Date : 14th October, 2014.

To,

Shri Arvind Kumar

Advisor

(Networks, Spectrum & Licensing),

Telecom Regulatory Authority of India,

Mahanagar Doorsanchar Bhawan (next to Zakir Hussain College)

Jawaharlal Nehru Marg (Old Minto Road), New Delhi: 110 002

Email: nsl.trai@gmail.com or kapilhanda5@gmail.com

**Re: Comments/Response to the Consultation Paper on Delivering Broadband Quickly: What do we need to do?**

Dear Sir/Madam,

Please find attached the comments / response of Times Internet Limited to Comments/Response to the "Consultation Paper on Delivering Broadband Quickly: What do we need to do?" floated by Telecom Regulatory Authority of India in September 24, 2014. We request you to kindly take our response on your records.

Yours Sincerely

Sachin Kamat,

For Times Internet Limited.

Sachin.kamat@timesinternet.in M – 09920945559 | Legal Department | Plot No. 391, Ecstasy IT Park, Udyog Vihar, Phase – III, Gurgaon – 122001. Haryana.

# TIMES INTERNET LIMITED's RESPONSE TO TRAI's CONSULTATION PAPER

## DELIVERING BROADBAND QUICKLY: WHAT DO WE NEED TO DO?

## RESPONSE TO TRAI's ISSUES FOR CONSULTATION

**Q1. WHAT IMMEDIATE MEASURES ARE REQUIRED TO PROMOTE WIRELINE TECHNOLOGIES IN ACCESS NETWORKS? WHAT IS THE COST PER LINE FOR VARIOUS WIRELINE TECHNOLOGIES AND HOW CAN THIS COST BE MINIMISED? PLEASE REPLY SEPARATELY FOR EACH TECHNOLOGY.**

**Q2. WHAT ARE THE IMPEDIMENTS TO THE DEPLOYMENT OF WIRELESS TECHNOLOGIES IN THE ACCESS NETWORK? HOW CAN THESE DEPLOYMENTS BE MADE FASTER? PLEASE REPLY SEPARATELY FOR EACH TECHNOLOGY.**

**Q3. THE RECOMMENDATIONS OF THE AUTHORITY ON MICROWAVE BACKHAUL HAVE BEEN RECENTLY RELEASED. ARE THERE ANY OTHER ISSUES WHICH NEED TO BE ADDRESSED TO ENSURE AVAILABILITY OF SUFFICIENT MICROWAVE BACKHAUL CAPACITY FOR THE GROWTH OF BROADBAND IN THE COUNTRY?**

**Q4. THE PRICING OF DOMESTIC LEASED CIRCUITS (DLC) HAVE BEEN REVIEWED IN JULY 2014. APART FROM PRICING, ARE THERE ANY OTHER ISSUES WHICH CAN IMPROVE AVAILABILITY OF DLC?**

**Q5. WHAT ARE THE SPECIFIC REASONS THAT ISPS ARE PROACTIVELY NOT CONNECTING WITH NIXI? WHAT MEASURES ARE REQUIRED SO THAT ALL ISPS ARE CONNECTED TO THE NIXI?**

**Q6. WOULD THE HOSTING OF CONTENT WITHIN THE COUNTRY HELP IN REDUCTION OF THE COST OF BROADBAND TO A SUBSCRIBER? IF YES, WHAT MEASURES ARE REQUIRED TO ENCOURAGE CONTENT SERVICE PROVIDERS TO HOST CONTENT IN THE DATA CENTRE SITUATED WITHIN INDIA?**

**Q7. ARE PSUS IDEAL CHOICES FOR IMPLEMENTING THE NATIONAL OPTICAL FIBRE NETWORK (NOFN) PROJECT?**

**Q8. SHOULD AWARDING OF EPC TURNKEY CONTRACTS TO PRIVATE SECTOR PARTIES THROUGH INTERNATIONAL COMPETITIVE BIDDING (ICB) BE CONSIDERED FOR THE NOFN PROJECT?**

**Q9. Are there any ways in which infrastructure development costs can be reduced? Is it possible to piggyback on the existing private sector access networks so as to minimize costs in reaching remote rural locations?**

**Q10. What can the private sector do to reduce delivery costs? Please provide specific examples.**

**Q11. What are the major issues in obtaining right of way for laying optical fibre? What are the applicable charges/ constraints imposed by various bodies who grant permission of right of way? In your opinion what is the feasible solution?**

**Q12. Should the Government consider framing guidelines to mandate compulsory deployment of duct space for fibre/ telecommunications cables and space for telecommunication towers in all major physical infrastructure construction projects such as building or upgrading highways, inner-city metros, railways or sewer networks?**

**Q13. What are the impediments to the provision of Broadband by Cable operators? Please suggest measures (including policy changes) to be taken for promoting broadband through the cable network.**

**Q14. What measures are required to reduce the cost and create a proper eco system for deployment of FTTH in the access network?**

**Q15. Are there any regulatory issues in providing internet facility through Wi-Fi Hotspots? What are the reasons that installation of Wi-Fi hotspots has not picked up in the country? What type of business model needs to be adopted to create more Wi-Fi hotspots?**

**Q16. What are other spectrum bands which can be unlicensed for usage of Wi-Fi technology or any other technology for provision of broadband?**

**Q17. How much spectrum will be required in the immediate future and in the long term to meet the target of broadband penetration? What initiatives are required to make available the required spectrum?**

**Q18. Are there any other spectrum bands apart from the ones mentioned in Chapter-2 to be identified for provision of wireless broadband services?**

