

BIF Response to TRAI Pre-CP on Net Neutrality

Preamble

BIF welcomes TRAI's move to commence the consultation process regarding Net Neutrality and are fully supportive of all the actions necessary. BIF is fully committed to spread the Broadband ecosystem and improve the Broadband proliferation in the country and considers Net Neutrality as one of the key central issues of this exercise. As the issue increasingly becomes a global one, with the US and EU only recently regulating upon it, the time is ripe for India to enshrine strong network neutrality protections in order to ensure the continued development of the internet as a tool of empowerment. As mobile and internet penetration rise across India, it is critical that diversity of content and material on the internet is preserved. Towards this end, net neutrality is a key ingredient.

Despite rapid gains in internet penetration in the recent decade, more than 1 billion Indians currently live without connectivity. Even where access is available, connectivity is qualitatively lacking with studies having consistently shown that India experiences one of the lowest average speeds in the Asia Pacific region and globally.

Rising internet access levels in India can **create millions of jobs, accelerate GDP growth, and increase per capita income and decrease poverty levels**. Internet penetration also results in significant gains for a number of economic and social indicators including social inclusion, literacy, innovation, and process efficiency. Therefore, TRAI must ensure that any policy decision taken supports and enshrines the broader policy objectives of promoting universal connectivity.

Any policy intervention by the TRAI must also be aimed at embracing the march of technology which ushers in innovation in products, services, and more efficient methods. A prime example of this trend is the increasing predominance of data-centric networks and technologies which have overtaken conventional voice-centric networks. This shift has brought unprecedented value to users and created new business opportunities within the digital value chain. This natural progression in adoption of more advanced technology should be welcomed by TRAI and be reflected in any new regulatory or policy changes.

India has firsthand experienced the benefits of a forbearance-led approach on voice and data rates, with service providers being able to price data packs based on market competition without any regulatory restriction. Such an approach is ideal for service providers as well as customers with competition having led to reasonable pricing as well tremendous growth of these services increasing data revenues to the service providers. In the face of the new data paradigm and driven by the need to have a level playing field between the Access Service Providers (ISP/TSPs) on one side and the Content/Application Providers on the other, we are of the view that TRAI should assist service providers by creating a facilitative ecosystem including by advocating for reducing the cost burden on such regulated entities including by lowering levies, licensing costs, taxes and, where applicable, spectrum acquisition/usage costs.

With the above backdrop, BIF wishes to submit its point by point response to the questions raised in the TRAI Consultation Paper.

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?

BIF Response:

In respect of the Core principles of net neutrality, we would like to draw the attention of the TRAI to the DoT High Level Committee Report of May 2015 which stated the following:

- *the view ... that every user must have equal access, via the internet ... comes up against a variety of constraints, ...*
- *Unlike an infinite resource, the bandwidth of the Net is limited.*
- *all data packets are not created equal. ... The concept of “One size fits all” does not work and networks are inherently designed to differentiate between different types of data packets Therefore, the puritan view of Net Neutrality has practical limitations and it does not work in the real world.*
- *crux of the debate is about striking a balance*
- *Also relevant to the issue is the nature of network ...Spectrum resource being inherently limited brings technological limitations on QoS for Internet delivery over mobile unlike optical fibre which has the capacity to expand to accommodate increased demands on its bandwidth resources. Communications in India has developed relying on mobile as the preferred medium so much so that currently 98% of all internet subscribers are wireless customers unlike most other countries in the world*
- *crux of the matter is that we need not hard code the definition of Net Neutrality but assimilate the core principles of Net Neutrality and shape the actions around them. The Committee unhesitatingly recommends that “the core principles of Net Neutrality must be adhered to.”*

BIF agrees with the above views and considers it as a very balanced and measured approach to define NetNeutrality.

