MTNL/RA/TRAI/ Pre-CP-Net Neutrality /2016
Dated 04.07.2016

To,

The Advisor (F & EA)
TRAI, New Delhi

Sub. : Comments on TRAI Pre- Consultation Paper dated 30.05.2016 on "Net Neutrality".

TRAI issued Consultation paper on 09.12.2015 on the aforesaid subject and asked the various stakeholders to comment on the issues involved in the consultation paper. In this reference following comments are submitted for consideration:

MTNL strongly supports the concept of Net-Neutrality. In our perception there should be "no discrimination/favor for any specific Content/services in terms of cost and access to subscribers.

Following is submitted in support of the Open Internet and upholding of open and democratic nature of internet in India:

1. Article 19 of the **Universal Declaration of Human Rights**, which states:

   "Everyone has the right to freedom of opinion and expression; the right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media regardless of frontiers".

2. No throttling ,No blocking and No intended Prioritization". The same principles have also been recognized by FCC (Federal Communications Commission), USA in their rules to protect the open internet i.e. their policy in favor to net neutrality vide **Open Internet Order by FCC in February'2015**.

3. Our Hon'ble Supreme Court has recently ruled in the Shreya Singhal versus Union of India case, holding that Internet content is protected by our Constitution's right to free expression, under **Article-19 (1) (a)** of Indian Constitution, and is only subjected to some reasonably acceptable limits for government regulation.

4. The Hon'ble supreme court in Francis Coralie v. Union Territory of Delhi, observed that **Article 21** of Indian constitution includes in its ambit :"The right to live includes the right to live with human dignity and all that goes along with it, viz., facilities for reading writing and expressing oneself in diverse forms".

5. **Article 14** of Indian constitution, which provides for equality and prohibits discrimination on any unreasonable grounds. Examples of possible discrimination include, for instance, blocking content or providing differential internet speed. In other words the internet access should be non-discriminative.

6. **The Competition Act, 2002,** through various provisions like anti-competitive agreements and abuse of dominant position, among the industry players at same/different levels, also protects the consumers interests against anti-competitive practices. The same is applicable in Telecom sector also.

7. DoT on behalf of Government, controls the service conditions of all the licensees in India, The **unified license issued by DoT** is also in conformity with the principles of Net Neutrality which states as per clause 2.1 of chapter IX " The subscriber shall have unrestricted access to all the content available on internet except for such content which s restricted by licensor/designated authority under law".

8. **DoT committee on Net-Neutrality has also recommended** the adoption of core principles of Net-Neutrality.

The following may be considered as guiding factors for deciding the issue of Net-Neutrality.:

A. Internet is a global heritage of mankind as a whole. We need the Internet to further contribute to the growth of human mankind in society and not leading to divisions within society (i.e. discrimination among internet users).

B. Internet needs to be protected, from any discrimination, as it is the common paradigm platform that allows creative, innovative approaches of communication, dissemination and transmission of thought processes as also data and information in the electronic form whether in the form of audio, video, image or text.

C. Today people's lives are dependent on the Internet. People today have a fundamental right to access the Internet, which should not be violated unless through the procedure established by law. Hence any provision, which specifically provided/exempted by legal provisions (Regulation, Directions) should only be entitled to be inconsistent with Net-Neutrality provisions.

D. Net Neutrality, if not ensured properly, could prejudicially impact the Digital India Programme of the Indian Government. Therefore, the "Digital India" vision of GoI may be imbibed in the telecom policies.

E. However, the positive discrimination, where Government (in public interest) decides to give services free on internet (no internet usage charges), being in public interest may be allowed.

F. However, considering the huge investments of TSP's in telecom infrastructure and further investment requirements for expansion of network, also that the **OTT (providing communication services, same as by TSPs) services** (i) caused reduction in revenue from traditional services of TSPs and (ii) requires further expansion in infrastructure to support OTT services particularity in view of high spectrum cost, infra cost, different regulatory provisions like roll out obligations, security compliance etc., revenue sharing arrangement between TSP's and OTT service providers should be allowed in a regulated manner.

G. All the tariffs plans of TSP's should be subject to examination by TRAI, and TRAI should intervene in case of breach of provisions of net-neutrality.

H. In Indian Telecom Industry context, the "Active Reform Approach" recommended by DoT committee on "Net Neutrality" should be adopted.

I. Net-neutrality concept, if not implemented in full aspect, will allow the dominant TSPs to skew the market to their profits, causing detriment to the interests of small/regional TSPs, and hence affecting the level playing field.

The question-wise comments are given below:

Q1. 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?

MTNL comments:

In our perception Net Neutrality aims for "no discrimination/favor/restriction for any specific content/application in terms of cost and access to subscribers, i.e. no throttling, no blocking, and no-intended prioritization, no restriction".

Therefore there should not be any discrimination by TSP on aspects of speed, access or price. However, TRAI vide "Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016" dated 08.02.2016 has already regulated the "Price" factor.

