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## Consultation paper on 'Regulatory Framework for Over-the-top (OTT) services' dated 27<sup>th</sup> March 2015

Sistema Shyam TeleServices Limited (SSTL) welcomes the opportunity extended by the TRAI to comment on issues concerning "Regulatory Framework for Over-the-top (OTT) services".

Through this consultation paper SSTL would like to mention that SSTL fully supports net-neutrality in unequivocal terms.

It is evident that the internet is growing at a rapid pace, dramatically transforming the way people work, play and live. This change is not restricted to the developed world, but is increasingly seen in emerging markets and is fueled by the rise of the mobile internet. With growing availability of robust networks, increased competition, the internet is now available to a large proportion of people.

The internet has brought significant benefits to consumers and citizens by making much more social, global and participative environment. The nature of communications and content services has also changed. We have seen a growth in the importance of search and in social networking, an explosion in user-generated content and the development of new kinds of content services, both managed by Service Providers (SPs) and delivered over-the-top (OTT).

The proliferation of IP-based telecommunication networks has facilitated the decoupling of application and network layers and enabled OTT providers to deliver their content and applications directly to end users - circumventing the owner and operator of the underlying ICT infrastructures and reducing their function to be a mere provider of pipe.

The present challenges faced by operators are they are forced by the Licensor to build networks, and making them available for free to application providers that compete with them. The speed with which the internet market has developed has created an imbalance in the regulation of different stakeholders of the ecosystem, particularly concerning the application providers with the OTT communications. The business models of network operators are determined to a large extent by regulatory requirements, whereas those of the internet application providers (and particularly the OTT players) are free of such limitations.

It is pertinent to mention that the OTT service has also led to a well-publicized consumer protection problem as Social Media is playing a significant role in defining social interactions. The users are voluntarily disclosing personal data (photographs, preferences etc) which are then mined to serve targeted advertisements. This presents opportunities for new enterprises but at the same time raises concerns about privacy, ownership of data and longevity of data among others. Moreover OTT players are not mandated to provide emergency services to the users.

Cloud services are often offered by providers which are located in another country. This may raise sovereignty questions. The coordination between the different authorities may also be an issue here.



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OTT players like WhatsApp, Skype, Vonage etc. offer services using telephone numbers which are perfect substitutes of services being offered by TSPs but are not covered under regulatory framework. It is surprising that OTT players are allowed to offer Licensed Services without bringing them under a regulatory framework. Such OTT services have larger ramifications on the security of the nation. With the hosting of services, user information and communications data being stored outside the sovereign boundaries of India and security agencies do not have any powers to get the security related information. In addition it is a level playing issue as OTT operators do not have to bear any regulatory cost for license fee, spectrum usage charges, LI etc. In view of this the OTT players which offer services substitutable to the telecom services should be covered under regulatory framework.

It is pertinent to mention that the regulators are divided on this issue. The views of FCC and EU are not cogent. Whilst FCC believes in complete net neutrality meaning No Blocking, No Throttling and No paid prioritization, European Commission in its grand plan on “Digital Single Market” mentions that Companies that provide over-the-top content — which let people have free voice calls and messages over the internet — are “not subject to the same rules” as traditional telecoms companies.

It is important to understand the drivers of net neutrality and find out whether there is a case for regulation. The common concerns are, fear of internet speed being degraded, if operators set up two sets of highways, a faster one for few companies who are part of the elite list which give them priority, and degraded speed to others. The fear is that new startups companies cannot afford to pay for such prioritization. The other concern is that the traffic is being manipulated and restricted without user's knowledge.

In the present context that few larger sites constitute of major downloading of traffic, net neutrality fails to recognize that consumers who wish to use internet for light use say social networking, will have to subsidize heavy users using higher bandwidth for services such as video.

It is common knowledge that Internet service providers use various techniques to optimize the performance of their network, by compressing the video data so that it takes up less space and cost the consumers less to use, by adjusting the video content so that it take into account the size of the screen and handset being used etc. The net neutrality principles only allow traffic management when there is temporary or exceptional congestion. If operators act as dumb pipe as being expected by OTT providers the quality will go down and the customers will pay more.

