

## **RCOM Response to TRAI Consultation Paper on “Regulatory Framework for Over-The-Top (OTT) Services”**

### **Preamble**

The introduction of OTT communication services (Voice & Video, Messaging & E-mailing and Social networks & E-commerce) have had the disruptive effect of separating the network from the services. OTTs provide the content, similar to DTH, which is made available through the TSPs network under a mutual agreement with the content providers. TSPs are just a connectivity provider between the subscriber wanting to access the data services available over the internet and the OTT service provider. The TSPs are the facilitator (just a pipe) for provisioning these services as free to air or HD channels (Paid) of DTH services and have no role / inclination / incentive to either censor the OTT content / to block / throttle / prioritize traffic over their network. Resorting to any of the services prohibiting techniques shall be detrimental to their business itself as it would lead to preclusion of a set of customers from their subscriber base. In the interest of public good, maintenance of national social fabric and national security the government should balance the requirement of exercising control over the OTT service providers and the freedom of speech of the citizens. Unless the OTT service providers create a direct peering arrangement with the TSP / ISP, the TSPs / ISPs are in no position to exercise any restrictions over the OTT service providers and cannot be held responsible for any violation of the law of the land.

### **Executive Summary**

- 1. Classification of internet applications into various categories viz, communication OTT applications, i.e. Voice and Video, Messaging and E-mail and Social Networks and non communication / other OTT applications is essential for balancing the requirements of legal governmental control and freedom of speech and expression.**
- 2. The OTT players should be asked to register themselves as OSPs, with DoT for provisioning services in India, albeit with certain essential responsibilities and accountability being obligated on them in national and societal interest, especially for LIM and sharing of revenue with the national exchequer.**
- 3. Similar to the mutual commercial agreements between the DTH infrastructure providers and content providers, TSPs too should have the freedom of commercial negotiation with OTTs who are utilizing the TSPs’ network and bandwidth for delivery of its services.**
- 4. Pricing model and options, i.e. bandwidth / time / website access based, to be adopted for the commercial agreement between the TSP and the OTT service provider and the same should be left to the mutual arrangement between them.**
- 5. Security concerns, maintaining data records, logs etc. and ensuring security, safety and privacy of the consumer data as well as their compliance can be addressed by mandating (a) OSP registration of OTT service providers, (b) institutionalizing internet content regulation, (c) local hosting of their infrastructure and (d) mandating their peering with the local TSPs.**

6. **Bilateral agreements and working out of suitable charters at international forums like WTO, etc, should be explored for exchange and free flow of information, taxes and ensuring regulatory compliances by OTT service providers.**
7. **'Net Neutrality' should construe that all data traffic over the data network and services eco-system should be treated equally. All stakeholders in the data network and services eco-system should not be permitted to block / throttle / prioritize any data traffic.**
8. **Net neutrality should be advocated and enforced over the entire ecosystem for internet services within India and all endeavours should be made for ensuring its compliance across the globe.**
9. **Price based product differentiation should be permitted as it is important for inducing competition, data packs on account of the speed of access, data volumes, time of day, other criteria basis Customer discretion and preferences and provisioning cost free services should be construed as legitimate and normal product offering business strategy from the TSP.**
10. **The regulation for permitting business entities to have a toll free service should be applied ubiquitously across the entire communication eco-system.**
11. **The OTT based tariff plans that afford the flexibility of making the consumer pay for his preferred usage only are advantageous to the consumers.**
12. **Imposition of any restriction on the content over the internet is the purview of the government and the TSPs should not be made responsible for the same.**
13. **The existing fair usage policy of reduction of access speed beyond a certain data usage, congestion management, traffic restrictions imposed by the Government / LEA agencies and prioritization of emergency communications are considered reasonable and consistent with a pragmatic approach and should be the only form of discrimination or traffic management practices that is permitted.**
14. **TSPs can be mandated to self certify and publish traffic management techniques which are mandated by Government / LEA authorities / as required for ensuring unequivocal and equal QoS on their networks for different OTT applications to ensure transparency and a fair regulatory regime.**
15. **CAPs should be asked to bear the network upgradation costs; if not directly with the TSPs, they can be asked to contribute to the USOF for the same.**
16. **Classifying OTT services as BuTS shall negate the advantage of a net neutral environment and shall be an inhibitor for innovations.,**
17. **For encouraging development and deployment of India specific OTT apps, the government is suggested to (a) promulgate and enforce net neutrality, (b) provide special incentives for developing apps in local vernacular, (c) classify startups as SMEs, (d) create of Centers of Excellence (CoE) in universities as a PPP initiative, (e) reduce customs duty on hardware (server) imports, (f) encourage local and**

indigenous CPE manufacturing, (g) provide initial tax breaks for India specific OTT service providers and (h) provision subsidized power for the initial incubation and nascent stage of the OTT services.

18. Presently, there is no need to regulate the subscription charges for OTT communication services as the OTT service providers are not charging anything from the customers.
19. Non-communication OTT players should be treated as the existing VAS providers and regulations applicable to VAS providers should also be applicable to them.

### Detailed Response

**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.**

### Our Response

**Yes, a start can be made now itself with a regulatory framework for OTT services that could be adapted to changes in the future.**

1. OTT services and internet penetration have a symbiotic relationship in ensuring each other's proliferation. Despite the aggressive participation of TSPs in the auction of 3G BWA spectrum, held in 2010, and the subsequent expansion of the data network footprint, the current situation of internet penetration might appear to be at an evolutionary stage, but the feverish pace with which OTT services are being adopted by the consumers, the day is not far when the existing broadband speeds would be the minimum benchmark for data services.
2. Riding on the vast Indian telecom services network, **India has become the largest market for some of the mass communication OTT services like Facebook, LinkedIn, Google services, etc. Certain other factors that are catalyzing the adoption of OTT services are as follows,**
  - 2.1. **Digital India Initiative.** The ambitious 'Digital India Program' of the government of India is surely going to have multiple payoffs in terms of increasing the network speeds as well as acting as a catalyst for increasing the digital and cyber space awareness of the citizens of India. Governmental services apart, it is the OTT services which shall be adopted and utilized by most of the citizens, once they are digitally literate.
  - 2.2. **Youthful Population.** The youthful Indian population, which is 65% under 35 yrs of age, is at the forefront of this upswing in adoption of internet services. Aided by the increasing affordability of smart devices, omnipresent and at all times availability of entertainment material, ease of online shopping and payment options coupled with the social networking forums that offer instant global connectivity form an interesting proposition for this segment of internet users prodding them to constantly upgrade themselves from being '**Always on**' to being '**Always Logged on**' resulting in ever

increasing loading of the TSPs' network and prompting the TSPs to provision quality broadband services.

2.3. **Consumer Trends.** If the statistics of the Indian telecom data services market are observed carefully, it emerges that the total internet services subscription has risen by 23% Y-o-Y from Jun 2013 to Jun 2014 and almost 93% of this is dominated by subscribers accessing the net from the mobile devices. Also, for the same period, the number of subscribers who accessed internet using mobile services rose by approx 27% and this trend is going to accelerate further in the years to come and is going to result in increased adoption of OTT services.

