São Paulo, August 29th, 2017.

To the
ITU COUNCIL WORKING GROUP ON INTERNATIONAL INTERNET-RELATED PUBLIC POLICY ISSUES (CWG-INTERNET)

RE.: OPEN CONSULTATION ENTITLED "PUBLIC POLICY CONSIDERATIONS FOR OTTS".

CÂMARA BRASILEIRA DE COMÉRCIO ELETRÔNICO ("camara-e.net"), a nonprofit organization and one of the most relevant trade associations representing the digital economy in the Brazilian market, welcomes the opportunity to respond to the open consultation of the ITU Council Working Group on International Internet-related Public Policy Issues (CWG-Internet) entitled: "Public Policy considerations for OTTs".

Initially, we would like to congratulate ITU for this initiative of opening the discussion to the public, enabling the participation of different sectors of society all around the world.

We welcome the opportunity to engage with members of the CWG-Internet and other stakeholders on this important subject, given that we find ourselves in the midst of the greatest information and communications revolution in human history[1].

Technological developments, especially the transition to the IP technology, which enables a growing range of services to be consumed online, has implied the emergence of new services and business models operating over the Internet.

The provision of Internet-based services, known as "over-the-top" ("OTT"), which, currently, does not have a widely used or accepted definition, is of increasing importance in the rapidly evolving information and communication technology industry, and of great value for consumers and businesses[2]. Having this scenario as a background, it becomes relevant to bring our considerations about a debate on the regulation of OTTs.

[1] World Bank. 2016. *World Development Report 2016: Digital Dividends*. Washington, DC: World Bank. doi:10.1596/978-1-4648-0671-1. License: Creative Commons Attribution CC BY 3.0 IGO. (Available at http://www.worldbank.org/en/publication/wdr2016).

[2] *Report on OTT Services*. BoR (16) 35. Body of European Regulators for Electronic Communications (BEREC). January 2016. (Available at http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/5751-berec-report-on-ott-services).

Before proceeding with the answers related to this public consultation, it is important to put forth that while the ITU plays an important role in setting technical telecommunications network standards, internet-based services do not fall within any part of ITU's remit.

As a matter of fact, consultations regarding these services are underway in manifold other institutions, including standards organizations in which ITU member states and entities are encouraged to participate in, among which we highlight the Internet Engineering Task Force (IETF), W3C, ICANN, in addition to the Internet Governance forum and the UN Conference on Trade and Development's "eTrade for All" Initiative. And, although we welcome the opportunity to participate in this relevant discussion, ITU's focus should remain in developing standards for telecommunications services, rather than delving in issues already being capably addressed by other organizations.

Please find below our answers to the questions posed in the public consultation.

1. WHAT ARE THE OPPORTUNITIES AND IMPLICATIONS ASSOCIATED WITH OTT?

In order to facilitate the objective answers, we first address the structure of the Internet ecosystem and the roles of each stakeholder in this environment. For the matter of this contribution, we will consider that the Internet ecosystem mainly consists of **three different types of economic actors**:

Telecommunication Services Providers operate network infrastructure and provide Internet access services to End-Users and to Online Service Providers, through dial-up access, fixed broadband (coaxial cables, optical fiber) or mobile broadband (2G, 3G or 4G technologies). TSPs are usually remunerated for their services by OSPs and by End-Users, who pay for the usage of their networks (both download and upload)[3].

Online Service Providers those who provide Over-The-Top (OTT) services that add value to telecommunication services. The business models for OSPs vary widely, and include content aggregation, search engines, platform as a service (PaaS) and software as a service (SaaS), e-commerce, social networks, video on demand, web content, messaging application, voice over IP (VoIP) applications and others. The monetization model of OSPs activities also varies widely, as it might include subscription-based rates, usage/transaction prices, advertisements, donations, and others.