The internet is global and innovations can only move with friendly regulatory regimes. FCC regulation prevents discrimination whilst allowing differentiation, this is difficult to interpret and enforce. Interpretation of specialized services like remote health monitoring, IPTV and Carrier grade video conferencing needs guaranteed bit rate to ensure availability and reliability, which is against the principles of net neutrality.

To enable the network operators to function in a competitive manner it is necessary to bring OTT players under regulatory framework. Existing regulatory requirements must be reassessed within the framework of the new market situation to re-establish a level playing field and incentives to invest. To facilitate the development of the communications market in the benefit of the country, the basic rights



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of individuals and society must also be protected by legal and regulatory measures. And a last, but vital, aspect of regulation is that it should provide the market players with business security – they must be able to understand and trust the framework in which they work.

### **Issues for Consultation**

**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.**

We agree that the internet penetration is still evolving, access speeds are generally low and there is limited coverage of high-speed broadband in the country however there is a considerable impact of OTT services on the existing data networks therefore the work for scripting a regulatory framework needs to be started which can further be evolved with periodic amendments. It is also necessary to build the framework with a view to strengthen national security, Data Security/Protection, privacy of customer data, business continuity and protect consumer interest against UCC (Unsolicited Commercial Communications) similar to existing TSPs offering of voice and messaging.

**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.**

Yes. The nuances of telecom services licenses of each country (physical boundaries) contractually enforce strict processes for any telecom service provisioning with punitive penalties on non-compliance. Factually, such processes and norms are non-existent or inadequate for the OTT players though the impact and resultant outcome is similar for the communication services rendered by OTT players as by TSPs. The principle of 'same service same rules' must apply. The TSPs are subjected to various regulations/directions/orders/guidelines such as Quality of Service, Security (LI capabilities), tariff and consumer protection regulations for customer benefit, which are not applicable to OTT players. The OTT players should also be subjected to such regulatory norms on similar lines as of TSPs in terms of the accountability of their services rather than TSPs to be made scapegoats in event of any content or services that infringe on law of the land e.g. to enforce restrictions on inflammatory or communal content on social sites, messaging etc. TSPs are expected to take immediate actions for redressal but none of OTT players seem to have any punitive consequence associated to such non-compliances.

**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.**

Yes, the growth of OTT services has made a considerable impact on the traditional messaging services. With the advent of various OTT voice services, traditional voice services could also see a significant



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decline. The services being offered by the OTT players are increasing which in turn places demand for capacity / infrastructure enhancement. There is an investment involved in catering to such requirements therefore the increase in data revenue is not sufficient to compensate impact of traditional revenue stream along with covering the costs necessary for new investments.

**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.**

Yes, the TSPs acts as infrastructure providers for OTT players, this infrastructure is being used by OTT players to provide services at much lower prices which compete with traditional communication services offered by TSPs. Further, the TSPs have to fulfill the roll out obligations as part of the mandatory requirement stipulated in their License Agreement. However, OTT services/applications are free to ride on TSPs network without bothering for fulfillment of any such obligations.

In view of above TSPs should be fairly compensated for managing and rolling out the infrastructure/ network thereby enabling OTT services/applications to become accessible by masses. The fair compensation will allow OTTs and TSPs to coexist and make a Win-Win situation for both.

The pricing option should be kept under forbearance.

**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.**

Yes, there is an imbalance in the regulatory environment in the operation of OTT players viz a viz TSPs e.g. any new service offered by TSPs undergoes regulatory clearance upon ensuring LI capabilities, before launch, whereas a similar service by OTT players does not have such process to adhere to e.g. video calling on Apple Facetime does not require any clearance/LI and monitoring capability. The issues like national security will be rightly addressed if OTT players are also brought under similar regulatory regime. Moreover TSPs are subjected to payment of license fee, SUC, maintaining QoS, blocking of UCCs, provision of emergency call services, facility for lawful interception & monitoring etc. The establishment of a regulatory framework is must and may be created through a task force with representation from TSPs, OTT Players and various governing bodies.