2.4. **Smart Devices Proliferation.** With the online availability of TV, video, music, radio, shopping, social media, and payment services, proliferation of smart phones and tablets is occurring at an unprecedented rate. Recent launches of affordable and good quality smart phones by Motorola, ASUS, Gionee, Red MI and even Microsoft, etc have only accelerated the adoption of OTT services.

### **Our Recommendation**

3. In view of the facts enumerated above, the fast paced adoption of OTT services points to a totally different scenario in the future. The current trends clearly indicate that OTT services are being adopted fervently by the consumers in India and their inflection point vis-à-vis classical telecom services is not far. Hence, **a case is indeed made out for initiating their regulation which can be adapted as the need arises later.**

**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.**

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**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.**

### **Our Response**

**Mandating registration, with DoT with certain obligatory regulatory compliances, of the OTT players offering communication services (voice, messaging and video call services) through applications (resident either in the country or outside) is recommended.**

**OTT service providers can be classified as OSPs as the services they provide, including communication services, are just applications over the data network.**

1. The Diasporas across the world have adopted OTT services at a rapid pace due to their ability to fulfill the requirements of the modern society like instant text based chat, instant exchange of photographs / videos, ability to find and connect together long lost friends and acquaintances, etc. The services were conceptualized based on the need and for the good of the society. These were innovations of the fertile minds of young students, without any initial business case modeling about their revenue earning potential. Their subsequent

conversion into entrepreneurs was totally dependent on the level of adoption of these services. **This transformation of telecom services has been possible due to the fact that the OTT service providers worked in an environment free of any restrictions on their services, in the form of licenses.**

2. **Content and Application Differentiation.** Internet is just an enabler / platform for hosting and accessing data services. Due to the versatility of data services that can be offered using the internet, it is imperative that these services being provisioned over the internet be classified in various categories like communication OTT services and non-communication / other OTT services as has been done in this paper itself. The communication services can be further sub divided into three categories, viz, Voice and Video, Messaging and E-mail and Social Networks. This is essential from the point of view of communication OTT services ability to influence the public opinion as has been witnessed in the recent campaign against this paper itself. Promulgating differential levels of control for each category of OTT services would be firstly, important to continue provisioning an open and unrestricted environment for the non communication OTT services. Secondly, it is also important to have legal governmental control over communication OTT services for safe guarding legitimate public and national interests while balancing the freedom of speech and expression of the citizens. Therefore, **classification of internet applications into various categories viz, communication OTT applications, i.e. Voice and Video, Messaging and E-mail and Social Networks and non communication / other OTT applications is essential for balancing the requirements of legal governmental control and freedom of speech and expression.**
3. Telecom services in all the countries of the world are provisioned under a licensing regime for ensuring (a) a regulated and secure society and (b) adequate monetization of a country's natural resources as well as the assets of the business houses installing the networks at substantial costs. However, with the delinking of services from the network, the classical licensing requirements are required to be tweaked to accommodate the ever evolving communication requirements of the modern society. **Though OTT applications are being used to provide communication services, they are still applications. Classifying the OTT services as CSP / ASP is considered prohibitive to innovation.** Since the OTT service providers do not own a network they cannot be classified as CSPs and since ASP authorization has 'prioritization of services' as part of its conditions, it is felt that that too would go against the spirit of net neutrality. However, classifying OTT services as 'Other Services' with mandatory OSP registration for provisioning services in India would balance the requirement of freedom for innovation and fulfillment of requirements of LIM. Hence, **OTT communication services should be classified as OSPs, albeit with certain essential responsibilities and accountability being obligated on them in national and societal interest.**
4. **National Security.** A major condition of the telecom services license is the requirement to provide adequate mechanisms for Legal Interception and Monitoring (LIM) of services in national interest. OTT services provide the same telecom services capability to one and all but without any LIM responsibilities, they are liable to be used (or misused) for

circumventing the established LIM processes and procedures by elements inimical to India and its citizens. As quoted in the consultation paper, France, a politically highly stable region, has mandated licensing of the Skype services with mandated obligations for legal interception. Given the volatile political situation within India and on its borders, LIM responsibilities need to be accorded the highest priority for ensuring country's integrity and security of the citizens. It is for this reason only that the GoI has been able to persuade BlackBerry to provide decryption capability. Similarly, other communication OTT service providers too should be asked to deposit their decryption keys with the CMS (Central Monitoring System) deployed by the Government to facilitate the real time monitoring by LEA's. Advocating a uniform policy for all OTT players, DoT has passed explicit orders for blocking of content for which decryption capability is not available with the TSPs. **Therefore, there is a need to establish a well defined LIM process and procedure for the OTT services as well, for which these services are required to be regulated.**

## 5. Revenue Contribution to National Exchequer.

5.1. **Increase in MoU for VoIP traffic.** Statistic of the Indian mobile data services market shows that the Minutes of Usage (MoU) for Internet Telephony has risen by almost 7% from Jun 2013 to Jun 2014. Buoyed by such encouraging market positives, the OTT service providers like Viber, Skype, etc have been enticed to cash on it and have been releasing numerous advertisements in the Indian media proclaiming provisioning telephony services. The onslaught of these VoIP services has already taken away the international calling market thereby affecting the services of the access service providers along with the ILD Operators.

## 5.2. Revenue share with the National Exchequer

5.2.1. **Billion dollar e-commerce business.** As per Rajan Anandan, managing director, Google India, they are adding five million new users a month and that should take the user base to 500 million by 2018-19 which has the potential to transform India's economy, business landscape, governance and society beyond recognition. According to the 2015 report 'India@Digital.Bharat' by the Boston Consulting Group (BCG) and Internet and Mobile Marketing Association of India (IAMAI), internet growth could spawn an economy worth \$200 billion from internet related activities. **It is imperative that a part of the revenue's sourced from Indian market should be provided to the Indian government for the welfare of the Indian public.**

5.2.2. **Billion Dollar Valuations of OTT companies.** It is brought out that the TSPs are provisioning services at the behest of the Indian government, to the Indian citizens and hence are liable to contribute a portion of their revenue (LF, SUC, USOF and service tax collected from the consumers) to the national exchequer. However, OTT services providers having established multi-billion dollar valuation for their companies, by provisioning services, akin to telecom services, to Indian citizens, do not contribute even a single paisa of their revenue(s) to the national exchequer. **Therefore, it is in national interest that the OTT services providers should be asked to contribute a portion of their revenues with**

the national exchequer since they are basing their earnings on the utilization of their services by the citizens of India.

