BIF Response to Consultation on Public Policy Consideration for OTTs

Broadband India Forum (BIF) is a policy forum and think-tank that works for the development & enhancement of the entire broadband ecosystem in a holistic technology-neutral and service-neutral manner. BIF seeks to be a thought leader and a credible and effective voice to help propel the nation to achieve the country's ambitious vision r of creating a Digital India. To achieve this, BIF works to promote the rapid development of affordable and high speed ubiquitous broadband throughout the country.

Registered as IPTV Society , its brand - BIF was formed in October 2015 and is a fairly nascent but dedicated Forum with participation from all stake holders, including Technology Providers, Telecom Operators, Internet Service Providers, Value-Added Service Providers , Satellite Operators and service providers, MSO and seasoned Industry professionals who are familiar with different technologies, operations, regulations and policies. We are greatly privileged to have a distinguished Panel of dignitaries & experts as Honorary Principal Advisers:

1. Mr Kuldip Singh, former Member TDSAT and former CMD MTNL

2. Mr P K Garg, former Wireless Advisor, Govt of India and former Chairman, RRB, ITU

3. Mr B K Syngal, a veteran of the telecom sector, - former CMD, VSNL

4. Mr J V Ramamurthy, former Director, HCL

5. Mr D P Singh & Mr Abhishek Malhotra, Partners, Arthe Law

6. Dr. Mahesh Uppal, Director, ComFirst India

The above eminent Panel actively guides and mentors us in the various areas of our work.

As Members of BIF, we have several corporate and start-ups of high repute:

Sr.No.	Members	Sr.No.	Members
1.	AT & T	14.	Intelsat
2.	Air Jaldi	15.	Koan Advisory
3.	BSNL	16.	Microsoft
4.	Blue Town	17.	Nelco (a TATA Group company)
5.	Cambium Network	18.	Orbitel Research
6.	C-DOT	19.	Ortel Communications
7.	Cisco	20.	Qualcomm
8.	Ericsson	21.	Sterlite
9.	Face book	22.	TCIL
10.	Google	23.	Via Sat
11.	Huawei	24.	Win Broadband
12.	Hughes	25.	XiFi Phimetrics
13.	Intel		

The membership has been growing steadily over the last two years and there are more to join. BIF's mission is to support and enhance all policy, regulatory & standards initiatives for the proliferation of hi-quality, hi bandwidth broadband in the country. We have, in a short period of time contributed significantly to regulatory and policy consultations and built up a good level of credibility, reputation and standing with key institutions like DOT, Niti Aayog and TRAI.

BIF functions through an Executive Council (headed by the President) and several specialist Committees on various subjects like New Technologies & Innovations, Policy & Licensing, Content & Applications, Infrastructure, Privacy, Trust & Security and SatCom. The activities of the Forum broadly relate, inter alia, to i)coordination, promotion and formulation of expert opinion on topical subjects related to Broadband, ii)to act as a bridge between Industry on one side and Government and the Regulatory Bodies on the other, iii)front ending several issues related to policy & regulation, iv) conducting conferences, seminars and knowledge events, v) writing research papers and white papers in collaboration with reputed research institutes such as ICRIER, IIM Bangalore, Ernst & Young and Counterpoint Research, vi) running awareness campaigns within the highest echelons of Government's policy makers on several issues, vii) releasing media articles on issues currently pertinent to telecom in India such as Make in India, EMF radiation, Net Neutrality, Internet Telephony, SatCom Liberalization & Reforms, V band, GST, Wireless Fiber, etc., viii) conducting R&D Projects as part of an overall Consumer Awareness Program.

Public Policy considerations for OTTs

Broadband India Forum (BIF) welcomes the ITU consultation process on public policy considerations for OTTs. Please note that this submission is not supported by AT&T Global Network Services India Private Limited.

