By Email

To,
Shri Asit Kadayan, Advisor (QoS)
Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhawan,
JJ Nehru Marg, (Old Minto Road)
New Delhi – 110002

Email: advqos@trai.gov.in

13 February, 2020   IFF/2020/108

> Subject: *Comments towards TRAI's Consultation Paper on "Traffic Management Practices (TMPs) and Multistakeholder Body for Net Neutrality"*

Dear sir,

Internet Freedom Foundation ("IFF") is a registered charitable trust which advocates for people's rights over the internet across public institutions and the private sector. IFF's origins stem from the SaveTheInternet.in movement which enabled more than a million Indians to advocate that net neutrality be recognised as a core tenet of the public internet. We are committed to the advance of net neutrality and continue to run SaveTheInternet.in ("STI.in").

The STI.in movement was instrumental in broadbasing the regulatory discourse and nudging the debate away from ISP/TSP interests towards individual-centrism and public interest. We believe that it helped shape TRAI's ensuing recommendations (dated 28th November 2017) and the Department of Telecommunications' ("DoT's") subsequent license amendments (dated 31st July 2018), which was ultimately lauded globally as a progressive internet governance best practice.

We laud the TRAI's latest decision to onboard stakeholder comments vis-a-vis the implementation of the framework. The focus areas of the consultation paper in terms of monitoring, enforcement and institutional design are critical as experts such as Barbara van Schewick believe that for meaningful net neutrality there is a need for enforcement and continuous tightening of the regulatory framework.

IFF remains cognisant of high-level market considerations such as the stress of the telecom sector, its reliance on revenues from mobile data consumption and the mobile-first nature of India's internet demographic. At the same time we believe that these economic interests cannot compromise the rights of internet users in India and emerging internet businesses. In fact, we firmly believe that the principle of non-discriminatory treatment of content over the internet helps ensure two discrete legal and policy objectives. First, it enables competition within the marketplace. Second, it helps protect people's guaranteed right to receive and impart information-- protected under Article 19(1)(a) of India's Constitution.

We hope our submissions can help promote transparency, accountability and inclusivity. In our submission we highlight risks of industry capture/telecom centricity, focus on the empowerment of users to make informed decisions, and enable users and businesses to enjoy the internet unimpeded. In a contracting telecom market the role of net neutrality becomes central in ensuring that the internet remains a domain where ISPs do not control people's experience online.

In essence, the enforcement framework should help facilitate the Powell Principles. Namely that, users should have the freedom to access and convey content, freedom to use applications, freedom to attach personal devices, and freedom to obtain service plan information.[1] Ultimately, we believe it will help promote innovation, economic growth, and facilitate social objectives like political discourse and social/cultural interaction in a decentralised manner.

In this context, please see below are substantive recommendations that are separately attached to this covering letter.

Siddharth Deb,
Policy and Parliamentary Counsel,
Internet Freedom Foundation
siddharth@internetfreedom.in

---

[1] Remarks of Michael K. Powell Chairman, Federal Communications Commission At the Silicon Flatirons Symposium on *The Digital Broadband Migration: Toward a Regulatory Regime for the Internet Age* University of Colorado School of Law Boulder, Colorado February 8, 2004.

Substantive Response dated February 13, 2020 to TRAI's Consultation Paper on
"Traffic Management Practices (TMPs) and Multistakeholder Body for Net Neutrality"

Please see below are substantive recommendations that are separately attached to this covering letter. We have divided our submission along with justification under the two central themes of the consultation.

These are split between *first* Traffic Management Practices and *second* the creation of a Multi-Stakeholder Body. For convenience we have bunched the queries posed in the consultation paper collectively and then responded to them together.

