were prohibited from hindering or slowing down services or applications on the Internet. Exceptions to the this rule are allowed only under the following circumstances:

- To reduce congestion, while treating similar traffic equally
- To preserve the integrity and security of the network and service of the ISP, or the equipment of the end-user (if the breach of integrity or security is caused by the equipment of the end-user, the provider has to notify the end-user first and give them sufficient time to rectify the situation)
- To block the transmission of unwanted communications such as spam (only with the prior consent of the end-user)
- To give effect to a legislative provision or a court order

http://bruegel.org/2016/06/new-eu-net-neutrality-guidelines-are-a-pragmatic-first-step/

12 Draft BEREC Guidelines, Paragraphs 54-65, 72

13 Draft BEREC Guidelines, Paragraphs 68-70

14 Draft BEREC Guidelines, Paragraphs 37-45

15 Article 7.4a, *Telecommunicatiwet*, available at: http://wetten.overheid.nl/BWBR0009950/Hoofdstuk7/Artikel74a/geldigheidsdatum_10-02-2014

Article 7.4a further stipulates that ISPs may not impose differential charges on end-users for the use of different Internet content, applications and services, serving as an effective prohibition of zero-rated services in the country. Also, future administrative orders can institute minimum quality requirements to prevent the deterioration, hindrance, or slowing down of network communications.

Slovenia

In December 2012, Slovenia incorporated its own legislative provision on net-neutrality into the Slovenian law on electronic communications. Article 203[16] was added to the Electronic Communications Act, under which the Slovenian Parliament reiterated the nation's commitment to the open and neutral character of the Internet and forbade network operators and ISPs from restricting, delaying or slowing down Internet traffic at the level of individual services or applications and from implementing measures for their devaluation. However, the following instances of departure from this rule are allowed:

- urgent technical measures to ensure the undisturbed operation of networks and services (e.g. to avoid traffic congestion)
- urgent measures to preserve the integrity and security of networks and services (e.g. elimination of unjustified seizure of a transmission medium – channel)
- urgent measures for limiting unsolicited communications
- court orders

In addition, Article 203 says that the services of network operators and ISPs must not be based on the services or applications that are provided or are used over the Internet. In other words, ISPs are prevented from charging subscribers differently on the basis on the services provided over the Internet, constituting another national prohibition on zero-rated services.

Brazil

In April 2014, the Brazilian President signed into law an “Internet Constitution” - *Marco Civil da Internet*[17] – that seeks to reinforce the protection of civil liberties in the digital age. Net-neutrality,

16 Article 203, *Zakon O Electronskih Komunikacijah*, available at: http://www.uradni-list.si/1/content?id=111442

17 *Marco Civil da Internet*, available at: https://www.publicknowledge.org/assets/uploads/documents/APPROVED-MARCO-CIVIL-MAY-2014.pdf

along with freedom of expression and Internet security, form the three major themes of the legislation and it contains several provisions that uphold the principles of net-neutrality. For starters, *Marco Civil* identifies the preservation and guarantee of net-neutrality[18] as one among the eight principles that oversees the discipline of Internet use in Brazil. Preservation of stability, security and functionality of the network[19], and freedom of business models promoted on the Internet[20] also find mention amongst said principles.

Marco Civil further stipulates that the party responsible for the transmission, switching or routing has the duty to process, on an isonomic basis, any data packages, regardless of content, origin and destination, service, terminal or application.[21] Departures from this rule is allowed only after consultations with the Internet Steering Committee and National Telecommunications Agency, in the interests of[22]:

- Technical requirements essential to the adequate provision of services and applications
- Prioritization of emergency services

Even when legitimately discarding the principles of net-neutrality under the circumstances mentioned above, service providers are required to:[23]

- Abstain from causing damage to users
- Act with proportionality, transparency and isonomy
- Provide transparent, clear and sufficiently descriptive advance-notice to users of the traffic management and mitigation measures adopted, including those related to network security
- Offer services in non-discriminatory commercial conditions and refrain from anti-competitive practice

