

Regulatory Framework for Over-the-top (OTT) services

Comments on the consultation paper

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by Matthew K Belmonte <belmonte@mit.edu>

Question 1: 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.

Time and again, attempts to regulate Internet traffic have been behind the state of this rapidly developing technology from the very moment of their introduction. The United States, the country that pioneered the Internet, recently has admitted the futility of regulating the Internet as a service distinct from telephone networks and other common carriers; instead the US Federal Communications Commission has reclassified the Internet as a public utility. The reach and usage of the Internet in India are expanding even more rapidly than in the developed world; thus India has even less reason than other countries to codify a rigid regulation of Internet traffic.

Question 2: 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.

The mere fact that a telephone or video call or text message is delivered via a packet-switched network does not alter the nature of the communication service delivered. Market forces applied to the current, de facto system of net neutrality will ensure that customers using high bandwidths and large volumes of packet-switched data will pay more than those who use fewer resources. The simple reality is that services such as video calls use more bandwidth than services such as electronic mail; there is no need for heavy-handed regulation that would destroy net neutrality.

Question 3: Is the growth of OTT impacting the traditional revenue stream of telecom service providers (TSPs)? If so, is the increase in data revenues of the TSPs sufficient to compensate for this impact? Please comment with reasons.

The shift from traditional telephone services towards packet-switched communications (e.g. Skype, Viber, WhatsApp) is a real phenomenon, but not one from which telecommunications companies ought to be protected. The nature of a capitalist economy is that market players are forced to adapt to changes in technology and society. Those who adapt continue to profit. Those who do not adapt disappear. Companies need not and ought not to be protected from the consequences of their managements' lack of market foresight.

Question 4: Should the OTT players pay for use of the TSPs network over and above data charges paid by consumers? If yes, what pricing options can be adopted? Could such options

include prices based on bandwidth consumption? Can prices be used as a means of product/service differentiation? Please comment with justifications.

Pricing per unit data (i.e. bandwidth pricing) already happens, and is a fine way to regulate use of common-carrier capacity via market forces. There is no need, therefore, for telecommunications carriers to differentiate pricing based on the content of communications packets; much like a shipping company that transports containers without looking inside them, the role of the telecommunications carrier ought to be to transport a given volume of data packets without peeking at their content.

Question 5: 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.

Market imbalances do exist, and (as detailed above) the market can be relied on to address these imbalances.

Question 6: 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.

Attempts to enforce pen registers and data logging internationally are the bailiwick of treaty and diplomacy – and also, of course, the secretive work of intelligence agencies. It would be difficult if not impossible for national regulators to enforce such conditions, short of unplugging the country from the Internet as in North Korea.

Question 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.

This question of security and privacy for the consumer is again a market phenomenon: Different services will have different approaches to security and privacy, and consumers ought to be able to make informed and free choices amongst these alternatives, without regulatory interference.

Question 8: 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.

The European Telecommunications Network Operators (ETNO) have proposed an explicit rejection of net neutrality, with deregulated model in which the sender would pay for end-to-end connectivity, that is, for transmission from the data's point of entry into the network to its point of exit. Though it might sound reasonable at first encounter, the most evident trouble with this end-to-end model is that it violates the very nature of the Internet as a packet-switched network in which there are many possible routes from point A to point B. The other, deeper issue, though, is that rejection of net

neutrality sets an anti-competitive precedent by which telecommunications carriers are permitted to inspect the content of data packets so as to fix prices for their transmission. Such a precedent would go beyond levelling the playing field: it would establish an unfair, anti-competitive environment in which carriers would not be forced to compete with over-the-top services, because in a situation in which a small number of large telecommunications companies fixes the prices, those services could be charged arbitrarily high fees. Indeed, Airtel recently tried to implement (and then backpedalled) the first step of such a scheme. The Body of European Regulators of Electronic Communications have rightly branded differential end-to-end fees “neither commercially nor technically realistic”. Market pricing mechanisms that account for high bandwidth usage on the end-user side already exist in the form of tiered pricing per gigabyte; charging the content-provider side differential rates amounts to charging doubly.

Question 9: 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.

As the world's most populous democracy, India has the most reason of any nation to uphold net neutrality in the sense of ensuring no discrimination by telecommunications providers against the data of particular content providers. The Internet is a medium for the free and plentiful speech that is the lifeblood of any democracy. Traffic management policies that are not biased against any particular set of content providers can be reasonable procedures in the context of limited transmission capacity. Fast-lane charges or other discrimination against particular content providers, though, is an entirely different matter which would thrust small providers – the voices of the people – into a lower class of service and would transform the Internet into a telescreen for corporate and state media.