   A. *Reasonable Traffic Management Practices (TMPs)*

   Q. 1. *What are the broad types of practices currently deployed by the Access Providers (APs) to manage traffic? Out of these practices, which ones can be considered as reasonable from the perspective of Net Neutrality? Whether list of Traffic Management Practises (TMPs) can be prepared in advance or it would be required to update it from time to time? If later is yes, then what framework would be required to be established by the Multi-Stakeholder Body to keep it up to date? Please suggest with justification.*

   Q. 2. *Whether impact of TMPs on consumer's experience can be interpreted from its name and short description about it or detailed technical description would be required to interpret it in objective and unambiguous manner? In case of detailed technical description, what framework needs to be adopted by the MultiStakeholder Body to document it. Please suggest with justification.*

   Q. 3. *What set up need to be established to detect violations of Net Neutrality, whether it should be crowd source based, sample field measurements, probe based, audit of processes carried out by access providers or combination of above? How to avoid false positives and false negatives while collecting samples and interpreting Net Neutrality violations? Please suggest with justification.*

1. Narrow tailoring and the definition of the TMP exception

1.1 Our response under this theme has been made with the understanding that the DoT is striving to formulate a framework to identify and monitor reasonable traffic management practices, with a view towards penalising service providers when TMPs are deemed to violate the principle of non-discriminatory treatment of internet traffic. We appreciate that the Consultation Paper stressed that in order to be *reasonable*, TMPs must be proportionate, transparent and transient.

1.2. However, when considering the actual scenarios in which TMPs are typically deployed (as cited by TRAI), we object to three scenarios. First, in instances of traffic congestion where a type/class of content application/stream is differentially[1] treated vis-a-vis another. Second, in instances where TMPs are deployed to generally prioritise *latency sensitive* traffic. And third when TMPs are to be deployed due to legal requirements.

1.3. We believe that TMPs should only be deployed in instances of network congestion, and for network integrity and security. IAS providers should not be allowed to have the scope to hide behind the traffic management exception, as a mechanism to discriminate against certain types of applications/services (even if there is no express/overt commercial consideration). Therefore, the exception must be articulated in the narrowest manner possible. For instance, IAS providers should not be compelled or required to block content applications in pursuant to any legal order-- since that opens up scope for misuse. It should only be restricted to requests from the Licensor/designated authority under procedures available under applicable/relevant laws like Section 69A of the Information Technology Act, and the concomitant Access Blocking Rules, 2009. In essence the relevant laws should be explicitly mentioned in the eventual regulation, with scope for periodic updation on an annual basis.

1.4. Keeping with this, our position is aligned with Dr. Barbara Van Schewick's representation to TRAI in its 2017 net neutrality consultation.[2] Dr. Van Schewick is a globally recognised expert on the architectural, economic, social and political aspects of the internet, and her inputs have been relied upon by international authorities including the FCC in the US, BEREC in the EU and the CRTC in Canada. In this context, we recommend Dr. Van Schewick's proposed definitional criteria[3] for reasonable traffic management exceptions:

- the practices must appropriate and tailored (*used only during times of congestion*);
- as application agnostic as possible (which has been described as critical requirements); and
- only apply to rules against blocking and discrimination

1.5. Dr. Van Schewick's above definitional criteria allows for narrow carve outs for TMPs to be deployed (transparently), provided there are special characteristics to the situation at hand. She also highlights that the requirements for reasonable TMP exceptions should not distinguish between wireline and wireless providers.

---

[1] Either prioritised or throttled.

[2] Barbara van Schewick, Comments on TRAI's Consultation on Net Neutrality (March 15, 2017) (at https://main.trai.gov.in/sites/default/files/Barbara%20van%20Schewick_13_04_2017.pdf).

[3] Ibid.

The risk of providing any relaxation to mobile internet providers, is that it perpetuates biases in favour of network provider control in wireless networks.

1.6. Moreover, there is literature which suggests that LTE networks do not pose fundamentally different technical challenges as compared to wireline DSL technologies[4]. Further, relaxed standards for mobile technologies could inadvertently harm India's own aspirations of wireline internet connectivity since, since it may distort supply-side incentives in favour of wireless connectivity. Ultimately, we contend that if an application agnostic principle for reasonable traffic management was crystalised, market participants and technology vendors would work toward building tech agnostic solutions.

