



26 April 2017

To:

Shri Asit Kadayan, Advisor (QoS)
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawaharlal Nehru Marg,
New Delhi 110002

CC:

Shri Sunil Bajpai, Pr. Advisor (CA, QoS, IT)
Telecom Regulatory Authority of India.

Subject: Counter-Comments from the Internet Freedom Foundation towards the Consultation Paper on Network Neutrality

Dear Shri Kadayan,

After careful consideration of the comments filed by the various stakeholders, please find herein counter-comments that we wish to file towards TRAI's ongoing consultation paper on net neutrality. These supplement the comments filing we made on April 12, 2017, and our previous filing to the pre-consultation paper on net neutrality last year.

The Internet Freedom Foundation (IFF) is a non-profit organisation created by members of the SaveTheInternet.in movement for net neutrality. Over one million of our fellow citizens wrote to the TRAI in April 2015 as part of the consultation paper on OTT services using the SaveTheInternet.in platform, and continued to engage the TRAI and the Dept of Telecommunications on subsequent consultative exercises in this area. IFF aims to promote the rights of Indian Internet users – freedom of speech, privacy, net neutrality and freedom to innovate - before policymakers, regulators, the courts, and the wider public sphere.

After analysing the comments that TRAI has received in this consultation, we emphasise the following top level submissions in addition to our more granular counter-comments below. Building on what we have filed previously, **we believe that the outcome of this consultation process should be a clear set of enforceable rules which put in place a regulatory regime for telecom service providers with respect to protecting net neutrality.** These rules should be specified and enforced by TRAI currently, and create bright line regulations that apply to all provisioning of the internet via data services to consumers of telecom service providers. TRAI should do so using its powers under Section 11(1)(b) of the Telecom Regulatory Authority of India (TRAI) Act, building on the pre-existing UASL licensing conditions which contain language to prevent licensees from restricting



access to the Internet. We note that several of the independent filings made to TRAI support this approach in favour of setting clear standards to guide future behaviour via bright line rules and provide more detailed recommendations on these lines. Additionally, it was rightly pointed out by TRAI in its explanatory memorandum issued alongside the Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016 that a case-by-case approach involving the individual examination of every violation in order to frame standards would, in turn, increase the regulatory burden on TRAI.¹ In a country like India with minimum resources for regulatory oversight, a case-by-case approach will provide a free pass to TSP to continue to profit from such illegal services while the matter would be under investigation. We have also attached the summary of **our key rule-making recommendations as Annexure-A** to this document.

We note our deep concern at the various attempts made by some stakeholders and lobby groups to present arguments that were categorically rejected by the TRAI in its formulation of Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016. As we have asserted in our previous comments, it is critical to “*act to frame, discuss, and implement specific regulatory language to ensure meaningful bright line provisions that protect net neutrality, allow effective oversight, and provide remedy and redress for violations*” to end such attempts by vested interests to scuttle network neutrality in India. We also wish to emphasise that **TRAI must stand firm to prevent the undermining of its landmark Prohibition of Discriminatory Tariffs for Data Services Regulations**; this act of global regulatory leadership on the issue of “zero rating” and its impact on network neutrality must not fall victim to lobbying efforts of some in the telecom industry.

As always, we appreciate the efforts by the TRAI to consult with all stakeholders in this space and safeguard the interests of citizens. We are available to assist with any of our submissions from our filings towards this consultation, and to the TRAI on any other queries.

Yours faithfully,

The Internet Freedom Foundation

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¹ Para 27 of the Explanatory Memorandum to the Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016 (February 2016) [in the context of arguments for case-by-case examination of differentia data pricing]



Detailed counter-comments:

We break out our counter-comments into three broad sections; those inputs which we endorse, others towards which we wish to note specific comments in reply, and others which we raise concerns regarding. We hope this classification will be of aid to TRAI.