**Q19. WHAT ARE THE MEASURES REQUIRED TO ENCOURAGE GOVERNMENT AGENCIES TO SURRENDER SPECTRUM OCCUPIED BY THEM IN IMT BANDS?**

**Q20. WHAT SHOULD BE THE TIME FRAME FOR AUCTIONING THE SPECTRUM IN 700 MHZ BAND?**

**Q21. DO YOU AGREE WITH THE DEMAND SIDE ISSUES DISCUSSED IN CHAPTER 5 AND CHAPTER 6? HOW THESE ISSUES CAN BE ADDRESSED? PLEASE ALSO INDICATE ANY OTHER DEMAND SIDE ISSUES WHICH ARE NOT COVERED IN THE CP.**

**Q22. PLEASE GIVE YOUR COMMENTS ON ANY RELATED MATTER, NOT COVERED ABOVE.**

## URGENT NEED FOR NET NEUTRALITY: LAST MILE NEUTRALITY IMPERATIVE

**Meaning**:

Net Neutrality is the principle that the internet users should be able to access web content, download or upload files and communicate in methods of their choice without restrictions or limitations imposed by their Internet Service Providers (ISPs). Net Neutrality means an Internet that enables and protects free speech[1] and equal opportunities. This means that Internet service providers should not block or discriminate against any applications or content that ride over those networks, and should treat all data on the Internet equally, not discriminating or charging differentially by user, content, site, platform, application, type of attached equipment, and modes of communication or different speeds for different kinds of content.

Underlying this, is the principle of whether or not India has enough safeguards to ensure that the ecosystem for content is a healthy and thriving one, and is not

[1] http://www.savetheinternet.com/net-neutrality-what-you-need-know-now

abused by distributors or last-mile operators aiming to create anti-competitive practices.

This is a very real threat indeed, because while content may be king, distribution is God - and thousands of content owners are at the mercy of a few last mile owners who have become far more powerful than any media conglomerate could ever dream to be. It is hence critical that the government and regulators wake up to the fact that the only way to ensure a competitive media landscape with equal opportunities for all content-owners and their customers on Net and Mobile, is to ensure there are enough rules whereby customer connectivity is neutral to the content that rides on it.

**How net neutrality has shaped the internet[2] :**

Net neutrality has shaped the internet in two fundamental ways: One, web users are free to connect to whatever website or service they want. ISPs do not bother with what kind of content is flowing from their servers. This has allowed the internet to grow into a truly global network and has allowed people to freely express themselves. For example, you can criticize your ISP on a blog post and the ISP will not restrict access to that post for its other subscribers, even though the post may harm its business.

But more importantly, net neutrality has enabled a level playing field on the internet. To start a website, you don't need lot of money or connections. Just host your website and you are good to go. If your service is good, it will find favour with web users. Unlike the cable TV where you have to forge alliances with cable

[2] http://timesofindia.indiatimes.com/tech/tech-news/What-is-net-neutrality-and-why-it-is-important/articleshow/29083935.cms

connection providers to make sure that your channel reaches viewers, on the internet you don't have to talk to ISPs to put your website online.

This has led to the creation of Google, Facebook, Twitter and countless other services, all of which had very humble beginnings. They started as basic websites with modest resources. But they succeeded because net neutrality allowed web users to access these websites in an easy and unhindered manner.

**What will happen if there is no net neutrality[3] :**

If there is no net neutrality, ISPs will have the power (and inclination) to shape internet traffic so that they can derive extra benefit from it. For example, several ISPs believe that they should be allowed to charge companies for services like YouTube and Netflix because these services consume more bandwidth compared to a normal website. Basically, these ISPs want a share in the money that YouTube or Netflix make.

Without net neutrality, the internet as we know it, will not exist. Instead of free access, there could be "package plans" for consumers. For example, if you pay Rs 500, you will only be able to access websites based in India. To access international websites, you may have to pay more. Or there could be different connection speeds for different types of content, depending on how much you are paying for the service and what "add-on package" you have bought.



[3] http://timesofindia.indiatimes.com/tech/tech-news/What-is-net-neutrality-and-why-it-is-important/articleshow/29083935.cms

This would clearly be a discriminatory practice between different websites and different kinds of content –and would men abuse of near-monopolistic powers of ISPs.

Lack of net neutrality, would also spell doom for innovation on the web. It is possible that ISPs will charge web companies to enable faster access to their websites. Those who don't pay, may see that their websites opening slowly. This means bigger companies like Google would be able to pay more to make access to Youtube or Google+ faster for web users but a startup that wants to create a different and better video hosting site, may not be able to do that and lose its business.

Instead of an open and free internet, without net neutrality we are likely to get a web that has silos in it and to enter each silo, you will have to pay some "tax" to ISPs.

The bottom line is that lack of net neutrality is an anti-consumer practice that will stifle competition and innovation in the digital economy, leaving power in the hands of telecom operators and broadband providers, rather than the thousands of emerging entrepreneurs in India.

**How Internet Neutrality may be jeopardized by ISPs, Telecom providers or other players in collusion: The case of Net and Mobile**

ISPs or Telecom players offering internet may try to get Internet companies to pay tolls and threaten to block or delay them if they don’t. They may do exclusive deals or other arrangements which may result in Internet blackouts or smaller websites being caught in the crossfire --, or websites, tweets, emails and texts may be mysteriously delayed or dropped, Videos would load slowly, if at all or the websites may end up working fine one minute, and time out another. More

dangerously, this would enable a company to slow down its competitors or block political opinions it disagrees with. ISP would claim it is not their fault, and users would have no idea whom to blame [4]--especially as there are currently no protections for Internet users. Further there is no competition in broadband, and even if there is, all ISPs may end up playing this game.