Find below our response to the questions asked in the consultation:

1. **What are the opportunities and implications associated with OTT?**

   Response: Internet based applications have drastically transformed the architecture of economic activity. The ubiquity of the Internet makes it virtually impossible to delineate the digital economy from other components of the traditional economy. **Socio-economic impact** of OTT apps lies on a continuum ranging between local start-ups that create OTT apps with local employees for local consumers to globally active OTT players that create significant spill over effects in local economies.

   OTTs contribute significantly to the Indian economy. In a recent report produced by ICRIER (2017), it was found that:

   ● *During the period 2015-16, OTTs contributed a minimum of USD 20.4 billion (Rs. 1357.6 billion) to India's GDP.*
   ● *By 2020, OTTs could contribute a minimum of USD 270.9 billion (Rs.18275.9 billion) to India's GDP.*

- *10% increase in India's total Internet traffic, delivers on average a 3.3% increase in India's GDP, and a 10% increase in India's mobile Internet traffic, delivers on average a 1.3% increase in India's GDP.*
- *17% increase in India's Internet traffic during the period 2015-2016, resulted in an absolute increase of USD 103.9 billion (Rs. 6,926.5 billion) in India's GDP during the year. An equivalent increase in India's mobile internet traffic during the period 2015-16, would result in an absolute increase of USD 41.4 billion (Rs. 2759.9 billion) in India's GDP during the year.*
- *By 2020, the Internet economy could contribute up to USD 537.4 billion to India's GDP.*
- *10% increase in global Internet traffic, delivers on average a 1.3% increase in global GDP and a 10% increase in global mobile Internet traffic, delivers on average a 0.7% increase in global GDP.*

Through case studies, the ICRIER (2017) identifies the following broad socio-economic benefits delivered by OTTs:

- Potential for increased income
- Access to information and reduced asymmetry
- Impact on the social perception and self-image of the differently-abled
- Job Creation
- Efficiency in Service Delivery (One stop shop for multiple services)
- Providing smaller businesses/ individuals a platform to market their product/ service
- Encouraging disintermediation and lowering cost to buyers and sellers
- Popularizing use of vernacular languages
- Enabling women safety

Please find enclosed the ICRIER Report on Estimating the Value of New Generation Internet Based Applications in India as Annexure-1.

Due to the benefits accruing from use of OTT services, the Indian consumer's appetite for data has been growing sharply. The volume of wireless broadband data consumed by Indians has risen sharply, from less than 200 million gigabytes (GB) a month in June 2016, to around 1.3 billion GB a month in March 2017. Data prices per GB have fallen from around $3.5 to $1.8 in the same period. With smartphone penetration set to double by 2022, the increase in data traffic per smartphone is expected to grow by more than double, from 4 GB per month in 2016 to 11 GB per month in 2022.

According to a recent estimate on the economic impacts of Whatsapp, discretionary consumer spending associated with communication on Whatsapp amounted to between $9.6 and $18.0 billion in India in 2015.[1]Similarly, a recent report by Zinnov (2017) shows that OTTs have helped housewives to become online reseller s and to earn US$9 billion in revenue in India.

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[1] Rafert and Mate, 2017, "The Global and Country- level Economic Impacts of Whatsapp", Analysis Group

The Government of India has been using OTT services such as Bharat Interface for Money (BHIM), Umang, MyGov, Incredible India, etc. to spread awareness, increase efficiencies, and help ease accessibility to government related information and services.

The growth of the OTT economy in India has been impressive. App Annie, an app-analytics company, recently ranked India as the fourth largest app economy in the world, with annual app downloads to touch 7.7 billion by the end of 2017.

In another study by BIF, we have found the following social benefits accruing from use of OTTs:

● OTTs help to overcome the obstacles to good health outcomes created by poor medical infrastructure, low literacy rates and even traditional beliefs that might endanger health.
● OTTs can play an important role in education and knowledge transfer when direct face-to-face communication is not possible.
● OTTs can bridge the digital divide by offering a new interaction option to individuals who otherwise have limited access to telecommunications services and little knowledge about computers. This supports family cohesion even over large geographic distances.