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I. Inputs and proposals we endorse:

On network neutrality regulatory models and wired-wireless framing:

We support the detailed recommendations made by **Prof. van Schewick of Stanford University** in her filed comments on this consultation paper. Prof. van Schewick detailed framework provides a model which matches with the summarised network neutrality regulatory framework which we have outlined in our own comments. In addition, we agree with the comments made by Prof. van Schewick on how a net neutrality regulatory framework should apply to both wired and wireless networks. In particular, we express our support towards the following:

“TRAI’s consultation document seems to suggest that, due to the different characteristics and challenges of wireless Internet services, different standards might need to apply to network management of wireless as opposed to wireline Internet services. I disagree. **Instead the same rules should apply equally to mobile and fixed networks. That applies to the rules as such and to any exceptions.**”;

“Any technical differences between wireless and wireline networks – to the extent they exist – can be accounted for when applying the reasonable network management exception”;

“Thus, ... problems, to the extent they exist, can be accounted for when applying the reasonable network management exception.... They do not justify applying fundamentally different levels of protection to wireline and wireless networks in general.” ;

“As the experience in the US, Canada, and Europe has shown, ISPs are not interested in exploring application-agnostic ways of managing their networks unless they are required to do so by net neutrality rules.” [emphasis our own]

We note that this emphasis on ensuring that we do not create a split model in the regulations for net neutrality based on wireless and wireline was also supported by the **ITU APT Foundation**, when they noted that:

“Technology neutrality in approach: The Internet should be open, whether it is provided via wireless or wireline. Providers of Internet access should abide by these principles regardless of how Internet access is provided.”



Network measurement tools can help in net neutrality related testing and enforcement

We endorse the point made in submissions from the **IAMAI, Measurement Lab**, and others that network measurement tools are available which can help in analysis and the publication of data which would help detect net neutrality violations along with other enforcement related steps. The Measurement Lab filing in particular provides specific useful information in this regard which helps provide a path forward with respect to the question on measurement, testing that TRAI incorporated in Question 7 of the paper. In particular we agree with **Measurement Lab** that TRAI could help facilitate this by the following steps:

- “● promote the availability of user-facing measurement tools for analyzing Internet access performance and network neutrality on mobile and wireline connections;
- respond to changes in which applications are potentially subject to discrimination, accommodate new research questions, and be deployed to wide user bases;
- include interconnection congestion and other sources of performance degradation relevant to end-to-end accessibility of broadband Internet users within monitoring mechanisms; and,
- provide publicly-available datasets, open-source software and open methodologies”

II. Inputs which we wish to note:

TRAI net neutrality rulemaking would plug a regulatory enforcement gap

Inputs by stakeholders have helped emphasise another key point that underlined our initial submission: there is a regulatory enforcement gap that undermines net neutrality in India. TSPs believe that they are not bound to respect net neutrality under the existing set of TRAI regulations and the telecom licensing framework, despite the contents of this regime already seeking to prevent content based discrimination. This is also borne out by the experiences that many users and startups have seen in the Indian telecom ecosystem with respect to the behaviour of TSPs in seeking to discriminatorily charge for VoIP based internet applications and other TSP behaviour. As the telecom consulting group **Dua Consulting** tellingly represented:

- “Presently, there are no laws enforcing net neutrality in India. Although TRAI guidelines from time to time promote net neutrality, it does not enforce it”

III. Concerns:

The time to listen to arguments for “wait-and-watch” is over

As indicated at the beginning of this filing, and in our previous comments, we believe that the TRAI must take immediate regulatory next steps in ensuring that net neutrality is protected in Indian law and enforced so as to protect users. Some TSP submissions seek to argue for a “wait-and-watch” model, that would have TRAI and the Government of India take no further action on creating a net neutrality regulatory framework for preventing technical discrimination. We believe that this is not acceptable, particularly given the existing perception amongst the Indian telecom industry of a regulatory enforcement gap with respect to net neutrality that we have noted previously in this filing. Furthermore, repeated policy statements from both the Government of India and TRAI have indicated the importance of advancing on the policy commitment to reinforce the regulatory framework of net neutrality in India - a diversion from this would be a breach of public trust, leave alone extremely damaging towards the confidence of Indian Internet innovators committed to making the dream of Digital India a reality.

Any damage to a free and open nature of the Internet and the freedoms it enables can be detrimental to the consumer experience and cripple the nascent internet start-up market in India. The risk is especially grave since much of the growth will come from first time subscribers who need and deserve to experience internet in its totality, if they are to create local services to cater to local needs that will create jobs and drive the growth of the Indian economy.