On the Net, ISPs can use differential bandwidth caps, speed limits and pricing on broadband consumption. But on mobile, telecom operators can offer further favouritism towards preferred services, with additional benefits like selective billing integration and marketing/promotion. And since bandwidth on mobile is more limited than over broadband, restrictions or favouritism in bandwidth consumption offer telecom operators an even stronger, anti-competitive advantage. Worse, it sets a precedent that broadband providers can choose the content you want to access, by making it easier or harder to get that content.

Further if freed from any legal restraints, ISPs can monitor everything users do and say online — and sell the information to the highest bidder. ISPs will have something that companies like Facebook and Google don't: direct control over users' connections to the Internet and the devices user use to connect to it.

What is at stake is innovation and creativity, market competition, information availability and freedom of expression –and it is essential to protect thews ehard won freedoms only via Net Neutrality.



**International Scenario**:

Net neutrality has become a very heated issue in US and Europe, with significant momentum across civic groups, regulators and governments. Services like Netflix and Hulu have revolutionized digital content consumption and given users

[4] http://www.savetheinternet.com/net-neutrality-what-you-need-know-now

enormous flexibility, but they are coming under pressure by copycat services developed by cable companies, such as Comcast Xfinity. These services take advantage of owning the cable connection by offering better, unlimited connectivity when using their service, while offering limited or capped connectivity when accessing Hulu or Netflix. This is an anti-competitive move that stifles innovation and competition.

Chile became the first country in the world to pass net neutrality legislation in 2010. The laws adopted there prohibit organizations such as Facebook and Wikipedia from subsidizing mobile data usage of consumers. The adoption of net neutrality law usually includes allowance for discrimination in limited conditions, such as preventing spam, malware, or illegal content. The law in Chile allows exceptions for ensuring privacy and security[5]. The law in the Netherlands, allows exceptions for congestion, security, spam, or legal reasons[6].

The USA's FCC's 2010 order was intended to prevent broadband Internet service providers from blocking or interfering with traffic on the Web. The Open Internet Order was generally designed to ensure the Internet remained a level playing field for all — that's the principle we call Net Neutrality (we say "generally," since the FCC's rules prohibited wired ISPs from blocking and discriminating against content, while allowing wireless ISPs to discriminate against but not block websites). However in January 2014 ruling in VERIZON Vs FEDERAL COMMUNICATIONS COMMISSION, the United States Court of Appeals said that the FCC used a questionable legal framework to craft the Open Internet Order and now lacks the authority to implement and enforce those rules.[7]

**The Indian Scenario**:



[5] http://www.savetheinternet.com/net-neutrality-what-you-need-know-now
[6] http://www.savetheinternet.com/net-neutrality-what-you-need-know-now
[7] http://www.savetheinternet.com/net-neutrality-what-you-need-know-now

Nikhil Pahwa of Medianama.com, has stated that "if you think Net Neutrality isn't going to be an issue in India, think again". Telecom Operators in India are gearing up to push for a regulation to get websites to pay to allow consumers to access them. The telecom industry's lobbying arm, the Cellular Operators Association of India, has listed "revenue sharing agreements" with telecom operators one of the five items on their wishlist for the new government. He further mentioned last year, Airtel's then CEO International and Joint MD Manoj Kohli said "I believe we (telecom operators) can lift the level of usage of all these services, and customers propensity to use more and more, rather than continue this unnecessary tension." Airtel, on broadband, has limited speed of access and data consumption through their "Fair Usage Policy", but in case you subscribe to BigFlix powered Airtel Movies, a user has access to unlimited movies. Similarly, Vodafone offers a music streaming service which offers unlimited music downloads, once subscribed[8].

In a statement announcing a deal with Facebook and Whatsapp, Morten Karlsen Sorby, the nominated CEO of Uninor, has said that the company is changing the way it is approaching selling data services to customers: "We are moving out of data and moving in to Internet. Internet is the way in which customers consume data and our approach will be to make that usage the cheapest among all operators," adding that "Selling Internet as rupees per MB is like selling air or train tickets as rupees per kilometre. What customers do with Internet is to use it for services like Facebook or Whatsapp. Our plan is to make these services the cheapest on Uninor. For us, internet will always be about affordability and relevance, Sorby added. Yesterday, Uninor announced plans to offer Facebook at Rs 0.5 per hour and Rs. 1 for a day of Whatsapp.[9]



[8] http://www.medianama.com/2014/06/223-india-net-neutrality/#comments
[9] http://www.medianama.com/2014/03/223-uninor-facebook-whatsapp/

Given the lack of formal rules, the danger is that ISPs in India will violate the principal of Net Neutrality. There have already been some incidents where Indian ISPs have ignored net neutrality.[10].

This sets a precedent that broadband providers can choose the content you want to access, by making it easier or harder to get that content. On the Net, ISPs can use differential bandwidth caps, speed limits and pricing on broadband consumption. But on mobile, telecom operators can offer further favouritism towards preferred services, with additional benefits like selective billing integration and marketing/promotion. And since bandwidth on mobile is more limited than over broadband, restrictions or favouritism in bandwidth consumption offer telecom operators an even stronger, anti-competitive advantage[11].