From the perspective of Digital India objectives, the sectors that are being impacted are financial inclusion, health & education-all of which suffer from the fundamental challenge of lack of physical infrastructure and affordability.

OTTs combat poverty by lowering the cost of access to educational resources; education is well known to be a key factor for reducing poverty. Many OTTs also provide free or low-cost online platforms where people can share ideas and gain exposure to information that could help them find and secure employment opportunities. OTTs lower the cost of learning. They can distribute content to larger audiences than traditional services, often without the need to sign a long-term contract. OTTs can support access to open education resources, which are free, high-quality education materials made available to everyone. OTTs contribute to gender equality by providing low cost, equitable access to educational resources.

Health in India can be disproportionately supported by OTT. Poor medical infrastructure, low literacy rates and sometimes distorted beliefs make information that OTTs can provide through text, pictures and videos which are of great significance. OTT services can reach a large population – virtually anyone who has an Internet connection. The wide reach of OTTs can be leveraged to raise awareness of critical health issues, including how to prevent or treat them.

Convergence between Telecommunications & Internet has resulted in emergence of Next Generation OTT apps. OTT apps covering some of the most important functionalities of the Internet which are related to communications in a broader sense should also have a significant and positive impact on the global economy.

2. What are the policy and regulatory matters associated with OTT?

Response: For OTT to thrive, it is necessary that we address the many challenges that might limit their growth in the future. Regulating OTTs is essentially equivalent to regulating the Internet, including the innovation that the Internet enables. The explosive growth of the

Internet and services over the Internet has been due in large part to a light-touch regulatory treatment. Innovators have used this open space to develop new services that have transformed society for the better. The policy challenges can be classified into demand and supply side.

On the supply side, most OTT apps and services are affected by the limited availability of network infrastructure or Internet connectivity in the areas they opt to serve. Moreover, app design must be improved and served in light versions that operate even in poor networks and on lower cost smartphones. Demand side challenges are largely associated with availability of content in regional languages. With a huge non-English speaking user base, the dominance of English is restricting the use of apps by people in semi-urban and rural areas. With respect to concerns regarding data privacy and protection, the players within the app ecosystem are in best position to address these concerns. Hence, industry should be allowed to develop best practices in this regard.

Apps have facilitated the creation of business models, which require regulators to think beyond the comfort of traditional businesses that operate in physical spaces and require physical movement of goods and services. The emergence of digital media, e-pharmacies, etc. falls outside the regulations within which each of these sectors currently operate. Services delivered through many such apps are limited in the absence of clarity on regulations. As apps become core to many businesses, sectoral policies must also align themselves to allow smooth functioning and integration of apps into the economy.

Policy challenges arise in the natural course of innovation and disruption. Apps too have stirred policy debates surrounding regulation of Over-the-Top services that are delivered using existing Internet infrastructure and connectivity provided by a licensed service cum infrastructure provider. Preliminary search reveals that there is no clear directive that recommends a complete regulation of OTTs. Most of the regulation worldwide in this area is the focus of intense discussions. The general direction is currently in the form of informal tools or 'agency threats' that are particularly useful in a rapidly changing industry such as the app economy. In such conditions of uncertainty, what is being felt is that while making any form of prescriptive law, without fully understanding its short term and long term implications, could subsequently stifle innovation.

Since OTTs are contributing significantly to the Indian GDP and also driving socio-economic benefits, the focus of policy should be to promote innovation and investment to ensure users are able to benefit from increased use of OTTs.

The idea of blanket regulations on OTTs and apps would be a regulatory nightmare given the wide range of sectors that apps and OTTs impact. Such regulations would create a compliance burden and form barriers to entry, affecting market efficiency and competition. Any regulation, imposed too early in the development lifecycle of this sector would stifle innovation and investment and dampen competition.