### Our recommendations

6. It is therefore important that any regulatory mechanism being adopted for OTT services should balance the requirements of (a) providing the freedom for innovation, their development and deployment, (b) ensuring a secure society and (c) ensuring adequate monetization of the national assets. Therefore, following are recommended,
  - 6.1. **Classification of internet applications into various categories viz, communication OTT applications, i.e. Voice and Video, Messaging and E-mail and Social Networks and non communication / other OTT applications is essential for balancing the requirements of legal governmental control and freedom of speech and expression.**
  - 6.2. **The OTT players should be asked to register themselves as OSPs, with DoT for provisioning services in India, albeit with certain essential responsibilities and accountability being obligated on them in national and societal interest.**
  - 6.3. **The registration of OTT players should entail certain mandatory conditions, especially for LIM and sharing of revenue with the national exchequer.**

**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.**

### Our Response

**Yes, the growth of OTT impacting the traditional revenue stream of TSPs.**

**No, the increase in data revenues of the TSPs is not sufficient to compensate for this impact.**

1. A scan of the international arena for the effect on the revenues of TSPs due to the OTTs yields similar results across the globe, i.e. the TSPs are losing revenues due to the OTT services. As per Ovum, a London based telecom analysis firm, the growth of OTT services “is being driven by improvements in the availability and speed of broadband networks; the growing sophistication, affordability, and capability of smartphones and computers; and the rise of social media.” From the TSPs perspective, **the increase in Megabyte consumption is not commensurate to the decrease in traditional traffic for voice and messaging.** In a Forbes Magazine article titled “Facebook's Phone Company: WhatsApp Goes to the Next Level With its Voice Calling Service”<sup>1</sup> published on 07 Apr 15, it has been stated that “while mobile data revenues will grow by a compound annual rate of 8% to reach \$586.4 billion globally in 2019, voice will decline by 3% over the same period, to \$472.7 billion. This points’ to the frustrating paradox for carriers: enormous growth but tighter margins”.

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<sup>1</sup> <http://www.forbes.com/sites/parmyolson/2015/04/07/facebook-whatsapp-voice-calling/>

2. **VoIP.** As per the analysis and forecast of Ovum, “Telecom operators will lose \$386 billion between 2012 and 2018 from customers using OTT VoIP solutions such as Skype and Microsoft Lync”. “The use of VoIP will grow increasingly over the next five years to become the underlying technology for delivering voice over telecom infrastructure,” says Emeka Obiodu, principal analyst at Ovum. As per Sandy Shen, a research director for Gartner based in Shanghai, “The impact seen today of OTT VoIP services on the traditional revenue streams of telecoms is just the tip of the iceberg”. Ovum has estimated that “these losses will mostly come from international call revenues, including roaming.” Ovum forecasts show that the consumer OTT VoIP market is thriving, with traffic expected to grow by a CAGR of 20% between 2012 and 2018, and to reach 1.7 trillion minutes in 2018. If the current trajectory is maintained, Ovum expects telcos to lose \$63 billion in voice revenues in 2018 alone as customers use free OTT VoIP solutions. In a Forbes Magazine article titled “Facebook’s Phone Company: WhatsApp Goes to the Next Level With its Voice Calling Service” published on 07 Apr 15, Pamela Clark-Dickson, a telecom analyst at Ovum Research has been quoted that a source close to Facebook told her that ever since WhatsApp introduced voice calling in Feb 2015, 20 million people have been able to test it till 07 Apr 15, the time this article appeared in Forbes.
3. A scan of various sources reveals that Skype has approx 70 mn registered subscribers in India, who on an average have a usage of almost close to 45 mn minutes per day. With nearly 40% of both the voice and video traffic remaining within India, it is not only the international traffic but a sizable domestic traffic too which is migrating to Skype and causing loss of revenues to the TSPs.
4. **Messaging.** As per Ovum’s analysis, the TSPs lost \$32.5 billion in texting fees in 2013 and the figure is projected to reach \$54 billion by 2016. The last year’s acquisition of WhatsApp for \$19 billion by Facebook and Viber by Rakuten for \$900 million is a testimony of the changing times. In a Forbes Magazine article titled “Facebook’s Phone Company: WhatsApp Goes to the Next Level With its Voice Calling Service” published on 07 Apr 15, it is stated that in Feb 2014, WhatsApp had 470 million consumers and had already erased an estimated \$33 billion in SMS revenue for wireless operators. It is further statistics quoted in the article show that “today WhatsApp has more than 700 million people using it at least once a month, sending more than 10 billion messages a day. At its current rate of growth it should pass the 1 billion user mark before the end of 2015”.
5. In a Forbes Magazine article titled “Facebook’s Phone Company: WhatsApp Goes to the Next Level With its Voice Calling Service” published on 07 Apr 15, it is stated that “Cisco predicts mobile data traffic will increase 11-fold from 2013 to 2018. But the average revenue per user (ARPU) for carriers is falling, because the cost of data is getting cheaper. Imagine McDonald’s customers buying 10 times more food, but only ordering french fries”. **Indian TSPs are no exception and are feeling the heat on account of revenues from traditional services.**

**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.**

**Our Response**

**Yes, the OTT players should pay for use of the TSPs network over and above data charges paid by consumers.**

**The pricing model and options, i.e. bandwidth / time / website access based, to be adopted for contractual agreements between the OTT players and the TSPs should be left to arrangements between them.**

**TSPs should be permitted to use price based differentiation of products but not the services.**

1. OTT services and data network usage have a mutualistic relationship. Because the network is available, OTT services are accessible and vice versa. However, OTT services have the disruptive ability of separating the network and its services which results in encroaching of the traditional revenue streams of the TSPs without adequate compensation.
2. TSPs, in India, provide telecom services under a license from the government of India and are therefore bound by the license conditions as well as share a portion of their revenue with the government. **They invest substantially for building their respective network and subsequently for acquiring customers, by way of various sales and KYC activities for each customer.**
3. In contrast, the OTT service providers acquire customers of not only a single TSP but multiple TSPs that too at negligible / zero cost. Also, as compared to TSPs investments for building their networks, OTT service providers build their setup in clouds / hire the hardware required to provision services. Since the business model for OTT service providers is based on earning from the advertisements / authentication services, they are able to provision their services, to the customers of the TSPs at zero cost. Any attempt, by the TSPs, to block / throttle / prioritize traffic on their network would be akin to restricting freedom of speech and content. The TSPs have been reduced to only a facility (pipe) provider similar to a transmission company. **This being similar to the DTH services, wherein DTH service providers are facilitating multiple channels on their platform and enter into commercial agreements mutually, TSPs too should have the freedom of commercial negotiation with OTTs who are utilizing the TSPs' bandwidth for delivery of its services.**
4. The launching of communication services, by the OTT service providers, has brought them in direct competition with the TSPs. Given the fact that the data services are priced differently from classical voice and messaging services, especially for overseas communication services, the TSPs are at a disadvantage vis-à-vis the OTT communication service providers. Provisioning of communication services by the OTT service providers is actually like infringing on the revenue stream of the TSP that too while utilizing the network

of the TSP itself. Since, both the TSPs as well as the OTT service providers are business entities, **permitting the TSPs to enter into a commercial contract with the OTT service providers should be construed as normal / routine business dealing and should be left to mutual commercial arrangements between them.**