[3] Worldwide and in Brazil, TSPs are going through an important change in their revenue sources. As presented in the Article "*Impact of Over the To (OTT) Services on Telecom Service Providers*", [...] according to Informa's World Cellular Revenue Forecasts 20187, global annual SMS revenues will fall down from US$120 billion in 2013 to US$96.7 billion by 2018, due to increasing adoption and use of Over-The-Top (OTT) messaging applications. Spirit DSP, in its report "The Future of Voice"8, has also studied the impact of OTT VoIP (Voice over Internet Protocol) applications on voice revenue. According to the report the overall global telco voice revenues (including fixed subscriptions) will decline from $970.4 billion in 2012 to $799.6 billion by 2020, at a CAGR of 2.4%. Also, as a result of VoIP by 2020 the telecom industry worldwide will see a loss of revenues approximately worth $479billion which accounts for 6.9% of the total revenue from voice. (Available at http://www.indjst.org/index.php/indjst/article/viewFile/62238/48529).

End-Users are both consumers (individuals) and businesses that purchase access to the Internet from TSPs and consume services from OSPs. So as to have access to popular applications and content available on the web, End-Users must contract Internet access services from TSPs. Without the Internet access, End-Users cannot access OSPs content and applications. This is an important observation since it demonstrates the strategic importance of the TSPs to the Internet value chain and their importance as gatekeepers of the web, as they enable interaction between OSPs and End-Users.

Without telecommunication services, there would be no content layer and thus OSPs would never exist. Likewise, without content and applications, there would be a reduced demand for telecommunications services to be contracted by End-Users.

Telecom operators play a vital role in providing users with access to the internet and its vast content, applications and services. As such, it is important to bear in mind that the greater demand for OSPs leads to a greater demand from users for internet access services, which leads to greater revenues for telecoms operators, more investment for networks and, in turn, a greater usage of OSPs.

There are key features of OSPs, which demonstrate that they (i) play an important instrumental role in enabling social change (ii) contribute to reduce the "*digital divide*" and (iii) beneficially complement telecommunication services.

A. <u>OSPs Foster Social and Economic Development</u>

OSPs enable social change, and services offered on the content layer of the Internet have changed dramatically the way we live today. The examples are almost infinite starting with the ability that OSPs have to **generate significant social benefits particularly in bridging communication gaps**, and supporting users with disabilities[4]; from the important role that OSPs **play in aiding disaster relief** e.g., assisting in the connection of loved ones who were separated during a disaster, providing life-saving information back to communities affected by a disaster, etc.; to the help that OSPs give by **improving enterprise and government efficiency** (e.g., through eGovernment initiatives). For example, OTTs offer governments better and more efficient ways in which to communicate with citizens through eGovernment initiatives, which not only benefits the central government in economic terms, e.g., saving valuable time and resources that would otherwise have to be provided by staff/civil servants, but also offer social benefits to both government and citizens.

B. <u>OSPs Contribute to the Massification of Internet Access</u>

[4] Standard OTT functionality such as touchscreens or speech recognition tends to be of superior quality to many specialized applications, and is more readily accessible by users who do not have to seek out and pay for specialized applications or specialized devices (e.g., as they can use their mobile handset).

Despite its remarkable progress, Internet access, not only in Brazil, but all around the world, is not distributed equally within all regions. The gap between those one with effective access to the Internet and those with very limited or no access at all (the "digital divide") is still a public policy challenge.

The overcoming of such divide involves not only government efforts, but also the private initiative. Infrastructure is not the only barrier to overcome, as there is plenty of evidence that giving people access to the Internet does not mean that they will **effectively** have access to the benefits of the web[5]. In this sense, two different barriers are usually identified: infrastructure and awareness.

OSPs have been contributing to all of these three different aspects.

OSPs contribute directly and indirectly to the deployment of **infrastructure**. The direct contribution relates to the deployment of infrastructure by OSPs, so as to optimize the use of networks and to better distribute access to the Internet between different regions, using satellites, data centers, content distribution networks, solar powered-drones, submarine cables and even balloons, and also, under specific business arrangements, contracting services from TSPs and other infrastructure providers so as to optimize the use of OSPs services.

Therefore, it is incorrect to suggest that OSPs do not contribute to/invest in the infrastructure ecosystem. Whilst broadband and mobile network infrastructure is fundamental to the provision of Rich Interactions Applications (RIA) 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 centres are also important elements of the overall infrastructure required for OSPs 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 TSPs and the End-User.