Increasing the regulatory burden of OTTs will hamper innovation and growth. A regulatory framework that requires OTTs to be "licensed" in the jurisdiction in which they operate will fragment the Internet along national boundaries and negatively impact the startup economy currently booming in India. If an Indian startup providing OTT services is required to take a license in over 160 jurisdictions, it will not be able to compete with larger companies having

the legal/regulatory resources to do so. Such a framework would undo the years of innovation that has happened on the Internet and fragment it irreversibly.

Referring to OTT and conventional telecom as the "same service" is flawed. Telecom operators control the underlying broadband access infrastructure, and are the gatekeepers to broadband internet access. A consumer cannot even get to OTT services without first purchasing internet access service from a network operator. By contrast, OTT services do not control the underlying broadband internet access points.

To suggest that there is a natural parity or similarity between OTT players and Telecom Service Providers (TSPs) is also erroneous. The latter enjoy several exclusive rights conferred on them through their licenses that are not enjoyed by online services. In India, these include (i) the right to acquire spectrum, (ii) the right to obtain numbering resources, (iii) the right to interconnect with the PSTN, and (iv) the right of way to set up infrastructure.

The argument of loss of revenue to incumbent TSPs due to substitution of voice calls by OTTs has lost its relevance in India after voice calling has been made free / as part of bundled data pack. In the present scenario, it is important to note that the market itself has shifted in a direction where voice revenues are no longer relevant. With the new tariff plans released by both new entrants and incumbents, the TSPs are clearly shifting to a data only model with unlimited voice calls and SMSs.

Traditional regulations may be outdated in today's communications landscape and could inhibit telecommunications operators' ability to innovate and invest. Rather than expanding outmoded, burdensome regulations to new services and technologies, regulators should seek to deregulate incumbent telecommunications operators, as appropriate.

In the traditional telco environment, the product is voice and the relevant pricing metric is minutes; in a new OTT environment, the product is connectivity (e.g., connecting users) and the relevant pricing metric is bandwidth / throughput, where the incremental cost of sending information over the underlying IP network is typically close to zero.

Traditional telco providers need to find a way to navigate this transition from business models built around voice/minutes to compete in a new IP environment and data led business model, and move towards more competitive markets. They need to embrace price competition, rather than relying on their historical ability to extract high ARPUs due to a lack of network competition. The solution should not be to protect those who are slow to adapt to a data-first world by extending regulation on new OTT players, but to ensure that the ability for all market players to innovate and investment is increased – which will be best achieved by less, not more, regulation on traditional telco providers and OTTs.

Any attempt to create a distinction between communication OTTs and non-communication OTTs is artificial and flawed, since applications cannot be compartmentalized in these two categories. For example, most gaming, health and e-commerce applications provide integrated communication channels. Creating such an artificial distinction would fragment the Internet into two categories - one that requires a license and a second that doesn't require any regulation. The big question would be how the millions of applications on the internet be regulated selectively. This arbitrage in regulatory obligations will give a reason to circumvent

and fragment the internet across types of services. It will also stifle development of OTTs that provide integrated service offerings driven by consumer demand.

Operators should have the flexibility to offer innovative communication services (such as messaging applications) that are not subjected to telecommunications regulations, so long as the services are offered in a neutral way that do not favour proprietary applications over competitive alternatives (i.e., net neutrality protections).

As already stated, the OTT ecosystem is in a nascent stage in terms of its development; therefore, any undue regulatory burden is bound to stifle growth and innovation. In this regard, one of the possible impediments in development of the OTT space could be prescription of pre-emptive/ex-ante content regulations. Any imposition of such regulations would act as a deterrent to introduction of global OTT based content providers in India and it would increase the compliance burden for OTT players – both foreign and domestic. Moreover, it should be noted that online content is not delivered in a regulatory vacuum, rather, existing laws like IT Act, IPC and Copyright Act provide adequate safeguards to control the content being distributed online.