BIF proposes the idea that any internet ecosystem that characterises Net Neutrality as appropriate for India would feature the following characteristics:-

1. **No Blocking:** ISP/TSPs and other providers of internet access should not be permitted to block any lawful online service including applications, content, and communication services.
2. **No Throttling or Slowdowns:** ISP/TSPs and other providers of internet access should not be permitted to throttle or slow down or impair any lawful online service including applications, content, and communication services.
3. **Open Internet** means that the full resources of the internet and the means to operate on it are easily accessible to all individuals and businesses, subject, of course, to legal stipulations. If any. Open Internet is not limited to network operations but includes Internet Governance, open standards and protocols, transparency, absence of censorship and low barriers to entry.
4. No network throttling or blockage of sites except on legal grounds or official government orders, is permitted.
5. "Improper (paid or otherwise) prioritization may not be permitted". (The DoT Recommendation clearly implies that there could be legitimate grounds for paid prioritization in some cases.)
6. Free access does not mean free or equal usage charges for different categories of traffic. Open, easy and non-discriminatory access would be mandatory but actual usage of the resources would need to be appropriately treated.
7. Recognising that there are distinctly different categories of traffic which place significantly different demands on the limited network resources, viz., email, browsing and the like (Category 1), YouTube, video streaming, movie downloads and like (Category 2), Specialised Services like remote medical diagnosis, disaster management, emergency services etc (Category 3), Voice over IP/Internet Telephony and the like (Category 4), etc . it is understood that different traffic management techniques would need to be used to ensure QoS, Security & integrity of network, congestion control etc. However, it is to be ensured that there is no discrimination within a category. Different business models would have to be evolved without the need for regulatory intervention
8. **In** view of different demands for network resources between categories and the different traffic management tools employed, there could be reasonable tariff differentiation between categories. **Equal is clearly not equitable in this situation.** All such treatments should however be transparent, proportional and non-discriminatory in nature and must be effectively and understandably disclosed to consumers.

9. Recognising the paramount national policy goal of achieving Digital India through “Affordable Broadband”, “Quality Broadband “ and “Universal Broadband” by the 90% of our population who are not broadband-connected today, India’s concept of Net Neutrality would include permission for Zero-Rating systems on an ex-ante regulatory examination basis.

10. Indian version of Net Neutrality must be such as to attract the huge investments needed for creating the investment for infrastructure. It must also balance this with the need to promote innovation in the applications & content as well as in the Networks. Equitable regulatory treatment of similar or near-similar services needs to be ensured to achieve this goal.

It may also be noted that the High level DoT Committee on Net Neutrality has rightly recommended that the above guidelines are not applicable for Managed Services. Managed /Enterprise services are excluded primarily because 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 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. In view of the above, **we request that enterprise services and other specialized services viz. M2M & IOT services, which are described in detail in response to Q3 later, should be kept outside the purview of net neutrality.**

Further, any regulation on net neutrality should not apply to only ISP/TSPs but to the entire eco-system which includes handset manufacturers, content providers, etc

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?

BIF Response:

Traffic management has always been employed by operators so that the Internet can function effectively, efficiently and successfully, particularly in a mobile network, where spectrum is limited to ensure optimum utilization is made of what is essentially a limited resource.

It is a well-recognized fact that different traffic types have different delivery needs. For example, a video or voice packet is more sensitive to delay than an email or message

Traffic management enables the (ISP)/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 good consumer experience.

Traffic management may also be used for the following purposes:

- **Network integrity:** Protecting the network and customers from external threats, such as malware and denial-of-service attacks
- Easing **network congestion** in times of unexpected and temporary increases in load.
- Subscription-triggered services: Taking the appropriate action when a customer exceeds the contractual data-usage allowance, or offering charging models that allow customers to choose the service or application they want
- Emergency calls: Routing calls to emergency services
- Illegal content: to restrict access to unlawful content.
- Spam – to block spam

The **DoT High level Committee on Net Neutrality** 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:

- (i) 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.
- (ii) Unreasonable traffic management, which is exploitative or anti-competitive in nature, may not be permitted.
- (iii) In general, **for legitimate network management with technical justifications, application-agnostic control may be used.** However, application-specific control within the “Internet traffic” class may not be permitted.
- (iv) Traffic management practices like DPI should not be used for unlawful access to the type and contents of an application in an IP packet.
- (v) **Traffic management practices must not have the effect of violating the principles of net neutrality as outlined above**

Traffic Management can be defined as a set of techniques/tools that are used by a ISP/TSP to plan & allocate available resources to attain optimum performance for diverse class of users across a Network. These techniques often include use of performance measures to

define optional service levels tailored to different user needs and to assure appropriate quality of service or safeguard network security.