We must recognise that while we fail to act, we leave the door open for firm behaviour and abusive practices which undermine trust in our open Internet and weaken digital confidence. For example, there have been reported instances of plans by certain ISPs currently in Delhi which puts certain sites on a fast lane.² There have been earlier incidences where video streaming services have faced network behaviour which had led them to believe there were throttled by large TSPs, to the extent where it impacted their ability to bring their product to market and launch.³ This is in clear contradiction to TSP claims that there have been no incidences of violation of regulations.

Additionally, some TSPs have pointed out customer churn as another instance for not following discriminatory practices, arguing that it is very easy for consumers to switch. We must distrust such simplistic assertions. Already, new TSPs have contended that the data/internet services related practices of incumbent TSPs represent cartel-like behaviour

² <http://www.medianama.com/2016/11/223-net-neutrality-youtube-hotstar-excitel/>

³ <http://www.medianama.com/2014/12/223-airtel-net-neutrality-ogle-throttling/>



requiring action under our Competition Act.⁴ It is often hard for users to switch services to another operator in the same circle, particularly given the variety of factors that impact consumer choice in this regard, including TSP network asset and radio network coverage in an area, correlations to calling plans etc. Customers also often have to negotiate complicated package agreement language and exit, porting procedures which make switching far less easy than it seems. And that leaves aside the fact of increasing merger and acquisition activity in India's telecom market, which is consolidating the number of TSPs and in effect reducing the number of players in the market whom consumers could engage.

Attempts to frustrate the settling of India's net neutrality framework by calling for "Over-The-Top" regulation of Internet content and applications

Multiple TSPs and their industry associations want to re-open the discussion of the March 2015 consultation paper concerning OTT services, despite confirmation from the regulator that their submissions have been considered along with the over 1.2 million+ submissions received from organisations, experts, and our other fellow citizens towards that consultation.

In particular, they claim that so-called "over the top" (OTT) communication services act as perfect substitutes for PSTN/Internet Telephony Services. This is simply not true. Owning a phone connection means that one can send and receive call to another number anywhere in the world with QoS guarantees. On the other hand, subscriber to an internet phone services are locked to their platform. All Internet phone services require that both party are on a common platform in order to call each other. Voice packets are sent on a best effort basis. This is in no way comparable.

The inability of some TSPs to compete with internet communications services is a result of failure to innovate. This was recently pointed out by Mr. Mukesh Ambani in a recent interview⁵:

"I had spoken in Delhi at a Brown University function where the president of Brown and the media were present. I had met the CEO of Verizon and he had said, "Oh in your country you still charge for voice? We stopped doing that long ago." This was

⁴ Reliance Jio alleges cartel-like behaviour by Airtel, Idea, Vodafone, moves Competition Commission, Scroll.in, Nov 29, 2016, <https://scroll.in/latest/822810/reliance-jio-alleges-cartel-like-behaviour-by-airtel-idea-vodafone-moves-competition-commission>

⁵ Vikas Singh, Pankaj Doval & Bobby Kurian, "I wish I were 30 years old today: Mukesh Ambani", Times News Network, Sep 8, 2016 <http://timesofindia.indiatimes.com/business/india-business/I-wish-I-were-30-years-old-today-Mukesh-Ambani/articleshow/54122922.cms>



2014. The world-over, it has happened. We have been consistently saying this, but nobody believed us.”

New operators have successfully shown that it is possible for more attractive alternatives to internet communication services at a reasonable price. Added to this we would also like to emphasize that it was a conscious decision on the part of operators to not innovate, which helped them to charge exorbitant rates for SMS and voice per unit of time for all these years. It is not the responsibility of the regulator or the government to protect private industry from their anti-competitive and outdated practices as well as the failure to innovate if it subsequently leads to a loss of revenue.

The possible regulation of OTT applications, on the other hand, would have prevented the explosion of convenient applications that have provided the public a superior and more cost-effective means to communicate, especially during emergencies such as floods and riots. The tagline demand of “Same Service, Same Rules” deployed by associations like **COAI** and some of its members TSPs appears to be instead a guise under which to unshackle regulations to allow telecom operators to seek greater profits at the cost of the consumer welfare.

We have previously provided detailed inputs in our filing to the pre-consultation paper on net neutrality last year responding to arguments deployed by some TSP interest regarding so-called regulatory arbitrage and other attacks on OTT services, particularly internet enabled voice communication. Since many of these misleading arguments are still being deployed by certain TSPs and require dispelling, we have sought to aid the TRAI and stakeholders to this consultation by providing an extract of the relevant section of our earlier filing to the pre-consultation as **an attached Annexure-B** to these present counter-comments.