**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.**

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**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.**

The security should be of paramount concern in the interest of the nation. The principle of same service same rules must apply in addressing the security concerns with regard to OTT players providing communication services. The OTT Players should also be covered and made accountable in line with the security requirement being enforced on TSPs. The OTT players should be mandated to set up localized platform/gateway in India.

It is pertinent to mention that in past, both globally and also India has enforced strict security measures on RIM/Blackberry services offering. The same enforcement should be put into practice to be mandatorily complied by new and existing OTT players.

A few notable measures for enforcing consumer's privacy, security, safety and protection are as below:

- Certification and Clearance of application by Indian certification body
- Lawful interception & monitoring
- Data/Servers presence within same geographical boundaries i.e. in India

**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 summarized in para 4.29? And, what practices should be proscribed by regulatory fiat? Please comment with justifications.**

The principle of 'same service same rules' must be proposed for a regulatory framework for OTTs. The technology has no bounds. Few years back no one could think about OTT. The march of technology can not be stopped. Tomorrow something better would emerge. TRAI will have to look at this from level playing issue.

**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.**

In our view, Net Neutrality should be fully supported on unequivocal terms, since a developing economy like India cannot afford to restrict the local innovation or equitable opportunity to the masses. However, the net neutrality should be optimized subject to requirements of national security, congestion management, emergency services and existing fair usage policies.

Further, Interpretation of specialized services like remote health monitoring, IPTV and Carrier grade video conferencing needs guaranteed bit rate to ensure availability and reliability, which should not be considered against the principles of net neutrality.

Net neutrality may also require that users are able to move easily between applications or other service providers (without, changing their device or having to reproduce their profiles or other personal data). These are areas where regulation to improve interoperability might also be required.



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Net Neutrality from Network/TSPs context is already in place through various controlled mechanism mandated by regulator/licensor e.g. KYC, UCC, MNP, Audit Reports, QOS reports, periodic customer communication, Advice of Charge etc.

However at the same time net neutrality ethos and spirit should also be enforced on OTT players in which device and content partner also get encompassed. The devices from Apple, Samsung and Search Engines from Google, Yahoo, do control and provide preferential output based on their ensuing agreements.

**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.**

Traffic management has long been an important tool in meeting the needs of users of internet services. Traffic management is already employed by network operators for a wide range of different purposes, and more are likely to emerge as the requirements which users and services impose on the network become more complex. Examples of current and anticipated network management practices that are reasonable and consistent with a pragmatic approach include:

- Blocking spam, malware, denial of service attacks and other security threats to the network or to user devices.
- Ensuring that specialised applications such as voice over IP, multi-player gaming, remote health monitoring, IPTV and Carrier grade video conferencing can be delivered in a way which ensures optimal performance of these applications
- Restricting the use of services if the user agrees to restrictions, often in return for a price discount
- The existing fair usage policy of reduction of access speed beyond a certain data usage,
- Congestion management,
- Traffic restrictions imposed by the LIM agencies and
- Prioritization of emergency communications

The aim of the traffic management should always be to ensure that as little of the available network capacity as possible remains unused, so that the network resources are utilized to the benefit of users experience to the maximum extent possible. The OTT players should be mandated for peering with the local TSPs, this will ensure better QoE to the customers.

Further, the network management challenges faced by mobile network operators are acute. This is because mobile network operators face greater total capacity constraints (due to spectrum scarcity and the high costs of securing spectrum) and because that capacity is then shared amongst users in the access network rather than being dedicated to each individual. Mobile network operators also face greater challenges in providing transparency to customers because it is impossible to 'guarantee' or even predict a particular level of network performance (which will depend on variables such as the



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location of the user and the device they are using, the behavior of other users on the cell, or the local climate).

Certain traffic forms like video, Voice over IP would need differential treatment which would help in enhancing the QOE to the consumer. The techniques like CDN, caching should be encouraged.

**Question 11: Should the TSPs be mandated to publish various traffic management techniques used for different OTT applications? Is this a sufficient condition to ensure transparency and a fair regulatory regime?**

We agree that transparency is non negotiable in safeguarding the open internet. Transparency is therefore an essential means by which customers will navigate the market to obtain the services which best meet their needs. However, publishing various traffic management techniques used for different OTT applications/services is not sufficient condition to ensure transparency and fair play as customer is least bothered about the traffic management till the time QoE is good.

