

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.

Response 1: It is my view that given the high cost of spectrum and hidden costs of remote infrastructure in the country, some form of regulation on OTT providers is necessary now with option for review and revision as the situation evolves. In effect, OTT usage increases TSP cost without commensurate access to profit, resulting in potential increases of TSP charges on voice, which affects the most vulnerable of services and national costs of messaged public services

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.

Response 2: OTT services increase the potential of national security risk and unsolicited commercial communications. Since the end consumer is impacted regardless of whether this happens via traditional mobile telephony or OTT services, regulation is required to level the playing field and protect the general public from malpractices by users of OTT services. This also puts onus on the OTT service provider for monitoring as well as transparency, which is similar to the issues with encryption that Blackberry faced not so long ago.

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

Response 3: Being a member of the general public and not being privy to the deep economic aspects of TSP operations, I cannot comment knowledgeably on this matter. However, my perception is that any shortfall in data revenue of the TSPs must perforce be made up either through increased data charges per unit, increased voice charges per unit or a combination of both. It would be unfortunate if, as I mentioned in Response 1 above, this were to translate into higher voice costs for the more economically vulnerable sections of society, who are today far more dependent on communications and connectivity for their livelihoods as well as their safety and security than they were even a decade ago.

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.



Response 4: I believe it is necessary for some loading of additional charges to OTT players in order to level the playing field in the marketplace, especially since the consultation paper clearly shows that the OTT players leverages resources that require that a relatively high upfront cost by TSPs. At the same time, given the high pace of evolution in this marketplace, differential pricing must be kept simple and therefore the idea of bandwidth consumption as a metric – whether linearly or slab wise – seems to be both effective and logical.

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.

Response 5: It would be simplistic the regulation model that is currently applied with TSPs was also to be applied with OTT players. In particular, enforcement of KYC and verification norms, disconnection of telecom resources to violating users and heavy penalties for non-compliance by OTT players in line with that experienced by TSPs would go a long way.

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.

Response 6: In an increasingly globalized world, most operating corporations accept that compliance with the laws of the land where they operate (that is, provide goods and services to consumers) constitute good governance. Although there is a likelihood that bilateral or multilateral international agreements would need to be worked out over time, a fairly simple start can be made by providing data sufficiency and transparency requirements coupled with audits, penalties for negligence or violation and – if such penalties are not paid promptly pending appeal – blocking these OTT applications via notices to all TSPs.

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.

Response 7: OTT players - as well as TSPs –need to start maintaining a public registry of individual and organization names that have been reported for infringements of security, safety and privacy of consumers. The resulting adverse impact to a violators brand image is likely to be much more of a deterrent than any form of monetary penalties. At the moment, the TRAI regulations are such that the privacy of spammers is protected because their identity is not made public – while databases of public



mobile numbers are freely sold to such spammers not just in India but also abroad. There needs to be very strong penalties include jail terms – potentially under the ambit of the CrPC – for sales of such databases, especially where they contain DND registered numbers.

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.

Response 8: The needs of each country and the ability to regulate within that country are fairly unique and driven by geo-political factors as well as structures of government. Either a price discrimination model or the FRAND approach, or a suitable combination of both, may be easier to adopt in India relative to separation of regulatory practices which would be a lot harder to enforce.

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.

Response 9: without prejudice to paragraph 5.47, the key issue here is the “dumb pipe” philosophy espoused by the defenders of net-neutrality in paragraph 5.6. In a market where a very large number of consumers span a wide spectrum from near-illiterate purely functional voice use to highly sophisticated complex applications capable of supporting nefarious activities or distributing malware, this philosophy is akin to a supply chain of drinking water where anyone can pour water into the source from which this water is distributed. In careless hands, the water could be inadvertently contaminated and – God forbid – in intentionally malicious hands, the water could be poisoned deliberately. If our infrastructure and capabilities had the ability to discern and manage the load as is the case in the EU or the U.S. or in China, all of which are been mentioned in the CP, Net-Neutrality would possibly be welcome.

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.

Response 10: Practices that relate to either high volumes of bandwidth (and thus spectrum) use as well as those which create explicit revenues for the OTT through direct charges to end users should come within the ambit of regulation. In order to be pragmatic, the regulatory framework should be adaptive to changing market conditions rather than prescriptive which could require frequent ad hoc revisions.



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?

Response 11: this appears to be a good starting point and could be reviewed, say, one or two years after initial implementation.

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.

Response 12: in principle, this concept is no different from upfront investment in power generation and distribution infrastructure for electricity. Ideally, the TSP should be the investor in such infrastructure but special financing vehicles (similar to Power Finance Corporation) should be available to mitigate risk and encourage scalable investment in line with the growing communications needs of the country.

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.

Response 13: it is hard to comment on non-price service discrimination models without knowing the specifics.

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.

Response 14: it may be simpler to allow an uniform data tariff structure with permissions for discounting to non-OTT users.

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.

Response 15: treating OTT communication service players as BUTS suppliers may not be entirely appropriate since not all OTT services might qualify if a clear set of criteria were laid down. It may be



appropriate to treat any OTT service that allows real-time voice transmission or continuous messaging (i.e. delivers an outcome in exactly the same as voice telephony and SMS) as BUTS.

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

Response 16: OTT apps that can be shown to enhance National Security, safety and liberty of citizens, productivity and control of economic crimes such as bribery and corruption could be encouraged by providing discounts similar to my suggestion in response 14

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.

Response 17: since not all OTT service players follow the same model, a clear set of criteria should be laid down that can differentiate between ASP-type offerings and CSP-type offerings. Please see response 15.

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

Response 18: if a regulatory framework is already being made available for TSP-mediated effective end-user pricing of OTT services, any separate intervention in regulation of subscription charges would cause multiple distortions in the market and are probably best avoided.

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

Response 19: As mentioned in clause 6.2 of the CP, Even non-communication OTTs such as videos, gaming and e-commerce are consuming scarce bandwidth. Differential pricing or surcharges for high bandwidth use – just as this is done for high use of power or water as scarce National Resources –ought to be considered.

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

Response 20: None from my point of view.

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