This is easily seen in the Indian internet ecosystem versus the mobile Value Added Services (MVAS) ecosystem today. While the internet only has 50-60 million users, its users can access vast amounts of content even as industries like e-commerce and travel have blossomed, creating economic value and real utility to consumers. Compare it to the MVAS world, where despite over 900 million users, the most common consumer sentiment is that they are being unfairly billed for irrelevant services. So what is the difference? On the internet, anyone can start a company and compete fairly for the consumers' attention, spurring innovation and value. But in the mobile VAS world, only five major telecom operators control the services and choose the MVAS companies they want to patronize –even as they pay them rock bottom rates in revenue shares. The result is much less competition, and operators selling the same services (like caller ringback tones) increasingly aggressively to their customers, but with little or no innovation[12].



[10] http://timesofindia.indiatimes.com/tech/tech-news/What-is-net-neutrality-and-why-it-is-important/articleshow/29083935.cms
[11] Rachna Burman-Last mile neutrality imperative
[12] Rachna Burman-Last mile neutrality imperative

As connectivity grows across the internet and mobiles, it is crucial that the government allows the same flourishing, open liberal ecosystem that has currently existed on the Web to continue across devices. India's huge population and strong technical talent have the potential for global scale entrepreneurship and innovation, and can create a new dynamic India in the way IT had done in the 1990s. But it requires an infrastructure and atmosphere that is not controlled by last-mile connectivity providers who abuse their dominance.

One should not confuse this with cross-media ownership –which is a non-issue, prompted by political motivations that fear a strong media. The real issue is whether or not we have enough safeguards to ensure that the ecosystem for content is a healthy and thriving one, and is not abused by distributors or last-mile operators aiming to create anti-competitive practices by expanding into content.

This is a very real threat indeed, because while content may be king, distribution is God - and the thousands of content owners are at the mercy of a few last mile owners who have become far more powerful than any media conglomerate could ever be. It is high time, then, that the government and regulators wake up to the fact that the only way to ensure a competitive media landscape with equal voice for all content, is to ensure there are enough rules whereby customer connectivity is neutral to the content that rides on it.

**Survival of Net Neutrality :**

Net neutrality was earlier being implemented as a sort of a gentlemen's agreement. It has survived so far because few people realized the potential of internet when it took off around 30 years ago. But now when the internet is not just an integral part of the society but an incredibly powerful --and disruptive— force as well,, ISPs across the world are trying to get the power to shape and control the traffic. But there are ways to keep net neutrality alive.

Consumers should demand that ISPs continue their hands-off approach from the internet traffic. If consumers see a violation of net neutrality, they ought to take a proactive approach and register their displeasure with the ISP. They should also reward ISPs that uphold the net neutrality.

At the same time, it is crucial to ensure that TRAI comes out with a set of clear and precise rules that protect the net neutrality. "We have started seeing ISPs trying to take control of the traffic that flows from their servers but TRAI can regulate them. It can keep the internet open and consumer-friendly by forming rules that protect net neutrality. These are early days so it is easy to do. If ISPs manage to change the system, it may become too late," Sunil Abraham, director of Centre for internet and Society in Bangalore says[13].

**Conclusion**:

Internet has thrived because of its freedom of competition and ability for anyone with an internet connection to change the world. It is necessary to have safeguards - laws and checks and balances on the last mile of the consumer - to ensure last mile neutrality, which has now become the global movement across mediums. Taking advantage of last mile ownership throttles such innovation and competition.

We draw your attention to some relevant articles on Net Neutrality published in Leading Indian Newspapers, annexed herewith.



[13] http://timesofindia.indiatimes.com/tech/tech-news/What-is-net-neutrality-and-why-it-is-important/articleshow/29083935.cms

# ANNEXURE-1

http://www.reuters.com/article/2014/09/09/us-usa-internet-neutrality-idUSKBN0H40UP20140909

## CISCO, IBM, INTEL JOIN US NET NEUTRALITY DEBATE

BY ALINA SELYUKH, LAS VEGAS Tue Sep 9, 2014 6:05am EDT

33 companies, including Cisco, Intel and IBM, joined the net neutrality debate over how the US government should regulate ISPs.

LAS VEGAS: Regulating internet providers more like public utility companies could hurt the internet and the US economy, more than two dozen network technology and equipment makers have told US commerce secretary Penny Pritzker.

Thirty-three companies including Cisco, Intel and International Business Machines (IBM) joined the chorus of citizens, activists, lawmakers and companies debating how the US government should regulate Internet Service Providers (ISPs).

Other companies signing a letter to Pritzker published on Tuesday included Alcatel Lucent, Ericsson, Nokia's network arm NSN, Panasonic of North America and CommScope Holding.

The Federal Communications Commission (FCC) is considering so-called net neutrality rules that would determine how US ISPs such as Comcast and Verizon Communications manage web traffic on their networks.

FCC chairman Tom Wheeler has proposed rules that would allow ISPs to charge content companies to ensure their websites or applications load smoothly and quickly, as long as such deals are deemed "commercially reasonable."

Critics, including popular video streaming service Netflix and numerous advocacy groups, argue the plan would threaten less deep-pocketed content providers by potentially relegating them to "slow lanes" on the web.

**More power**

Instead, they call on the FCC to reclassify broadband as a telecommunication service rather than the less-regulated information service it is now, saying the move would give more power to the FCC to stop potential violators of net neutrality.

ISPs and Republicans, both in Congress and at the FCC, have rejected the idea.

On Tuesday, 33 telecom network and tech makers, who are members of the Telecommunications Industry Association and the National Cable and Telecommunications Association and who depend on ISPs for business, spoke out against the reclassification idea as well.