Due to tremendous growth in internet traffic, in particular the video content, has prompted the ISP/TSPs to devise strategies to address network related capacity and capability issues. Use of reasonable traffic management techniques may become essential to protect quality of consumer's experience in situations arising out of extreme network congestion.

Following practices may be regarded as possible potential concerns about Net neutrality and are often regarded as unreasonable interference with Internet traffic. However, these are not substantiated in the Indian context.

1. Blocking of apps/websites/content on the Internet
2. Slowing/throttling of Internet speeds
3. Preferential treatment of apps, websites or any content on the internet
4. Inspection of contents of data packets, except to meet lawful requirements or maintain network security.

Also, the underlying but unsubstantiated apprehension is that in the absence of a clear regulatory framework on Net Neutrality, advanced traffic management techniques can be potentially deployed by a ISP/TSP for discriminatory/anti-competitive purposes viz. a ISP/TSP could use its control over Internet access to discriminate against any company that relies on its network or offer paid prioritisation to certain services.

What needs to be clearly stated and understood is that adherence to Net Neutrality rules does not necessarily construe that ISP/TSPs cannot use legitimate traffic management in the manner outlined above – where technical necessity exists and to maintain integrity and security of the network as a whole. In order to ensure that these criteria are satisfied, TRAI may recommend the creation of a robust enforcement mechanism to ensure that traffic management is only employed in a legitimate manner and, in any case, does not harm consumer welfare or competitive forces. In this regard, the Authority may have to strike a very fine balance between competing interests when it comes to framing policy & regulatory guidelines on these issues.

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

Please comment with justifications.

BIF Response:

On all issues related to net neutrality, it is first important to understand the Government's public policy objectives before defining Net Neutrality. As outlined above, some of the key objectives in this regard are the promotion of high-quality, affordable

internet access for all Indians and creating a conducive environment for innovation, investment, competition, and the march of modern technology.

The Government's Digital India Program aims to transform India into a digitally empowered society and knowledge economy. The vision of Digital India is centered around three key areas – infrastructure as utility to every citizen, governance and services on demand, and digital empowerment of citizens. It requires that affordable broadband access is available to all for which investment in infrastructure has to be facilitated.

It is pertinent to mention that the issues pertaining to Net Neutrality need to be carefully considered in the context of India's/Government's objective to empower 1 billion subscribers by providing Internet access to all and meet the Government's objective of a Digital India and Broadband as a utility for every citizen.

We therefore believe that any Net Neutrality principles must be commensurate to promote the development of innovative new services and business models as well as bear in mind the huge investments that are needed to increase broadband penetration from a low density of 12% today and to encourage a wide range of local and innovative content to accelerate the offtake of broadband services, once access is enabled.

The need for investment in networks to spur innovation has also been recognized by the DoT High Level Committee on Net Neutrality, which is summarised as below:

"To conclude, the primary goals of public policy in the context of Net Neutrality should be directed towards achievement of developmental aims of the country by facilitating "Affordable Broadband", "Quality Broadband" & "Universal Broadband" for its citizens.

