IAMAI
INTERNET AND MOBILE ASSOCIATION OF INDIA

IAMAI Submission to TRAI Consultation paper on **"Traffic Management Practices (TMPs) and Multi-Stakeholder Body for Net Neutrality"**

The Internet and Mobile Association of India [IAMAI] would like to thank the Telecom Regulatory Authority of India (TRAI) for its timely recommendations on a net neutrality framework for India and appreciate the fact that the Department of Telecom (DoT) has accepted a majority of the recommendations. Net neutrality principles are essential to keeping the internet open and enabling its most beneficial characteristics as an empowering and democratizing medium that fosters constant innovation.

The issue of Traffic Management Practices (TMPs) is a critical issue; both in the context of Quality of Service and also from the point of view of net Neutrality. The primary objective of the Telecom Service Providers (TSPs) is to manage the network in such a way that best possible experience is provided to a large number of users using different categories of content. However, commercial considerations can prompt the TSPs to use certain exclusionary or discriminatory practices via TMPs. This submission, in line with the consultation paper, only discusses TMPs from the point of Net Neutrality.

To ensure a vibrant and inclusive Digital India, it is critical that stakeholders be encouraged to innovate traffic management practices while adhering to the core tenets of net neutrality and allow users to benefit from access to the entire internet. Therefore, a balanced approach should be taken to ensure that traffic management policies are reasonable and not anti-competitive or otherwise harmful to the free exchange of information and the participatory - democratic nature of the internet.

IAMAI would like to thank TRAI for initiating this consultation process and would like to take this opportunity to submit the following comments on the Consultation paper on "Traffic Management Practices (TMPs) and Multi-Stakeholder Body for Net Neutrality".

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 Multi-Stakeholder Body to keep it up to date? Please suggest with justification.

The broad types of practices already used by Access providers include approaches such as Crowd-sourced Measurements, Field Measurements, and Audit of traffic management practices. Before mandating the broad practices to be deployed by the Access Providers, it is necessary to list out reasonable TMPs and conditions when these may be applied which should take into account the continual changes in features and capabilities of networks.

There are many methods to manage as well as audit the Service Provider's network traffic. Traffic management methods have been continuously evolving. The baselines of these methods are the three principles:

a) Technical measures of proportionate, temporary or transient nature to deal with such unexpected issues of networks cannot be static. It must be dynamic and sometimes may only be known by experience.
b) The measure should not be service specific that allows throttling of heavy service data for lighter service data to flow. This can come under the principle of non-discriminatory treatment.
c) DOT has to be informed every time a violation is triggered, with proper justification from ISPs for initiating a TMP, in order to ensure a proper audit of all such activities.

Traffic Management Practices must abide by the above three principles to ensure Net Neutrality. It should also be ensured that service providers are not levying Traffic Management Services as a Quality of Service. Clear distinction must be provided to deal with unforeseen and emergency measures with TMPs and such practices must not be added as a measure to augment the Quality of Service.

However, it is also acknowledged that identification of traffic management practices adopted by Access Providers and validation of their reasonableness is a complex issue, requiring technical evaluation. Therefore, in making regulations on traffic management, the Telecom Regulatory Authority of India (Authority) should consider a broad approach that defines reasonable traffic management principles (TMPs) and sets out clear guidelines on how the reasonableness of traffic management will be determined, potentially identifying illustrative practices that are likely to be reasonable or unreasonable, without attempting to dictate network configurations or technologies or practices.

As a general principle, the framework for assessing the reasonableness / proportionality of TMPs must be one that ensures that technically similar traffic is treated similarly by a TSP, for a limited period only as required, and for a legitimate reason such as network integrity or security, legal restrictions, or emergency measures. The traffic categories should typically be defined based on objective quality of service requirements. Accordingly, any traffic management measures that arise out of commercial rather than technical considerations should not be considered reasonable. There should be no application-specific discrimination (except when done under reasonable TMP) as there are reasonable chances of a TSP engaging in this behaviour with a

commercial intent. Further, there are implications for net neutrality in allowing certain models of preferential treatment of content, even if activated by user's choice, for example when a TSP is providing both internet access services as well as content. As a result, these discussions should be on-going. TRAI may refer to guidance notes prepared by regulators in other jurisdiction, including the Body of European Regulators for Electronic Communications.