Further, the issues mentioned above as "A to I", may be considered as guiding factors for ensuring Net-Neutrality.

Q2. 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?

Q3. What should be India's policy and/or regulatory approach in dealing with issues relating to net neutrality? Please comment with justifications.

MTNL Comments:

The following is submitted regarding reasonable traffic management practices, that may need to be followed by TSPs while providing Internet access services:

- The ISPs should make investment in the capacity building to minimize the requirement of traffic management.

- TRAI has already defined the performance measurement parameters both for broadband and wireless data vide ***'Quality of Service of Broadband Service Regulations 2006' (11 of 2006) dated 6th October, 2006*** *as:*

S. No.	QoS Parameters	Benchmarks	Averaged over a period of
3 (v)	**Bandwidth Utilization/ Throughput:** **a) Bandwidth Utilization i) POP to ISP Gateway Node [Intra-network] Link(s) ii) ISP Gateway Node to IGSP / NIXI Node upstream Link(s) for International connectivity**	<80% link(s)/route bandwidth utilization during peak hours (TCBH). If on any link(s)/route bandwidth utilization exceeds 90%, then network is considered to have congestion. For this additional provisioning of Bandwidth on immediate basis, but not later than one month, is mandated. Subscribed Broadband Connection Speed to be	One Month

	b) Broadband Connection Speed (download)	met >80% from ISP Node to User.	
3(vi)	**Service Availability / Uptime (for all users)**	> 90% quarter ending June 2007; > 98% with effect from quarter ending September 2007 and onwards	One Quarter
3(vii)	Packet Loss (for wired broadband access)	<1%	One month
3(viii)	Network Latency (for wired broadband access) • User reference point at POP / ISP Gateway Node to International Gateway (IGSP/NIXI) • User reference point at ISP Gateway Node to International nearest NAP port abroad (Terrestrial) • User reference point at ISP Gateway Node to International nearest NAP port abroad satellite.	**<120 msec** **<350 msec** **<800 msec**	One Month

Under above regulation, there is least possibility of traffic congestion and hence no requirement of traffic management practices are envisaged in current regulatory scenario of country.

- However traffic management practices like prioritization may be required for real time services like IPTV and VOIP. As Industry is already demanding to bring OTT communication services under regulatory purview due to its competitive nature with traditional voice services and security. Hence MTNL is of opinion not to prioritize VOIP services as of now until they are brought under regulation. However IPTV services may be prioritized.

- Network operators and Internet access service providers should strive for the preservation of open and neutral nature of internet and should not limit, hold or slow down the internet traffic on the level of individual service or application or execute any measures for its depreciation, except in the instance of:

a) necessary measures to secure integrity and security of the networks and services (e.g. an elimination of unauthorized excessive seizure of transmission medium – channel),
b) necessary measures for limiting unsolicited communications
c) court decision.

- In case of spurious traffic, ISPs may employ the ITMPs the ISPs may adopt the following framework:

  - ❖ disclose the ITMPS being employed to TRAI and customers as well as the need for it and its purpose and effect, and to establish that how it is non- discriminatory or non -preference, proportionate and relevant . In the case of an ITMP that results in any degree of discrimination or preference:
  - ❖ demonstrate that the ITMP is designed to address the need and achieve the purpose and effect in question, and nothing else;
  - ❖ establish that the ITMP results in discrimination or preference as little as reasonably possible;
  - ❖ demonstrate that any harm to a secondary ISP, end-user, or any other person is as little as reasonably possible; and
  - ❖ explain why, in the case of a technical ITMP, network investment or economic approaches alone would not reasonably address the need and effectively achieve the same purpose as the ITMP.
  - ❖ How the ITMP will affect a user's Internet experience, including the specific impact on speeds nad packet loss.
  - ❖ Disclosure of ITMPs should include the following information:
    - ➢ why ITMPs are being introduced;
    - ➢ who is affected by the ITMP;
    - ➢ when the Internet traffic management will occur;
    - ➢ what type of Internet traffic (e.g. application, class of application, protocol) is subject to management; and
    - ➢ how the ITMP will affect a user's Internet experience, including the specific impact on speeds.
  - ❖ Any ITMPs measure taken in the interest of security and privacy should be well conveyed to customers and regulatory authority.
  - ❖ ITMPs that result in blocking Internet lawful content, applications, services or non-harmful devices; , are not permitted.
  - ❖ In case of technical failure/partial link failure in network, Traffic management practices may be allowed to operators to give higher QOS, high speed to high value subscribers above TRAI mandated norms. However the same QOS for low value subscribers should not be forced if TRAI norms are being maintained.