Lastly, service providers are prohibited to block, monitor, filter or analyze data packets when providing Internet connectivity (free or at a cost) as well as in transmission, routing or switching.[24]

18 *Marco Civil da Internet*, Article 3
19 *Ibid.*
20 *Ibid.*
21 *Marco Civil da Internet*, Article 9
22 *Ibid.*
23 *Ibid.*
24 Supra. 9

United States of America

In the United States, the principles of net neutrality were recognized on a policy level for the first time in 2005, when the FCC adopted a policy statement[25] that established the following four principles of an open Internet:

- Consumers deserve access to the lawful Internet content of their choice.
- Consumers should be allowed to run applications and use services of their choice, subject to the needs of law enforcement.
- Consumers should be able to connect their choice of legal devices that do not harm the network.
- Consumers deserve to choose their network providers,application and service providers, and content providers of choice

While these principles did recognize the tenets of net neutrality, they remained non-enforceable standards until December 2010, when the FCC approved the Open Internet Order containing three specific rules:

- Transparency - Fixed and mobile broadband providers must disclose the network management practices, performance characteristics, and terms and conditions of their broadband services
- No blocking - Fixed broadband providers may not block lawful content, applications, services, or non-harmful devices; mobile broadband providers may not block lawful websites, or block applications that compete with their voice or video telephony services.
- No unreasonable discrimination - Fixed broadband providers may not unreasonably discriminate in transmitting lawful network traffic.

The Order imposed much more liberal obligations on mobile broadband providers as the FCC felt that technical limitations of wireless Internet necessitated looser regulations when compared to fixed-line broadband providers. The Order nevertheless provided regulatory force to the principles of net neutrality, although several stakeholders expressed disappointment over the fact that it did not go far enough to safeguard net neutrality. However, the Open Internet Order's rules against blocking

25 Federal Communications Commission, *Policy Statement on Broadband Access*, available at: https://apps.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.pdf

and unreasonable discrimination were struck down by the United States Court of Appeals for the District of Columbia Circuit in January 2014 in the matter of Verizon v. FCC[26], as the Court ruled that the FCC had no authority to enforce Network Neutrality rules, since Internet service providers are not identified as "common carriers".

In response to the Court ruling and after much public debate that involved the President of the United State's recommendation to reclassify Internet service providers as common carriers, the FCC in February 2015 reclassified ISPs as common carriers under Title II of the Communications Act, thereby making Section 706 of the Telecommunications Act 1996 applicable to ISPs. Section 706 requires the Federal and State Communications Commissions to encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment. Pursuant to this, the FCC also released a fresh Open Internet Rules and Order in March 2015, which introduced the following “Bright Line Rules” applicable to providers of both fixed and mobile broadband services:

- No Blocking: broadband providers may not block access to legal content, applications, services, or non-harmful devices.
- No Throttling: broadband providers may not impair or degrade lawful Internet traffic on the basis of content, applications, services, or non-harmful devices.
- No Paid Prioritization: broadband providers may not favor some lawful Internet traffic over other lawful traffic in exchange for consideration of any kind—in other words, no "fast lanes." This rule also bans ISPs from prioritizing content and services of their affiliates.

In June 2016, the United States Court of Appeals for the District of Columbia Circuit in *USTA v. FCC & USA*[27] upheld the Open Internet Rules in a 184 page judgment, backing the principle of net neutrality. The court ruled that the FCC did have the proper authority to reclassify broadband under Title II of the Telecommunications Act. The three judge bench wrote in their opinion:

“US Telecom misreads *Verizon*. Although *Verizon* does recognize that broadband providers’

26 *Verizon Communications Inc. v. Federal Communications Commission*, 740 F.3d 623 (D.C. Cir. 2014)
27 USTA v. FCC & USA, No. 15-1063 (D.C. Cir.) available at: https://www.cadc.uscourts.gov/internet/opinions.nsf/3F95E49183E6F8AF85257FD200505A3A/$file/15-1063-1619173.pdf

delivery of broadband to end users also provides a service to edge providers, id., it does not hold that the Commission must classify broadband as a telecommunications service in both directions before it can regulate the interconnection arrangements under Title II. The problem in *Verizon* was not that the Commission had misclassified the service between carriers and edge providers but that the Commission had failed to classify broadband service as a Title II service at all. The Commission overcame this problem in the Order by reclassifying broadband service—and the interconnection arrangements necessary to provide it—as a telecommunications service."