5. All TSPs provision similar service viz, voice and SMS. However, these are majorly differentiated by the TSPs on the basis of product pricing. The differentiation on the basis of coverage / perceived QoS is done by the consumer himself. For OTT services, differentiating on the basis of QoS through means such a blocking / Throttling / Prioritizing would create an unfair environment for the startups vis-à-vis the established players. Hence, in our view **net neutrality needs to be maintained for OTT services** and no technical differentiation on the basis of QoS should be allowed by both the TSP as well as the OTT service provider. However, **TSPs should be permitted to have the flexibility of product differentiation, as a business model, on the basis of pricing and the pricing model and options, i.e. bandwidth / time / website access based, to be adopted for commercial agreements between the OTT players and the TSPs should be left to mutual commercial arrangements between them.**
6. It is brought out that product like Internet.Org launched by RCom is an example of data product which is differentiated from its competition peers in terms of value add of providing free (pricing) access to 38 websites over RCom's network. **It is clarified that at no point, the traffic on the RCom network is being prioritized for the websites that are allowed free access under Internet.Org or other traffic, i.e websites not part of internet.org, being blocked / throttled.** In fact, such schemes incentivize the proliferation of internet without violating net neutrality principle. Further, the collaboration between RCom and FaceBook is a purely business product proposition and hence should be treated as normal commercial agreement between two the business entities. **Such products are purely a price based product differentiation from the competition and should be construed as a normal product offering business strategy from the TSP.**

### **Our Recommendations**

7. In view of the foregoing, it is recommended that the,
  - 7.1. **Similar to the mutual commercial agreements between the DTH infrastructure providers and content providers, TSPs too should have the freedom of commercial negotiation with OTTs who are utilizing the TSPs' network and bandwidth for delivery of its services.**
  - 7.2. **TSPs should be permitted to have the flexibility of product differentiation, as a business model, on the basis of pricing and the pricing model and options, i.e. bandwidth / time / website access based, to be adopted for the commercial agreement between the TSP and the OTT service provider and the same should be left to the mutual arrangement between them.**
  - 7.3. **TSPs should be permitted to use price based differentiation of products but not the services.**

**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.**

### **Our Response**

**Yes, we agree that imbalances exist in the regulatory environment in the operation of OTT players.**

1. Authority has rightly stated that TSPs have various licencing obligations viz. LF, SUC, Security, Roll out, BG, FBG etc on the other hand no such licencing / regulatory obligations exists for OTT service providers. The nuances of telecom services regulatory frame work of India are presently tailor made for the traditional telecom services provisioning and are felt to be inadequate for these OTT services. Accordingly, **the telecom regulatory regime too has to realign itself for concentrating on both the network provider as well as the content and application provider. Some additional issues, apart from those listed in the CP, which would require regulatory intervention, are listed in the following paragraphs.**

1.1. **Institutionalizing Content Regulation.** The TSPs, like the DTH operators, provide the platform for making content available to the consumers. They are transparent to the process of content access and delivery between the OTT service provider and the consumer. They act as a facilitator for the consumer as well as the OTT service providers, facilitating their interaction. Consequently, the TSPs are not in a position to regulate the content available on the internet however, exceptions can be for obscene material threatening the cultural fabric and security of the country that too on explicit instructions from governmental sources / the regulator. **Just like the censor board, the Authority would be required to be empowered for legal but necessary regulation of the internet content which is inimical to the social fabric and national security.**

1.2. **Arbitration.** QoS for data services is dependent on multiple factors. At a macro level these are the servers of the OTT service providers, their SAN, peering redundancies and capacities; TSPs network loading and coverage; Users' handset type, his position vis-à-vis the BTS, etc. Therefore, with the de-layering of the telecom network, **regulators shall have to clearly define the areas of responsibility and methodology for monitoring of the QoS of the services so as to ensure foolproof investigations and decisive judgments into allegations of deficiency of services.**

1.3. **Customer Service.** Since the customer is acquired by the TSPs, the TSPs are liable to provide a mechanism for redressal of customer grievances as well as facilitating service modification, etc. **OTT service providers too shall have to be obligated for deploying a customer service help desk for attending to such requirements of the customers, especially if the service is a paid service, e.g. Office 365 provided by Microsoft is a paid service but has no regulatory obligations for firstly providing the**

customer services helpdesk as well as adhering to the QoS of requirements of customer Services helpdesk.

1.4. **Plagiarism and Content Piracy.** OTT services essentially enable delivery of content, be it a text message, a picture or a video. **The regulators shall have to formulate suitable regulations for proprietary ownership of the content.**

1.5. **Auto Updating of Applications.** Data services being paid services for the users, the user needs to be in control of the data usage over his phone. Almost all the applications that are available on our mobile devices are updated through the push model wherein the application(s) automatically access their host server, at regular periodicity, for updating themselves in auto modes. This leads to data channel usage without the consumer's knowledge and permission. Therefore, **adequate regulations for soliciting user's permission for usage of his data channel shall have be promulgated.**

1.6. **Net Neutrality.**

1.6.1. OTT services being network agnostic, the tendency of certain operators trying to block / throttle / prioritize them in order to protect their revenues can be a real possibility. With international as well as the national community rooting vociferously for net-neutrality, the Authority shall have to do the balancing act to ensure that the network operators are not deprived of their flexibility of doing business while protecting the interest of the consumers.

1.6.2. Also, an OTT service provider can have different Class of services like managed and unmanaged voice calls with marked QoS differentiation and can accordingly price them differentially. Some other examples of the same are (a) LinkedIn providing preferential service for the customers who pay for its services, (b) Yahoo providing advertisement free mailing services for a payment. Since this kind of service differentiation would be initiated from the source itself, **due precaution needs to be taken by the regulator for ensuring that even the OTT service provider is obligated to comply with the net-neutrality principles.**

1.7. **Subscriber Verification / Authentication Services.** OTT service providers like Facebook, Google, Twitter, etc are providing services for verification of subscribers for various e-commerce websites. E.g one of the options for authorization of the customer on Flipkart.com is by logging into his / her account with his / her Facebook account. The OTT service providers, firstly, are verifying a customer purely on the basis of the information with which the customer has opened his / her account on the OTT website and secondly, the OTT service provider has no responsibility in case of any fraud that might occur at the e-commerce website due to this authentication service. **This being a security related issue, it is imperative that it be regulated suitably.**

2. **Framework to address these issues and ensure compliance to prevailing laws and regulations by OTT players.** Introduction of data network based telecom (OTT) services have not only made telecom services network agnostic and global in their footprint but have

facilitated their direct access to the consumer rendering the underlying licensed networks as just a conduit for this connectivity. Therefore, as proposed earlier in our response to question no. 2, **the OTT service providers should be mandated to register as an OSP with DoT for provisioning services in India, subject to certain obligatory conditions, especially for LIM and sharing of revenue with the national exchequer.**

3. Since, India is the predominant market which contributes most to their respective valuations and earnings, OTT service players should be mandated to host their services within India once their subscriber base increases beyond 2 mn. This is important to,
  - 3.1. Reduce latency issues and ensure QoS of their services.
  - 3.2. Ensure that the national exchequer gets its due from the earnings sourced from the Indian market.
  - 3.3. Ensure that anti-national elements are not able to misuse their services.
4. In a scenario where the OTT services are subscribed less than 2 mn, the OTT services player should be mandated to have a customer service and LEA offices established in India.
5. **Impact on the economy.** It is envisaged that the financial impact of hosting services within India shall be marginal on the OTT services provider; however, it shall have no adverse impact on either the local economy or the earnings of the OTT service provider itself.
6. The payoffs, and requirements for encouraging local hosting in India have already been adequately elaborated in our response to the earlier CP on “Delivering Broadband Quickly: What do we need to do?” submitted in Oct 2014.