3. **How do the OTT players and other stakeholders offering app services contribute in aspects related to security, safety and privacy of the consumer?**

   Response: OTT app services positively contribute to safety, privacy and security issues, greatly benefiting the consumer. OTTs provide many solutions in the privacy and security spaces. Some of the measures that should be taken up by the OTT players and stakeholders offering apps and services at the national level are:

- **Strengthen cyber-security infrastructure:** The rising instances of security breaches and cyber-attacks have raised an alarm globally.. Personal and business a data, must be well protected to minimize economic loss in instances of cyber-attacks. Building a secure infrastructure will enable widespread adoption within certain app categories, especially those related to digital payments.

- **Change Perceptions and Build Awareness among Consumers:** The use of apps is driven by a massive transformation in lifestyle and patterns of consumption. In order for app promoters to build a significant user base, it is important to demonstrate the impact from use of such apps. At times security breaches, etc., creates a trust deficit that discourages users from using apps. In many cases this could be on account of users not using their apps well or not being aware of provisions for quality check, data protection, etc. It is important for the government and the private sector to jointly develop an awareness and communication program to help consumers use their apps better, perhaps safely. There is a need for proactive evaluation of apps so that dependence on Government intervention for preventing damage could be reduced, if not eliminated.

- **Disentangle Regulatory Needs:** There is significant conflation and bundling of regulatory debates surrounding apps. These may range from net neutrality to national security. It is

important to untangle matted regulatory approaches to apps and the app economy to be able to clearly understand the market structures, technology, and regulatory needs.

The switching costs for switching from one OTT service to another OTT service are extremely low. Additionally, there is extremely high competition in the OTT services space. If any OTT service fails to provide the security, safety and privacy expectations of a customer, then the customer would switch to the alternate service. The internet is known for punishing companies that do not continuously innovate and meet expectations. This has pushed OTT service providers to adopt best practices to improve services and enhance security, privacy and safety through consultation and consumer surveys.

Many aspects such as privacy and security cannot be guaranteed by any one party in the larger ecosystem. Multi-stakeholder and multiparty cooperation between OTTs, telecommunications service providers, governments, and civil society organizations is critical to building confidence in the use of Internet services.

4. **What approaches might be considered regarding OTT to help the creation of environment in which all stakeholders are able to prosper and thrive?**

Response: OTTs and traditional Telecom Service Providers (TSPs) have a symbiotic, mutually-reinforcing relationship. While OTTs drive data usage over the traditional telco providers' infrastructure, the telco provider infrastructure enables end-users to access innovative online services and content. Thus, both are able to benefit from and support the growth of the other's business model. And OTTs contribute to this rich ecosystem. Forward-looking operators and providers recognise that they benefit from OTTs and have embraced this symbiotic relationship.

It is incorrect to suggest that OTTs do not contribute to/ invest in the infrastructure ecosystem. Whilst broadband and mobile network infrastructure is fundamental to the provision of OTT services, it is not the only infrastructure required. The development of new technologies to connect hard to reach communities, provide content delivery networks and data centers are also important elements of the overall infrastructure required for OTTs to operate efficiently. This alternative infrastructure helps to relieve pressure from broadband and mobile networks by locating data nearer to the consumer, thus providing connectivity benefits both to traditional telco provider(s) and the end-user. 5G innovation will require investment from traditional telco providers and the return on this investment will, in part, be driven by consumer demand for new innovative services. OTTs have a large role to play in being able to drive the needed growth, provided the regulatory environment does not become a barrier to entry and further relying on the symbiotic relationship between traditional telco providers and OTT providers.

Apart from the above, regulatory framework for OTTs should be light touch as this would allow the natural evolution of this sector and will allow for creative innovation and help provide more use-cases for online platforms. Hence, Requirements for data localisation should not be imposed. Also, when it comes to cross-border flow of data, creating impediments to the same shall result in lack of freedom to innovate.

A regulatory framework which focuses on lowering the costs associated with setting up the backend infrastructure like data centres and which permits bandwidth data reselling will

reduce the overall cost in deploying widespread broadband infrastructure and also incentivise the same.