Efforts to confuse regulatory next-steps on net neutrality by seeking to broaden the scope of this discussion

A second argument made by a number of stakeholders is that net neutrality should be made applicable on stakeholders operating in Internet eco-system instead of merely TSPs. For example, **Idea** in its submission says,

“... we believe that the regulatory framework for Net Neutrality should not be just limited to the TSPs, but should instead apply to all other stakeholders such as Content and Application Providers and equipment manufacturers.”

We express our strong opposition to such submissions, as the focus of network neutrality as a regulatory concept has been to ensure that TSPs do not misuse their unique, license-enabled position - made possible via state licenses issued to them to use the public resource of spectrum and communications right-of-way - to act as gatekeepers. It is meant to ensure that the benefit of users who connect to such networks, so that they are

able to freely access content, use and create applications, and run the devices of their choosing, without prejudice of the commercial or political concerns of TSPs. Extending the requirements to include them under net neutrality rules is likely to impact the rights of users, and includes issues well beyond the purview of TRAI. In this, we agree with the submission made by **NASSCOM** in its comments to this consultation paper that,

“[e]nforcement of NN rules by TRAI rules are expected to focus on TSPs/ISPs and internet users, and expanding the scope is not advisable. Any violation beyond this should go to other regulator as per law”.

We also endorse the inputs provided by the **ITU-APT Foundation** in the comments they filed towards this consultation paper. In particular, we highlight and support the following comments:

“As providers of “internet access service,” TSPs have the ability to use their control over the network infrastructure to act as gatekeepers for end users’ access to online content and reciprocally for content providers’ access to end users. As a result, net neutrality principles are necessary to ensure that providers of internet access service do not use their position as gatekeepers to interfere with users’ ability to access the content of their choice, or to favor their own affiliated content to the detriment of other content providers.... Furthermore, while providers of “internet access service” should be required to provide access to all lawful internet endpoints, it would be infeasible to extend the requirements of “internet access service” to online apps and websites. By both definition and function, online apps and websites do not provide a standalone ability to access the entire internet. Instead, they depend on TSPs’ internet access service to be delivered to end users. If online apps and websites were subject to the same net neutrality requirements as providers of “internet access service,” that would, in effect, be a prohibition on most online apps and websites given that they do not offer standalone internet access.”

Additionally, a number of TSPs are trying to shift the anchor of the debate on Net Neutrality towards an argument of so-called “Net Equality”. Vodafone, for example, submitted a misdirecting input asking for this debate to be characterised as a battle between the ‘ million “haves” versus the billion “have-nots”’. COAI very strangely goes as far as to suggest that this is a violation of equality by citing Indian judicial pronouncements on civil rights and reservations, and calling net neutrality a ‘concept for the digitally privileged’. This despite the clear statements made by the TRAI, Ministers to the Government of India, and policymakers in our Parliament and state governments asserting the importance of network neutrality and stating the need to advance this right for all Indian citizens.

If TSPs are to be allowed choose of favour the content that reaches the customer (whether based on their ability to pay, sign away their privacy etc.), we can be rest assured make



sure that **all of us** will become “have-nots” when it comes to the Internet - locked into networks where TSPs are at full discretion to act as gatekeepers.

IFF believes that every Indian citizen is equal and they not only must have the opportunity to connect to the ‘global information network’, they be able to experience it in its entirety. This is at the heart of our demand for net neutrality.

In our response to the TRAI’s free data consultation, the IFF had categorically demonstrated multiple business models which can increase access without resorting to any form of content discrimination,⁶ as well as made suggestions on welfare measures and public programmes that that can be initiated to foster the goal of universal internet access without the harms of that come from the violation of net-neutrality.

Pressure to undermine the Prohibition of Discriminatory Tariffs for Data Services Regulations

Several TSPs and their associations have demanded the reconsideration of TRAI’s February 2016 regulations against Discriminatory Data Pricing. The attitude of certain TSPs can be seen in how they still continue to refer to it as “Differential Pricing” even after TRAI has clearly indicated that its rulemaking was focused on the limited subset of discriminatory pricing of data services.