1.7. Additionally, while DoT has the power to list services as *Specialised Services*, the category remains an amorphous relatively vague and has the scope for potential misuse by internet access service providers. To prevent such risks, it is recommended that authorities frame criteria and standards to narrow the scope for discretionary IAS provider practices which accord certain players preferential treatment. Finally, we submit that deep packet inspection (DPIs) and other similar techniques should be explicitly prohibited, owing to people's fundamental right to informational privacy as articulated in the Hon'ble Supreme Court of India's decision in *Justice KS Puttaswamy (Retd) and Anr v Union of India and Ors*.

2. Risks of class-based differentiation in reasonable TMP exception

2.1. In this section we provide our substantive concerns with allowing for reasonable TMPs to differentiate between different classes of internet traffic and/or content applications.

2.2. In our earlier response to TRAI in April 2017,[5] we highlighted that the net neutrality framework should not allow for any form of class differentiation in the treatment of internet traffic. In this instance, we strongly urge TRAI to consider that the reasonable TMP exception should not inadvertently lead to a backdoor in this regard. This is because even an "objective" differentiation of different categories of traffic, allows ISPs to distort competition, induce either intentional or unintentional class-based discrimination, stifles innovation, harms users and hurts the reliability/speed of encrypted traffic.[6] The harms range across economic, social, and potentially constitutional.

---

[4] Ibid.

[5] Internet Freedom Foundation, Comments on TRAI's Consultation on Net Neutrality (April 12, 2017) (https://main.trai.gov.in/sites/default/files/Internet%20Freedom%20Foundation_13_04_2017.pdf)

[6] Barbara van Schewick, Europe Is About to Adopt Bad Net Neutrality Rules. Here's How to Fix Them, October 22, 2015 (at https://bit.ly/2SIJMwt).

2.3. Specifically, we question how certain classes are accorded priority over others. Any such measure would allow TSPs the impunity to exercise discretion and offer favourable conditions to a preferred class of applications/services. For instance, it is likely to harm internet users who use P2P file sharing platforms, encrypted traffic and possibly gaming platforms. With respect to encrypted traffic, IAS providers would not be able to identify the nature of the underlying application, so it would not know the nature of the treatment required. Researchers like Dr Van Schewick have observed that ISPs tend to resort to putting all encrypted traffic in slow lanes. This is particularly disconcerting if users who wish to secure sensitive personal and professional information, are penalised for the same, by degraded user experiences. It would discourage people from using encrypted, secure communications - despite the proven value they have in improving digital security overall and financial cybersecurity specifically.

2.4. Finally, in a country like India, where institutional capacity across the state remains suboptimal, class-based traffic management exceptions have been seen to considerably increase costs of regulation. This is because there will be challenges vis-a-vis IAS provider categorisation and places of different classes of applications. The outcome will be a series of case by case situations of whether a particular type of content application/service falls under a particular of traffic or not. All of this will lead to excessive litigation and deposition costs. Moreover, the balance becomes skewed in favour of parties with higher financial resources often at the disposal of large IAS providers and large content/application providers. Therefore, aside from regulatory cost, redressal opportunities for internet users and small businesses would also reduce.

3. TMP identification process should not lead to a 'wait and watch approach'

3.1. In the interim, while TRAI and DoT consider a wider framework to identify reasonable TMPs, there is need to avoid the pitfalls of a "wait and watch" approach. This is because it has been almost two years since the passage of the net neutrality policy directive through which DoT amended service provider licenses. Yet, the degree to which these provisions are indeed being enforced or have been enforced at all remains unclear. Such a vacuum aids IAS providers who can continue to deploy questionable traffic management practices with impunity.