Indirectly, when people start to use more the web, people will also pay more data charges to TSPs, that will apply part of this income on more investments[6]. The claim that OSPs

[5] As shown in the White Paper "*Internet for all: a Framework for Accelerating Internet Access and Adoption*", from the World Economic Forum, "[…] the most recent United Nations Educational, Scientific and Cultural Organization (UNESCO) estimate (2013) puts the global illiteracy rate at 15% of adults – a large barrier for many countries to overcome. However, even when people are literate and relevant content is available, surveys in several countries have shown that many do not see any personal benefit from using the internet. In addition, not all cultures promote widespread or equal access for all elements of society.", p. 10. (Available at http://www3.weforum.org/docs/WEF_Internet_for_All_Framework_Accelerating_Internet_Access_Adoption_report_2016.pdf).

[6] Worldwide, TSPs have also echoed the view that OTTs create value for their businesses by stimulating demand for broadband services. For instance, in March 2015, the CEO of Europe's largest cable operator, Liberty Global, stated, "*People would like to say 'oh Netflix is an enemy. Not really. They drive broadband consumption."* In May 2015, the CEO of a rural broadband service provider in the United States stated, "*We are OK with the customers that are cutting the traditional cord and moving over [to OTT] because it increases the value of our broadband*" In August 2015, an officer

are "free riders" on TSPs networks does not stand, since OSPs play an important role by creating and offering content that encourage demand for broadband services, and, as a consequence, TSPs earn revenues from tariffs and fees paid by subscribers, based on their use of data, typically on a tiered system based on speed or the amount of data used each month. Users purchase larger data plans as they use more OSPs content, applications and so on. **Therefore, if people use more OSPs, TSPs will have more revenues**. Recent news in Brazil indicate that the quarterly growth of telcos revenues with connectivity have increased 128%[7]. These revenues earned by TSPs have been used to make investments in broadband and new technologies that can optimize the use of their resources[8]. Therefore, **connectivity and content are complementary, and the societal value of both is symbiotic.**

In fact, an Analysis Mason report estimated that OSPs were directly or indirectly responsible for US$100 billion of capital expenditure on infrastructure from 2011 to 2014[9], which further corroborates with the significant investments made to improve infrastructure, reduce costs for operators, and bring content and services closer to users.

Awareness is also a barrier for connectivity. There are people who live in areas with Internet coverage, but do not see value or, worst, do not have access to sufficient understanding about the benefits that the World Wide Web could bring to their lives[10]. In this sense, major OSPs play a very important role. When people are encouraged to access a social networks for instance, where their friends and family are interacting with, or start to use an instant messenger that connects them to local service providers, people start to understand the value of the web. Network effects play a fundamental role in this case, and OSPs are the entrance door for the whole web and its benefits.

C. OSPs Beneficially Complement TSPs Services

Telecommunications services providers often argue that OTTs that provide telecommunication-like services should be under the same set of rules, under the argument of creating a level playing field.

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of Telefonica Brasil stated that the mobile operator had "anticipated the data boom" and that revenues from mobile OTT services, such as music, e-learning and news, grew 43% between 2013 and 2014 to reach to BRL 1.6 billion (USD 450 million) by the end of the year (Available at: http://bit.ly/1mT2e3K).

[7] http://convergenciadigital.uol.com.br/cgi/cgilua.exe/sys/start.htm?UserActiveTemplate=site&infoid=43193&sid=8#.V6tRUfo3D8M.twitter

[8] In one of the most paradigmatic rulings for the future of internet, the US DC Circuit Court in the Verizon v. FCC case noticed that "*innovations at the edges of the network enhance consumer demand, leading to expended investments in broadband infrastructure that, in turn, spark new innovations at the edge".* (Available at http://1.usa.gov/1ZYEj1m).

[9] Marcus, J. Scott, "*The economic impact of Internet traffic growth on network operators*," 2014.

[10] According to the research conducted by the Brazilian Steering Committee (CGI.br), 63% of the Brazilians who do not access the Internet do not do so because they "lack interest" on it (Available at http://bit.ly/1SgpE05).

