



**Response to TRAI Consultation Paper on**

# **Differential Pricing for Data Services**

**Consultation Paper No: 8/2015  
December 2015**

**Response to TRAI Consultation Paper**  
**Differential Pricing for Data Services**

**I. Introduction**

Issues concerning Differential Pricing for Data Services need careful consideration because of their possible impact on Net Neutrality. The importance of preserving Net Neutrality was clearly brought out in our response to the TRAI consultation paper on Regulation of OTT Players in April, 2015. Our response to that paper may therefore be taken as an integral part of this response. For convenience of reference, it is annexed to this response. At the outset therefore, we reiterate the characteristics of Net Neutrality set out in that response.

Excerpt from NASSCOM submission to TRAI in April 2015 - In response to OTT consultation paper

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***Net Neutrality in our view should be characterized by the following attributes***

- 1** User to have the unfettered right of making an informed choice in deciding content / services to access
- 2** No discretion to TSPs to censor or block access to any legal content, applications, services, or non-harmful devices or determine how users use internet
- 3** No right of TSPs to throttle lawful internet traffic on the basis of content, applications, services or non-harmful devices. In fact, opening of the content of transmissions other than when required under laid down legal processes, is illegal.
- 4** No right of TSPs to speed-up / favour lawful internet traffic over other lawful traffic in exchange for consideration of any kind<sup>1</sup>
- 5** Critical that there be a level playing field for all Internet platforms and services including particularly entrepreneurial start-ups so that they are not squeezed out by either TSPs or large/global Internet Platforms and Service providers through anti-competitive tie-ups or practices
- 6** Prioritization of Emergency or any other services as prescribed by the regulator accompanied by public declaration and without price discrimination
- 7** Clear and declared definition of acceptable technical practices by TSPs for management of network traffic in conformity with above principles
- 8** No double dipping by Telecom Service Providers. Charges would be levied only from end customers based on data consumption and not from Internet Platforms and Applications
- 9** Security restrictions as required for ensuring reliable services and lawful demand of security agencies.

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<sup>1</sup> Commercial or non-commercial gains

*A sustainable and fair pricing plan should abide by the following:*

- *Pricing should not be used as an entry barrier/ enabler against competing Internet Platforms and Services, by ISPs that provide substitute services.*
  - *Data plans offered by telecom companies to the consumer has to be neutral between their own and competing Internet Platforms and Services*
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In continuation of our previous submission, we therefore maintain that TSPs should not be allowed to don the role of gatekeepers and use tariff plans to decide what users should access.

We appreciate the reiteration of the core principles of Net Neutrality in this Consultation Paper. We believe that the principles indicated by us in our earlier response and by TRAI in this paper should not be compromised. We advocate application of these principles to the Indian context.

Presently, India is characterized by low Internet penetration and even lower broadband penetration. Even where connectivity is available, reliability of power supply affects availability. Additionally there are challenges of low levels of digital literacy and limited local language support/ content in a country wherein less than 10% of the population speak English.

Proliferation of socially and locally relevant content and services is still at an early stage of evolution even though e-commerce has spread fairly rapidly. These monumental challenges lead to the conclusion that continuous innovation, both in technology solutions and business models is an essential ingredient of any solution to these daunting challenges. Hence the need to preserve a conducive environment for continuous innovation is a critical national priority.

At the same time, business models and innovations that enhance access or affordability without violating the principles of Net Neutrality listed should not be barred. Equally, faster proliferation of access or enhancing affordability should not come at the cost of constraining the innovation eco-system/ environment even marginally. The Government's initiatives towards Start up India, Stand up India are important efforts to promote innovation in the country. Given the obvious need for collective, concerted and focused efforts to enable/ incentivize relevant content, services, access and overcome the digital divide, it is also important that subject to the overriding priority of not constraining innovation or violating Net Neutrality

principles, the regulator should, where warranted, mandate/ allow differential pricing for certain types/ classes of services that are deemed by the regulator to be in public interest.

Parameters based on technical aspects of the network connection maybe used to offer different enabling tariff models as is in vogue today -

- Time (e.g. price per minute varies between day and night or workday and weekend) - Subscribers are offered incentives, such as better QoS or discounts, when they use mobile data at specific times or locations when the network is typically underutilized. The mobile service provider benefits by subscribers using capacity that would otherwise be wasted. This network optimization might also slow a provider's need to grow network capacity.
- Bandwidth - Quality of service (QoS)-based offers in real time. Subscribers pay more on a monthly or per-use basis to receive a higher QoS or better speed than the average user e.g. additional speed for a certain amount of time or application-based QoS.
- Volume (e.g. price per Megabyte) or capacity based

We believe that the regulator has an important role as innovative services and products are introduced, including innovation in pricing and business models.

**II. Response to Questions posed by TRAI consultation paper****Question 1**

*Should the TSPs be allowed to have differential pricing for data usage for accessing different websites, applications or platforms?*

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Based on the criteria of Net Neutrality outlined by NASSCOM – ‘No discretion to TSPs to censor or block access to any legal content, applications, services, or non-harmful devices or determine how users use internet’ - as well as the principles outlined in the Consultation Paper, we oppose any model where TSPs have a say or discretion to choose content that is made available at favourable rates, speed etc. TSPs should not be allowed to price different kinds of services differently, for example higher prices for video streaming, accessing ecommerce website etc., thereby segmenting the Internet. These cardinal principles remain applicable even in cases where differential pricing is proposed in partnership with a platform provider. Any differential pricing for a priority set of services that are deemed to be in public interest, eg. Emergency services, TSPs own maintenance/billing services, wi-fi hotspots, etc. should be offered only on the basis of explicit directives/ approvals of the regulator.

**Question 2**

*If differential pricing for data usage is permitted, what measures should be adopted to ensure that the principles of nondiscrimination, transparency, affordable internet access, competition and market entry and innovation are addressed?*

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In India, low cost solutions are a key focus area for India in diverse technology fields. This is also true for telecom and data services, where from a consumer perspective, affordability is important, and much development effort and innovation is targeted towards this objective.

Given the undeniable imperative for collective, concerted and focused efforts to enable/ incentivize relevant content, services, access to overcome the digital divide, it is important that subject to the overriding priority of not constraining innovation and not violating Net Neutrality principles, the regulator should be empowered, such that where and when warranted, they can mandate/ allow differential pricing for certain types/ classes of services that are deemed by the regulator to be in public

interest. This could include for example emergency and essential citizen services. TSPs own maintenance/ billing services, wi-fi hotspots, etc. may also be offered with lower rates / nil rates only on the basis of explicit directives/ approvals of the regulator.

Based on recent debates globally, it is important that any differential pricing proposals by TSPs<sup>2</sup> or TSPs and their partners are evaluated carefully by the regulator, *prior to launch*, to ensure net neutrality is maintained. The regulator will therefore need to play a key role in evaluating such programs even if they are projected to enable increased access or any other such socially desirable end. All such programs should abide by the basic principles of net neutrality. Such programs should not discriminate between content providers thereby leading to or enabling anti-competitive behavior. It is also critical that such differential pricing should not become a tool that facilitates market dominance or enables anti-competitive behavior by either TSP or platform provider or result in direct or indirect commercial benefit including by leveraging the value of customer data that gets generated in the process. This is particularly important in the Indian context, wherein the absence of a privacy law, enables widespread abuse/ misuse of such information for commercial gain.

If differential pricing is permitted by the regulator in the larger public interest in response to a request by the service provider(s), the onus of proving the larger public good should be on the TSP and its partners, if any and subject to a wider public consultation by the regulator before arriving at a final decision. Further, even after approval, a suitable oversight mechanism, either by the regulator directly, or through regulator designated, independent third party not-for-profit entities would be desirable to avoid misuse/ expansion of any authorization given.

We therefore recommend independent not for profit entities with independent Boards, that could own and manage such differential pricing programs that are deemed to be in the public interest and philanthropic in nature and they should be an integral part of the proposal to the regulator for approval. Such not for profit entities may be allowed to raise funds from multiple sources including TSP / platform provider. All contributions to these not for profit entities should be eligible to be counted as a part of CSR contribution as mandated by Companies Act.

With many TSPs themselves offering different apps, competing products and services differential pricing where rates are lower for select service providers within a class of services will lead to anticompetitive behavior. The same apprehensions are valid in case of collaborative partner services. Therefore, lower prices for own or partner content/ service should be explicitly disallowed, lower prices in exchange of consideration received from the partner content/service provider should not be

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<sup>2</sup> TRAI has regulatory mandate on TSPs only

allowed, except for the purpose of short term business promotions that have explicit time duration not exceeding 3 months.