3.2. This has translated into a paradigm where different internet service providers block different websites, and often the reasoning appears to be arbitrary at a prima facie level, without an identifiable legal basis. As a result there is a pressing need to concurrently create interim regulations which lay down certain bright line standards. These should be informed by stakeholder inputs and international best practices, and can start holding IAS providers accountable more immediately.

3.3. As stated above, bright line standards are especially important for a meaningful network neutrality framework. This is especially pertinent in jurisdictions where there is limited institutional capacity and many competition priorities on the government and regulators. A prolonged duration articulating principles and norms lead to an extended time period without enforcement, which in effect offers a regulatory lacuna for IAS providers to exploit. Another advantage of such an interim measure is it helps provide market participants and users with much needed regulatory certainty, helps with innovation, and provides a pathway for redressal.

3.4. Finally, in the absence of strong protections, there is a risk that network technologies might evolve in a way where regulations would not be able to keep pace, thereby making net neutrality unimplementable in the future. The risks for network innovation leading to a permanent dampening of the anti-discriminatory principle is high and therefore, it is advisable TRAI creates interim regulations which are clearly enforceable as soon as practicable.

4. Transparency, Compilation and Monitoring of TMPs

4.1. The role of disclosures in monitoring and regulating TSP traffic management practices cannot be understated. Due to high information asymmetries, a mere integration of a compliance requirement is not enough in detecting prohibited activities. Disclosure requirements help bridge this gap. We propose that this must happen at multiple levels to ensure that information trickles down to the final consumer effective and TSPs are held accountable effectively.

4.2. First, from a user perspective, comprehensibility is key. In this regard, it is important to highlight experiences with business practices in other internet domains vis-a-vis other disclosure mechanisms like terms of service. They are often convoluted and exacerbate incomprehensibility, and effectively serve as complicated instruments which erode user understanding of products and services. Therefore, there is a need for TRAI to facilitate disclosures to end users by providers in a comprehensible manner. This could be done through a standardised format for TMP disclosures by IAS providers to end users. We stress that one of the components of this endeavour should be that TSPs are required to publish these disclosures in multiple vernacular languages to account for India's diverse linguistic background. The disclosures must also be easily digestible. For consumers these disclosures should be accessible when visiting provider websites, or when purchasing mobile internet packs (both online and offline). It should provide adequate details about the list of deployed TMPs, which are updated every month, the timings when TMPs are deployed, the nature (whether it is throttling, technical prioritisation and/or blocking), the degree, the grounds, the conditions and justification of reasonableness.

4.3. All formal complaints made to TSPs should be forwarded to TRAI, either by the providers or via a new integrated complaint filing platform. External parties

must be allowed to know the aggregate numbers of complaints per operator in a centralised portal.

4.4. Additionally, comprehensibility must not be at the cost of overall transparency. To ensure this TRAI and DoT lean on its past experiences in domains like broadcasting and telecom. Authorities should require IAS providers to disclose detailed specifics vis-a-vis the TMPs they may deploy. The reporting should be structured in a standardised manner and be made available to the public by TRAI, the proposed multistakeholder advisory body and by respective IAS providers over their websites and other public market documents.

4.5. The disclosures to authorities which are made available to the public should be done as per predefined intervals of time. Such degree of technical transparency would enable external experts, researchers, consumer groups, the legal community and advocacy groups to scrutinise IAS provider activities. It would allow these stakeholders to become effective conduits in communicating any non-adherence by IAS providers to the public. It could be a key feature in ensuring India's net neutrality framework retains its user-centric promise.

4.6. Such regulatory requirements would go a long way in building user awareness vis-a-vis TMPs deployed by IAS providers, and also allows them to compare and contrast their service provider with those of competitors. In addition to the preliminary views expressed in the Consultation Paper, authorities should encourage campaigns over the TV and the internet to apprise users on do's and don'ts in relation to setting up of end-user environments, and so on. ***Resources permitting, IFF would be happy to aid with such activities as it aligns with our own organisational objectives.***

5. Tools for Monitoring and Assessment

5.1. In the context of network measurement and assessment, it would be helpful for TRAI to remain mindful that international organisations like Measurement Lab ("M-Lab") and Glasnost have developed network measurement tools which remain available in the public domain. Such tools go beyond merely speed[7] towards wider technical characteristics. These tools can help with publication of data, and would allow external stakeholders and government authorities to audit service provider activities. Such tools can also prove useful in future DoT enforcement.