The matter was decided by the TRAI after going through a formal consultation process where evidence provided by all stakeholders was considered. IFF, then as SaveTheInternet.in had cited a number of studies that showed the harms of discriminatory pricing and in particular, zero-rating. It is deeply disrespectful of the independence of TRAI as a regulator to label those regulations premature, especially when it was issued after an extensive public consultation process. We categorically request TRAI to reject such demands - especially so given that the Discriminatory Pricing Regulations already provide for an evaluation after a two year period of the operation of the regulations.

Risk of rendering net neutrality rules meaningless by creating huge loopholes for TSPs

In their comments to TRAI, several TSPs and their associations have been offering a definition of network neutrality deceptively similar to proponents of network neutrality which are based on the same three essential points:

- No Blocking
- No Throttling
- No Preferential treatment

⁶ http://traigov.in/Comments_FreeData/Companies_n_Organizations/Internet_Freedom_Foundation.pdf



However, on closer examination they define preferential treatment on the basis of content, applications, services within the same class of Internet traffic. Such a definition allows TSPs to define arbitrary classes between the consumers - a distinction of this sort is antithetical to net neutrality. Treating distinct sections with different rules is by definition not neutrality or equality but discrimination.

Certain stakeholders have demanded that net-neutrality should be based on content classification. For example, **AUSPI** says that

“Net Neutrality’ should ideally be based on category of content instead of its treatment by the TSPs”.

They suggest a classification of content between Non-Commercial, Commercial (Without advertisements) and Commercial (With advertisements). They further want a separate classification of Video vs non-Video. This is to carve out an exception to paid prioritization for Commercial (with advertisement) and Video Traffic.

Similarly, **Broadband India Forum** wants exceptions on QoS requirements:

“such an exception similarly should apply to services provided with low-end technical standards optimized for slower internet connections” so that “Further, operators may want an exception that permits them to charge a premium for such services...”

We believe that such classification is essentially akin to building an entrenched system of discrimination, a ‘caste system’ for the Internet. Such a scheme is not only regressive and inherently discriminatory, but also opens the door for other abusive practices and user privacy implications.

In addition, a number of TSPs have demanded exceptions to net neutrality rules that broadly fall into two categories:

- Specialized Services
- Enterprise Services

The discriminatory pricing regulations TRAI had provided a CECN exemption to cater to specialized services. A similar exception can be made for concerning preferential treatment that concerns specialised services which do not use the public internet and instead operate within clearly defined end-points. TSPs must not under any circumstance be allowed to offer any preferential treatment to content or service that is freely available on the internet.



Attempts to cause uncertainty as to the effectiveness and value of information disclosure

A number of TSPs have argued that the information disclosure is too complex. They further argue that the public is not technically equipped to understand this information. Some TSPs such as **Reliance Jio** have argued against information disclosure templates with data published on websites while other such as **Bharti Airtel**, **MTNL** etc. have demanded that TMP disclosures made to the regulator only. Yet others such as **Telenor** have demanded that disclosure be made to the consumer only and yet other stakeholders like **ISPAI** want to do so upon written request of the customer.

The disclosure of detailed information allows independent experts to make nuanced evaluation of the practices of telecommunication companies. It also provides these experts as well as telecom companies themselves an opportunity to explain as to how they arrived at claims about their products and services. It also provides an incentive for retailer, agents and the public at large to learn more about telecom services which must always be encouraged.

Disclosure should be made both to the public and the regulator without exception. Public disclosure helps those who aren't consumers of a particular TSP compare and contrast the performance of their service providers against others, allowing them to make informed decision about their choice of provider. Also, disclosure made to customer on request may open the possibility of prejudice against the said customer.

The risks that arise from the lack of transparency far outweigh the presumed differences in interpretation of data. Full disclosures are only means to ensure that TSP do not engage in illegal and harmful practices; further any attempt to hide such practices by not disclosing them itself becomes illegal. TRAI can add a suitable summary section at the top of the template to that brings out the essential features of each disclosure to for the benefit of the non-technical audience.