Differential pricing may lead to anti-competitive behavior or preferential access that can act as a barrier to new entrants. Further, creating walled Internet with select services and content can also potentially drive up the cost of the internet outside of the set of select services/ content / products.

We are therefore unequivocally against any plan where there is any sort of commercial consideration from any content / app provider in order to be included in any in any plan that has a walled garden. We are also opposed to any plan that creates a walled garden that could potentially unfairly discriminate against certain apps, content providers.

Further, conformance to norms of data privacy as well as full disclosure of terms and conditions including creating awareness of all implications should be required.

Therefore tariff plans that offer concessional rates with the specific purpose of greater social good such as increasing access should require prior approval of the regulator, even if they are non-commercial in nature and are stated to abide by basic tenets of Net Neutrality as outlined by the TRAI. Full justification including details of the terms and conditions and how these map onto the principles of net neutrality as stated by TRAI in the discussion paper would be essential. As a standard practice, public consultations maybe initiated on the specifics of any plan, before a regulator decision is made. TRAI would need to check data tariff plans for consistency with various regulatory principles/guidelines, which include the following:

- Non-Discriminatory
- Transparency
- Not Anti-competitive
- Non-Predatory
- Non-Ambiguous
- Not Misleading

In summary, we propose mandatory prior approvals by the regulator, and sharing of periodic information on tariff plans that seek to price lower or zero rate services and content under such programs. These programs should abide by the principles of net neutrality.

Differential pricing plans and options should be an exception rather than the rule, including those positioned to address the difficult problem of getting more and more people online in India without compromising on the principles of Net Neutrality.

### Question 3

*Are there alternative methods/technologies/business models, other than differentiated tariff plans, available to achieve the objective of providing free internet access to the consumers? If yes, please suggest/describe these methods/technologies/business models. Also, describe the potential benefits and disadvantages associated with such methods/technologies/business models?*

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Instead of prioritizing differential pricing for select data services for wide access, legitimate and transparent business models should be adopted without segmenting the internet or skewing competition.

Some examples are already quoted in the paper. Government is offering hot spots and free WIFI in various public spaces. Similar models can be adopted by companies who wish to work towards increasing access to internet usage and this maybe proposed to be counted under the CSR mandate of corporates as governed by the Companies Act in India. For example, corporates can come together to bridge the digital divide through training, distribution of bandwidth amongst first time users etc. maybe considered, where neither content / service providers nor TSPs have a role to play. Suggested models

1. Free data access by TSPs, Content and Service providers: Free data is provided to the customers without any stipulations thereby offering to the customers, choice to select which apps/websites to use. This could be done through coupons, that maybe issued by the TSPs or service / content providers but do not have any stipulations or restrictions on how it should be used. Under this model service providers can offer managed service for public locations (e.g., coffee shops, hotels, airports, stadiums, railway stations) that want to provide free access to their customers and employees. Similarly content / service providers can offer discount coupons for data access to their customers.
2. Government offers free data: An example is the proposed initiative of the Delhi Government that is offering free internet access subject to cap on data used / day or month. This could be through identified wifi zones.
3. Corporates channelize their efforts towards digital literacy and access: While many corporates are investing in digital literacy programs today, corporates maybe encouraged to consider developing programs whereby they invest and cover opex cost to offer free/ discounted data to the uninitiated, without any stipulations on usage. This can be done in partnership with TSPs. E.g. Public transport such as Bus, Train and Cabs can be Wi-Fi enabled. The time available



during travel and commute can therefore be used to explore and access. This can be done as a part of their CSR initiative<sup>3</sup> or otherwise.

4. Time based models (e.g. price per minute varies between day and night or workday and weekend) - Subscribers are offered incentives, such as better QoS or discounts, when they use mobile data at specific times or locations when the network is typically underutilized. The mobile service provider benefits by subscribers using capacity that would otherwise be wasted. This network optimization might also slow a provider's need to grow network capacity.

Therefore zero rating is not and should not be the only model to achieve the larger goal of increased access and utility of the Internet in India.

## **Question 4**

*Is there any other issue that should be considered in the present consultation on differential pricing for data services?*

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From a customer perspective, zero rate access to TSPs billing portals and online help functions is much desired. No one wants to pay for such services and information. The differential pricing norms should not make such services expensive.

Any tariff plan of the telecom service provider should ensure

1. Innovation without permissions
2. Data charges that are application agnostic
3. Customer has the unfettered right to choose

One other aspect is that in the present day context, the commercial value of user information is an important parameter. In that context, differential tariff plans can exploit this value in direct and indirect ways. The lack of a privacy law in the country is a concern here, since such a law would have circumscribed the legitimate use of such user generated and privileged information. In the absence of such a law, it is all the more important that differential pricing plans are vetted carefully by the regulator.

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<sup>3</sup> As mandated in the Companies Act in India, and therefore there is need to provide for it in the Companies Act.

**Annexure**

**NASSCOM response to TRAI  
On regulatory framework for OTT  
April 2015**

Response to TRAI  
Consultation Paper on  
REGULATORY FRAMEWORK  
FOR OTT PLAYERS

**Consultation Paper No: 2/2015**

# NASSCOM RESPONSE TO TRAI CONSULTATION PAPER ON REGULATORY FRAMEWORK FOR OTT PLAYERS

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## **Preamble**

The advent of the Internet, the proliferation of mobile telephony in the country, the emergence of newer technologies and platforms like social media, big data/analytics, cloud, IoT, etc., the maturing of the IT industry in the country into a global force driving adoption of digital technologies, the burgeoning growth of the ICT start up / innovation eco-system in India and the adoption of a Digital India vision by the Government constitute a confluence of circumstances that hold the promise of breakthrough economic development and transformation for the country.

Yet, for that promise to be realized, it is vitally important that certain strategic objectives are clearly spelt out at the national level and underpin various policy and regulatory interventions in this space. NASSCOM believes that the following are critical elements of this framework:

- i. India is fortunate to have arguably the most powerful IT service delivery industry in the world today. This capability needs to be leveraged maximally to achieve the lofty vision of Digital India. Yet, mere adoption of these technologies is not adequate to meet India's needs, much less achieve its full potential; significant innovation is needed, both in technology and business models. In this context, the rapidly maturing entrepreneur - startup - innovation - product ecosystem (which is the 4<sup>th</sup> largest in the world today and will be the 2<sup>nd</sup> largest within 2 years) is a powerful new complement to the established IT-BPM industry and acts as a force multiplier. Hence the eco-system that is being built in the country should assign the highest priority to enabling such innovation and eliminating any impediments and roadblocks to such innovation. Given the Indian context, much of this innovation will come from small/new companies driven by young entrepreneurs with ideas, knowledge, energy and vision but limited means. This category requires a supportive environment. There should be no roadblocks to the rapid adoption of ICT-enabled and/or innovative models that emerge from this high-energy

eco-system, on which the hopes of a digital revolution in the country rest. In particular, any need for licensing of such applications, innovative or otherwise, is a death knell in this milieu.

- ii. Rapid country-wide proliferation of such solutions requires ubiquitous telecommunications infrastructure. Given that over 90% of such infrastructure is driven by the private sector in India, a viable and healthy business environment for TSP service providers is also an essential ingredient for the digital revolution in India.

NASSCOM believes that it is a misperception that these two objectives are in any way mutually exclusive or constitute a zero-sum game. On the contrary, success lies in creating and enabling a virtuous synergy between these two objectives.

A major challenge to pursuing these twin objectives is brought out in the TRAI consultation paper. The emergence of the Internet, the data revolution ensuing in its wake and the emergence of a whole new breed of Application Service providers has disrupted existing equilibria and business models in several (if not most) sectors. Telecom is no exception. In fact, the IT industry has been, in many ways disruptive even of its own traditional business models.

As far as telecom is concerned, the main issue has been brought out in the TRAI paper, namely that TSPs are moving from a voice-dominated to a data dominated era and the pressures arising there from. The complexity arises because the current business model and revenue model of TSPs is largely dominated by voice, which is relatively low in terms of data intensity. Para 2.37 and 2.38 of the TRAI consultation paper have brought out this dichotomy clearly. However, once mobile penetration reaches saturation levels (which it is fast approaching), then voice traffic will plateau and data traffic will constitute the bulk of growth in demand for increased telecom infrastructure. Data traffic then becomes the driver of demand for more telecom infrastructure. It would therefore be evident that the existing misalignment between sources of revenue and drivers of demand for telecommunication services is unsustainable. The sooner it is removed and the demand driver and revenue streams are synergized, the faster will be the migration to a more sustainable and future-proof telecommunications eco-system in the country.