5.2. In this regard, TRAI would do well to identify global and local standards, basis which it can promote the availability of user-facing measurement tools. These tools should be user friendly for people across demographics and at the same time help independent experts in research & development activities.

---

[7] As is the case with TRAI's MySpeed portal.

5.3. Authorities should encourage solution providers to develop open software through which independent researchers can deploy their technical expertise to build solutions to monitor TMPs in India. Such involvement of local experts is a prerequisite in order for monitoring to adequately factor in India's own geographical, terrain related realities and network topology & tomography.

5.4. Moreover, any contention that external accounting of TMPs is not possible, since network conditions can be influenced by factors outside the control of IAS providers is not completely accurate. As submitted by M-Lab in its counter-comments to TRAI's consultation on net neutrality (2017), academic researchers and other national authorities have monitored TMPs since the 2000s. Indeed, the adoption and endorsement of such tools would be aligned with regulatory practices of authorities like BEREC. Since TRAI already has signed an MoU with BEREC on cooperation in net neutrality enforcement, Indian authorities could leverage the partnership to understand how such tools have proven useful in monitoring and enforcement.[8]

5.5. Tools should be able to assess both baseline protocols of interest to users (like HTTP traffic) and those protocols which are of interest to researchers (Bittorrent, video or VoIP). There is a need to facilitate an ecosystem of measurement solutions which can over a period of time test end-to-end connectivity (across network tomography). Assessments should also be facilitated in a manner where stakeholders and authorities can evaluate congestion and sources of performance degradation across the network value chain. For instance, congestion at interconnection can lead to adverse end-user experience and the monitoring scheme should build such considerations into its eventual framework.

5.6. These practices can be combined with crowdsourced options like customer surveys, open source testing tools, etc toward fostering a local development community. This can build on existing initiatives which are adapted to local concerns. TRAI/DoT can hold hackathons and other citizen centric competition to encourage local developers towards building these solutions.

---

[8] For instance TRAI can seek insights from BEREC on its tender process through which it sought to find a vendor to build a Net Neutrality Reference Measurement System for QoS and QoE measurement. (See https://net-neutrality.tools/ also https://www.itu.int/en/ITU-T/Workshops-and-Seminars/20190311/Documents/M_Fox_.pdf).

B. Re: *Multi Stakeholder Body*

Q. 4. What should be the composition, functions, roles and responsibilities of Multi-stakeholder Body considering the decision of DoT that Multi-stakeholder body shall have an advisory role and formulation of TMPs and Monitoring & Enforcement (M&E) rest with DoT? Please suggest with justification.

Q. 5. Whether entry fee, recurring fee etc for membership need to be uniform for all members or these may be on the basis of different types or category of membership? What may be these categories? What policy may be adopted for the initial set up of Multi-stakeholder Body. Please suggest with justification.

Q. 6. What mechanism may be prescribed to determine fee and other contributions from its members towards expenditure in a fair and non-discriminatory manner? Please suggest with justification.

Q. 7. What should be the guiding principles and structure of governance of the Multi-stakeholder Body? What may be the roles and responsibilities of persons at different positions such as chairing the organisation or working groups, governing the functioning, steering the work etc. Please suggest with justification.

Q. 8. Any other issues which are relevant to this subject?

6.1. Under this theme, we have proceeded under the understanding that DoT will retain the power of final implementation and enforcement of the net neutrality framework under the licenses. Therefore, we offer high level recommendations on how an **advisory** "Multistakeholder Body" (MSB) should be effectuated. Our principal consideration is ensuring that its institutional structure is inclusive and retains fidelity with the user-centric ethos of the original net neutrality consultation process.

