ASSOCHAM Suggestions on TRAI Pre-Consultation on Net Neutrality
dated 30th May 2016

India is at a pivotal point in its trajectory through the ICT space. We have a great vision for propelling the nation into a digitally empowered society and knowledge economy through the program known as Digital India. Most of the pillars of the digital India structure rest squarely on Telecom and ICT. But there still is enormous urban rural digital divide. Thus one of the highest priorities before the nation is to provide access to mobile internet to more of the large mass of the unconnected and the low usage consumer through by facilitating an open, inclusive and affordable access to the Internet, and with the same rules being made applicable to the same services.

Net Neutrality is key aspects of a new sunrise sector that is intimately involved with modern telecommunications and therefore the manner of treatment of this new sector in respect of the applicable Policy and Regulation would play a great part in how effectively the country improves its IDI rank to gain a more respectable place in the world community and also how it bridges the huge digital divide and secure digital inclusion for all its citizens.

ASSOCHAM fully supports Net Neutrality and believes that access should be made available to all on a non-discriminatory basis. We need to examine Net neutrality carefully in view of its close relationship to Digital India. With India's extremely low level of digital connectivity especially outside the urban areas and also keeping in mind the low purchasing power of our citizens and extreme price sensitivity of the market, we need to urgently have an India-specific Net Neutrality that creates an enabling environment to promote investment in infrastructure to bridge the digital divide and provide affordable access, that ensures growth and sustainability. Further, any policy framework of net neutrality should be applicable for all stakeholders operating in Internet domain i.e. telecom service provider, content providers, handset manufacturers.

QUESTION WISE RESPONSE:

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?**

i. **Department of Telecommunications, Government of India in its report on Net Neutrality released in May 2015 has outlined the core principles of Net Neutrality. We believe that this represents a very balanced and measured**

approach and recommend that the principles may further be developed in lines of the following points as mentioned in the DOT report.

a. To ensure that there is a seamless access to Internet from all kinds of devices and access points/media.
b. To facilitate investments in the telecom infrastructure and other digital infrastructure for broadband access across the nation
c. To enhance affordability of broadband services across the nation
d. Low-entry barrier for internet access through various innovations, business models and commercial arrangements.
e. No blocking of any content, application, devices, services unless specially directed under the law (by the government or through court order)
f. To implement same service, same rules for all types of services (TSPs and OTT Communication Service Providers)
g. Reasonable, fair, transparent traffic management practices
h. To facilitate the innovation of specialized services with prescribed quality of services through various innovative business models
i. To protect the consumer rights, information through a universal law/regulation applicable on TSPs, handset manufacturers, content providers, OTT Communication Service Provider.

In the light of the above the DOT principles are enunciated as follows for consideration by TRAI:

Customer Rights	Subject to lawful restrictions, the fundamental right to freedom of expression and non-discriminatory
Content	Right to create and to access legal contents without any
Application	Freedom to create and access any Application & Service
Devices	Freedom to connect all kinds of devices, which are not harmful, to the network and services and which conform
Blocking	No blocking of any lawful content
Throttling	No degradation of internet traffic based on the content, application, services or end user
Prioritization	No paid prioritization which creates discrimination
Transparency	Transparent disclosure of information to the users for enabling them to make informed choice
Competition	Competition to be promoted and not hindered

Congestion and Traffic Management	Reasonable and legitimate traffic management subject to ensuring core principles of Net-Neutrality
QoS	QoS to be ensured as per best practices and national regulations, **facilitated through efficient**
Connectivity	Broad monitoring to ensure connectivity between ISPs/CP/APs as per **mutual agreement** /regulations,
Privacy	Online privacy of the individuals to be ensured
Security	Scrupulously follow the extant security guidelines
Data Protection	Disclosure of user information only with consent of the user or on legal requirements

ii.   As stated above, it may also be recommended that **guidelines related to transparency, privacy, security and data protection must be made broad-based and equally applicable to both the TSPs as well as the OTT players**, under the principles of **same service same rules.**

iii.   The Government /Regulator should look Net Neutrality, from the holistic framework of Internet Governance and put its immediate priority towards providing data connectivity and rolling out broadband networks for which significant investments are required to meet the broadband targets of the nation. Further, affordability of data services is the most critical factor and hence 'pricing of data services' should be left to the competitive market.

iv.   Managed /Enterprise services have been rightly excluded from the guidelines by DEPARTMENT OF TELECOMMUNICATIONS, GOVERNMENT OF INDIA. We agree and believe that the Enterprise users necessarily require that their traffic is managed in a specific way according to their business needs. Telecom operators have been offering managed data services to Enterprise customers for years, over their data connections and private IP infrastructure. It may be noted that **such exclusions are also maintained by Regulators in other countries**.