In fact, it is our belief that it is precisely this effort to identify problems and carve out solutions without addressing this basic conundrum of misalignment between sources of revenue and drivers of demand for telecommunication services, that has led to suggestions that appear to resolve apparent difficulties to achieving rapid proliferation of telecom infrastructure (objective ii), but create enormous barriers for rapid adoption of ICT-enabled and/or innovative models (objective i) and have the net effect of nullifying possible gains from migration to a digital, connected India.

There is absolutely no need from a logical point of view, no competence from a legal point of view and no practicability from a technology point of view of bringing in the type of regulations/ controls on Internet platforms and Applications (referred to as OTT services in the TRAI paper) envisaged in the consultation paper that limit the scope and potential of the eco-system that needs to deliver on objective (i) above.

In the long run, migration to a revenue stream calibrated to the demand/consumption of data is a possible solution. In such a scenario, Internet Platforms and Applications spur demand for data that in turn generates additional revenues for TSPs. A synergistic eco-system would thus ensue. In fact, many of the issues highlighted would disappear once this state is reached. Thereafter, only normal regulatory principles of preventing anti-competitive practices would be necessary. As brought out in our detailed replies to specific questions, this migration is neither needed instantly, nor is an imperative at present based on available financial data as elaborated in our detailed replies to the questions. The migration can happen over a period of time and it is for the TSPs and the regulator to evolve the most appropriate path and timelines for such migration. NASSCOM is of the firm view that the Internet Platforms and Applications need not be dragged into this equation.

Today there are already adequate laws controlling their operations under the IT Act, not to mention the conventional IPC, CrPC, etc. In fact, as the consultation paper itself points out, TRAI has no jurisdiction over non-communication service providing Internet Platforms and Applications. NASSCOM believes that the comments contained in this response apply to all Internet platform and service providers (referred to as OTT in the consultation paper) and that the issue does not warrant any such distinction into communication and non-communication Internet Platforms and Applications and indeed, such distinction is impractical, arbitrary and highly contentious since nearly all such services incorporate some element of communication.

The only issues that need to be addressed therefore, are the regulations needed to ensure that TSPs do not resort to market distorting practices which go against the principles of Net Neutrality. Given the varying definitions of Net Neutrality worldwide, we would therefore like to first present our concept of Net Neutrality specifically tailored to the Indian context and then come to the measures needed to ensure that this framework is created and preserved.

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***Net Neutrality in our view should be characterized by the following attributes***

- 1** User to have the unfettered right of making an informed choice in deciding content / services to access
  - 2** No discretion to TSPs to censor or block access to any legal content, applications, services, or non-harmful devices or determine how users use internet
  - 3** No right of TSPs to throttle lawful internet traffic on the basis of content, applications, services or non-harmful devices. In fact, opening of the content of transmissions other than when required under laid down legal processes, is illegal.
  - 4** No right of TSPs to speed-up / favour lawful internet traffic over other lawful traffic in exchange for consideration of any kind.
  - 5** Critical that there be a level playing field for all Internet platforms and services including particularly entrepreneurial start-ups so that they are not squeezed out by either TSPs or large/global Internet Platforms and Service providers through anti-competitive tie-ups or practices
  - 6** Prioritization of Emergency or any other services as prescribed by the regulator accompanied by public declaration and without price discrimination
  - 7** Clear and declared definition of acceptable technical practices by TSPs for management of network traffic in conformity with above principles
  - 8** No double dipping by Telecom Service Providers. Charges would be levied only from end customers based on data consumption and not from Internet Platforms and Applications
  - 9** Security restrictions as required for ensuring reliable services and lawful demand of security agencies.
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The regulatory framework should incorporate suitable provisions to ensure the above and appropriate enforcement mechanisms to deal with any complaints or reported breach of the principles. As consumers increasingly rely on the Internet and Mobile networks for not only their communication needs but other needs like Banking, transportation, Health etc. we believe that the above principles of open and fair access should be upheld and any violation of these principles should be critically examined and actioned against.

With Digital India poised to transform the country, this is all the more imperative. Our detailed responses to each of the Questions posed by TRAI are aligned to the above principles. We believe that consumer and national interests should be paramount.

We welcome the consultative approach being adopted to allow stakeholders to share their views on this extremely significant issue that is likely to have long term impact on the usage and proliferation of ICT technologies in the country.

**(Detailed responses to each of the 20 Questions follows)**



## **Responses to Questions posed by TRAI**

**Q1. Is it too early to establish a regulatory framework for OTT services, since internet penetration is still evolving, access speeds are generally low and there is limited coverage of high-speed broadband in the country? Or, should some beginning be made now with a regulatory framework that could be adapted to changes in the future? Please comment with justifications.**

The term "OTT" does not acknowledge the innovation in Internet platforms and services at the application layer, their variety of services and product offering. Instead the term and its usage seems to imply that they are simply methods of serving. This is limiting and we would request that in India, we should acknowledge and therefore appropriately refer OTTs as Internet Platforms and Services in line with the terminology and understanding of Computer Technologists.

Further the belief that it is Internet platforms and apps that ride over the top of telecom networks is misplaced. It is consumers who use telecom networks to access apps and internet platforms. These consumers have contracts with telecom companies and they are using bandwidth that they have paid for at a price that generates profit for telecom companies. In fact, it is these Internet platforms and apps that make it worthwhile for consumers to use the Internet and therefore pay telecom companies for data packs.

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### **Regulatory framework for Internet Platforms and Services exists**

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**The Information Technology Act is the current applicable regulation to *"...provide legal recognition for transactions carried out by means of electronic data interchange and other means of electronic communication, commonly referred to as "electronic commerce", which involve the use of alternatives to paper-based methods of communication and storage of information....."***

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As products and services evolve in the extremely dynamic technology environment, there is a need to recognize the developments and safeguard fundamental citizen rights. The Information Technology Act is mandated to ensure this. We believe there is no need for any additional regulations for content and services on the Internet.

**(Details are in response to Q 5, 6 and 7)**

This current regulatory system has enabled Internet adoption and growth of Internet platforms and services (OTT as per the current consultation paper terminology).in India. In 2013 ~10% of the Indian population were Internet users<sup>4</sup> and the number of internet users in rural areas will touch 210 million by 2018, aiding India's internet user base to cross 500 million by 2018<sup>5</sup>.

There are certain basic principles that need to be recognized and followed that are not related to the maturity of a business. We believe that the Users *Right to Choose* is one such right that proposed regulations in many ways may restrict. Therefore, regulations for Internet Platforms and Services should not be linked to the state of Internet penetration in the country.

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**Universal principles of net neutrality, access for all and leveraging Internet for development, growth should be upheld within the regulatory framework of Telecom Service Providers. There should be no roadblocks to rapid adoption of ICT enabled models expected to drive the Digital revolution in the country**

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Specifically to the point on it being 'too early', there is no doubt that Internet Penetration in India is low. Also innovation and IP led products and services are a recent trend in India, and we are relatively new in the global scenario. With over 3000 technology start-ups today there is a need to nurture the ecosystem and support these enterprises.

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<sup>4</sup> *Online and upcoming: The Internet's impact on India*, report from McKinsey's technology, media, and telecommunications practice and the McKinsey Global Institute.

<sup>5</sup> IAMAI & The Boston Consulting Group (BCG) report [India@Digital.Bharat](#), Jan 2015

There is absolutely no need from a logical point of view, no competence from a legal point of view and no practicability from a technology point of view of bringing in the type of regulations/ controls on Internet platforms and Applications (referred to as OTT services in the TRAI paper) envisaged in the consultation paper.

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**Any stifling regulations applicable to Internet Platforms and Services may**

**Create significant difficulty for business**

**Seriously hamper the growth and success of the start-up and SME companies**

**Limit the scope and potential of the ecosystem that needs to rapidly develop and adopt Innovative ICT technologies, products and services to meet India's needs and the lofty vision of Digital India**

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**Q2. Should the OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) be brought under the licensing regime? Please comment with justifications.**

It shall be detrimental to have licensing for communication apps and Internet platforms. There are an estimated 1.5 million apps worldwide and several times more Internet platforms.

There is no basis for differentiating between communications services and internet platforms offering communication services and other services. Very many apps incorporate communication as a part of their offering. For example, a classified site or app may offer the buyer a feature of sending a message to the seller and even though communication is not the primary purpose of the app it is an integral part.