6.2. In this regard, we humbly submit that the telecom and industry-led perspective of TRAI's latest consultation paper should be reconsidered. Our submission aims to provide critical substantive features which if incorporated into the multistakeholder body would ward off threats of industry, ISP or TSP capture of India's network neutrality regulatory framework.

6.3. **We strongly object to any model which is exclusionary or discriminatory in nature**. In particular, we object to TRAI's suggestion that the multistakeholder body may be segregated into discrete industry-centric and consumer-centric working groups. Such an approach does not allow the technical discussions to onboard user-centric and legal perspectives.

6.4. Similarly, we oppose a dual membership structure where voting rights are contingent on the payment of membership fees. This will serve as an exclusionary condition which could hurt the involvement of not-for-profit and smaller industry players. Specifically, it appears it would enable large IAS providers and large content players to corner the decision making of the multistakeholder body.

6.5. As TRAI noted in its explanatory memorandum to its landmark February 2016 differential data pricing regulations, net neutrality is intrinsically linked with people's right to freedom of speech and expression over the internet. Therefore, the multistakeholder advisory body must onboard online civil rights organisations and legal scholars which specialise on issues like the right to freedom of speech and expression. This is because while technical and economic facets are likely to be represented in the body, consumer facing groups should be complemented with free speech experts, to ensure that the multistakeholder body deliberates on issues holistically.

6.6. We strongly believe that since the role of the multistakeholder body is supposed to be advisory in nature, the body need not have a government-heavy composition -- along the lines of Brazil's Internet Steering Committee. Instead the composition of the body should have a proportionate number of representatives across TSPs, ISPs, small content providers, large content/application providers, civil society, think tanks, consumer advocacy groups, legal experts, free speech scholars and so on.

6.7. Authorities must consultatively develop rules/regulations which determine the membership and chairpersonship of the multistakeholder body. Such a framework should articulate required expertise for each position. It should also prescribe fixed term time periods of appointment. This would ensure that there are no permanent members beyond a predetermined upper limit such as three years. For a sufficient period of time upon leaving, former members should be prohibited from taking positions which have a direct or indirect conflict of interest. The proposed measures are illustrative in nature and should inform TRAI that a primary mandate of the multistakeholder body's composition is to ensure robust incentive structures within the institution.

6.8. The multistakeholder body could also be a forum through which private complaints against IAS providers can be channeled for easier filing to the authorities and subsequently investigated. Findings from such investigations could be used to inform future standards, codes of practices, et al. It can also be used by authorities like DoT to update bright line requirements. Like the Brazilian Internet Steering Committee, the multistakeholder body could also be a forum which proposes, policies and regulations, on a need basis.

6.9. Another important facet is internal transparency. The multistakeholder body should have a clearly defined annual work programme, with special focus groups

when required. All meetings of the body and various sub-groups should be recorded and published for the public to review. Such transparency will aid with consensus forming and enable dynamic course correction if required.

6.10. Civil society organisations like the Electronic Frontier Foundation (EFF) advocate that in order for multistakeholder internet governance institutions to have better outcomes, they must prioritise fair processes which are inclusive, balanced and accountable.[9] Similarly, according to a UNESCO report multistakeholder internet governance institutions must be inclusive, diverse, collaborative, transparent, flexible, relevant, private, safe and accountable.[10] TRAI would be well served to embed these principles into the multistakeholder body's overarching institutional framework.

---

[9] Jeremy Malcolm, Fair Processes, Better Outcomes (Sept. 30, 2016) (available at https://www.eff.org/deeplinks/2016/09/fair-processes-better-outcomes).

[10] Anri van der Spuy, What if we all governed the Internet, UNESCO (2017) (at https://unesdoc.unesco.org/ark:/48223/pf0000259717/PDF/259717eng.pdf.multi).