Extraordinary situations such as access emergency services, legal restrictions, and security and network integrity may be treated as exceptions to any regulation on TMPs. To avoid regulatory uncertainty, the Authority may consider laying down the parameters within which one of these limited exceptions to TMPs can be issued. With respect to any public body having the ability to notify certain services that are in public interest as exceptions to TMPs, there should be clarity on which body can issue such exceptions, and under which legislative or executive authority.

Given the fast-paced nature of developments, it may be more prudent for the Authority to monitor the ecosystem and provide targeted guidance when needed, instead of attempting to keep detailed regulations up-to-date. The definitions, tests, tools and thresholds relating to TMPs should ideally be the subject matter of working groups or committees set up under Authority.

By way of illustration, some of the network / traffic management policies adopted or proposed by certain access providers are as below:

i. Blocking spam, malware, denial of service attacks and other security threats to the network or to user devices;

ii. Blocking sites which are unsuitable for minors as part of parental controls tools chosen by the end user, either at the network or device level;

iii. Providing categories of services, such as voice and video streaming services, sufficient quality of service to function effectively;

iv. Implementing data caps that have been accepted by the end user as part of their Internet data plan;

v. Optimising video, both in terms of available bandwidth and resolution of mobile screens;

vi. Ensuring that emergency calls are completed;

vii. Enterprise access service.

Specialized services, however, should be exempt from the principles of discriminatory treatment. These services should be defined using parameters that avoid evasion of net neutrality protections, such as - services requiring guaranteed QoS and not used to reach all (or substantially all) parts of the Internet (e.g. M2M network, healthcare networks). While these services would be delivered over the internet infrastructure, they would not be akin to retail internet access service that consumers receive.

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 MultiStakeholder Body to document it. Please suggest with justification.

Apropos TRAI's new Consultation Paper on Traffic Management Practices (TMPs) and Multi-Stakeholder Body for Net Neutrality, IAMAI believes that the efficacy of the proposed net neutrality framework relies heavily on a robust, rationalised and transparent system of monitoring and enforcement. Since transparency, accountability and auditability are important factors to determine reasonableness of TMPs, any aspect that would affect the actions or perceptions of a typical consumer should be disclosed unambiguously.

It is advisable that the disclosure should be clear, precise, relevant and concise and should enable a consumer to form an informed opinion on whether the practice will affect them, which applications will be affected and how they will be affected. Towards this end, TMPs should be conveyed through a description which provides all the required information. Guidance may be taken from the experience in the USA, which permits access providers the discretion to determine exactly what information should be disclosed, however, a broad framework on what the disclosures should cover are provided as guiding principles i.e. network practice (e.g. congestion management, device attachment rules etc.), performance characteristics (e.g. service description, performance level, impact of specialised services etc.) and commercial terms (pricing, privacy etc.).

Further, to ensure accountability and auditability, access providers must be able to clearly demonstrate to the public that a proposed solution meets the reasonability and proportionality criteria. Consumers may not understand technical jargon and detailed technical descriptions may defeat the purpose of the disclosure. The goal for providing information to customers regarding TMPs should be empower the consumers to hold access providers accountable to their own descriptions of their network management practices.

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.

IAMAI recommends a combination of different types of mechanism by gauging the case requirement based on Frequency of TMPs used by ISP, Geographic location repetitively being selected and the timeline and expected number of consumers being targeted by it. In order to

interpret net neutrality violations, a track should be kept of the periodic violations. Violations that do not adhere to the three basic principles should be placed under scrutiny by the DOT.

Secondly, creation of an institutional process to gather or request such information in a standardised manner is necessary. Users are generally not aware of the reasons for network interference with websites and internet services in India. There are no clear statements or information available on the reason which may emerge from any legal order that is made available to them. Monitoring should be provided where there is a lack of any data gathering or reporting mechanism available for complaints about blocking and throttling. Further, it should be checked whether TMPs are violating the Quality of services. The risk can be triggered by periodicity.