#### **Our Recommendations**

7. In view of the foregoing, following are recommended,
  - 7.1. **Telecom regulatory regime of India is required to be realigned to the current dynamics of OTT services being separate and agnostic of the underlying network(s).**
  - 7.2. **The Authority would be required to be empowered for legal but necessary regulation of the internet content which is inimical to the social fabric and national security.**
  - 7.3. **Local hosting of OTT services infrastructure should be mandated once their Indian subscriber base crosses the 2 mn subscriptions.**
  - 7.4. **For a subscriber base of less than 2 mn, the OTT services player should be mandated to have a customer service and LEA offices established in India.**

**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.**

**&**

**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.**

### **Our Response**

**Security concerns as well as their compliance, with regard to OTT players providing communication services, can be addressed by mandating (a) registration of the OTT service providers as an OSP, (b) institutionalizing internet content regulation, (c) local hosting of their infrastructure and (d) their peering with the local TSPs..**

**As part of the registration conditions, the OTT players offering app services should be mandated to maintaining data records, logs etc. and ensure security, safety and privacy of the consumer data as it is being done for the current communication services.**

1. With the possibility of OTT service providing servers being hosted anywhere in the globe, exercising control over their activities shall be a challenge for the Authority. Given the fact that India offers a promising market for these services and it has emerged as the largest subscriber base for some of the world's most popular OTT services, it is imperative that national interests, especially for security, be considered paramount and local registration and hosting of the services infrastructure of OTT service providers be mandated. Also, the **OTT service providers should be mandated for peering with the local TSPs, irrespective of the place of their infrastructure hosting.**
2. Regulations / compliance requirements, as identified in the CP itself, and additional required for the issues listed in our response to question 2, should be obligated on the OTT service providers, especially, communications services providers.
3. **Regulatory compliance for services hosted outside India.** If the applications of the OTT services provider reside outside the country, then it is suggested that,
  - 3.1. India should get into bilateral agreements with the services hosting country for ensuring compliance to important regulatory conditions.
  - 3.2. India should work out suitable charters, for exchange and free flow of information and taxes, in international trade forums like WTO.

### **Our Recommendations**

4. In view of the foregoing, following are recommended,
  - 4.1. **Security concerns, maintaining data records, logs etc. and ensuring security, safety and privacy of the consumer data as well as their compliance can be**

addressed by mandating (a) OSP registration of OTT service providers, (b) institutionalizing internet content regulation, (c) local hosting of their infrastructure and (d) mandating their peering with the local TSPs.

- 4.2. India should get into bilateral agreements with the services hosting country as well as work out suitable charters, at international forums like WTO, etc, for exchange and free flow of information and taxes and for ensuring compliance to important regulatory conditions.

**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.**

**Our Response**

**We only support proposal (c) of ETNO and proposals (a) and (c) of the best practices summarised in para 4.29, for a regulatory framework for OTTs. Balance of the proposals go against the principles of net neutrality.**

1. Our specific response to each of the proposal, for a regulatory framework for OTTs, put forth by ETNO are as given in the table below.

Ser No	ETNO Proposals	RCom's View
a	Sending networks, such as content providers, OTT services and other application providers, must be required to pay "fair compensation for carried traffic" to interconnect with network operators (the "sending party network pays," or SPNP principle)	1. Internet comprises of humungous amount of services providers based across multiple geographies across the globe. 2. Compulsory execution and enforcement of contracts with each and every one of the service provider is not a pragmatic solution and have the potential to lead to situations wherein net neutrality would be required to be compromised. 3. Therefore, contractual agreements between the OTT players and the TSPs should be left to mutual arrangements between them.
b	New interconnection models should be allowed providing for end-to end Quality of Service (QoS) delivery for sending parties willing to pay a premium	This interconnection model is in direct conflict with the Net Neutrality principles and hence we do not support it.
c	Governments should allow these interconnection and carriage arrangements to be negotiated between network operators and information services without regulatory interference (Article 19, 2012).	Yes we agree that any pricing model and options, i.e. interconnection / bandwidth / time / website access based, to be adopted for contractual agreements between the OTT players and the TSPs should be left to mutual arrangements between them.

2. Our specific response to each of the proposal, for a regulatory framework for OTTs, listed as the best practices and summarised in para 4.29 are as given in the table below.

Ser No	Best Practices Listed in the CP	RCom's View
a	Separate regulatory practices for communication services and non – communication services. (e.g., Germany, France.)	1.We are in agreement that the OTT services should be categorised as communication services (Voice & Video, Messaging & E-mailing and Social networks & E-commerce) and non - communication services or as 'Internet for Information' and 'Internet for Messaging / Calling'. 2. In the interest of public good, maintenance of national social fabric and national security, the government should balance the requirement of exercising control over the OTT service providers and the freedom of speech of the citizens.
b	Use of price discrimination on traffic to ensure development of broadband infrastructure. (e.g. United Kingdom. Korea)	We are of the opinion that subscribing to such a practice of permitting price discrimination on traffic would be a direct violation of the Net Neutrality principles and hence we do not support it.
c	Use of a FRAND approach in dealing with regulatory issues concerning OTT players. (e.g. Korea, ETNO).	Though FRAND [Fair (Anti-trust / Competition law), Reasonable (Rates), and Non-Discriminatory (To both the terms and the rates included in licensing agreements)] approach is applicable for licensing requirements for device manufacturers, however, the principles can be applied while registering the OTT service providers as OSPs.

3. **Practices that should be proscribed by regulatory fiat.** The transformation of telecom services has been possible due to the fact that the OTT service providers worked in an environment free of any restrictions on their services, in the form of licenses / regulatory fiats. Therefore, all endeavours should be made to ensure continuity of the unrestricted environment and hence adoption of net neutrality, **i.e. proscription of any kind of blocking / throttling / prioritization of traffic on a TSPs network, as a policy for OTT services, is a must and should be enforced.**

**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.**

**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.**

**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?**

**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.**

### **Our Response**

**We support adherence of Net-neutrality principle by both the TSPs as well as the OTT service providers, i.e. the entire data network and services eco-system.**

**The existing fair usage policy of reduction of access speed beyond a certain data usage, congestion management, traffic restrictions imposed by the Government / LEA agencies and prioritization of emergency communications are considered reasonable and consistent with a pragmatic approach and should be the only form of discrimination or traffic management practices that is permitted.**

**Yes, the TSPs should be mandated to publish various traffic management techniques used for different OTT applications to ensure transparency and a fair regulatory regime.**

**Yes, permitting differential pricing for data access and OTT communication services, as a business strategy is justified as it does not impact the principles of net-neutrality and is distinct from it.**

- 1. OTT services are an epitome of services that are being provided through cloud computing. The services are truly device and location agnostic, are scalable, are available across international boundaries and have had the disruptive effect of separating network and services, especially telecom and mass communication services. Migration of voice networks to data networks was predicted much earlier, but it is the OTT services that have actually put the same on a fast track. One of the most important reasons for the mushrooming and evolution of innovative OTT services can be attributed to non-interference of the TSPs with the QoS requirements of these OTT services. Indians are at the forefront of a number of startup initiatives and it is felt that imposition of restrictions on the network access for these startups shall be detrimental to the overall innovation initiatives and economic scenario of the country. Therefore, **in the best interest of the society, innovation and the economy, it is felt that adopting net-neutrality is essential as well as adherence to the principles listed at para 5.47 of the CP is crucial for compliance to net-neutrality.****