Further, the **positive discrimination**, where Government (in public interest) decides to give services free on internet (no internet usage charges), being in public interest may be allowed. However in this reference it is suggested that:

- ❖ The domain/definition of such "Basic Content/Information" should be decided by the government and should not be left at the understanding of TSP's. However such "Basic Content/Information", should be limited to "basic necessity" and should be concerned and hosted in Indian, national geographical domain.
- ❖ As in case of "termination charges for SMS", TRAI decides the exempted categories, and communicates to TSP's for implementation, likewise the same approach should be used by TRAI in deciding the "free basic content, i.e. content exempted from charges" and TSP's should allow free access to such content to their subscribers. The "reimbursement approach" is not suggested for involving technical complexities, and leading to billing disputes.
- ❖ All the features of scheme should be regulated by TRAI, and should be applicable to all TSP's in identical manner in all senses, so as being non-differentiating vis-à-vis subscribers of different TSPs.

Furthermore, the TSPs, who are willing to promote social objectives of providing free/discounted internet access to their customers, may be allowed to offer free/discounted data services (without any discrimination of content/applications etc. on any ground) to their customers. This can be done in the form of free initial data offerings to new subscribers during specified time period/for specified initial time limit/for specified volume of data and giving certain amount/volume of data free everyday.

Q4. 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.

MTNL Comments: TSPs in India, are already bound to comply the Security and Privacy provisions/directions issued by licensor/Regulator. The regulatory provisions are required to be extended to OTT/Content providers to the determinable extent.

A. For OTT/ Applications providing VoIP Services:

- ➢ Real time content monitoring by LEA's for the traffic moving in & out of India.
- ➢ The content providers should also comply with the security conditions complied by a TSP.
- ➢ In view of huge volume of data traffic / consumption in India, content providers must be asked to put their contents / Servers in India for Incoming & Outgoing traffic to /from India.
- ➢ maintain and share on demand, data records /logs of communications , to be preserved for certain defined period.
- ➢ maintain and share the address books of adversaries on court orders.

- Content providers be asked to share the decoded and readable content to LEAs in real time as in the past government/LEAs have been struggling in getting the decoded content.

B. For OTT/ Applications providing Non-VoIP Services:

License has already mandated sufficient security norms to be complied by TSPs. However the problem occurs in case, the application provider is not bound to the rule of the country, e.g. case of encryption by whatsapp. Under such circumstance, the Application provider may be asked to provide decryption key to the security agencies or else their website may be got blocked.

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

MTNL Comments:

A. For OTT/ Applications providing VoIP Services:

- Standard encryption techniques may be used by the content service providers to avoid Hacking, Virus / Malware attacks. .
- No sharing of consumer data with any third party without approval of the user.
- No access to customer's personal data like Phone book / contact information, Photo gallery, Location etc without approval.

B. For OTT/ Applications providing Non-VoIP Services:

It would be appropriate to establish privacy provisions in order to protect personal information. All ISPs may be directed, as a condition of providing retail Internet services, not to use for other purposes personal information collected for the purposes of traffic management and not to disclose such information. It is not possible to force the privacy norms on all the application provider due to the open characteristics of the internet. Hence it is suggested a complaint portal may be developed, where customer can make complaint against web site if their privacy is infringed/ likely to be diluted by that particular web site. The provision of monitoring/checking may be established. If complaints are found true, TRAI may ask all ISPs to block such websites.

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

MTNL's comments: Following comments are restricted to OTT's providing Communication (VoIP) services, same as by TSPs:

1. As for providing OTT services, TSPs robust infrastructure must be in place. Also that the OTT services (i) caused reduction in revenue

from traditional services of TSPs and (ii) requires further expansion in infrastructure to support OTT services particularity in view of high spectrum cost, infra cost, different regulatory provisions like roll out obligations, security compliance etc.

2. Due to availability of smart phones with enhanced features , rich applications etc , the customer aspirations are always high in terms of network coverage , QoS, Bandwidth availability etc.. This puts a lot of pressure on TSPs for continuous upgradation / expansion of their network & services with huge CAPEX & OPEX involved in it . This pressure again increases when the price of spectrum owned by a TSP is considered. It is true that the data traffic has certainly increased due to such OTT applications / services, however, considering the CAPEX & OPEX involved in frequent network upgardation, Spectrum cost etc., the increase in data traffic due to OTT services, is just insufficient to cope up the loss of revenue from traditional voice & messaging services by the TSP. TSP shall never be able to recover the cost of equipment , infrastructure & spectrum etc only on the basis of data revenue usage.

3. The situation is slowly becoming alarming for the Govt. as well, as the reduced revenue of a TSP in turn causes revenue loss to the Govt. in terms of % of AGR collected from the TSP for various services deployed & in a long run this shall result into reduced demand of spectrum put for any auction and thus the revenues of GoI will dry up in near future.

4. At the same time MTNL also favors the innovation and indigenous content development in telecommunication sector.

5. Hence to balance both, it is suggested to put no obstacles for start ups and bandwidth usage upto certain limit can be provided free by TSP , while for OTT applications which are in demand and exceeds certain threshold limit (to be decided by regulator) , it may be made essential that OTT provider shall share revenue in the form of infrastructure cost to TSP.

6. Further as mentioned in reply to Q4 & Q5 above, the OTT service providers should be made responsible for customer privacy and national security issues, for actions on their part.

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