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**Internet Platforms and Services communications do not require licensing. There are user led evaluation reports that helps consumers make an informed choice as they adopt Internet platforms and services\***

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*\*OTT as per the current consultation paper*

**Q3. Is the growth of OTT impacting the traditional revenue stream of TSPs? If so, is the increase in data revenues of the TSPs sufficient to compensate for this impact? Please comment with reasons.**

The apps created have made Internet more useful, and opened up avenues for not just service providers, but increase convenience, transparency and enabled newer services for consumers. This is driving data revenues for Telecom Companies. Loss of revenue arguments from TSPs are not evident in some of the recent quarterly results announced (excerpts enclosed below) and some recent quotes from Telco Industry leaders

<b><i>Gopal Vittal, Joint MD and CEO (India &amp; South Asia), Bharti Airtel in Feb 2015 <sup>6</sup> in earnings call</i></b>	<b><i>Vittorio Colao, Vodafone's group chief executive has stated that<sup>7</sup></i></b>
<b><i>"....There is still no evidence that suggests that there is cannibalization," when inquired as to whether any data is cannibalizing their voice business. This has been confirmed by a two-fold jump in consolidated net profit at Rs 1,436.5 crore in the third quarter of 2014-15 on the back of continued growth in mobile data revenue.....</i></b>	<i>"Growth in India has accelerated again (October-December), driven by data". .... "Vodafone's Indian unit outpaced its group counterparts to report 15% organic growth in revenue in the quarter through December (2014), as subscribers used more of its premium data services, even as the basic voice telecom service remained under pressure, like its top rivals".</i>

It is also important to note the preferences of the user and the reason for migration to Internet Platforms and Services. It is unlikely that people prefer to use Internet Platforms and Services because they are on the Internet. Instead, the preference arises out of convenience, lower cost and comparable if not better experience.

Further increase usage of data also translates into revenue stream for Telecom Companies although not under the traditional revenue stream. With an expanding revenue stream from data usage, the overall impact is seen to be positive, and does not require any correction.

The main issue in the TRAI consultation paper in this context is that with TSPs moving from a voice-dominated to a data dominated era there are associated pressures

<sup>6</sup> <http://www.airtel.in/wps/wcm/connect/6fee748a-91e1-48aa-84a4-320aef0db668/Transcript+of+Bharti+Airtel+Limited+Third+Quarter+Ended+December+31+2014+Earnings+Conference+Call.pdf?MOD=AJPERES>

<sup>7</sup> [http://articles.economictimes.indiatimes.com/2015-02-06/news/58878696\\_1\\_organic-service-revenue-vittorio-colao-vodafone-india](http://articles.economictimes.indiatimes.com/2015-02-06/news/58878696_1_organic-service-revenue-vittorio-colao-vodafone-india)

arising from the current business model which has dominant revenues from voice, which is relatively low in terms of data intensity<sup>8</sup>. Over time, as mobile penetration reaches saturation levels voice traffic will plateau and data traffic will constitute the bulk of growth in demand and therefore source of revenue for telecom infrastructure. With data traffic likely to become the driver of demand it is evident that the existing misalignment between sources of revenue and drivers of demand for telecommunication services is unsustainable. The sooner it is removed and the demand driver and revenue streams are synergized, the faster will be the migration to a more sustainable and future-proof telecommunications eco-system in the country.

Therefore, addressing the misalignment between sources of revenue and drivers of demand will resolve apparent difficulties of achieving rapid proliferation of telecom infrastructure without creating barriers for rapid adoption of ICT-enabled and/or innovative models thereby potentially nullifying possible gains from migration to a digital, connected India.

**In the long run, therefore migration to a revenue stream calibrated to the demand/consumption of data is the only solution, where Internet Platforms and Applications spur demand for data that in turn generates additional revenues for TSPs, leading to a synergistic eco-system.**

**Based on the current Telecom Industry results, growth trends etc. (refer to excerpts from recent results announcements of leading telecom companies below) this migration is neither needed instantly, nor is an imperative. Migration of revenue stream to the demand/consumption of data can happen over a period of time and it is for the TSPs and the regulator to evolve the most appropriate path and timelines for such migration.**

***NASSCOM is of the firm view that the Internet Platforms and Applications need not be dragged into this equation.***

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<sup>8</sup> 2.37 and 2.38 in the TRAI consultation paper

Further, Telecom Service Providers offer bandwidth to users. The Government has promised minimum government and digital access to all. If evolving Internet Platforms and Services are curbed at this juncture it will be tantamount to working against the public interest.

### **Excerpts from recent news**

With reference to response to Q. 3

A surge in [mobile data revenues](#) helped Bharti Airtel, the country's largest telecom service provider, to more than double its consolidated [net profit](#) to Rs 1,436 crore in the financial year's third quarter ended December 2014.

Higher operational efficiency and lower finance costs helped the jump to its highest quarterly profit since September 2010. Data contributed 16.2 per cent of India mobile revenue this quarter, up from 14.5 per cent in the September one and 10.6 per cent a year before.

It had a net profit of Rs 610 crore in the quarter ended December 2013, and Rs 1,383 crore in the September 2014 quarter.

The consolidated revenue was Rs 23,217 crore for the December quarter, 5.8 per cent more from the same period a year before.

[http://www.business-standard.com/article/companies/bharti-airtel-q3-net-up-over-two-fold-at-rs-1-436-cr-115020400867\\_1.html](http://www.business-standard.com/article/companies/bharti-airtel-q3-net-up-over-two-fold-at-rs-1-436-cr-115020400867_1.html)

Vodafone India, the wholly-owned subsidiary of British telecom major Vodafone Plc, on Tuesday, reported an 11.7 per cent rise in service revenue at Rs 20,641.9 crore for the first half of the current financial year ended September 30, on the back of 65.5 per cent jump in data (browsing) revenue to Rs 2,552 crore during the period.

The company had reported a total service revenue of Rs 18,480.9 crore in the same period last financial year. At the end of July-September quarter, data accounts for 13.5 per cent to its total service revenue in India. It does not disclose profit figures in India.

"We have delivered a healthy double-digit revenue growth driven by strong customer additions and robust growth in data. With reducing inflationary pressure and improving sentiment after the new government came, we expect the telecoms sector to grow above the GDP rate," said Vodafone India managing director and chief executive officer Marten Pieters.

[http://www.business-standard.com/article/companies/vodafone-india-service-revenue-up-11-7-in-first-half-of-fy15-114111101083\\_1.html](http://www.business-standard.com/article/companies/vodafone-india-service-revenue-up-11-7-in-first-half-of-fy15-114111101083_1.html)

Reliance Communications, India's fourth largest mobile phone operator, reported an 85% jump in profit for the fiscal third quarter, boosted by lower cost of financing debt and as more of its subscribers used the pricier data services.

The Anil Dhirubhai Ambani-owned company reported net profit at Rs 201 crore for the October-December period. Revenue rose 1.2% on year to Rs4,799 crore.

[http://articles.economictimes.indiatimes.com/2015-02-14/news/59142312\\_1\\_data-revenue-finance-cost-total-data-traffic](http://articles.economictimes.indiatimes.com/2015-02-14/news/59142312_1_data-revenue-finance-cost-total-data-traffic)



Telecom service provider Idea Cellular had a 64 per cent jump in consolidated net profit to Rs 767 crore for the quarter ended December 2014, third in this financial year, due to growth in data volume and voice minutes.

It had reported a net profit of Rs 468 crore in the same quarter of the previous financial year.

Consolidated revenue grew 21.2 per cent to Rs 8,017 crore for the quarter over a year before. Revenue was 0.7 per cent more than Bloomberg estimate and adjusted net profit was 2.8 per cent lower. Sequentially the revenue was up six per cent and net profit by 1.5 per cent.

"During the quarter, Idea carried 170.7 billion minutes on its network, registering 5.1 per cent sequential quarterly growth and 46.1 billion megabytes of mobile data on its 2G+3G platform, with both lines of business delivering strong performance," the company said.

Healthy turnover growth, scale benefit and cost rationalisations also helped Idea report significant improvement in Ebitda (earnings before interest, taxes, depreciation and amortisation) margins. These rose 143 basis points over the earlier quarter (and 330 bps over a year before) to 34.3 per cent.