The approach accordingly should be

- *Expand access to broadband;*
- *Endeavour through Digital India, to bridge the digital divide, promote social inclusion;*
- *Enable investment, directly or indirectly, to facilitate broadband expansion;*
- *Ensure the functioning of competitive markets in network, content and applications by prohibiting and preventing practices that distort competitive markets;*
- *Recognize unbridled right of users to access lawful content of their choice without discrimination;*

- *Support the Investment-Innovation Virtuous Cycle and development of applications relevant and customized for users.*

We submit that investment in networks can be facilitated by giving the service providers the freedom and the flexibility to promote the development of innovative new services and business models, including by entering into innovative agreements with content providers where the same are in conformity with the principles of net neutrality, and do not harm consumer welfare.

In line with the principles of 'level playing field' for all, BIF respectfully submits that all the service providers including the ISPs should have the freedom to develop and offer innovative new services and business models in consumer interest based on mutual commercial agreements with each other.

We may summarise the suggested approach in dealing with Net Neutrality issues which could be as follows:

1. Core Principles of Net Neutrality maybe made a part of the License Conditions (UL) with mutual agreement & the licensor may issue guidelines from time to time as learning matures
2. Since Net Neutrality related cases require specialised expertise, a special cell in DOT HQ maybe set up to deal with such cases. In case of violation, the existing prescribed procedure of two stage process of review and appeal to ensure decisions are objective, transparent & fair. At the same time, no ex ante regulation is to be undertaken, DoT may address complaints on a case-to-case basis in accordance with the overarching objectives of consumer welfare, and maintenance of free and fair competition.
3. Tariff regulation maybe done by following the existing principles of forbearance. Whenever any tariff violation is reported, post implementation or a complaint to that effect is received, the Authority maybe asked to step in through post-ante regulation. As a licensor, DOT maybe involved in execution of the regulatory guidelines/strictures, if any.
4. Net Neutrality issues arising out of traffic management would have reporting & auditing requirements which may be dealt with and enforced by DOT
5. Quality of service issues fall within the jurisdiction of TRAI. Reporting related to transparency, non-discriminatory and fair practices maybe dealt with by TRAI.

While the need to keep enterprise services outside the ambit of Net neutrality regulation has already been separately emphasised, it is important to also mention that one of the emerging areas of internet usage which is driving innovation and investment in the market place is IOT/M2M. (Internet-of-things/Machine-to-Machine) BIF advocates that both

Enterprise and specialised services viz. IOT/M2M should be kept outside the ambit of Open Internet regulation.

BIF advocates the use of Light touch regulation which is required to encourage investment and innovation especially in the emerging technology and service formats like IoT/M2M. Competition in the mobile broadband marketplace is driving investment and innovation. Internet of Things (“IoT”), even in its still-nascent stage, has established itself as a growth engine throughout the global economy. IoT’s importance will only continue to expand. IoT is revolutionizing entire industries by allowing Internet-connected machines to communicate directly with other Internet-connected machines, and with cloud computing platforms that analyze data coming off the connected devices, display it across user interfaces, and even provide input and direction back to the connected devices. These machine-to-machine (M2M) communications and the associated analytics platforms, all constitute parts of the IoT and have already demonstrated the potential to greatly improve efficiency, productivity, and social welfare in fields as diverse as education, healthcare, transportation, energy, security and agriculture. IoT technology is finding its way into almost every portion of our daily lives and our nation’s economy: smart cities; connected cars; connected homes; remote telematics for almost anything with an engine; fleet management; cargo tracking; personal wearable devices for health and fitness and for medical uses; just to name a few. The applications and technologies are complex and diverse, and the potential for new IoT applications seems almost limitless. Like the app based economy that sprouted in response to smart phones over the past decade, IoT presents immense opportunity for entrepreneurs and small businesses. .

A variety of novel business models, likely giving edge providers the option to trial the applications with pricing options that include Free Data will be a key component to many of the new applications and services that will characterize IoT in the future. By any measure, Free Data Platforms benefit content providers and consumers in the same way that toll-free calling and free shipping have provided comparable consumer and industry benefits for decades. These developments encourage innovation and consumer choice, and do not constitute an undue or unreasonable preference, a disadvantage, or unjust discrimination and will help support the growth of IoT.