ANNEXURE-A

Summary of IFF inputs to TRAI on its final outcomes from this consultation:

We submit that the TRAI should come to the following outcomes at the end of this consultation exercise:

- TRAI should undertake **immediate rulemaking** to put in place **bright line regulations** which indicate that they **apply to all provisioning of the internet via data services to consumers of service providers**. TRAI can do so using its powers under Section 11(1)(b) of the Telecom Regulatory Authority of India (TRAI) Act, building on the pre-existing UASL licensing conditions which contain language to prevent licensees from restricting access to the Internet.
- These regulations **should include provisions on the following:**
 - TSPs be prohibited from restricting access to content available on the internet to their subscribers. This should also state that
 - TSPs are not allowed to block access to any content available on the Internet except for such content which is restricted by the Licensor/designated authority under the applicable law (Section 69A of the Information Technology Act)
 - TSPs may not otherwise restrict access via throttling, interference, or other differential treatment with respect to the transmission of Internet traffic, with the exception of reasonable network management practices.
 - Operator deployed reasonable traffic management are practices to be employed at times of network congestion only—rather than as constant forms of discrimination. They should only be employed with care, and should not discriminate on the basis of the type of application/service.
- TRAI must ensure that its regulations allow it to **enforce** this mandate, allowing for complaints and information reports to be sent to service providers and TRAI, with final regulatory decisions and penalties made by TRAI in cases of abuse.
- All complaints made to TSPs should be also shared with TRAI, either by the providers or via a new complaint filing platforms. External parties must be allowed to **know the aggregate numbers of complaints per operator**.
- Any multi-stakeholder or cross-sectoral group must be formed so that it is an advisory body to TRAI, and one where TRAI staff (particularly the Quality of Service division and other teams involved in this subject area) can brief on their efforts to enforce and implement these regulations and be informed on the latest developments with respect to the state of the art and learnings in this sector, and wider internet innovation.

ANNEXURE-B

Extract from IFF comments to TRAI pre-consultation paper on net neutrality

Filed on July 5, 2017

Summary and copy of full paper available at:

<https://www.internetfreedom.in/iff-on-the-pre-consultation-paper-on-net-neutrality/>

Telecom operator claims of Internet Telephony being a regulatory arbitrage for voice services is bogus, because these are imperfect substitutes. Telecom operators have not innovative VoIP services, and are trying to prevent this innovation, which affords better voice quality and simpler integration with other services (such as with video for educational purposes). Today telecom operators are looking at messaging and VoIP in the context of PSTN based telephony, but we should keep in mind what might have happened if the world looked at email in the context of written letters⁷, or if a power company hikes charges specifically for CFLs⁸ because users prefer them?

VoIP is also a part of many applications. Licensing of any one function of any app will restrict the functionality of that app. This will mean either of two things: apps that choose not to buy a license will not service Indian users, or they will give a limited experience to Indian users. Either outcome means that Indian users will get access to a poorer experience of the web, as compared with the rest of the world.

Telecom operators are likely to argue “Same Service Same Rules” for licensing of VoIP. This is a misnomer for multiple reasons:

1. **Imperfect substitutes:** VoIP and mobile/landline based calling are not the same service. VoIP services from Internet companies are IP to IP, while mobile calls can terminate on both landlines and mobile phone networks. Telecom operators have had the ability to terminate phone calls on VoIP as a part of their license condition for many years, but have chosen not to launch these services.
2. **Security requirements** imposed on telecom operators are already applicable to their data services, which consumers use to access the web.
3. **VoIP services have no control over Quality of Service (access):** while mobile phone calling has sufficient bandwidth for high call quality, and telecom operators are responsible for the quality of their access service, VoIP service companies have

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http://www.reddit.com/r/india/comments/2qiegm/important_announcement_from_postal_department/

⁸ <http://zigzackly.blogspot.in/2014/12/jo-mera-hai-woh-mera-hai.html>



absolutely no control over the bandwidth available to consumers, since data access is provided by telecom operators and ISPs.

Same Service Same Rules is applicable only and only when sufficient bandwidth is available for purchase by each and every application service provider in the world, so that they can take complete control over the consumer experience.

Given that spectrum is a limited resource, that is impossible, and their dependency on telecom operators is absolute. Therefore, there should be controls put on telecom operators and their ability to throttle data access, which might hamper the experience of a user accessing a communications service via the Internet.