[http://www.business-standard.com/article/companies/idea-net-jumps-64-to-rs-767-cr-in-q3-115012701454\\_1.html](http://www.business-standard.com/article/companies/idea-net-jumps-64-to-rs-767-cr-in-q3-115012701454_1.html)

Tata Teleservices Maharashtra Ltd (TTML) continues to report losses: Rs 169.08 crore loss for the quarter ended December 31, 2014, up from Rs 159.38 crore loss in the previous quarter and Rs 156.36 crore loss in the same quarter last year. Note this is the telco's 18th straight loss making quarter.

The net income from telecom services however grew to Rs 720.85 crore for the quarter, up from 682.42 crore in the previous quarter and Rs 662.26 crore the same quarter last year. The EBITDA was at Rs 156.28 crore for this quarter. Overall for the nine months ended Dec 31, 2014, the company reported a loss of Rs 451.36 crore, up from Rs 448.49 crore the same period last year.

The total income from overall operations was at 738.56 crore for the quarter, however the telco did not mention its total revenues and it had previously stopped providing any information on the contribution of VAS and data revenues to its total wireless revenues

<http://www.medianama.com/2015/02/223-tata-teleservices-maharashtra-q3-fy15-loss-at-rs-159-38-cr/>

**Q4. 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**

Internet platforms and services are innovations arising from available technologies and platforms. The Telecom Companies have had no role in this. Telecom Companies on the other hand, acquired licenses and developed networks based on a business plan factoring revenues from customers.

Charging from Internet Platforms and Service providers for having their content delivered to users in addition to data charges paid by user would amount to 'double dipping', since users already pay for Internet access.

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**We would like to point out that Internet Platforms and Services are available and it is in fact the *consumer who initiates traffic* to be able to access and use the Internet platforms and Services. This data being accessed is already paid for by the consumer, and they have a legitimate right to download and use the data as they deem fit.**

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The increased popularity of Internet Platforms and Services has also incentivized TSPs to invest in the development of their own Internet Platforms and Services. Introduction of pricing for Internet Platforms and Services -originated traffic opens up the possibility of **price-based discrimination**, and an opportunity to foreclose entry to other than the TSPs own Internet Platforms and Services, if they are seen to be competing with the TSPs.

Contrary to the proposition in the question that '**prices be used as a means of product/service differentiation**', we recommend that specific steps are required to prevent use of pricing as a form of barrier.

In India, the telecom service provider market is dominated by a few big players. This gives them market power to engage in monopolistic and predatory behavior in the absence of regulatory control.

As prevalent in India and globally, capacity based access charges (based on data consumption by consumers) fulfill best practice that ensure Net Neutrality:

- Internet Platforms and Services are not blocking users right to unrestricted access to legal content and service and make an informed choice
- Compensates network operators for their investments
- It gives no discretion to TSP to
  - Censor or block access to any legal content, applications, services, or non-harmful devices or determine how users use internet
  - throttle/speed-up lawful internet traffic on the basis of content, applications, services or non-harmful devices
- Neutral between Internet Platforms and Services since the services are not directly charged
- Offers a level playing field for all Internet platforms and services including entrepreneurial start-ups so that they are not squeezed out by either TSPs or large/global Internet Platforms and Service providers through anti-competitive tie-ups or practices.
- Network operators do not double dip since only end users pay for their traffic.
- Clear and declared definition of acceptable technical practices by TSPs for management of network traffic in conformity with above principles

The capacity based access charges has the potential to make Internet Platforms and Services\_providers and network operators drive each other's business - additional traffic generated by Internet Platforms and Services\_translated into increase revenues from data usage and good quality access offered by TSPs increase outreach of Internet Platforms and Services.

The current problem as outlined by TRAI<sup>9</sup> is arising from TSPs current revenue models which are dominated by voice that have low data intensity. However with time, as mobile penetration increases and Indians are digitally empowered, data traffic will drive revenues and growth and also be the primary driver for increased and better infrastructure. Therefore, over time revenue stream will require adjustments to the demand and consumption of data enabling a virtuous cycle of growth for both TSPs and Internet platforms and service providers.

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<sup>9</sup> Para 2.3.7 and 2.3.8

**Q5. Do you agree that imbalances exist in the regulatory environment in the operation of OTT players? If so, what should be the framework to address these issues? How can the prevailing laws and regulations be applied to OTT players (who operate in the virtual world) and compliance enforced? What could be the impact on the economy? Please comment with justifications.**

There's no need for further regulation or licensing of Internet Platforms and Services.

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**Contrary to common perception that no such provision exists for Internet Platforms and Services\*, Code of Criminal Procedure and the Information Technology Act and its different rules pertaining to intermediaries and interception are applicable to Internet Platforms and Services. These different regulations allow the Indian government and law enforcement agencies to access the data stored by internet platforms when deemed necessary.**

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\*More details in response to Q6, 7.

Economic impact of Internet is cross-sectoral, and 75 percent of the value added created by the Internet is in traditional industries<sup>10</sup> As per the recent report in 2015 by the Boston Consulting Group and the IAMAI<sup>11</sup>, Internet applications and services actually contributed 3.2% to the national GDP in 2013. It is therefore one of the largest sector of the Indian economy surpassing healthcare (2.5%). The Internet economy is expected to grow to over 4% of GDP by 2020, comparable to developed countries like US, Japan.

The growth projections are based on the current regulatory environment that is applicable to Internet platforms and services. Efforts to introduce additional compliance requirements will throttle this growth journey, and could impact the

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<sup>10</sup> McKinsey Global Institute - Essays in Digital Transformation, 2012

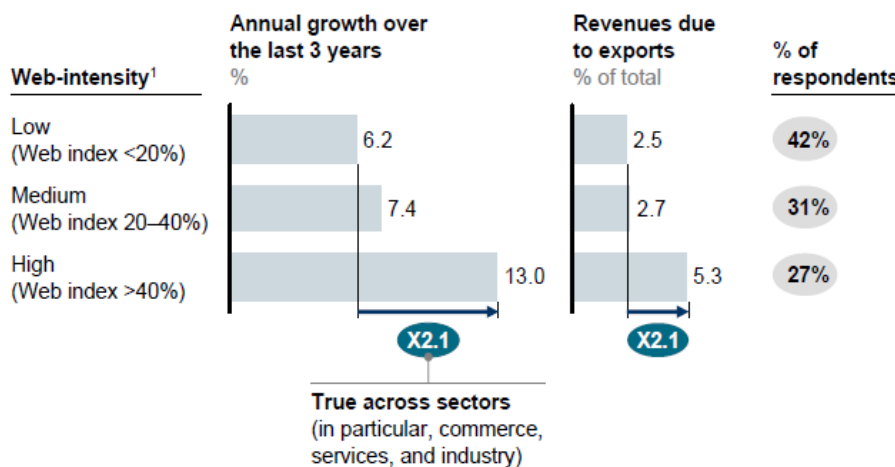
<sup>11</sup> <http://www.bcgindia.com/documents/file180687.pdf>

competitiveness of related sectors who leverage Internet platforms and services, given that adequate provisions exist in the current legal framework.

Internet platforms and service providers are Technology and innovation driven, opening up numerous opportunities for entrepreneurs, young educated Indians and also for other sectors through its wide ranging impact. For SMEs, the Internet brings accelerated growth and greater access to domestic and global markets. In this context it is important to note the following data on how SMEs using web technologies extensively are growing more quickly<sup>12</sup>.

**Small and medium-sized enterprises using Web technologies extensively are growing more quickly and exporting more widely**

Growth and exports of SMEs analyzed by cluster of maturity of Internet  
Analysis includes 12 countries and more than 4,800 SMEs



1 McKinsey Web index defined according to the number of technologies possessed by companies and the penetration of those technologies (i.e., the number of employees/ customers or suppliers having access to those technologies).  
SOURCE: McKinsey SME Survey

<sup>12</sup> McKinsey Global Institute - Essays in Digital Transformation, 2012

**Q6. How should the security concerns be addressed with regard to OTT players providing communication services? What security conditions such as maintaining data records, logs etc. need to be mandated for such OTT players? And, how can compliance with these conditions be ensured if the applications of such OTT players reside outside the country? Please comment with justifications.**

Government has a sovereign right to intercept communications for the purpose of maintenance of law and order and national security. Therefore, TSPs are obligated to grant law enforcement agencies access to their networks and services.

It is a misconception that no regulations exist for Internet Platforms and Services. Code of Criminal Procedure and the Information Technology Act and its different rules pertaining to intermediaries and interception are applicable to Internet Platforms and Services. These different regulations allow the Indian government and law enforcement agencies to access the data stored by internet platforms when deemed necessary.