However, we firmly believe that the claim that OSPs are substitutes for traditional telecommunications services such as voice and SMS is misleading, since OTT services can only be provided through telecommunications services and OTT services cannot be provided independently, that is, detached from the Internet access services provided by TSPs. Even though some OSPs provide services that might appear similar to those traditionally provided by telecommunications companies, these services are not substitutes to traditional telecommunications services, but complement them.

The differences between OTTs' and traditional telecommunications services are notorious. This is the main argument to refute the imposition of the same regulatory framework to both of them. OTTs' services require a connection to the Internet, while traditional voice and SMS do not. It is important to remember that a large portion of consumers in Brazil still do not have access to the Internet, and given that Internet access is technically necessary for the use of OTTs' services, many consumers would have an additional burden (contracting Internet access) to be able to use them.

OTTs' services often provide numerous additional functionalities such as video calls, recorded video or audio messages, file sharing, or group calls/chats, while traditional telecommunications services normally do not offer such additional possibilities to consumers. Regarding SMS, it is also important to consider that except for cases where SMS are unlimited, they usually have a unitary price, a factor that acts as a disincentive to use.

In addition, it is important to bear in mind that the digital economy generates manifold riches, of which telcos already profit from.

The analysis of the characteristics set forth above allows making an important inference about the nature of the contemporary Internet sector. While the 20th century approach to telecom was typically one-sided, with business models assuming that TSPs bear costs at one side and benefits only at the other, there is currently a significant shift towards a two-sided market approach, in which TSPs play the role of facilitating platforms for a much broader range of interactions between consumers and businesses, capturing benefits from both sides of the value chain.

Economic theory supports this statement[11]. The basic features of a two-sided market include (i) a market structure with at least three agents, being one of them a middleman,

[11] In this sense, see EVANS, D.S., *The antitrust economics of two-sided markets*, SSRN, 2014; Waverman, L., *Two-Sided Telecom Markets and the Unintended Consequences of Business Strategy*, Competition Policy International, Vol. 3, No. 1, 2007; TELCO 2.0, *Two-sided markets: what are they?*, available at http://goo.gl/6nNUVU. It is also important to notice that the existence of a two-sided-market situation does not mean that both sides must pay direct prices for the interaction with the platform, as the higher benefits would be intangible, as stated by the Financial Times Lexicon definition of two-sided market: "*there are many platforms in which one side pays nothing, or even receives inducements, to participate: shoppers in a mall, application developers, some credit card customers, free newspapers. More generally,*

(ii) benefits to one the edge-agents are directly based on the quantity and quality of the actions of the other edge-agent and (iii) there is an asymmetry between edge-agents that can only be balanced with the interaction of the middleman, that captures some of the value of this interaction.

This scenario is similar to what currently happens with data services, with TSPs capturing value from both sides, as **the growth of OSPs and the value of these services for End-Users have also complemented and benefited TSPs**. First, the popularity, proliferation, and breadth of OSPs have considerably increased the value of Internet to End-Users, thus resulting in increased demand for Internet connectivity services, increasing TSPs' subscribers' base, revenues and profits[12].

2. WHAT ARE THE POLICY AND REGULATORY MATTERS ASSOCIATED WITH OTT?

As demonstrated in the answer presented for **Q1**, **OSPs make an important contribution to increase connectivity and reduce the digital divide**. In this sense, policymakers and regulators should develop frameworks that will drive innovation and investment and ensure users are able to benefit from increased use of OSPs.

Otherwise, over-strict regulation or regulation imposed too early in the development lifecycle of OSPs would stifle innovation and investment and dampen competition. In fact, we understand that strictly regulating OTTs is neither a viable nor a healthy option for the segment.