TRAI should continue to exempt enterprise services from any Open Internet rules. Enterprise services, also sometimes called specialised services or business services, are typically offered to larger organizations through customized or individually negotiated arrangements. An example of such a service would be virtual private networks. Various jurisdictions that have reviewed open Internet policies have proposed to exempt such enterprise or specialized services from open Internet rules. In the United States, for example, both the FCC’s 2010 Open Internet rules and the additional regulation adopted by the FCC in 2015 apply only to mass-market retail broadband Internet access service, with the capability to transmit and receive data from all or substantially all Internet end-points. This definition for the scope of the Open Internet rules excludes enterprise service offerings and specialised services such as virtual private networks. Other regulators have also avoided imposing net neutrality regulation on these enterprise or

specialized services. TSP/ISP throughout the world have long provided IP-based services to enterprise business customers. These services include enterprise-grade Internet access and Internet Protocol services, with the capability to prioritize packets associated with performance-sensitive applications. This is provided to a wide range of customers, including healthcare providers, community service organizations, restaurant chains, car dealers, electric utilities, banks, municipalities, security/alarm companies, hotels, labor unions, charities, and video-relay service providers. The market of services that merit different network performance requirements is expanding with Smart Grid, healthcare, emergency-response, and a variety of other services that may involve or require packet prioritization capabilities. These services are pro-consumer, and indispensable to key social objectives. Just as other jurisdictions have recognized the merit for keeping these services outside the scope of open Internet rules, India also should not prescriptively regulate these services

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.

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

Please comment with justification.

BIF Response: (Joint Response to Q4 & 5)

TRAI is already aware that there is a significant imbalance in the level of regulation, between the TSPs/ISPs and the OTT players. This is clearly mentioned in this Pre-Consultation Paper itself. We submit that these imbalances extend far beyond just security and privacy concerns that have been raised by the Authority in the present pre-consultation.

In terms of the OTT Communication players, these imbalances include, including obtaining a license, acquisition of spectrum, payment of license fee & spectrum usage charges, proper record keeping, requirement for interconnection, adherence to quality of service, security, emergency services, transparency, lawful interception, privacy and other requirements. The OTT communication service providers, however, are not obliged to adhere to such regulatory obligations and do not have to bear any costs in relation to either regulatory compliance or investment in infrastructure and spectrum.

In respect of issues pertaining to security, privacy and data protection, the lack of any regulatory restrictions is applicable for all OTT players, whether they are offering communications or other internet services.

The sub-classification of OTT players into OTT Communication players and Other OTT players has been recognized by both the DoT High Level Committee on Net Neutrality as well as TRAI. In respect of OTT Communication players, the DoT Committee has recognized that the services offered by the OTT Communication players impact the revenues of the TSPs and have also noted with concern the existence of a regulatory arbitrage in the context of a licensed service provision co-existing with an unregulated service both competing for the same set of customers especially when the regulated service provider rides on the network infrastructure of the licensee to deliver the service.

However, despite the above, the DOT High Level Committee has recommended a similar regulatory treatment only for domestic calls (local and national), communication services by TSPs and OTT communication services, while submitting that:

- Specific OTT communication services dealing with messaging should not be interfered with through regulatory instruments and that
- In case of OTT VoIP international calling services, a liberal approach may be adopted.

We believe that once it has been recognized that OTT communication apps /players offer similar messaging/voice services to the licensed TSPs, there is no logic or rationale to recommend that similar treatment from the regulatory angle be applied only to OTT VOIP domestic/local calling.

It may also not be out of place to point out that OTT VOIP international calling is used mostly by the more affluent sections of society and thus also allowing such usage to enjoy a regulatory, revenue and economic arbitrage would not be a pro consumer/pro common man approach. We reiterate that the principles of similar or near-similar service and appropriate, just and equitable rules should apply to all OTT communication services, whether messaging or voice, domestic or international.

In respect of issues relating to transparency, security, privacy, data protection, etc, as submitted above, the rules regarding the same need to be more broad-based and applicable to all OTT Players.