2. **Services and Product Differentiation.** From the CP (chapter 5) it is appears that the principle of net neutrality addresses the requirement of ensuring **“No QoS differentiation, over the network, for the services irrespective of the OTT service”**. However, from the CP (Paras 6.1 and 6.22) it is also appears that the so called ‘zero-rating’ based product innovations of the TSPs (like RCom’s Internet.Org) too have been construed as being a violation of the net neutrality principle. It is brought out that the objective of a service like internet.org is to enable non-internet users to come online and understand what the internet is about , thereby bridging the digital divide, while ensuring that the same set of services are available to all customers of the TSP in a non-discriminatory manner. Internet.Org, launched by RCom is purely a product for the users. Just as OTT service providers earn substantial revenues from alternate sources such as advertising / authentication services and create their product differentiation, from their competitors, by providing their services free of cost to the subscribers, similarly, TSPs too need to have the flexibility of product differentiation on account of being able to provide their services at the best terms for their subscriber, even at nil charges. Further, **it is clarified that at no point, the traffic on the RCom network is being prioritized for the websites that are allowed free access under Internet.Org and that all traffic is being handled in on a totally non-discriminatory basis.**
  
3. **Chile Net Neutrality Circular No. 40.** Chile banning zero rated apps has been quoted in the recent media hype generated due to this CP. The media hype has been quoting SUBTEL order, titled Circular No. 40, which they claim prohibited commercial offers that would waive data charges when using particular social media sites and applications. The head of SUBTEL, Undersecretary Huichalaf, in a conversation<sup>2</sup> with Wikimedia has clarified that *“he sees a clear difference between initiatives like Wikipedia Zero and the practices prohibited under Circular No. 40. He said that much of the media coverage had misrepresented the issues at stake. He also stressed that the order, which is not a law or a regulation, **was intended to ban the specific practice of bundling zero-rated social media access with voice and data plans offered at that time (early April 2014) by local operators, and was not meant to be generalized or applied to other cases.**”* From this statement it is amply clear that the Chilean telecom regulator has only prohibited bundling of zero rated social media access with voice and data plans. However, zero rated products offered by telecom operators in Chile are legally permitted.
  
4. **Definition of ‘Net-Neutrality’.**
  - 4.1. IP was designed for provisioning services on best effort basis, i.e. it is conservative on send and best effort on receive. Though the entire non differentiated traffic is handled on the best effort basis, however, there can be instances wherein the TSPs are required to intervene with some form of traffic differentiation for network management and optimization which should be permitted.
  
  - 4.2. Products pricing of TSPs’ services, without the incentives for blocking / throttling / prioritizing the traffic, are part of valid business practices of a free market, and cannot be construed to be part of network functioning. Therefore, **‘Net Neutrality’ should**

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<sup>2</sup> <http://blog.wikimedia.org/2014/09/22/chilean-regulator-welcomes-wikipedia-zero/>

**construe that all data traffic over the data network and services eco-system should be treated equally. All stakeholders in the data network and services eco-system should not be permitted to block / throttle / prioritize any data traffic.** Only exceptions to this rule, enforcement of which is not the TSPs discretion but mandated for implementation, should be as given below.

4.2.1. The existing fair usage policy of reduction of access speed beyond a certain data usage.

4.2.2. Congestion management for,

4.2.2.1. Ensuring that the application latency is maintained within permissible limits at all times.

4.2.2.2. Controlling any sabotage of the network through any kind of malpractice, such as flooding, DDOS attack, Malware, etc, which affects services for a large number of customers.

4.2.3. Lawful restrictions directed to be imposed by the Government / LEA agencies.

4.2.4. Prioritization for communications for emergency and disaster management services.

## 5. **Product Differentiation as a Business Strategy.**

5.1. **Competitive Pricing.** In the Indian context, where the mobile penetration is low, operators will apply different product strategies to drive internet penetration. Operators should continue to have this flexibility. Some of these strategies may include driving a certain portfolio of services at a discounted price than normal as is prevalent for voice services in the form of Special tariff Vouchers (STVs). It is important to note the difference, between driving some services at discount to normal vs charging some services at premium to normal. RCom is not in favor of the latter. **Such products are purely a price based product differentiation from the competition and should be construed as a normal product offering business strategy from the TSP.** Also, if the business model of the data network based communication / mass media services business entity's is for providing services free of cost to the consumers then in all fairness there should be no discrimination against the TSPs who too want to have a service product wherein they give their data services free of cost to the consumers.

5.2. **Toll Free Services.** It is brought out that products wherein the websites pay for customer's usage are similar and equated to the toll free voice services / voice based products like free calling during night time / special packs for ISD or STD calls that various business entities / consumers subscribe to from the TSPs. **If the regulation permits business entities to have a toll free service available for voice then it is submitted that in all fairness there should be no discrimination against the data network based business entities as well.**

### 5.3. Time of Day, Access Speed and Data Volume packs as per Consumer's Choice.

Purchase of the type of data pack is an entirely consumer choice and the same should be ensured at all times. Depending on the utilization pattern of the consumer, the consumer themselves make the choice as to what data throughput speeds he / she desires on his access device and the same is decided by him / her through the kind of data pack he / she purchases. For example<sup>3</sup> Swisscom which is the dominant carrier in the Switzerland, recently launched data throughput speed based tariff plans wherein five different download speeds, from 200 kilobytes per second to 100 megabytes per second are available to the consumers. As per Forrester's analyst Bieler, Speed-based pricing will become much more widespread in the years to come. Therefore, it is submitted that **the differential pricing of data packs on account of the speed of access, data volumes, time of day and other criteria basis Customer discretion and preferences that the TSPs offer should be considered as a business strategy for promoting their business.**

## 6. Uniform Tariffs Verses Paying for Consumer Preferred Usage Only.

6.1. The consumers today are burdened with a lot of frivolous choices, be it the pre-loaded apps in their handsets or the content available on the internet. The recent media and social network campaign has been clamoring for uniform payment for net access. It is brought out that in case all content on the network is charged uniformly, at say a base rate and no data packs are made available in the market, then the customer would end up paying much more for the selected set of service that he / she wishes to use the most. Forrester's analyst Bieler has cautioned that "The problem with simple flat rates is that they open the door to OTT providers and data free riders, where a small percentage of users consume an over proportional percentage of data traffic<sup>4</sup>." On the other hand, one of the best business practices prevalent today is that of making the consumer pay for his preferred usage only and the website bundled tariff plans provide the best value for money as the consumer has the choice of what he wishes to spend more on and hence pays for what he uses the most instead of getting bogged down with unnecessary and unwanted data usage and uniform charges. **The OTT and URL based tariff plans afford the flexibility of making the consumer paying for his preferred usage only and hence are to the consumer's advantage.**

6.2. **VoIP OTT Services compete with traditional paid voice.** OTT services providing VoIP services have a very high risk to voice revenues which are 80% of TSP's revenue and for which the TSP has spent millions of dollars in infrastructure cost. TSPs should have flexibility to charge OTT services separately outside of the data plans. As an example, TSP should have flexibility to exclude VoIP calls from the standard data plans and offer special plans meant only for VoIP.