"A sudden shift from the existing light-touch approach, which has been an unqualified success and the basis for billions of dollars in investments, to the prescriptive regime of Title II would be extremely disruptive to the broadband marketplace," they wrote, referring to the legal authority the FCC would use to reclassify ISPs.

Experts have disagreed on whether or how reclassification would adequately prevent pay-for-priority deals.

Wheeler has not proposed reclassification as the solution, but has not taken it off the table as a potential option.

FCC is collecting public comment on the tentatively proposed rules until September 15 and will hold several public workshops on various aspects of the regulations in the following weeks.

Senate Judiciary Committee chairman Patrick Leahy will hold a hearing on the issue of net neutrality on September 17.

# Annexure-2

http://timesofindia.indiatimes.com/edit-page/Last-mile-neutrality-imperative/articleshow/15561095.cms

# Last mile neutrality imperative

Rachna Burman | Aug 20, 2012, 12.00AM IST

There has recently been some talk about the holding patterns of media companies, in the context of cross-media ownership in India. Certainly, the imperative in any democracy is to ensure a pluralistic environment with multiple views and a thriving, competitive media industry that can compete globally.

In this regard, ironically, India is known for actually having too many ideas - with the government recently suspending the issuance of licences for new TV channels for some time because it felt numbers were already too high. In fact, India today has more newspapers and TV news channels than any country globally, and if anything, economics will force a contraction of media outlets. So concerns about a lack of pluralism of ideas are not warranted. In any case, globally and locally, the facts show that a plurality of ideas thrive, irrespective of cross-media ownership.

Moreover, today, technology is forcing media companies across the world to diversify across mediums as the digital revolution flowers into convergence. TV, newspapers and radio are all converging onto digital platforms of the computer and mobile phone - and to be relevant, a media company must offer access to all forms of content (text, audio and video). Diversification across different media is hence a necessity for survival in order to remain viable in the digital and mobile environment. Hence cross-media ownership is a necessity and any restrictions on it totally unwarranted.

Instead, today, the real challenge that government and regulators across the world are concerned about, is the abuse of 'last mile distribution ownership' and the need for neutral treatment of customers by distributors for the sake of a healthydemocracy. This is because historically, the grounds of most potential anti-competitive practices and voice-limiting practi-ces have been those who took advantage of their unique hold of customers via distribution - who increasingly happen to be telecom or cable/satellite companies - and used that to skew the competitive marketplace of content for their commercial gain.

The solution to this, however, is not by restricting ownership - which is a redundant method. For instance, India already has a vertical integration rule in TV where broadcasters cannot own more than 20% of cable/carriage (or the last mile pipe), and vice versa. But despite this, cable and DTH companies that also own TV channels, often give their channels favourable treatment - prime channel positions or more payment compared to similar competitors. This is why often, the only TV channels that are significantly profitable, are also those who own distribution where they can alter competition in their favour - while globally, cable companies like Time Warner are legally restricted from lending favouritism to its own channels. In any case, corporates can always find loopholes, like having related owners, to avoid this restriction. Hence, it is clear that restricting equity ownership does not solve the problem.

Instead, it is necessary to have safeguards - laws and checks and balances on the last mile of the consumer - to ensure last mile neutrality, which has now become the global movement across mediums.

Net neutrality, for instance, has become a heated issue in US and Europe, with significant momentum across civic groups, regulators and governments. Services like Netflix and Hulu have revolutionised digital content consumption and given users enormous flexibility, but they are coming under pressure by copycat services developed by cable companies, such as Comcast Xfinity. These services take advantage of owning the cable connection by offering better, unlimited connectivity when using their service, while offering limited or capped connectivity when accessing Hulu or Netflix. This is an anti-competitive move that stifles innovation and competition. The internet has thrived because of its freedom of competition and ability for anyone with a connection to change the world. Taking advantage of last mile ownership throttles such innovation.

Worse, it sets a precedent that broadband providers can choose the content you want to access, by making it easier or harder to get that content. On the Net, ISPs can use differential bandwidth caps, speed limits and pricing on broadband consumption. But on mobile, telecom operators can offer further favouritism towards preferred services, with additional benefits like selective billing integration and marketing/promotion. And since bandwidth on mobile is more limited than over broadband, restrictions or favouritism in bandwidth consumption offer telecom operators an even stronger, anti-competitive advantage.

This is easily seen in the Indian internet ecosystem versus the mobile Value Added Services (MVAS) ecosystem today. While the internet only has 50-60 million users, its users can access vast amounts of content even as industries like e-commerce and travel have blossomed, creating economic value and real utility to consumers. Compare it to the MVAS world, where despite over 900 million users, the most common consumer sentiment is that they are being unfairly billed for irrelevant services. So what is the difference? On the internet, anyone can start a company and compete fairly for the consumers' attention, spurring innovation and value. But in the mobile VAS world, only five major telecom operators control the services and choose the only ones they want to exist. The result is less competition, and operators selling the same

services (like caller ringback tones) increasingly aggressively to their customers, but with little or no innovation.

As connectivity grows across the internet and mobiles, it is crucial that the government allows the same flourishing that has currently existed on the Web to continue across devices. India's huge population and strong technical talent have the potential for global scale entrepreneurship and innovation, and can create a new dynamic India in the way IT had done in the 1990s. But it requires an infrastructure and atmosphere that is not controlled by last-mile connectivity providers who abuse their dominance.

One should not confuse this with cross-media ownership. This is a non-issue, prompted by political motivations that fear a strong media. The real issue is whether or not we have enough safeguards to ensure that the ecosystem for content is a healthy and thriving one, and is not abused by distributors or last-mile operators aiming to create anti-competitive practices by expanding into content.