The Government should incentivise and create a digital payments infrastructure, particularly in rural areas. Costs associated with using digital payments mechanisms should be reduced – MDR, convenience fees, etc. Building a secure digital payment network would greatly aid in realizing Government's vision of reaching every household in the country with access to financial services and this would help people, especially those in rural areas, to transact with ease.

The Government can also look to strengthen the intellectual property protection framework and its enforcement in order to ensure the sanctity of content distributed by OTT based content providers and this would act as an incentive to turn India into a global content hub by reducing the prevalence of piracy and allowing online content providers to innovate their business models to enable more consumers to derive content from legitimate sources.

While the Government is going all out to implement its ambitious vision of "Digital India", it should utilize the existing infrastructure that can be used to deliver reliable broadband services to remotest parts of the country. One category of underutilized broadband capable infrastructure is that of cable service providers across India which can be opened to entities interested in providing internet access through them. Also, the unused spectrum could be used for providing broadband access.

Another area worth supporting in the fast evolving OTT space is that of supporting start-ups trying to gain foothold in this sector. The Government could further calibrate its "Start-up India" program to provide boost to new enterprises in this segment though tax incentives and resolving other ease of doing business issues.

5. **How can OTT players and operators best cooperate at local and international level? Are there model partnership agreements that could be developed?"**

Response: OTT based apps are at the heart of the smart phone revolution that is fuelling the vision of Digital India. This implies not only a huge consumption market, but also significant scope for a developer market in India. Emerging markets like India and Indonesia still continue to see hyper-growth in app downloads while mature markets have shifted focus from download growth to usage and revenue growth. As per this understanding, India is clearly a fertile ground for the further growth of the app economy, especially considering there is still significant scope for increase in India's smart phone penetration. It is expected that the app economy is likely to contribute significantly to India's GDP going forward.

The proliferation of apps and its increasing demand has also created a new focus on data in the telecom sector. Most recently, the launch of the new entrant viz. RJio has significantly driven down data prices, encouraging the use of data and thereby app based services.

As mentioned in response to Q2, the regulator would have to carefully examine the changes brought about by use of technology through apps. Understanding these changes contributes to understanding the changes in market structures. The ideal balance sought would be

between promoting innovation, fostering competition, securing investments and protecting consumer interest. In a dynamic sector such as this, it is important to invest in studying technology-enabled changes and their implications on the market, before attempting to regulate it. Further, regulation must be careful not to merely protect a status quo; it should facilitate growth, emergence of new business models, promote innovation and improve market efficiency.

BIF supports all initiatives for Innovative Business Arrangements to Promote Connectivity and Economic Development. Providers of Internet access (TSPs) may enter into business arrangements to promote Internet connectivity, provided such arrangements do not affect interests of the consumers.

BIF suggests that there exists a need to balance both consumer interest as well as public policy objectives and create an environment that ensures the growth and sustainability of both the ISP/TSPs as well as the Content Providers

Due consideration is required to be given to deregulating telecom providers Rather than attempting to increase the regulatory burden of OTTs by applying telecom regulations to online services, there should be consideration given to reducing the regulatory burden of TSPs. Towards this end, the sector regulator -TRAI is currently conducting a consultation on Ease of Doing Business, which aims to unshackle and rationalise the regulatory obligations of TSPs. We support this initiative as the right direction to resolve this issue. We argue that this would be a far better way to ensure the healthy development of the entire ecosystem and the maximisation of consumer value.

Further, BIF is of the opinion that:

- Any partnership agreements between OTT players and operators should be kept voluntary and should not be mandated by regulation.
- Authorities should permit interested parties to form partnerships to invest in, build, and operate infrastructure (e.g., wholesale backhaul networks) without subjecting the partnership and its partners to traditional telecommunications regulatory requirements.
- We should acknowledge the benefits that high quality affordable connectivity brings to telco providers, OTTs and most importantly the communities they serve. In addition to improving education and social engagement, it enables communities to develop new and innovative business models and to extend out the economic benefits generated by these business models into others in their community in a type of virtuous circle.