*E.g. Rule 3(7) of the Information Technology (Intermediaries Guidelines), 2011 lays down a positive obligation on part of intermediaries like Internet Platforms and Services to comply with all lawful orders and render assistance to government agencies that are lawfully authorized.*

*S. 69-B of the Information Technology Act confers power on the Central Government to monitor and collect traffic data and obligates the intermediaries to provide all requisite technical assistance. Non-compliance is punishable with fine and imprisonment of up to 3 years.*

These regulations are evolving as is the security concerns, but they should remain technology agnostic in their approach.

*As per the Parliamentary Standing Committee report<sup>13</sup> on CYBER CRIME, CYBER SECURITY AND RIGHT TO PRIVACY submitted in Feb 2014*

*1.89 - On being enquired about the details of all the Acts/legislations/regulatory framework that are currently in vogue to deal with cyber-crime and cyber-attacks, the Department, in their written reply, stated that Sections 43A, 66 A, 67, 69 B, 70 (1), 70 (4), 70-B, 72 A, 79 and 84 A, in the Information Technology Act, 2000 (IT Act) deal with cyber-crime and cyber-attacks.*

*1.90 Asked as to how far the various sections of IT Act, 2000 as amended in 2008 have been successful in tackling the issues of cyber-crime/cyber security, the Department in their written reply, stated that the various provisions in the IT Act that make the actions effective.*

<sup>13</sup> [http://164.100.47.134/Isscommittee/Information%20Technology/15\\_Information\\_Technology\\_52.pdf](http://164.100.47.134/Isscommittee/Information%20Technology/15_Information_Technology_52.pdf)

- *Breach of privacy – Section 72 A provides for adequate punishment for disclosure of information in breach of lawful contract.*
- *Liability of intermediaries – Section 79 covers instances of liabilities of intermediaries and requirement for due diligence on the part of intermediaries.*
- *Modes of encryption – Section 84 A allows for prescription of suitable modes or methods of encryption for promotion of e-commerce and e-governance in the country.*

*1.91 On the issue of adequacy of the existing legal framework for dealing with the cyber-crimes, the Department, in their written reply, stated that IT Act, 2000 addresses all aspects related to cyber-crimes in a comprehensive manner with adequate deterrent provisions. In addition, the National Cyber Security Policy-2013 has provisions to enable development of a dynamic legal framework and its periodic review to address the cyber security challenges arising out of technological developments in cyber space.*

*1.92 Asked as to whether there is a need for amending Information Technology Act, 2008 in the emerging scenario, the Department in their written reply stated as under:- "At present, the IT Act 2000 addresses all aspects related to cyber space in a comprehensive manner with adequate compliance and deterrent provisions. In addition, the National Cyber Security Policy 2013 has provisions to enable development of a dynamic legal framework and its periodic review to address the cyber security challenges arising out of technological developments in cyber space."*

*1.93 Even with respect to the National Cyber Security Policy, the Department stated that at present no need is felt to amend the Information Technology Act to address National Cyber Security Policy. However, they also stated that since it is a dynamic area, as and when needed, IT Act will be amended.*

Therefore is no need for additional Act and regulations for security for the purpose of Internet Platforms and Services only.

Further in terms of traceability and transparency of data, the nature of Internet ensures, a lot of the usage data is collected, tracked and mined by Internet Platforms and Services / Internet players that can be made available in response to requests from authorized Government agencies.

**Q.7 How should the OTT players offering app services ensure security, safety and privacy of the consumer? How should they ensure protection of consumer interest?****Please comment with justifications**

As mentioned above, Information Technology (Reasonable Security Practices and Procedures and Sensitive Personal Data or Information), 2011 requires every service provider to outline a detailed privacy policy that is applicable to all users, that articulates nature of data collected, type of data that is collected and for what purpose including retention and further use. Additionally, India has consumer protection laws, financial regulations, competition law that ensures different aspects of user interest is protected.

*For example, as per section 43A of IT (Amendment) Act, 2008, only "Sensitive Personal Data or Information (SPDI)" is to be protected using "Reasonable Security Practices" by "Body Corporates".*

There also exist a patchwork of legislations governing privacy aspects in India. Much of the work related to development of privacy framework has already been accomplished by Justice AP Shah Committee. Similarly, the government is working on an encryption policy under section 84A of the IT (Amendment) Act, 2008 to "for secure use of the electronic medium and for promotion of e-governance and e-commerce." Increasing the encryption standards in the country will enhance security, safety and privacy of consumers.

Such efforts need to be expedited, but does not give a basis for TRAI to propose new security and privacy regulations.

Currently, Internet Platforms and Services have a privacy policy and systems in place to ensure safety, security and privacy of the user, and this is made known to the user through the terms and conditions. Internet platforms and services, have a global outreach. For any Internet Platforms and Services to even survive and compete, they have to abide by global standards and expectations. There is a strong user led review mechanism that help users rate and choose the Internet Platforms and Services. Further content rating systems are relied on by stores such as Apple, Google and Microsoft, which further ensure best practices and minimum standards where users champion apps in a democratic fashion.

There is a continuous effort on the part of start-ups and businesses to plug holes, and develop better protection mechanisms like App stores for kids, parental control, anti-virus / phishing tools that contribute towards enhancing safety and privacy of users on the internet.



Therefore, security requirements should be brought in only as needed for ensuring quality and reliability and for lawful demands of the security agency. It is the duty of the Government to ensure, that any stipulations made, should be enforceable for all players, including those operating outside the territory of India. Else it will skew the domestic innovation ecosystem and provide reasons for companies to migrate outside India.

**Q8. In what manner can the proposals for a regulatory framework for OTTs in India draw from those of ETNO, referred to in para 4.23 or the best practices summarised in para 4.29? And, what practices should be proscribed by regulatory fiat? Please comment with justifications.**

Learning from global experience and best practices is essential as globally Government and Regulators grapple with new emerging technologies. However, we must recognize that basic principles of Net Neutrality are maintained, as legislations and proposals are evaluated.

Preliminary analysis of the ETNO proposal indicate suggestions that could lead to

- Double dipping by Telecom Companies for a service - charging from both the user and the Internet Platforms and Services\_provider for access to Internet.
- Speeding up and throttling - Proposal to agree on end to end QoS for a premium could lead to creating fast lanes and throttling Internet Platforms and Services, linked to their agreement and fees paid.

We have emphasized that the above principles are unacceptable and dangerous as they violate the essence of Net Neutrality. Therefore, TRAI should not emulate the proposals put forth by ETNO.

**Q9. What are your views on net-neutrality in the Indian context? How should the various principles discussed in para 5.47 be dealt with? Please comment with justifications.**

Net Neutrality is a universal concept where TSPs, as access providers, have no power to select services, applications, content that a consumer accesses. The consumers retain their Right to select, and make informed decision on how to use their Internet access offered by the TSPs.

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**Net Neutrality therefore should ensure unrestrained access to content and services once the user has subscribed to data services, subject to National regulations related to security and privacy.**

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Therefore, any approach towards net neutrality will govern the relationship between TSPs, ISP and the users. We believe that net neutrality in any context should therefore stand for

1. User to have the unfettered right of making an informed choice in deciding content / services to access
2. No discretion to TSPs to censor or block access to any legal content, applications, services, or non-harmful devices or determine how users use internet
3. No right of TSPs to throttle lawful internet traffic on the basis of content, applications, services or non-harmful devices. In fact, opening of the content of transmissions other than when required under laid down legal processes, is illegal.
4. No right of TSPs to speed-up / favour lawful internet traffic over other lawful traffic in exchange for consideration of any kind.
5. Critical that there be a level playing field for all Internet platforms and services including particularly entrepreneurial start-ups so that they are not squeezed out by either TSPs or large/global Internet Platforms and Service providers through anti-competitive tie-ups or practices
6. Prioritization of Emergency or any other services as prescribed by the regulator accompanied by public declaration and without price discrimination
7. Clear and declared definition of acceptable technical practices by TSPs for management of network traffic in conformity with above principles
8. No double dipping by Telecom Service Providers. Charges would be levied only from end customers based on data consumption and not from Internet Platforms and Applications

9. Security restrictions as required for ensuring reliable services and lawful demand of security agencies.

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**We believe that the conditions of the Unified license of the DoT grants Telecom operators a license to offer Internet services that are already governed by the basic principle of net neutrality**

***'...the subscriber shall have unrestricted access to all the content available on Internet except for such content which is restricted by the Licensor/designated authority under Law.'*<sup>14</sup>**

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The Indian scenario wrt Internet access is indeed different from other developed nations. While USA and most European nations offer access through both - fixed line telephone and mobile, India has leapt to mobile, with fixed line infrastructure lagging behind.