This is a very real threat indeed, because while content may be king, distribution is God - and the thousands of content owners are at the mercy of a few last mile owners who have become far more powerful than any media conglomerate could ever be. It is high time, then, that the government and regulators wake up to the fact that the only way to ensure a competitive media landscape with equal voice for all content, is to ensure there are enough rules whereby customer connectivity is neutral to the content that rides on it.

# Annexure-3

HTTP://TIMESOFINDIA.INDIATIMES.COM/TECH/TECH-NEWS/FCC-EXTENDS-NET-NEUTRALITY-COMMENT-PERIOD-TO-SEPTEMBER-15/ARTICLESHOW/40314556.CMS

## FCC EXTENDS NET NEUTRALITY COMMENT PERIOD TO SEPTEMBER 15

Reuters | Aug 16, 2014, 12.17PM IST

FCC on Friday said it would accept public comments on its proposed new "net neutrality" rules through September 15.

WASHINGTON: US Federal Communications Commission on Friday said it would accept public comments on its proposed new " net neutrality" rules through September 15, giving Americans extra time to weigh in on how they think Internet traffic should be regulated.

FCC has received more than 1 million comments already on new rules for how Internet services providers should be allowed to manage web traffic on their networks.

FCC had set a deadline of July 15 for the initial comments and then September 10 for replies to those initial comments. However, the surge in submissions overwhelmed FCC's website and the agency had delayed the first deadline by three business days.

"To ensure that members of the public have as much time as was initially anticipated to reply to initial comments in these proceedings, the Bureau today is extending the reply comment deadline by three business days," the FCC said on Friday, delaying the final deadline for comments to September 15.

# ANNEXURE-4

HTTP://WWW.REUTERS.COM/ARTICLE/2014/08/14/US-USA-INTERNET-NEUTRALITY-NEWYORKTIMES-IDUSKBN0GE1L020140814

## RECLASSIFY INTERNET PROVIDERS FOR 'NET NEUTRALITY': NEW YORK TIMES

Thu Aug 14, 2014 11:03am EDT

US regulators' new "net neutrality" rules should classify internet providers more like public utilities to prevent them from potentially slowing users' access to some web content.

WASHINGTON: US regulators' new "net neutrality" rules should classify internet providers more like public utilities to prevent them from potentially slowing users' access to some web content, the New York Times said in an editorial.

The statement comes as the Federal Communications Commission (FCC) is preparing to set the new rules, which would regulate how internet service providers, or ISPs, manage traffic on their networks. In January, a federal court struck down the agency's previous version of those rules.

The FCC is now collecting public comment on the rules it tentatively proposed in May, which the New York Times called troubling.

While prohibiting ISPs from blocking any content, the proposal suggested allowing some "commercially reasonable" deals where content companies, such as Netflix Inc or Amazon.com Inc, could pay ISPs, such as Comcast Corp or Verizon Communications Inc, to ensure smooth and fast delivery of their web traffic.

Although FCC Chairman Tom Wheeler has insisted the agency would carefully guard against abuse of the rules, the proposal drew ire from public interest groups and large Web companies. They say it would result in faster download speeds for some content as other data would be relegated to "slow lanes."

Consumer advocates have called on the FCC to instead reclassify ISPs as telecommunications services rather than as the less-regulated information services they are now, saying the move would give more power to the FCC to stop potential violators of net neutrality.

The New York Times has now joined their ranks, pointing to President Barack Obama's recent comments at a recent conference with African leaders in Washington, where he said an equally accessible Internet is important for "the next Google or the next Facebook."

The New York Times editorial said, "Small and young businesses will not be able to compete against established companies if they have to pay fees to telephone and cable companies to get content to users in a timely manner."

A better option, the paper said, would be for the FCC to reclassify broadband Internet service as a telecommunications service, which would allow the regulators to prohibit ISPs from "engaging in unjust or unreasonable discrimination against content."

Experts have disagreed on whether or how reclassification would adequately prevent pay-for-priority deals.

ISPs and Republicans, both in Congress and at the FCC, strongly oppose reclassification, saying a heavier regulatory burden may hurt investment in broadband networks.

The ISPs also say they support an open internet and having some content in "slow lanes" would upset their customers and so is not in their interest.

Wheeler has not proposed reclassification as the solution, but has not taken it off the table as a potential route.

# Annexure-5

HTTP://WWW.REUTERS.COM/ARTICLE/2014/08/13/US-USA-INTERNET-FCC-CONGRESS-IDUSKBN0GD1G120140813

## US SENATOR URGES FCC NET NEUTRALITY HEARINGS OUTSIDE WASHINGTON

Wed Aug 13, 2014 2:57pm EDT

FCC is working to write new so-called "net neutrality" rules that regulate how ISPs manage traffic on their networks.

WASHINGTON: US Senate Judiciary Committee chairman Patrick Leahy has called on the Federal Communications Commission (FCC) to host hearings on its new proposed "net neutrality" rules outside of Washington, not just at its offices in the US capital.

The FCC is working to write new so-called "net neutrality" rules that regulate how internet service providers (ISPs) manage traffic on their networks. In January, a federal court struck down the agency's previous version.

More than 1 million comments have poured into the FCC on the issue, many of them opposing the rules tentatively proposed by the FCC. The proposed rules, while prohibiting ISPs from blocking any content, suggest allowing some "commercially reasonable" deals where content providers could pay ISPs to ensure smooth and fast delivery of their traffic.

The FCC is now planning six roundtable discussions in September and October at its offices in Washington, where the public can meet with FCC staff to talk about the proposed rules and how they may be changed.