A multi-pronged approach may be adopted to detect violations which can include monitoring consumer complaints (lodged with the DoT through its existing complaint redressal forum), conducting market surveys, requesting information from access providers, and technical network monitoring such as recording download speeds and latency. Since different modes of measurement have different benefits and help in detecting specific practices, the method of detecting violations of net neutrality and methods to avoid false positives and false negatives should ideally be the subject matter of working groups or committees set up under Authority. We note that academic researchers and nonprofit organizations, as well as Internet application and service providers, have all supported network monitoring projects around the world.

Q. 4. What should be the composition, functions, roles and responsibilities of Multi-stakeholder Body considering the decision of DoT that Multi-stakeholder 30 body shall have an advisory role and formulation of TMPs and Monitoring & Enforcement (M&E) rest with DoT? Please suggest with justification.

Multi-stakeholder approaches are important to promote the developmental potential of the Internet and to maintain its universal character. In this regard, added clarity vis-a-vis the scope of Multi Stakeholder Body's advisory functions would be desirable, especially with respect to a monitoring and enforcement framework for net neutrality.

Traditionally, traffic management practices are unilateral decisions by ISPs that impact the delivery of traffic and thereby the service of internet content providers. In order to have a truly effective and fair monitoring system, it is important that any monitoring mechanism be seen to be independent, with transparent reporting and including a representative cross-section of stakeholders from government, content providers, ISPs, edge providers and consumer rights advocates.

While central authority for monitoring and managing a Net Neutrality framework will remain in the hands of DoT, we believe that industry has an important role to play in providing feedback as well as observations on the implementation of a net neutrality framework. Involving diverse

stakeholders in ongoing monitoring, evaluation and feedback is the best way to ensure that the interests of the consumer are protected and remain the central consideration. Thus, IAMAI recommends consideration of a self-regulating framework under a multi-stakeholder entity.

IAMAI supports creation of a two-tiered bodies for reporting to the DoT. The first tier can have membership from TSPs, ISPs and consumer rights bodies. The second tier can comprise of official DOT, ISP representative, TSP and civil society. A forum to redress the complaints or reports submitted by consumers can be made under the second body. Whenever there is an unforeseen circumstance, the first body can reach out the second body for consultation and the second body will initiate the process of investigation.

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.

It is important to note that the burden of financing the operation of the MSB should not fall uniquely to its members; especially those who represent public interest. While it is true that the MSB will be independent of the DoT and will be composed of market players including some with significant wealth, it should not be incumbent on these members to put up the body's working capital. The MSB is a body that will be providing crucial assistance to the DoT, and to that end should be supported by the DoT both financially and operationally.

Nevertheless, if the DoT is only able to provide seed funding for the body (as indicated in the Consultation Paper), then the burden to provide membership fees and other contributions should be on the industry bodies and corporations that form a significant part of its membership and whose interests will be given a voice through such membership. A special category can be reserved for academics, researchers, consumer rights advocates etc. who need may need to pay a nominal amount for their memberships, taking into consideration their limited wealth and absence of financial interest in the regulatory process.

The membership fees and other contributions can be determined using a mechanism based on the operating costs of the MSB, such that it is divided among the members in a prorated manner based on the category to which they belong.

For the initial period, it should be incumbent on the Government of India to provide the funds necessary to set up and operate the MSB, until it is able to structure itself internally, determine

the roles of different categories of members, and put in place internal checks and balances to prevent misuse of their financial strength by the businesses who are members.

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.

As highlighted before, MSB would be not for profit and led by industry. It can comprise of members representing different categories of TSPs and ISPs, large and small content providers, representatives from research and academia, civil society organisations and consumer representatives. However, the three principles should be made the gospel to create the guiding principles and structure of governance of the Multi-Stakeholder Body.

- **Guiding Principles:** The Multi-stakeholder Body (**MSB**), as an entity that will provide advice to the DoT with respect to standards, practices, monitoring and enforcement of net neutrality-related obligations, must always place prevention of discrimination of content and other applications at the forefront of its priorities. It is also important for the MSB to take into consideration and provide a balanced outlook on factors such as necessity of services provided over the internet, access to internet connectivity and services, reasonable expectations of consumers, consumer's rights with respect to content and connectivity that they pay for, promotion of awareness of net neutrality principles among consumers of internet services, and net benefit to society arising out of arrangements that will need to be analysed from a net neutrality perspective.
- **Composition:** The MSB should have representation from the Government, TSPs, content and application providers and other industry players, and civil society. The latter would extend to academics and researchers as well as consumer rights groups and advocates.