V. Relevant judgments

Centre for Public Interest Litigation v. Union of India & Ors.[28]

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.

Facts:

Petitioners questioned the grant of UAS Licenses to private respondents by contending that the procedure adopted by the DOT was arbitrary, illegal and in complete violation of Article 14 of the Constitution. The DOT had violated the recommendations by the TRAI that there should be no cap on the number of Access Service Providers in any service area and this was in complete violation of Section 11(1) of the TRAI Act

Issues:

1. 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 Constitution?
2. Whether the recommendations made by the Telecom Regulatory Authority of India (TRAI) on 28.8.2007 for grant of Unified Access Service License with 2G spectrum in 800, 900 and 1800 MHz at the price fixed in 2001, which were approved by the Department of Telecommunications (DOT), were contrary to the decision taken by the Council of Ministers on 31.10.2003?

28 (2012) 3 SCC 1

3. Whether the exercise undertaken by the DOT from September 2007 to March 2008 for grant of UAS Licenses to the private Respondents in terms of the recommendations made by TRAI is vitiated due to arbitrariness and *mala fide* and is contrary to public interest?

4. Whether the policy of first-come-first-served followed by the DOT for grant of licenses is ultra vires the provisions of Article 14 of the Constitution and whether the said principle was arbitrarily changed by the Minister of Communications and Information Technology (hereinafter referred to as 'the Minister of C&IT'), without consulting TRAI, with a view to favor some of the applicants?

5. Whether the licenses granted to ineligible applicants and those who failed to fulfill the terms and conditions of the license are liable to be quashed?

Held:

The State is empowered to distribute natural resources. However, as they constitute public property/national asset, while distributing natural resources the State is 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. Like any other State action, constitutionalism must be reflected at every stage of the distribution of natural resources. In Article 39(b) of the Constitution it has been provided that the ownership and control of the material resources of the community should be so distributed so as to best sub-serve the common good, but no comprehensive legislation has been enacted to generally define natural resources and a framework for their protection. of course, environment laws enacted by Parliament and State Legislatures deal with specific natural resources i.e. forest, air, water, coastal zones, etc.

...The ownership regime relating to natural resources can also be ascertained from international conventions and customary international law, common law and national constitutions. In international law, it rests upon the concept of sovereignty and seeks to respect the principle of permanent sovereignty (of peoples and nations) over (their) natural resources as asserted in the 17th Session of the United Nations General Assembly and then affirmed as a customary international norm by the International Court of Justice in the case of Democratic Republic of Congo v. Uganda...

Spectrum has been internationally accepted as a scarce, finite and renewable natural resource which is susceptible to degradation in case of inefficient utilization. It has a high economic value in the light of the demand for it on account of the tremendous growth in the telecom sector. Although it

does not belong to a particular State, right of use has been granted to the States as per international norms.

In India, the courts have given an expansive interpretation to the concept of natural resources and have from time to time issued directions, by relying upon the provisions contained in Articles 38, 39, 48, 48-A and 51-A(g) for protection and proper allocation/distribution of natural resources and have repeatedly insisted on compliance with the constitutional principles in the process of distribution, transfer and alienation to private persons.

As natural resources are public goods, the doctrine of equality, which emerges from the concepts of justice and fairness, must guide the State in determining the actual mechanism for distribution of natural resources. In this regard, the doctrine of equality has two aspects: first, it regulates the rights and obligations of the State *vis-a-vis* its people and demands that the people be granted equitable access to natural resources and/or its products and that they are adequately compensated for the transfer of the resource to the private domain; and second, it regulates the rights and obligations of the State *vis-a-vis* private parties seeking to acquire/use the resource and demands that the procedure adopted for distribution is just, non-arbitrary and transparent and that it does not discriminate between similarly placed private parties.