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<sup>3</sup>[http://blogs.forrester.com/dan\\_bieler/12-12-04-speed\\_based\\_pricing\\_points\\_the\\_way\\_for\\_carriers\\_to\\_respond\\_to\\_ott\\_attacks\\_on\\_communication\\_services](http://blogs.forrester.com/dan_bieler/12-12-04-speed_based_pricing_points_the_way_for_carriers_to_respond_to_ott_attacks_on_communication_services)

<sup>4</sup><http://fortune.com/2014/06/23/telecom-companies-count-386-billion-in-lost-revenue-to-skype-whatsapp-others/>

7. **TSPs not a Censor Board.** It is brought out that the consumers today have the freedom to choose what content they would like to see and that the TSPs have no right to act as the censor board trying to curtail / restrict the freedom of the consumer. Accordingly, mandating net neutrality for ubiquitous availability of content over the internet is a must. Moreover, **imposition of any restriction on the content over the internet is the purview of the government and the TSPs should not be made responsible for the same.**
8. **Customer Choice shaping.** It is a well known fact that the business model of most of the web based search applications, be it for knowledge, jobs or even matrimony, is to provide preferential search outcomes for a price. Even the user devices are preloaded with apps that the consumer hardly utilizes / or for which the handset manufacturer has interests, e.g. Skype is preloaded in all Windows OS based devices whereas most of the Google applications are preloaded in Android OS based handsets. Such practices tend to aid shaping of consumer choices and should be curbed. However, as far as apps are concerned, history has shown that unless an app is as per the liking of the masses, how much so ever the consumer is enticed by the app provider / the TSP, the consumer opts for utilizing the better app. Successful adoption of Facebook when Orkut was already well established in the market and the success of WhatsApp over multiple other messaging options (especially JOYN, a default communication eco-system developed collectively by a consortium of operators) being available, over the internet, bear testimony to this fact. Hence, **the contention that discounting / free availability of certain apps shall diminish the chances of other similar but newer apps to succeed is unfounded.**
9. **Premium Services.** In our response to question no 5 (para 2.5), it has been brought out that net neutrality is no more limited to the network alone. It is the OTT service provider itself, who can resort to provisioning preferential / differential services for the same type of service. Examples of the same are (a) LinkedIn providing preferential service for the customers who pay for its services, (b) Yahoo providing advertisement / spam free mailing services for a payment. Therefore, it is once again reiterated that **the principles of net neutrality should be applicable to the OTT service providers as well.**
10. **Permissible Traffic Management Practices.** Apart from the network elements, QoS for data traffic is also dependent on multiple factors like the server computing capability, its LAN port through put capacity and even the end user device and usage patterns. Since the applications are developed with a certain requirement of latency that they can withstand for ensuring quality of service, prescribing differential traffic management through manual intervention could potentially lead to a chaotic situation on the network. Therefore, once net neutrality as a norm is promulgated, in the interest of the QoS and user experience, **the only forms of discrimination or traffic management practices that are reasonable and consistent with a pragmatic approach and that should be permitted are,**
  - 10.1. **The existing fair usage policy of reduction of access speed beyond a certain data usage.**

**10.2. Congestion management for,**

**10.2.1. Ensuring that the application latency is maintained within permissible limits at all times.**

**10.2.2. Controlling any sabotage of the network through any kind of malpractice, such as flooding, etc, which affects services for a large number of customers.**

**10.3. Lawful restrictions directed to be imposed by the Government / LEA agencies.**

**10.4. Prioritization for communications for emergency and disaster management services.**

**11. Transparency Assurance.** Promulgation and enforcement of net neutrality principles shall ensure that all OTTs are able to utilize the network as per their application's inherent QoS requirements as per their type of service. Any violation of these principles shall lead to customer dissatisfaction with the services of that operator. Hence, TSPs and OTT service providers should be mandated,

**11.1. To self certify that their services are not biased for any particular service in the cyber space and that all OTT services over their network are treated as per their inherent QoS requirement.**

**11.2. To publish traffic management techniques, as listed at para 10 above, used for different OTT applications to ensure transparency and a fair regulatory regime.**

**Our Recommendations**

12. In view of the foregoing,

**12.1. 'Net Neutrality' should construe that all data traffic over the data network and services eco-system should be treated equally. All stakeholders in the data network and services eco-system should not be permitted to block / throttle / prioritize any data traffic.**

**12.2. Net neutrality should be advocated and enforced over the entire ecosystem for internet services within India and all endeavours should be made for ensuring its compliance across the globe.**

**12.3. Price based product differentiation is important for inducing competition and should be construed as a normal product offering business strategy from the TSP.**

**12.4. In all fairness there should be a level playing field for the TSPs and OTT services providers for provisioning cost free services as a legitimate business model.**

**12.5. The regulation for permitting business entities to have a toll free service should be applied ubiquitously across the entire communication eco-system.**

**12.6. The current practice of differential pricing of data packs on account of the speed of access, data volumes, time of day and other criteria basis Customer**

- discretion and preferences should be considered as a valid business strategy for promoting business and should be persisted with.
- 12.7. The OTT based tariff plans that afford the flexibility of making the consumer pay for his preferred usage only are advantageous to the consumers and should be continued with.
  - 12.8. Imposition of any restriction on the content over the internet is the purview of the government and the TSPs should not be made responsible for the same.
  - 12.9. The contention that discounting / free availability of certain apps shall diminish the chances of other similar but newer apps to succeed is unfounded.
  - 12.10. The existing fair usage policy of reduction of access speed beyond a certain data usage, congestion management, traffic restrictions imposed by the Government / LEA agencies and prioritization of emergency communications are considered reasonable and consistent with a pragmatic approach and should be the only form of discrimination or traffic management practices that are permitted.
  - 12.11. TSPs and OTT service providers should be mandated to self certify that their services are not biased for any particular service in the cyber space and that all OTT services, over their network / originating from their servers, are treated as per their inherent QoS requirement.
  - 12.12. TSPs can be mandated to publish traffic management techniques which are mandated by Government / LEA authorities / as required for ensuring unequivocal and equal QoS on their networks for different OTT applications to ensure transparency and a fair regulatory regime.

**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.**

#### **Our Response**

Conducive and balanced environment can be created such that TSPs are able to invest in network infrastructure and CAPs are able to innovate and grow by ensuring that any contractual agreements between the OTT services providers and the TSPs is left to mutual agreements between them without compromising Net Neutrality principles.

CAPs can be asked to bear the network upgradation costs; if not directly with the TSPs, they can be asked to contribute to the USOF for the same.