v.   Specialized services such as driverless cars, remote surgery, M2M would require prescribed QoS, dedicated network investments and hence, should be permitted till they are not affecting the Internet access to the consumers. Accordingly, we request that enterprise services and other specialized services as illustrated above, should be kept outside the purview of net neutrality.

vi.   Further, various business models such as subsidized data access/zero rated platform should be permitted. In fact, the DoT committee has rightly recognized that not all zero rating plans are against the Net Neutrality Principles and has asked TRAI to verify the same on a case- by-case basis.

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?

i. The core principles mentioned above for Net neutrality should not preclude a reasonable network management. Legitimate Traffic management has long been an important tool in meeting the needs of users of internet services and will become increasingly important with the development of new technologies such as LTE. Any principles governing traffic management should take into account the challenges faced by mobile operators and should be sufficiently flexible to accommodate them.

ii. Traffic management encompasses a range of techniques used by network operators, ISPs to ensure the smooth flow of data traffic across the networks between the end users and content /service providers. Examples of current and anticipated network management practices include:
   - Management of congestion:
   - Fair Usage policy implementation
   - Blocking spam, malware, denial of service attacks and other security threats to the network or to user devices
   - Ensuring that time sensitive services such as voice, video, online gaming and enterprise services can be delivered in a way which ensures optimal performance of those applications (without calls dropping, buffering videos and time lags in games)
   - Network Performance : Network Management practices
   - Peak Load Management
   - Lawful restrictions directed to be imposed by the Government/ Legal court orders/LEA agencies.
   - Prioritization for communications for emergency and disaster management services

iii. We believe that traffic management as listed above would not result in denying access to the internet to any authentic consumer or a group of consumers, while ensuring adherence to QoS standards.

iv. The amount of data traffic flowing across communications networks has increased dramatically. We now see a broader range of traffic types including video/music streaming, file transfer protocols, encrypted packets, online gaming, instant messaging and VOIP etc. Some of these services have a high degree of sensitivity to packet delay, error and loss- undesirable consequence of higher levels of network congestion that follow from increasing traffic volumes. In order to ensure better QoS for the consumers, it is imperative that the TSPs are permitted to adopt techniques that that would support the same.

v.   Traffic management enables TSPs to maintain and improve the quality of service provided to end users. For example,

- A delay sensitive service like voice, video-streaming, etc., will have to be given priority over services such as email or messaging in order to ensure best overall quality for all.
- Video services may be optimized, by compressing data, adapting content for mobile screens and reducing the cost to the consumer.

vi.   Traffic management has always been employed by operators so that the Internet can function effectively, efficiently and successfully, as it does today. **This is especially required in** a mobile environment, where spectrum is limited to ensure a good service for all over what is a limited resource.

vii.   As mentioned, the **DoT Committee has also recognized the need for traffic management** and has recommended that legitimate traffic management practices may be allowed but should be "tested" against the core principles of Net Neutrality. It has suggested inter alia that:

a. TSPs/ISPs should make adequate disclosures to the users about their traffic management policies, tools and intervention practices to maintain transparency and allow users to make informed choices.

b. Unreasonable traffic management, which is exploitative or anti-competitive in nature, may not be permitted.

c. In general, for legitimate network management, application-agnostic control may be used. However, application-specific control within the "Internet traffic" class may not be permitted.

d. Traffic management practices like DPI should not be used for unlawful access to the type and contents of an application in an IP packet.

e. Improper (paid or otherwise) prioritization may not be permitted.

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

The Government's Digital India Program aims to transform India into a digitally empowered society and knowledge economy. It is estimated that there will be 526 million Internet users in India by 2018 and over 1.5 billion networked devices. Each of the bold initiatives under Digital India will need cutting edge capabilities, where ICT infrastructure is going to play the fundamental role. This will require a huge investment in Infrastructure with an enabling environment to invest.

The issues pertaining to Net Neutrality needs to be considered in the context of Government of India's objective to empower one (1) billion subscribers by providing Internet access to all.

The policy or regulatory approach need to strike a balance among the requirements for providing the freedom for innovation, development and deployment of OTT services with a need to spur investments in broadband networks to create a world class broadband infrastructure that will deliver broadband as a utility to every citizen.

The TSPs should have the freedom to develop and offer innovative new services and business models in consumer interest based on mutual commercial agreements with the OTT players.