Leahy, a Democrat from Vermont, urged the FCC to also hold the roundtables in other parts of the country. The FCC has done so in the past on other controversial issues, such as changes to the rules restricting who can own how many and what kinds of media outlets in local markets.

"Most of (those who had commented on the proposed rules online) will not be able to come to Washington to participate in the roundtables that have been scheduled, but their voices are more important than industry lobbyists and members of Congress," Leahy wrote to Wheeler.

An FCC spokesman, however, said the public from across the country would be able to pose questions to those roundtables online along with those who attend in person.

"The roundtable events are designed to incorporate a wide range of views on this important topic, and they will be open to the public and streamed live online," the spokesman said.

The FCC is collecting public comments on the proposed net neutrality rules until September 10. The agency has scheduled roundtables on various aspects of the rules on September 16, September 19, October 2 and October 7 in Washington.

Following an upwelling of protest against the proposed rules quickly launched by consumer advocates and some internet companies, the FCC has sought to ensure it reviews the rules transparently. Last week, the agency began releasing all comments it had received from the public through email, mail and its online comment submission portal as a downloadable database for review and analysis.

# Annexure-6

http://timesofindia.indiatimes.com/tech/tech-news/What-is-net-neutrality-and-why-it-is-important/articleshow/29083935.cms

## What is net neutrality and why it is important

TNN | Jan 20, 2014, 06.13AM IST

If you like the current state of the internet, you should know about net neutrality. If you are not aware of it, don't worry.

Internet is built around the idea of openness. It allows people to connect and exchange information freely, if the information or service is not illegal. Much of this is because of the idea of net neutrality. If you like the current state of the internet, you should know about net neutrality. Many web users are aware of it. But if you are not, don't worry. We explain it here:

**What is net neutrality?**

Net neutrality is an idea derived from how telephone lines have worked since the beginning of the 20th century. In case of a telephone line, you can dial any number and connect to it. It does not matter if you are calling from operator A to operator B. It doesn't matter if you are calling a restaurant or a drug dealer. The operators neither block the access to a number nor deliberately delay connection to a particular number, unless forced by the law. Most of the countries have rules that ask telecom operators to provide an unfiltered and unrestricted phone service.

When the internet started to take off in 1980s and 1990s, there were no specific rules that asked that internet service providers (ISPs) should follow the same principle. But, mostly because telecom operators were also ISPs, they adhered to the same principle. This principle is known as net neutrality. An ISP does not control the traffic that passes its servers. When a web user connects to a website or web service, he or she gets the same speed. Data rate for Youtube videos and Facebook photos is theoretically same. Users can access any legal website or web service without any interference from an ISP.

Some countries have rules that enforce net neutrality but most don't. Instead, the principle is followed because that is how it has always been. It is more of a norm than a law.

**How did net neutrality shape the internet?**

Net neutrality has shaped the internet in two fundamental ways.

One, web users are free to connect to whatever website or service they want. ISPs do not bother with what kind of content is flowing from their servers. This has allowed the internet to grow into a truly global network and has allowed people to freely express themselves. For example, you can criticize your ISP on a blog post and the ISP will not restrict access to that post for its other subscribers even though the post may harm its business.

But more importantly, net neutrality has enabled a level playing field on the internet. To start a website, you don't need lot of money or connections. Just host your website and you are good to go. If your service is good, it will find favour with web users. Unlike the cable TV where you have to forge alliances with cable connection providers to make sure that your channel reaches viewers, on internet you don't have to talk to ISPs to put your website online.

This has led to creation Google, Facebook, Twitter and countless other services. All of these services had very humble beginnings. They started as a basic websites with modest resources. But they succeeded because net neutrality allowed web users to access these websites in an easy and unhindered way.

**What will happen if there is no net neutrality?**

If there is no net neutrality, ISPs will have the power (and inclination) to shape internet traffic so that they can derive extra benefit from it. For example, several ISPs believe that they should be allowed to charge companies for services like YouTube and Netflix because these services consume more bandwidth compared to a normal website. Basically, these ISPs want a share in the money that YouTube or Netflix make.

Without net neutrality, the internet as we know it will not exist. Instead of free access, there could be "package plans" for consumers. For example, if you pay Rs 500, you will only be able to access websites based in India. To access international websites, you may have to pay a more. Or maybe there can be different connection speed for different type of content, depending on how much you are paying for the service and what "add-on package" you have bought.

Lack of net neutrality, will also spell doom for innovation on the web. It is possible that ISPs will charge web companies to enable faster access to their websites. Those who don't pay may see that their websites will open slowly. This means bigger companies like Google will be able to pay more to make access to Youtube or Google+ faster for web users but a startup that wants to create a different and better video hosting site may not be able to do that.

Instead of an open and free internet, without net neutrality we are likely to get a web that has silos in it and to enter each silo, you will have to pay some "tax" to ISPs.

**What is the state of net neutrality in India?**

Legally, the concept of net neutrality doesn't exist in India. Sunil Abraham, director of Centre for internet and Society in Bangalore, says that Trai, which regulates the telecom industry, has tried to come up with some rules regarding net neutrality several times. For example it invited comments on the concept of net neutrality from industry bodies and stakeholders in 2006. But no formal rules have been formed to uphold and enforce net neutrality.

However, despite lack of formal rules, ISPs in India mostly adhere to the principal of net neutrality. There have been some incidents where Indian ISPs have ignored net neutrality but these are few and far between.