Wireless spectrum, an invisible infrastructure is a finite resource, and they do not have the same data capacity as the wired networks<sup>15</sup> Therefore broadband wireless connections as alternatives to fixed lines to meet the majority of broadband demands is likely to pose technical challenges as India embarks on its digital journey including the GoI's flagship Digital India program. The Government in its priorities has therefore identified the NOFN programs for expediting implementation.

We strongly recommend that from a legislation point of view, there should not be any preference for one network technology over another, since it may lead to market distortions<sup>16</sup>.

While recognizing the differences in the Indian context, we believe and recommend that basic principles of network neutrality as listed above should be ensured.

This is essential for a sustainable and healthy growth of a knowledge based economy, where there is a level playing field for new emerging companies, as they develop innovation led technology driven products and services. Anti-Net neutrality practices are thus fundamentally anti-competitive and harm consumers as well as economic growth. They discourage innovation and result in rent-seeking behaviors from established players

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<sup>14</sup> [http://dot.gov.in/sites/default/files/Unified%20Licence\\_0.pdf](http://dot.gov.in/sites/default/files/Unified%20Licence_0.pdf); Chapter IX, p 64

<sup>15</sup> <http://www.bmi-t.co.za/?q=content/spectrum-not-enough>

<sup>16</sup> . <http://mobileopportunity.blogspot.in/2011/06/how-to-shape-mobile-data-market.html>

**Q10. What forms of discrimination or traffic management practices are reasonable and consistent with a pragmatic approach? What should or can be permitted? Please comment with justifications**

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**Principle of Net neutrality does not prevent traffic management practices that are consistent and have an enforceable framework to make sure such practices are reasonable, i.e. situations under which they are warranted and mechanism adopted e.g.**

- **Unforeseeable transitory congestion - maybe due to equipment failure or other reasons, may require traffic optimization measures. However, operators must be able to prove that such congestion of its network was not foreseeable and that it took necessary steps to correct it**
  - **Security threat from a sudden attack, malicious actions aiming at altering the global operation of the network, whether intentional or accidental.**
  - **Prioritization for stipulated emergency services only, that have been declared publicly in the larger public interest, ensuring no discrimination among Internet Platform and service providers of the same category**
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Net neutrality in any context should stand for

1. Unfettered user right of making an informed choice in deciding legal content / services to access
2. No discretion to TSPs to censor or block access to any legal content, applications, services, or non-harmful devices or determine how users use internet
3. No right of TSPs to throttle lawful internet traffic on the basis of content, applications, services or non-harmful devices. In fact, opening of the content of transmissions other than when required under laid down legal processes, is illegal.
4. No right of TSPs to speed-up / favour lawful internet traffic over other lawful traffic in exchange for consideration of any kind.
5. Critical that there be a level playing field for all Internet platforms and services including particularly entrepreneurial start-ups so that they are not squeezed

out by either TSPs or large/global Internet Platforms and Service providers through anti-competitive tie-ups or practices

6. Prioritization of Emergency or any other services as prescribed by the regulator accompanied by public declaration and without price discrimination
7. Clear and declared definition of acceptable technical practices by TSPs for management of network traffic in conformity with above principles
8. No double dipping by Telecom Service Providers- Charges levied only on end customers based on data consumption and not on Internet Platforms and Applications
9. Security restrictions as required for ensuring reliable services and lawful demand of security agencies.

Therefore, beyond the needs of optimizing the network and addressing traffic hazards through temporary measures, either manually or automatically, no discrimination should be permitted. They should not directly and indirectly bring in any discrimination – price based/ non –price based.

**Q11. Should the TSPs be mandated to publish various traffic management techniques used for different OTT applications? Is this a sufficient condition to ensure transparency and a fair regulatory regime?**

As mentioned above, Traffic management practices that are reasonable and consistent should be implemented in a transparent manner.

This will require audits and scrutiny as well as safeguards and penalties to prevent misuse. Therefore full disclosure to the regulator would be essential. Making available traffic management policies and sharing information on how telecom services are affected by traffic management with the users is important and necessary

**Q12. How should the conducive and balanced environment be created such that 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.**

As per financial analyst Deepak Shenoy<sup>17</sup>, Telecom companies should be seen as utilities and their Return of Equity should be a measure of their performance rather than Return on Capital Employed. For leading Telecom companies, RoE ~ 20% is higher than the 15% RoE that utilities are expected to have. Globally, telecom companies may have lower ROCE, but have a much higher RoE. Indian Telecom Companies are growing and have healthy balance sheets from their Indian business.

Bharti Airtel Limited Third Quarter and Year Ended December 31, 2014 Earnings Call<sup>18</sup>

*In response to question "....And how far given that your average data consumption is 600 MB plus which means your 3G would be roughly above 1.2 GB so how far you would be from data cannibalizing voice and any guidance on the CapEx for next year?"*

Mr. Gopal Vithal Joint Managing Director and Chief Executive Officer - India - Bharti Airtel Limited responded

*"...Finally the last question is on the cannibalization, there is still no evidence that suggests that there is cannibalization. Yes we have seen cannibalization coming on our SMS, the cannibalization that we see right at the top end, if at all there is some, is really not material so I would not like to say that there is cannibalization"*

The Government and the Telecom Industry have to work together to create a balanced environment for TSPs to invest in network infrastructure rather than targeting the fledgling Internet based product and service providers.

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<sup>17</sup> <http://capitalmind.in/2015/04/telecom-companies-are-not-losing-money-to-data-services-the-net-neutrality-debate/>

<sup>18</sup> <http://www.airtel.in/wps/wcm/connect/6fee748a-91e1-48aa-84a4-320aef0db668/Transcript+of+Bharti+Airtel+Limited+Third+Quarter+Ended+December+31+2014+Earnings+Conference+Call.pdf?MOD=AJPERES>

A lot needs to be done towards improving infrastructure and stalled or slow moving projects like NOFN need to be expedited. Proposals that maybe considered are as follows:

- Sharing of Passive Infrastructure: Such as conduits and towers, policy should allow providers to collaborate and share initial costs of deployment with others who wish to utilize it
- Government incentives to private operators for providing last-mile services from the NOFN, especially in rural and remote areas.

Network operators should receive fair compensation for the cost of investing in and maintaining their infrastructure. This fair compensation will have a basis in the actual cost for maintaining and operating the infrastructure. As explained above in responses to Q 3 and 4, over time as data drives demand for more telecom infrastructure migration to a revenue stream calibrated to the demand/consumption of data is a way forward.

In such a scenario, Internet Platforms and Applications spur demand for data that in turn generates additional revenues for TSPs leading to a synergistic eco-system.

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**A sustainable pricing plan in this context should abide by the following:**

- **Data plans offered by telecom companies to the consumer has to be neutral between competing Internet Platforms and Services**
  - **Pricing Internet Platforms and Services for access to their Internet Platforms and Services should not be allowed**
  - **Pricing should not be used as an entry barrier/ enabler against competing Internet Platforms and Services, by ISPs that provide substitute services.**
  - **Network operators should not be able to “double dip” – that is, collect payments for the same traffic from content provider and consumer.**
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**Q13. Should TSPs be allowed to implement non-price based discrimination of services? If so, under what circumstances are such practices acceptable? What restrictions, if any, need to be placed so that such measures are not abused? What measures should be adopted to ensure transparency to consumers? Please comment with justifications.**

In principle, barring steps taken for traffic and network optimization and management under special circumstances (as elaborated in response to Q10) there should be no discrimination either based on price or otherwise.

Need to prioritise packets arises due network optimization and is also linked to nature of services that is decided by the nature of services and already built into the protocols of the services, and is not left to the TSPs.

We recognize the importance of such purely technical prioritization. Based on the universal concept of net neutrality as elaborated in our **response to Q. 4, 8, 9 and 12**, technical measures for network optimization maybe considered.

However, these practices should not amount to non-price based discrimination and user right to make an informed choice on unfettered access to legal content/ services / apps is upheld.

**Q14. 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.**

There is no justification for allowing differential pricing for data access and apps based communications services.

Any proposal to introduce differential pricing for data access for traffic originating from Internet Platforms and Services\_to protect 'traditional revenue streams' of TSPs is not in the interest of the consumer. The TSPs offer access to the Network which is being duly compensated by the end user through the data plans.