**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.**

### **Our Response**

**No, TSPs should not be allowed to implement non-price based discrimination of services.**

1. As brought out at para 1 of our response to question nos. 9, 10 and 11, OTT services have transformed the communication landscape through their imaginative innovations. These innovative initiatives were possible only due to the freedom the innovators enjoyed while developing these applications. They were free of encumbrances of any licensing regime and hence were able to conceive, develop and deploy their services. The mass scale adoption of these services is indicative of their ability to meet the communication aspirations of the current generation. Therefore, it is imperative that the unrestricted environment be persisted with for ensuring continued innovation through OTT services and the **TSPs should not be allowed to implement non-price based discrimination of services.**
2. The only circumstances under which TSPs should be allowed to implement non-price based discrimination of services are the ones listed at para 3 of our response to question nos. 9, 10 and 11. The same are reproduced below,
  - 2.1. The existing fair usage policy of reduction of access speed beyond a certain data usage.
  - 2.2. Congestion management for ensuring that the application latency is maintained within permissible limits at all times.
  - 2.3. Lawful restrictions directed to be imposed by the Government / LEA agencies.
  - 2.4. Prioritization for communications for emergency and disaster management services.
3. **The existing regulatory restrictions and legal requirements are considered adequate for negating the misuse of these measures.** Additionally, TSPs and OTT service providers should be mandated to self certify that their services are not biased for any particular service in the cyber space and that all OTT services, over their network / originating from their servers, are treated as per their inherent QoS requirement.

### **Our Recommendations**

4. In view of the foregoing, following are recommended,
  - 4.1. **TSPs should not be allowed to implement non-price based discrimination of services.**
  - 4.2. **The only circumstances under which TSPs should be allowed to implement non-price based discrimination of services are the ones listed at para 4 of our response to question nos. 9, 10, 11 and 14.**
  - 4.3. **The existing regulatory restrictions and legal requirements are considered adequate for negating the misuse of these measures.**

**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.**

**Our Response**

**No, OTT communication service players should not be treated as Bulk User of Telecom Services (BuTS).**

1. OTT services have gained traction only and only due to the fact that an individual was free to develop and deploy the application without any undue burden of any access fee type charges. The access to these applications is dependent totally on its mass appeal value as it is the customers who pulls the services from his end if and only if he / she finds it useful.
2. The OTT services providers are indeed coming up with multiple solutions in collaboration with the TSPs for providing services in the existing net neutral environment. It is perceived that any change of the net neutral environment shall throttle the mushrooming of imaginative ideas and hence, innovations.
3. A new OTT service provider would be at a disadvantage if he is made to pay for bulk services without having a substantial subscriber base. Also, when an OTT service provider does not pay the TSP for the bulk usage, enforcement of commercial dispute resolution, as is being done for say PoI, shall necessitate blocking / throttling of the said OTT services by the TSP. **Such a measure shall be in contravention to the net neutrality policy and would be detrimental to the welfare and well being of the society at large.**

**Our Recommendations**

4. In the best interest of the society and to encourage imaginative thinking and development of innovative applications it is recommended that,
  - 4.1. **Classifying OTT services as BuTS shall negate the advantage of a net neutral environment and shall be an inhibitor for innovations.,**
  - 4.2. **OTT communication service players should not be treated as Bulk User of Telecom Services (BuTS).**

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

**Our Response**

1. Measures as given below are suggested to be adopted for encouraging India specific OTT apps.
  - 1.1. **Promulgating and Enforcing Net Neutrality.** OTT services have been adopted due to the value add they could uniformly offer for the consumers at the cost of the customer's regular data plan. As has been emphasized earlier in our response to various question of the CP, for innovation to blossom, it is imperative that the service provisioning environment is equated for the startups as well as the established players, i.e. net neutrality as a policy is at the core of ensuring creation of innovative OTT services.

- 1.2. **Local Vernacular based Content.** The current dispensation of India has embarked on an ambitious program called 'Digital India' which shall aid in popularizing data services. It is but natural that once people start getting used to the convenience of getting services at their finger tips, they would be wanting more and more of data services, similar to the ones available in English language, in their colloquial vernacular. Therefore, concerted efforts should be made and due encouragement, in terms of financial aid, etc, should be provided to promising OTT applications development initiatives in the country.
- 1.3. **Classifying startups as SMEs.** In order to provide a fillip to the startup initiatives of students / small entrepreneurs, it is suggested that the government should classify them as SMEs to enable availability of various concessions and ease of financing.
- 1.4. **Creation of Centers of Excellence (CoE) in universities as a PPP initiative.** Most of the innovative app development work is undertaken by the fertile minds of the students studying in universities and various other institutions. Accordingly, it is suggested that the government can consider creation of Centers of Excellence (CoE) in universities in a PPP model with the private industry for encouraging app developmental work.
- 1.5. Some other measures suggested are as follows,
  - 1.5.1. **Reduced Customs duty on hardware (server) imports.**
  - 1.5.2. **Local and indigenous CPE manufacturing.**
  - 1.5.3. **Initial tax breaks for India specific OTT service providers.**
  - 1.5.4. **Provisioning of subsidized power for the initial incubation and nascent stage of the OTT services.**

### Our Recommendations

2. It is recommended that for encouraging development and deployment of India specific OTT apps, the government is suggested to **(a) promulgate and enforce net neutrality, (b) provide special incentives for developing apps in local vernacular, (c) classify startups as SMEs, (d) create of Centers of Excellence (CoE) in universities as a PPP initiative, (e) reduce customs duty on hardware (server) imports, (f) encourage local and indigenous CPE manufacturing, (g) provide initial tax breaks for India specific OTT service providers and (h) provision subsidized power for the initial incubation and nascent stage of the OTT services.**

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

### Our Response

**No, there is no need to regulate subscription charges for OTT communication services.**

1. The basic business model for OTT services is based on earnings from advertisement services for which they need to acquire as large a customer base as possible. As it is, in majority of the occasions except for non-SIM devices, an OTT services customer has to first

become a customer of the TSPs to be able to access the OTT services. Therefore, the OTT services customer already has access to basic communication services and a large section of them would be disinclined to subscribe to similar services for additional payment. Hence, **if the OTT service providers start charging their customers for the access to their basic services, in all probability they would not be able to boast of the mammoth subscriber base they are able to now, when they are providing the access to their services free of cost.**

2. Presently the voice services tariffs are under forbearance for the telcos, hence there seems no reason to regulate the same for OTT services. Assuming that the communication OTT service providers do start charging their customers for their services, they would need to better the tariff structure of existing classical communication services for making their services more lucrative than the existing telecom services, i.e. **they are indirectly being regulated already.**
3. As regards the charges levied by certain OTT service providers for preferential services, e.g spam and advertisement free mailing services, since majority of the consumers are availing services free of charge and have not opted for paid services, it is recommended that there is no need to regulate their prices as well.
4. Therefore, it is felt that **presently, there is no need to regulate the subscription charges for OTT communication services.** However, in case the scene reverse tomorrow and OTT communication services providers start exploiting their dominant positions and they do start charging their customers, then the Authority may decide otherwise.

### **Our Recommendations**

5. In view of the foregoing, following are recommended,
  - 5.1. **Presently, there is no need to regulate the subscription charges for OTT communication services as the OTT service providers are either not charging anything from the customers or the subscription of their paid services is quite low.**
  - 5.2. **In case they start charging later, the Authority should review the same at that point of time.**

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

**Non-communication OTT players should be treated as the existing VAS providers and regulations applicable to VAS providers should also be applicable to them.**

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

1. OTT service providers should be liable to pay service taxes on their services.
2. For encouraging local hosting of OTT services, encryption laws of India are required to be revised from the existing restriction of only 40 bit encryption to the current levels of 256 bits or more.