  Broadly, membership can include: (i) Government bodies such as DoT, MEITY, the Ministry of Communications, TRAI, RBI, TSDSI, NIC, TEC, BIS, etc.; (ii) Industry bodies such as NASSCOM, IAMAI, DSCI, BIF, COAI, etc.; and (iii) Representatives from civil society such as academics, researchers and think tanks, public interest groups such as consumer organisations. For instance, membership may be extended to IITs, NITs, and organisations such as Consumer Voice, Centre for Internet and Society, Software Freedom Law Centre, Observer Research Foundation, Centre for Policy Research etc.

  It is important that representation within the MSB be diverse, such that the perspective of the regulators, the scientific and technical expertise of market players, practical aspects of service delivery and modern media and the interests of consumers of connectivity and

content are all balanced and leveraged in the most harmonious manner possible. Specific roles and memberships may be carved out for experts and nominees of industry bodies, such that the composition remains constant even as the individual representatives vary. The members of the MSB may be chosen through a nomination or election process from within specific stakeholder groups, as applicable.

- **Structure:** Given that the MSB's role is advisory rather than regulatory, it is not necessary for it to have a structure that corresponds to the Broadband Stakeholder Group (**BSG**) in the UK. A better model is the one followed by the Brazilian Internet Steering Committee (i.e. the Comitê Gestor da Internet no Brasil, or **CGI**) which is composed of representatives from various stakeholders such as Government Ministries, key corporate sectors, the scientific community etc. These representatives may work together to make recommendations to the DoT. It is advised to empower the members themselves to adopt a structure they find suitable for the internal governance of the MSB, given that they will be in the best position to make this determination. This flexibility will also allow them to undertake issue-based or project-based actions, such as by forming smaller working groups within its membership to conduct research, public consultations etc. and formulate specific advice, recommendations or standards that may be finalized by the full membership. Similarly, the roles and responsibilities of individuals at different positions should also be left to the members to decide.
- **Functions, roles and responsibilities:** The Consultation Paper has specified that the MSB will only have an advisory role, and to that end its responsibility will be to assist the DoT in performing its monitoring and enforcement functions when it comes to net neutrality. We note that the Consultation Paper already lays down specific functions that may need to be performed by the MSB in this regard, such as performing monitoring and evidence-based investigations, preparing and submitting reports to DoT, taking measures to make its actions and functions transparent, helping DoT in handling complaints received from consumers, helping DoT in compilation of reasonable TMPs adopted by TSPs, recommending standards for technical and operational procedures for monitoring and enforcement of net neutrality and creating consumer awareness regarding net neutrality, transparency measures of TSPs and DoT and processes for raising concerns with DoT. Some of these functions, such as performing investigations, will require resources and manpower that are not available with the MSB. A body of this nature will face certain limitations when it comes to carrying out such functions. This is why IAMAI suggests a two-tiered body which can leverage the resources of the DoT for its activities without compromising its advisory role.

The MSB may be encouraged to undertake activities that can support the government and market players to meet or even set international standards in for new technologies that can be adopted for better communication and proliferation of the internet, and ensure that

consumers, industry and the Indian economy in general is able to maximise the potential benefits that can be derived from constituting such a body. To that end, the MSB should be empowered to carry out functions such as:

(i) monitoring developments in India and globally in traffic management practices, and technologies such as cloud and streaming;

(ii) taking up issues, studying them and providing recommendations to the Government for adoption of technologies and international best practices in telecommunication sector.

(iii) issuing guidelines and conducting capacity building workshops for adoption of technologies by government agencies and MSMEs in relevant key sectors such as cloud;

(iv) channelizing India's inputs in development of international standards in relevant key sectors;

(v) creating a platform for ideation and innovation among government, industry and academia for technologies such as 5G, IoT, M2M communications and building use cases for the same;

(vi) commissioning research into key sectors which can either make use of the expertise of the MSB's members or involve external and even international resources.

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

N/A