Moreover, there are considerable challenges in providing transparency to customers in case of mobile networks because it is impossible to 'guarantee' or even predict a particular level of network performance (which will depend on variables such as the location of the user and the device they are using, the behavior of other users on the cell, or the local climate) even if the traffic management techniques are published.

**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.**

The collaboration and coordination between TSPs and CAPs will need to be built which will create positive, conducive and balanced atmosphere for TSPs to further invest with proper safeguarding of their business interest similarly discrimination and roadblocks should be removed and TSPs should provide level playing field to CAPs which will allow and promote for innovation and growth. The CAPs should bear and share the cost of network up-gradation by TSPs. A proper pricing framework with adequate revenue sharing mechanism between TSPs and CAPs will act as a catalyst for the growth of entire ecosystem.

**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.**

No, TSPs should not be allowed to implement non-price based discrimination of services except in cases where proper awareness and communication to customer e.g. FUP (Fair Usage Policy) currently used for data services. The aforesaid will ensure good value for customers, while safeguarding the providers from abuse. The congestion management, traffic restrictions imposed by the LIM agencies and prioritization of emergency communications should also be permitted to implement non-price based discrimination.



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**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.**

Yes, the differential pricing should be allowed for OTT communication and data services. The principle introduced in The Telecommunication Tariff Order, 1999 (TTO 1999) should be followed.

As per the provisions of the TTO, 1999 and its amendments, the tariff for data (Internet) is under forbearance. However, all TSPs have to comply with regulatory principles of inter-alia, non-discrimination and non-predation.

Non-discrimination means that TSPs shall not, in the matter of applications of tariffs, discriminate between subscribers of the same class and such classification of subscribers shall not be arbitrary.

**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.**

We are of the view that OTT communication service players should not be treated as Bulk User of Telecom Services (BuTS). This shall act as hindrance for innovations. The desired objectives of growth of applications including applications developed locally in India can be achieved on the basis of a mutually agreed arrangement.

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

We have witnessed tremendous growth in VAS industry in India. There are various VAS applications that are India specific and available in vernacular languages etc. The same framework should be adopted that will fuel the growth of India specific OTT apps.

**Question 17: If the OTT communication service players are to be licensed, should they be categorized as ASP or CSP? If so, what should be the framework? Please comment with justifications.**

OTT Communication Services players should be categorized as ASP under the regulatory framework. This will help in clear identification of a network service provider and an OTT service provider. This may result in better reinforcement of regulator guidelines and governance. However there should be flexibility for TSP to operate under regulatory framework as ASP and vice versa off course with suitable qualifying conditions. The guidelines should be defined, regulated and reinforced keeping in view few notable measures of consumer's privacy, security, safety and protection through below mentioned measures:

- Certification and Clearance of application by Indian certification body



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- Enablement to Lawful interception
- Data/Servers presence within same geographical boundaries

OTT Players for most of the applications take customer permission /consent to access entire customer data on their personal devices. The OTT players need to be made responsible and accountable for any misuse or exploitation of such data that may be detrimental to customer interest or compromise his/her security.

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

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.

In case they start charging later, the Authority should review the same at that point of time. The transparency needs to be ensured in order to enable customers to make right choice.

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

The non-communication OTT players should also be governed by the regulatory framework to ensure security. A technical centre should be commissioned which can act as approval/certification body.

Following steps may be taken for governing the non-communication OTT players:

- Develop a gateway in country to connect such players
- Strong regulation on content approval & delivery for India
- Strong monitoring and tracking system both at TSPs and OTTs end
- Local office of OTT player/subsidiy is must with holding subscriber database, minimum capacity of interception, monitoring of user traffic, location identification etc.
- User data/database porting to overseas/international servers should not be allowed

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

Globally this topic is much debated and would undergo evolution. Hence a task force with representation from all stakeholders should be formed with periodic review of the changes and upgrades in the same subject.