Issues related to National Security, privacy, confidentiality, transparency, etc. need to be more broadbased covering different components of the internet ecosystem and not confined to TSPs alone.

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.

    i.   **The DoT Committee has also noted**

        14.6 … there is a need for a balance to be drawn to retain the country's ability to protect the privacy of its citizens and data protection without rendering it difficult for business operations. One possibility is to identify critical and important areas through public consultations where there may be a requirement to mandate local hosting or retaining enforcement capabilities in cases of breach.

    ii.   Licensees are under mandate through License Agreement for the provisioning of security of their network as well as to ensure that national security interests are preserved. As, National Security is paramount maintenance of public order, protection of individual privacy, data protection, public safety and disaster communications are mandated for all telecom service providers; however no such requirement are applicable to the OTT Communications Service providers.

    iii.   At present, there is a widely differing treatment accorded between TSP and other internet eco-system stakeholders as regards security compliance requirements. There is a glaring disparity on this count, even for similar services. It should be noted that extensive and stringent security conditions are laid down and are required to be met by the licensed TSP. These include:

        a. Taking permission/approval of the licensor for any new service
        b. Setting up Lawful Interception and Monitoring (LIM) systems

c. Restriction on switching of domestic calls/messaging from outside the country
d. Restriction on sending user information abroad
e. Gives the Licensor the right to inspect the sites/network used for extending the service
f. Providing necessary facilities for continuous monitoring of the system, not employing any bulk encryption equipment; taking prior evaluation and approval of Licensor for any encryption equipment for specific requirements
g. Switching/Routing of voice/messages in P2P scenario
h. Responsibility for ensuring protection of privacy of communication and confidentiality of subscriber information
i. Quality of Service, Unsolicited Commercial communications, Complaint Redressal Mechanism, etc.

iv. The other internet eco-system stakeholders who use data access channel of the telcos to reach to the customer with their services, including similar voice and messaging services, are not subject to the security restrictions imposed on the telcos. There is undoubtedly a need to ensure that these concerns are addressed and there is level playing field amongst all the internet eco-system stakeholders.

v. Further, adequate guidelines for functioning, utilization of services and auditing of e-commerce sites, especially cash handling services sites, should be mandated through regulations to prevent any kind of money laundering.

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

i. The Terms and Conditions of the license agreement ensure all the TSPs further ensure protection of privacy of communication. Arrangements as enlisted in the Unified License should be uniformly applied on TSPs & content providers.

ii. The industry is fully geared not only to provide access to their consumer but also to maintain customer privacy. TSPs also do ensure that user's interest is not restricted or restrict his choice. Strict rules on customer confidentiality, record keeping and destruction as enforced on the TSP's licenses, should be applicable to content providers as well.

iii. **The DoT Committee has also noted**

14.6 … there is a need for a balance to be drawn to retain the country's ability to protect the privacy of its citizens and data protection without rendering it difficult for business operations. One possibility is to identify critical and important areas through public consultations where there may be a requirement to mandate local hosting or retaining enforcement capabilities in cases of breach.

iv. The absence of a regulatory framework for OTT communication service providers and app providers not only pose a threat to the privacy of individual users but also cause the transfer of personal information on the Internet for misuse. Therefore, there is a need to have a regulatory framework for governing OTT communication service providers and other app services for protecting the privacy of users.

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

i. The regulatory framework of Net Neutrality should not be limited to TSP only, but to other stakeholders such as website, content/applications providers, OTT Communication service providers and handset manufacturers. For example, while TSPs are subjected to strict data privacy rules and consumer information confidentiality provisions, however, the other stakeholders are not subject to such rules. Hence, a uniform policy for all stakeholders in Internet eco-system i.e. TSPs, handset manufacturers and content/application providers, OTT Communication service providers is required.

ii. Same service, same rules between the OTT Communication Service Providers and TSPs are required.

iii. The Authority must review /revisit the outright prohibition that it has placed on TSPs from offering differential tariffs based on content. The prohibition appears to be pre-mature as net neutrality is yet to be defined in the Indian context by the Government.

iv. The vision of digitally connected knowledge economy requires extensive rollout mobile broadband networks for which huge investments of hundreds of thousands of crores is required. There is a need to balance both public interest as well as public policy objectives to create an environment that ensures the growth and sustainability of both the TSPs as well as the OTT services, while ensuring affordability of services.

v. The aim of both the Authority and the Government should be to facilitate creation of infrastructure to bridge the digital divide and provide affordable access and

ensure that investment in broadband infrastructure are not counter-posed against the core principles of Net Neutrality.