**Will the concept of net neutrality survive?**

Net neutrality is sort of gentlemen's agreement. It has survived so far because few people realized the potential of internet when it took off around 30 years ago. But now when the internet is an integral part of the society and incredibly important, ISPs across the world are trying to get the power to shape and control the traffic. But there are ways to keep net neutrality alive.

Consumers should demand that ISPs continue their hands-off approach from the internet traffic. If consumers see a violation of net neutrality, they ought to take a proactive approach and register their displeasure with the ISP. They should also reward ISPs that uphold the net neutrality.

At the same time, as Abraham says, Trai needs to come out with a set of clear and precise rules that protect the net neutrality. "We have started seeing ISPs trying to take control of the traffic that flows from their servers but Trai can regulate them. It can keep the internet open and consumer-friendly by forming rules that protect net neutrality. These are early days so it is easy to do. If ISPs manage to change the system, it may become too late," he says.

# ANNEXURE – 7

http://epaperbeta.timesofindia.com/Article.aspx?eid=31804&articlexml=Zuckerbergs-Sucker-Punch-13102014016026

Oct 13 2014 : The Times of India (Mumbai)

# ZUCKERBERG'S SUCKER PUNCH

Nikhil Pahwa

Would you want free internet if it wasn't really free?

When Facebook founder and CEO Mark Zuckerberg met Prime Minister Narendra Modi, they discussed they discussed the Digital India campaign, and quite likely , how it is a natural fit for the Facebook-backed Internet.org initiative. Digital India is about making the internet available to the masses, while Internet.org is about giving free internet to the masses.

Sounds like a perfect fit, but it hardly is. Internet.org isn't about internet for all, but essentially about Facebook for all, along with a few non-profit services thrown in to give it the appearance of philanthropy, and maybe a few co-opted competitors to make it appear as if it isn't about Facebook only .

Where Internet.org doesn't fit with the Modi government's mandate is that it essentially hinders the `Make in India' campaign. At a carefully controlled press interaction in Delhi last week, Zuckerberg didn't talk about how services would be selected for Internet.org, and on what basis services can be rejected. Since Internet.org is free for consumers, who pays telecom operators and how are rates decided? Internet.org creates a distortion in the neutral access space that is the internet: it forces consumers to choose between services with free and paid access, and tips the scales in favour of free.In a price sensitive market like In dia, the gap between free and paid (say, Rs 125 per month) is massive.

Think of some services that we use regularly: if Gaana.com was free to access, would you choose Saavn.com? If Paytm was free to access, would you choose Freecharge? If Naukri.com was free to access, would you choose Monster.com? If MakeMyTrip was on Internet.org and free, would you choose Cleartrip? This distortion does two things: First, it forces all competing services to enter into special revenue-sharing arrangements with telecom operators. It disadvantages all those `Make in India' product apps that currently benefit from consumers choosing utility over cost of ac cess, because the cost of accessing everything is neutral.

Secondly , it gives inordinate power to those who select services for the Internet.org app. If telecom operators are going to make that choice, that is exactly what they've been lobbying for.Over the past year, telcos have lobbied the Telecom Regulatory Authority of India (Trai) to create a revenue-sharing arrangement between them and services like WhatsApp, YouTube, Viber, Skype and other mobile applications.

Growth of mobile internet has robbed them of their controlled Mobile Value Added Services `walled garden', where they chose which services to allow consumers access to, and extracted their pound of flesh.It was a closed and immensely corrupt system, and customers ended up getting cheated.

This fear of the open internet is such that earlier this year, Airtel's India CEO Gopal Vittal spoke about shifting to a more content-based approach, essentially offering content packages instead of a neutral data oriented approach. Once the Modi government came to power, India's telecom operators association (COAI) included creating revenue share arrangements with OTT services as part of their agenda for this new government. Telecom operator CEOs met Trai chairman Rahul Khullar to push for this, and now Trai is planning a consultation to discuss bringing online services under regulation.

If you think all internet companies and telecom operators are on opposite sides, think again.Google partnered last year with Airtel for free search. Despite it lobbying for such revenue share arrangements, COAI now has Facebook as its member. Airtel is a Facebook partner in Zambia, the first for Internet.org, and i wouldn't be surprised if it is Internet.org's first partner in India.

Telecom operators are happy because with Internet.org, free Facebook will get consumed more, and they make more money if Facebook pays. But if telcos make, say , Rs 500 per customer per month via Internet.org, will they charge customers only Rs 125 per month for access to the free web (outside Internet.org)?

If they increase rates for the free web to Rs 300 per month, will consumers choose Internet.org? Facebook wins. It becomes the gateway to the internet, and possibly , the internet itself for most users.

Think of the start-ups, the `Make in India' apps, and their access to customers and potential future competition for Facebook. If ISPs didn't allow open access to social networks, and MySpace was willing to pay for preferential pricing, would Facebook have dominated social networking? If telecom operators, aided by Facebook, are allowed to split the web into paid and free, it will mean that the cost of starting an online and mobile business will be much higher, because you'll have to pay that much more to compete.

On the surface, free internet is more than welcome. We'll leech off free WiFi whenever we can. But the questions that you, Narendra Modi, Ravi Shankar Prasad and Trai have to ask are: Would you want free internet if the internet wasn't free? What is the cost of freedom for the internet? What about the hidden cost it places on all those who take the risk of starting up? Instead of free Internet.org, why not offer 30 MB of free internet access every month to all citizens, so they can access all services? Internet.org makes business sense for Facebook, but not for India. It's time India started discussing net neutrality , before policies get changed.

The writer is Founder of MediaNama.com.