We submit that the Authority may first look at which obligations should be extended to all internet services. These could be obligations around transparency, privacy, security and consumer protection, to encourage growth, create a resilient and safe internet and build consumer confidence and trust.

Then the specific requirements needed for communications services can be considered, driven by clear policy requirements, particularly around security, safety and transparency. The same rules should apply to the same services and they must be driven by clear policy requirements, and be proportionate, open, transparent and non-discriminatory.

The DoT High Level Committee on Net Neutrality has also opined and recommended regarding safety, security and customer privacy as below:

“ the regulatory framework has to embrace the fast-changing trends and be suitably structured so as to flexibly adjust to the requirements of an evolving communications sector. There is a need to define a new legal architecture to keep pace with the technological developments that explicitly protects Net Neutrality but retains the ability of the State to ensure national security, maintain public order, safeguard privacy and protect data. Accordingly, the Committee recommends that a new legislation when planned for replacing the existing legal framework must also incorporate principles of Net Neutrality. Till such time as an appropriate legal framework is enacted, interim provisions enforceable through licensing conditions as suggested by the Committee may be the way forward.”

TSPs/ISPs are already licensed under the Indian Telegraphs Act, 1885. When it comes to the Content providers, there would be principally two types of services viz. over-the-top Communication Services and over-the-top Applications/media.

OTT Communication services would comprise of Voice over IP & Instant Messaging kind of services and use Internet for transmission purpose. Though such services are governed in some respects by provisions of the IT Act of 2000, they are not subject to the same regulatory regime that is enforced on conventional voice and messaging services provided by TSPs. Absence of detailed regulatory framework governing OTT communication services can have number of security implications viz.

- for telephone number management
- for public safety
- for emergency number access and national security

Besides security challenges at national level, over-the-top communications & applications/media can pose a threat to individual users. While open architecture of the Internet is responsible for phenomenal growth of the OTT services, it results in transfer of personal information on the Internet. This is fraught with potential risks and leads to abundant scope for misuse.

Hence there is a need to examine and prepare a legal & regulatory framework from the perspective of privacy of users of OTT services and for national security.

However, the costs of over-regulation cannot be understated. Over regulation would increase regulatory burden for all stakeholders but would create unreasonable burdens for smaller operators who may not be able to devote resources to the same. In addition, this would stifle innovation & investments with the costs of compliance & regulatory outweighing the potential rewards for entrepreneurs & innovators. This could also debilitate the Indian digital economy at a time when it is still emerging and cause irreparable harm to the same.

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

BIF response:

We concur with the recommendations of the DoT Committee on Net neutrality and submit that investment in networks can be facilitated by giving all the players enough freedom and the flexibility to promote the development of innovative new services and business models. It also enunciates the need for market forces to be allowed a free hand when it comes to pricing, subject to the principles of regulatory forbearance.

.It underlines the fact that **Internet is a two sided market** which involves the consumer and the content /app provider. The ISP/TSP is the platform that brings these two sides of the market together. Payment can come from either side of the market and a two-side payment approach is a win-win solution – for a content/app provider it will ensure a quality experience for its end user, which will fuel its growth and development, for the consumer, it will mean a more affordable service

It is important for the Authority to not pick winners or losers ex-ante but permit fair and equitable market conditions for all players to operate with similar /near-similar services given equitable treatment and be dealt with appropriate set of rules.

It is reiterated that public policy objectives of Digital India must be kept in mind by the authority and no measures should be prescribed that have the result of severely inhibiting investment in infrastructure. Rather the aim of both TRAI and the Government should be to facilitate creation of infrastructure to bridge the digital divide and provide affordable access and ensure that affordable access and investment in broadband infrastructure are not counter-posed against the core principles of Net Neutrality.