4. **Not free riding:** When VoIP calls are made, **consumers pay for both uploading and downloading of data**, unlike in case of phone calls, where the calling party pays. Therefore, whether a user is making a call or merely receiving a call, telecom operators on both sides stand to gain.
5. **Telecom operators do not see VoIP on their own networks as a threat:** On the Idea Cellular conference call on April 29th 2015, the companys CEO Himanshu Kampania said, when asked about any shift towards VoIP from their own services⁹:

“On VoIP, Idea has been in discussions with most equipment suppliers and have carried out our own tests. Our belief is that circuit switched voice is far superior to the technology over IP. In the long run, VoIP will have a far superior technology, and the coming technology is voice over LTE. That's where the high quality work has been done. Current quality of services does not compete with the circuit switched quality that we offer, for such a large mass of subscribers here 683 million minutes are being covered”...”Will VoIP be able to take a larger portion of voice? We are not seeing that trend at this point in time. And that has not been seen in any part of the world as of now.”
- Idea Cellular CEO Himanshu Kampania

As is evident, the only threat that Idea Cellular faces from VoIP services is from VoIP on 4G networks. VoIP on its network will contribute to it data revenues. VoIP on other 4G networks only indicates a change (improvement) in technology, and it shouldn't be the mandate of the government to stop the march of technology.

Similarly, during its earnings conference call in February 2015 **Airtel CEO Gopal Vittal said that**¹⁰ “There is still no evidence that suggests that there is cannibalization”, and that the contribution of Internet Telephony (VOIP) “at this point in time is very, very tiny. And so it is not really material as we look at it.”

6. **In Licensing should be applicable to VoIP, then it must be applicable to other of imperfect substitutes, under “Same service, Same rules”:** At present, Telecom

⁹ Transcribed from audio recording of Idea concall. Transcript not yet made public by Idea Cellular

¹⁰<http://www.medianama.com/2015/02/223-no-evidence-of-voip-cannibalization-of-voice-airtel-india-ceo-gopal-vittal/>



operators provide several other services which mirror existing services provided by licensed entities. Hence, the same rules should apply.

- a. **Payment gateway services:** Telecom operators integrate with online service providers via their own API¹¹ or through carrier billing providers such as Fortumo and Boku¹². This allows consumers who have stored money in the telecom operator prepaid wallet to buy online music subscriptions¹³, video streaming subscriptions, e-books and articles¹⁴, along with other content. As per the “Same Service Same Rules”, Payments should be released to merchants in 2-3 days, as specified by the RBI guidelines¹⁵, which state:
 1. All payments to merchants which do not involve transfer of funds to nodal banks shall be effected within a maximum of T+2 settlement cycle (where T is defined as the day of intimation regarding the completion of transaction).
 2. All payments to merchants involving nodal banks shall be effected within a maximum of T+3 settlement cycle.
- b. **Mobile Wallet Services:** Telecom operators store money in mobile wallets, which can be used to purchase goods and services. This is similar to the semi closed prepaid wallet ecosystem, wherein, as per the RBI guidelines, semi closed prepaid wallet licensees have to allow customers to withdraw money to their bank account, if required. Therefore, as per “Same Service Same Rules”, consumers should be allowed to withdraw money from their prepaid balance.
- c. **Mobile VAS purchases:** Telecom operators allow consumers to buy digital content using their stored balance amount. This is similar to credit card and debit card payment systems. As per “Same Service Same Rules” norms, these transactions should follow the 2 factor authentication system from the Reserve Bank of India, which mandates the usage of either One Time Password or Verified By Visa/Mastercard 3D Secure to authenticate the transaction.
- d. **Music Streaming service:** telecom operators provide music streaming services on mobile VAS, called Mobile Radio. This is similar to FM Radio, and should be subject to the same guidelines as FM music, and telecom operators should have to procure a separate license to operate in each circle.
- e. **Video streaming service:** telecom operators provide video content on demand, as well as streaming services. This is similar to TV channels, and hence telecom operators should need to apply for an IPTV license for video streaming service.

¹¹ <http://www.medianama.com/2014/01/223-vodafone-developer-india/>

¹² <http://www.medianama.com/2015/03/223-mobile-billing-fortumo/>

¹³ <http://www.medianama.com/2014/02/223-saavn-operator-billing/>

¹⁴ <http://www.medianama.com/2014/04/223-newshunt-magazine-singles/>

¹⁵ <http://rbidocs.rbi.org.in/rdocs/notification/PDFs/DOIPS241109.pdf>



- f. **Text alert service:** Telecom operators provide news via SMS alerts, including cricket related score updates and similar news. This is similar to publishing news content, and hence telecom operators should need to get an RNI registration to operate alerts.