There is no doubt that Internet Platforms and Services\_signify a market opportunity that most TSPs are tapping into today through their own apps and Internet Platforms and Services. Therefore, discrimination models based on where or who originates traffic could lead to unfair practices. It would most certainly throttle the start-up and innovation ecosystem that the Web has enabled. It could discourage users to adopt more efficient Internet Platforms and Services.



The concept of “innovation without a permit”, where new entrants compete fairly with the incumbent giants is the very essence and ethos of the Internet and evolving business models therein.

As already brought there is no justification for differential pricing.

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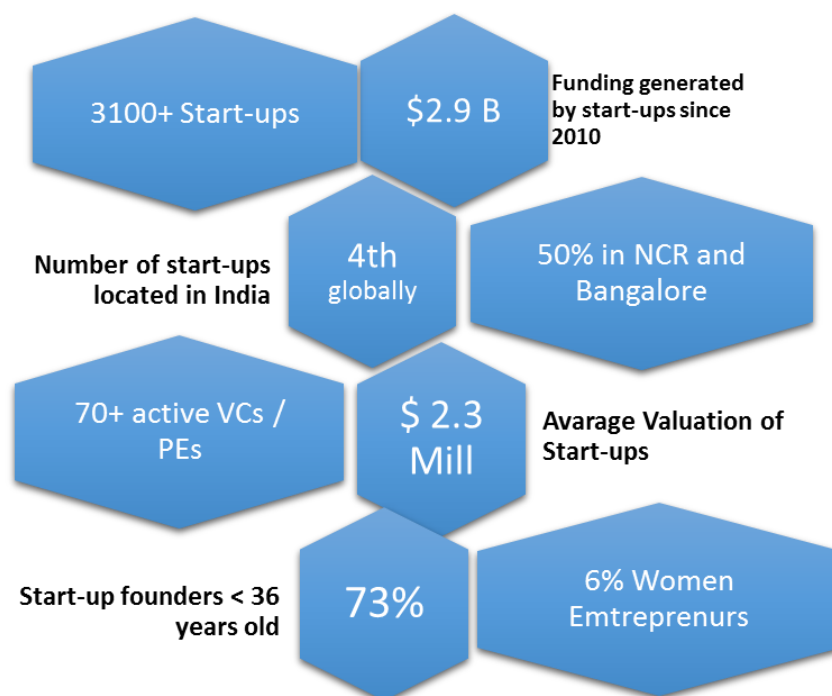
**Beyond the well-known examples of Flipkart, Snapdeal, Naukri in India there are thousands of smaller companies globally. India today has over 3000 tech start-ups and the country is on the path of innovating and developing products and services for India and the world. The start-ups and small companies form an important part of the value chain.**

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**Any discriminatory practices as proposed will have a detrimental impact on the growth and potential of such companies and should therefore not be considered**

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The following exhibit gives a glimpse of the vibrant start-up ecosystem in India.



**Q15. Should OTT communication service players be treated as Bulk User of Telecom Services (BuTS)? How should the framework be structured to prevent any discrimination and protect stakeholder interest? Please comment with justification.**

It is important to repeat and emphasize that these Internet platforms and services (OTT) have increased the utility of the Internet. The apps created have made Internet more useful, and opened up avenues for not just service providers, but increased convenience, transparency and enabled newer services for consumers.

We would like to point out that Internet Platforms and Services are available and it is in fact the consumer who initiates traffic to be able to access and use the Internet platforms and Services. This data being accessed is already paid for by the consumer, and they have a legitimate right to download and use the data as they deem fit.

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**Therefore there is no basis to introduce an additional relationship with TSPs that will need formalization. It is also not evident how this formal status will add value to the consumer.**

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Apps should be allowed to maintain their current model of a direct relationship with their user.

Learning from the past, the of Mobile VAS, any new frameworks should be completely avoided as the Internet Platforms and Services promise to enhance user experience on the Internet and offer most cost effective and better service models.

**Q16. What framework should be adopted to encourage India specific OTT apps? Please comment with justifications.**

There are several initiatives being developed across Government Departments that encourage Internet driven products and services, both for domestic and global markets. Enabling environment that offer incentives for setting up and operating from India, world class infrastructure and push for technology adoption are key.

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**NASSCOM is working with several Departments in the Government on this, and we believe TRAI has a critical role as a regulator to ensure no artificial and market distorting regulations are introduced in India by ensuring Net remains Neutral, open, preventing any price or non-price based discrimination.**

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A level playing field must be ensured to give the new and emerging companies a fair opportunity to compete and succeed. A lot of innovation is happening in the country today. As per the recent NASSCOM report<sup>19</sup>, Indian start-ups with their unique solutions are witnessing increased traction in global whitespace opportunities such as Internet of Things, augmented reality, smart hardware, BI and many more.

With technology spreading its wings into different domains, 'Domain+Tech' solutions are taking over other trends. The emerging niche technology solutions are primarily focused on Ad-tech, Edu-tech, Health-tech, Agri-tech and many more.

There are several trends that signal increasing maturity in the ecosystem, - Multiple and accessible platform like VC/PE, angel investors, incubators, financial institutes and even banks, are the driving force for the same. In fact, during 2010-2014 timeframe close to USD 3 billion is expected to be invested in Indian start-ups.

**Q17. If the OTT communication service players are to be licensed, should they be categorised as ASP or CSP? If so, what should be the framework? Please comment with justifications.**

There is absolutely no need for introducing licensing for Internet Platforms and Services. Our response to Q 2 maybe referred to in this context. Further, differentiating between ASP and CSPs is artificial and extremely difficult as newer and better Internet platforms and services emerge.

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**There is absolutely no need from a logical point of view and no practicability from a technology point of view of bringing in the type of regulations/ controls on Internet platforms and Applications\* and limit the scope and potential of the eco-system.**

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<sup>19</sup> Tech Start-ups in India: A Bright Future, NASSCOM-Zinnov report, 2014.

\* referred to as OTT services in the TRAI paper

**Q18. Is there a need to regulate subscription charges for OTT communication services? Please comment with justifications.**

In our response to Q 4, 13, 14. we have already established that there is no need to impose any subscription charges, or discriminatory practices like pricing etc.

Therefore need for regulations do not arise.

**Q19. What steps should be taken by the Government for regulation of non-communication OTT players? Please comment with justifications.**

Internet content and services companies are regulated by law. Our responses to Q 5, 6 and 7 detail the applicable laws and regulations and the responsibilities of both communication and non-communication Internet Platforms and Services providers

In light of the above, we believe that bringing in more regulations would be counterproductive and will impact the development and deployment of internet enabled innovative products and services.

Innovation and licensing will kill it.

**Q20. Are there any other issues that have a bearing on the subject discussed?**

The portfolio and capabilities of Indian IT industry has expanded, and India is perhaps the only country other than the USA, with the capability of providing end to end services in IT/BPM, Software Products and Engineering, Research & Development and now Internet and e-Commerce.

The start-up ecosystem is often described as young, innovative, aspirant and futuristic. India, home to a new breed of young start-ups, has evolved to become the fourth largest base of technology start-ups in the world. While start-ups are betting high on the ecosystem, there is constant need to nurture this ecosystem. Demand for supportive government policies (ease of doing business, tax incentives, availability of risk capital etc.) continue to exist.

We would like to draw the attention to the Gaming Industry in India today which is getting impacted by the current practices of the ISP and absence of clear principles and guidelines on Net Neutrality would further deteriorate their operating environment. ISPs can impact gamers in ways that aren't obvious to the non-gaming community.

- Data caps on per month basis today have no relation to network congestion or real time traffic conditions. This adversely impact larger-sized game downloads offered through the new consoles' digital stores. While ISPs clarify that the cap impact the highest users, there are no details available on how data caps are set.
- Latency can decide a winner or a loser in critical action adventure game. As the next generation of consoles explore cloud gaming through online game streaming, there is a need to reduce latency, and encourage ISPs to improve their services. Net Neutrality is critical in such cases, to avoid ISPs from creating prohibitive cost structures for low latency access.

Therefore, there is a need to introduce transparency in the system to minimize damage to gaming community. (Suggestion aligned to responses to Q10 and Q11)

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**Finally, we welcome the consultative approach adopted by TRAI and recommend that for a nurturing environment in which the benefits of the Internet can be better understood and the Internet ecosystem can grow, inputs from all stakeholders and a fact-based approach is essential for the development of the Internet ecosystem within the country, as well as internationally.**

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