BIF is of the opinion that the approach towards defining Net Neutrality and the Core Principles of the same, should be aimed at formulating a policy that is specific to the needs of our country - the 1 billion unconnected are enabled and empowered to avail of broadband services. This requires extensive rollout of broadband networks for which huge investments of hundreds of thousands of crores are projected as required. Further, the

services need to be accessible, affordable and relevant. There is thus a need to balance both public interest as well as public policy objectives and create an environment that ensures the growth and sustainability of both the ISP/TSPs as well as the OTT services.

In case of OTT Communication Services (Voice +Messaging) , there exists a regulatory arbitrage wherein such services bypass existing licensing & regulatory regime creating non-level playing field between ISP/TSPs & OTT content providers who are both competing for the same service. Public Policy response requires that regulatory arbitrage does not dictate or take sides in a competitive market for service provision.

Existence of pricing arbitrage in case of OTT communication services requires a graduated and calibrated public policy response. Which can be appropriately determined after the process of public consultation & the Recommendations by the Authority.

However, for OTT Applications which are essential for the growth of the Internet economy, and for higher offtake of data services, there is however, no case for prescribing regulatory oversight and/or ex-ante regulation.

In conclusion we may wish to add:

- a. At our stage of development, our highest need is internet adoption and increased data usage and whatever facilitates that needs to be heartily supported.
- b. There should be level playing field between the ISP/TSPs & the OTT Communication players. OTT Communication players need to be brought under the same regulatory regime as the ISP/TSPs.
- c. Free Data should be permitted and it should be left to the service providers to decide whether they want to enter into such arrangement with the content providers or not basis their business case & requirement of technical development.
- d. No ex-ante regulation is required since there is enough competition and the market is vibrant enough. In case of any violations, on ex-post basis, TRAI can examine tariff plans on a case by case basis after giving a reasonable opportunity to the operators of being heard.

BIF wishes to provide some additional views:

A) A Progressive Data Tariff Policy is crucial for the development of Mobile Broadband and Internet Ecosystem

In a price-sensitive market like India, the policy on data tariff will be a key determinant of take-up of data services usage. A flexible and progressive data tariff policy will lead to high mobile data services usage, which would translate into greater adoption of mobile internet and broadband services.

The roll-out of broadband services is at the inflexion of growth and it is universally accepted that India has one of the most competitive telecom markets in the world and therefore any tariff offering or pricing structure that boosts the internet ecosystem needs to be seriously considered and not prejudged and forbidden through a blanket ruling on grounds of inapplicable apprehensions of discrimination. Such a restriction would constitute a welfare-reducing measure of high concern by blocking a possible avenue for our less-advantaged citizens to move to increased economic growth and prosperity by harnessing the power of the Internet.

TRAI with its policy of forbearance of tariffs for the voice services has played a major role in the explosive growth of voice based telecom services that has been witnessed in India in the past two decades. Taking a cue from the existing regulations, the ISP/TSPs had leveraged the customer's choice for creating innovative tariffs for the data services and a growth curve similar to the voice services was expected to unfold. However contrary to expectations, assuming these practices of offering innovating tariffs to be against the core principle of transparency and nondiscrimination, TRAI issued its Regulations "Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016" dated 8th February, 2016 vide which it is mandated that "no service provider shall offer or charge discriminatory tariffs for data services on the basis of content", and also "no service provider shall enter into any arrangement, agreement or contract, by whatever name called, with any person, natural or legal, that has the effect of discriminatory tariffs for data services being offered or charged to the consumer on the basis of content".

Despite the highly evident hyper competition in telecom services in the Indian markets which ensured extremely affordable data services for the subscribers, TRAI decided to limit the room for tariff innovations for data services.

Thus, for emerging markets like India, zero rated /free data plans can be an effective tool to bridge the digital divide and get millions on to the internet in a shorter timeframe. It can help deliver governance and services to millions. For a country like India, such innovation can only help replicate the mobile voice revolution in the data services/internet space. In the end, the customer should have the choice and should be free to decide what they want and the way they want.