Association of Unified Tele-Service Providers & Ors v. Union of India[29]

Spectrum is a natural resource which 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

Facts:

An appeal was filed challenging an order of the High Court whereby the CAG was held to have powers to conduct revenue audit of all accounts drawn by licensees and that accounts of licensee, in relation to revenue receipts, could be said to be accounts of Central Government and thus subject to revenue audit.

Issues:

1. Scope and ambit of the powers of the CAG, the TRAI and the DoT in relation to the proper computation and quantification of Revenue in determining the license fee and spectrum

29 (2014) 6 SC 110

charges payable to the Union of India under Unified Access Services (UAS) Licenses entered into between DoT and the service providers.

2. Whether service providers were bound to make available all books of accounts and other documents maintained by them to CAG

Held:

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.

UAS license holders have an obligation to use such resources in a manner as not to impair or diminish the people's right and people's long term interest in that property or resource.

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.

The CAG is, therefore, an important functionary under the Constitution and, it is often said, he is the guardian of the purse and that he should see that not farthing of it is spent without the authority of the Parliament. CAG had therefore, duty to examine and satisfy himself that all rules and procedures in that behalf were being met not only by Union but also service providers. CAG's function was, therefore, separate and independent, which was not similar to audit conducted by DOT - Service providers were bound to make available all books of accounts and other documents maintained by them under Rule 3, so as to ascertain whether Union of India was getting its full share of revenue.

VI. Zero-rated services: a competition law perspective

Zero-rated services broadly enable customers to download/upload particular content without

incurring any data-usage charges. Though consumers of zero-rated services get the data usage free of cost, the actual benefits that accrue to consumers end there. Consumer choice is the first victim of zero-rated plans, as access is limited to one or few pre-determined services.

Further, consumers may be put to restricted access under zero-rated services without the consumer actually knowing about the fact that he is put to restricted access. A Digital Divide will thus be created, where a few will have access to all on-line content while the rest will have access only to a limited amount of curated content. A situation could thus arise, where consumers would be forced to hop from one zero-rated service platform to another so as to access the entire range of content and services that are offered on the Internet.

More importantly, consumers of zero-rated services will not benefit from a perfect competition in that domain. For instance, only a few content providers would join zero-rated service platforms to provide services. The benefit of those content providers, who have not joined the plan cannot be availed by the consumer.

Aside from consumers, zero-rated services will also operate to the mutual detriment of on-line content and applications providers, as the provision of such services are arguably violative of Section 3 (prohibition of anti-competitive agreements) and Section 4 (prohibition of abuse of dominance) of the Competition Act, 2002. Healthy competition in the market could be impacted in the following ways:

1. **Entry Barrier:** Established players will get into the Zero rating plans and medium and small players would be forced to negotiate with Internet Service Providers to gain market access enter into the platform by paying the Internet Service Providers in order to able to compete in the market. If other players do not enter in the zero platform of the ISP then their 'app' will not be free for the end user, and in such a scenario the end user would prefer an app that is free rather the a one that is to be paid for. Therefore, it hampers competition.

2. **Denial of Market Access**:The Big player in any vertical of business can by entering in the zero plan can deny market access to other players or competitor. The other players or competitors will be either forced to join the zero platform or exit from the market it self.

3. **Accrual of benefits to consumers**. There is no benefits accrued to Consumers other than free data. The consumer will be at a disadvantage as there would not be competition among the service provider and also lesser consumer choice.

4. **Improvements in production or distribution of goods or provision of services**; There will be no improvement in production or distribution of goods or provisions of services and also No incentive for innovation. No person will have an incentive to create new applications as there are entry barriers. This will be actually hamper the growth of the market and effective allocation of resources.

5. **Promotion of technical, scientific and economic development by means of production or distribution of goods or provision of services**. There is no promotion of technical, scientific and economic development, on the other hand it will discourage technical, scientific and economic development As there is no incentive to provide open internet: Internet Service providers will then only provide internet for which they are being paid for by the OTTs and will not have any incentive to provide non sponsored internet.