Question 10: 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.

There is a difference between unbiased traffic-management schemes that attempt to prioritise real-time applications such as SSH connections or VoIP, and anti-competitive traffic-management schemes that prioritise one or another higher-paying provider's content. The former improve the interactive experience for all users; the latter improves the bottom line for large companies and shuts out new entrants to the market. (See subsection 5.28 of the consultation paper.) Simply put, telecommunications providers should not be permitted to charge content providers for 'fast-lane' access to their networks; allowing such a violation of net neutrality would fossilise the market by giving priority to the large, established content providers who have the funds to pay what is effectively a network-access baksheesh.

Question 11: 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?

We already have seen, in large operators such as Comcast in the United States, what happens when throttling of certain providers' content or certain types and sizes of data transmissions is implemented secretly: this throttling is a tool to manipulate end-user sentiment – and thus to

manipulate the market – without the end-users' knowing the sources and causes of their Internet usage experiences. An analogy is the common requirement in many stock exchanges to disclose company officials' sales of shares in their own companies: these officials ought not to be able to manipulate the market to their own advantage behind the scenes. Telecommunications providers ought thus to be required to publish the complete details and particulars of any and all traffic management strategies that they employ. Although this condition might suffice for transparency, it does not at all suffice to establish fairness. To ensure fairness, telecommunications providers must not be permitted to discriminate amongst data from different content providers. Existing market mechanisms such as tiered pricing at the user end suffice to regulate high-volume traffic such as streaming video; there is no need to duplicate such tolls at the provider end.

Question 12: 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 upgradation costs? Please comment with justifications.

Ultimately the telecommunications providers are responsible for upgrading their own networks. In this aspect again, existing market mechanisms suffice to encourage reinvestment of profits in upgraded network hardware. It's rather clear that over-the-top providers are application service providers, not communications service providers – they do not, after all, own or administer the networks across which their content travels.

Question 13: 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.

Traffic management schemes that are not biased against any one particular content provider, or against any particular small class of content providers, can be consistent with a neutral and democratic use of the Internet. Tiered pricing for end users on the basis of total amount of data transferred also can be consistent with net neutrality. What would violate the spirit of net neutrality, and threaten the democratic usage of the Internet, would be pricing aimed at particular content types and/or particular content providers.

Question 14: Is there a justification for allowing differential pricing for data access and OTT communication services? If so, what changes need to be brought about in the present tariff and regulatory framework for telecommunication services in the country? Please comment with justifications.

Because existing market mechanisms based on the *volume* of data transferred are capable of regulating network usage, differential pricing based on the *type* of data transferred is unnecessary.

Question 15: 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.

Treating over-the-top providers as bulk users would amount to just that: treating providers as users. In the existing model, the end user pays per unit of data transferred, regardless of the type of content that these data represent. Treating providers as users would lead to double-dipping, that is, to

charging both the end user and the provider for transmission of one and the same set of data.

Question 16: What framework should be adopted to encourage India- specific OTT apps? Please comment with justifications.

This is another case in which the free market suffices. There need not be any regulatory mechanism specifically to encourage Indian applications; rather, an Indian market will naturally arise as a niche or sector within the worldwide market for application software. India is better off as a key participant in world markets for software and telecommunications services, rather than being shut out into a parallel market as has happened in the case of China.

Question 17: 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.

Over-the-top providers are application service providers, not communications service providers – they do not, after all, own or administer the networks across which their content travels.

Question 18: Is there a need to regulate subscription charges for OTT communication services? Please comment with justifications.

Subscription charges are less than perfect as a model of democratic network usage, but if they are to be levied then they ought to be neutral with regard to the identity of the content provider, and in particular with regard to the identities of over-the-top content providers.

Question 19: What steps should be taken by the Government for regulation of non-communication OTT players? Please comment with justifications.

Government interest in regulating non-communications entities seems primarily or even entirely at establishing governmental authorities' ability to inspect and to control network traffic. That the government *can* regulate non-communications entities doesn't imply that a democratic government *should* regulate non-communications entities.

Question 20: Are there any other issues that have a bearing on the subject discussed?

No further issues cited herein.