B) TRAI should take a holistic view on the subject

We would like to state that the Authority had already issued a detailed Consultation Paper in March 2015, covering the larger subject of Regulatory Framework for OTT Services and seeking to define Net Neutrality and also to enunciate its Core principles. The comments and counter comments were duly submitted by the stakeholders to the Authority on the said Consultation Paper but no Open House Discussion was held. The Authority did not issue any recommendations on the subject. Thus, the established regulatory process after issuance of CP by TRAI was not followed in this case.

Since then, it is observed that the Authority is issuing a series of Consultation Papers on subsets (differential pricing, free data, Internet Telephony, etc.) of the larger subject. By adopting a piece meal approach and not addressing the larger subject in one go is only adding ambiguity and uncertainty to the regulatory framework. We request the Authority to take a holistic view on the subject.

It is also submitted that the Authority has already initiated a comprehensive and holistic consultation of the issues relating to OTT services and the subject of net neutrality, in its consultation on Regulatory Framework for Over-the-top (OTT) services dated 27th March, 2015. The issues raised in the earlier consultation on differential tariffs and even the present pre-consultation are interlinked with the above pending consultation. To illustrate, the Authority in its consultation on Regulatory Framework for Over-the-top (OTT) services dated 27th March, 2015 had sought the views of stakeholders on:

- Question 4: Should the OTT players pay for use of the TSPs network over and above data charges paid by consumers? If yes, what pricing options can be adopted? Could such options include prices based on bandwidth consumption? Can prices be used as a means of product/service differentiation? Please comment with justifications.
- Question 12: How should the conducive and balanced environment be created such that ISP/TSPs are able to invest in network infrastructure and CAPs are able to innovate and grow? Who should bear the network up gradation costs? Please comment with justifications.
- Question 14: Is there a justification for allowing differential pricing for data access and OTT communication services? If so, what changes need to be brought about in the present tariff and regulatory framework for telecommunication services in the country? Please comment with justifications.

However, with the Differential Tariff Regulation issued by the Authority on 8 February 2016, where the Authority has prohibited differential tariffs based on content, the above issues have been foreclosed without appreciating the holistic context in which these issues were raised. It is thus respectfully submitted that individual consideration of various interlinked issues could constrain the Authority from taking a holistic perspective on the important issues raised in the main consultation and could in fact lead to internal contradictions.

We request that it would be desirable for the Authority to complete the pending consultation that deals with all the issues and submit its recommendations to DoT so that DoT can take a final decision on these important issues.

C) NEED FOR FUTURE READY REGULATION FRAMEWORK FOR THE INTERNET/DIGITAL ERA

In this age of severe competition amongst the market players and under Tariff forbearance regime by the Regulator, we have seen how differential pricing has been innovatively used by the market players to accelerate mobile telephony penetration in the country. The phenomenal growth of Mobile Telephony services, increased proliferation of service providers have fuelled the growth of OTT services. This calls for the need to have a Modern Regulation Framework that can support Digital India in future.

Regulation must be adapted to be fit for the purpose of this new world. There is a clear advantage to implement regulations now when the market is nascent, services have time to adapt and the consumer is prevented from getting harmed. This could be in the form of new 'light-touch' regulation to encourage innovation & competition and future proof and should be supported by clear policy drivers which apply equally to all internet based and traditional communication services irrespective of their underlying technology. It should be strong enough to protect consumers' essential requirements viz. transparency, privacy, security, safety, etc and also ensure that there is a level playing field for same or similar services. It should look at which obligations are to be extended to all internet services so as to encourage growth, create a resilient & safe internet and build consumers' confidence & trust.

Some of the key principles that should form the basis for this new Licensing regime should be based on:

- light touch regulation
- valid past principles to be transferred to the entire digital space viz. principles around proportionality, non-discrimination, neutrality, public interest, standardisation, security , consumer protection & transparency
- pure network regulation should be limited only to infrastructure viz. spectrum

We also submit that the question of modernization of communications regulation, net neutrality and differential pricing should be reviewed holistically to ensure that the same services are treated in a technologically neutral way and that consumers are protected and the objectives of Digital India are achieved.