The regulation of telecommunications services has been justified on two basic assumptions: (i) the need to use scarce resources to provide telecommunications services, such as spectrum or numbering resources, and/or (ii) the control of access facilities that determine which providers have access to the end-users. **OSPs do not fall into these arguments and the amount of competition in their market does not seem to justify additional regulatory interventions.**

In this regard, it makes sense to impose carrier regulations, arising from the telecom legal framework, to TSPs. **It would not make sense to address OSPs with the same kind of regulation applied to TSPs. In fact, even the current status of the TSPs sector seems mature and competitive enough to dismiss too intrusive regulations. Rather than expanding outmoded, burdensome regulations to new services and technologies,**

each platform provider will try to balance prices in order to encourage take-up on both sides, which means that the prices charged to each side are jointly determined" (Available at http://on.ft.com/1Rm2G7z).

[12] As stated by a report of PWC in 2013, "*rather than looking for a solution within the traditional telecom business model and value chain, operators must ask themselves how they can capture a larger share of the value pools now being opened up through new technologies and business models in a variety of industry verticals. In doing so, they need to think carefully about the role they can best play in this fast-changing space*". (Available at: http://pwc.to/1PvfZgs).

regulators should seek to deregulate incumbent telecommunications operators, as appropriate.

There are physical, technological and legal differences between traditional telco services and OTTs – and these differences need to be reflected in any policy or regulatory framework. For example, the "*call termination monopoly*" is specific to traditional telco services with legacy voice and SMS (using numbering resources) which introduced a "*monopoly*" and which End-Users need in order to switch provider. By contrast, End-Users can readily download, use, and switch between multiple OSPs – if a "*same service, same regulation"* approach were applied, then the exclusive access of legacy services that enables them to bundle voice and SMS with broadband access would need to be "unbundled" and these services offered on a disaggregated basis.

In any event, there is no regulatory gap that requires OTTs and traditional telco services to be treated the same – they serve different functions, and their history is different. OTTs did not derive from traditional telephony and SMS, but have evolved separately around feature rich functionality, able to benefit from the growing internet phenomenon and related uptake in broadband services. They are not the same as traditional telephony and SMS (even if they can be used in a complementary manner) – to take an analogy used by some in the industry, this is similar to recognising that computers are not direct substitutes for typewriters.

Imposing the same rules from a policy and regulatory perspective is therefore incorrect conceptually and as a matter of practice. And fails to recognise that OTTs are fundamentally different from traditional telecoms services. Any attempt to impose a rigid regulatory regime to OSPs will increase market barriers, and consequently curtail innovation. Such move tends to harm End-Users (by potentially limiting their ability to access applications of their choice) as well as incumbent companies.

3. HOW DO THE OTT PLAYERS AND OTHER STAKEHOLDERS OFFERING APP SERVICES CONTRIBUTE IN ASPECTS RELATED TO SECURITY, SAFETY AND PRIVACY OF THE CONSUMER?

It is our understanding that the key to ensuring the balance between innovation and privacy/security of consumers using the services of OSPs is trust in the online/digital environment.

Creating trust online is a fundamental challenge to ensuring that the opportunities emerging in the information economy can be fully leveraged, and the handling of data is a central component in this context[13].

[13] *Data protection regulations and international data flows: Implications for trade and development*. United Nations Conference on Trade and Development (UNCTAD). 2016. (Available at http://unctad.org/en/PublicationsLibrary/dtlstict2016d1_en.pdf).

OSPs are increasingly proactive in stablishing privacy and security mechanisms to protect and safeguard the data generated by their consumers and have been innovating not only in privacy enhancing technologies to enable consumers to more easily manage and control their personal data, but also in creating new products and services that follow privacy by design and security by design principles.

OSPs and stakeholders in the online/digital environment have as their ultimate concern that the trust on privacy and security mechanisms embedded on its services and products become relevant to End-Users.

4. WHAT APPROACHES MIGHT BE CONSIDERED REGARDING OTT TO HELP THE CREATION OF ENVIRONMENT IN WHICH ALL STAKEHOLDERS ARE ABLE TO PROSPER AND THRIVE?

As already mentioned in this contribution, **OSPs and TSPs have a symbiotic, mutually-reinforcing relationship**. OSPs drive a huge demand for data usage over the TSPs' infrastructure whilst the TSP infrastructure enables end-users to access innovative online services and content. It is not a "*zero sum*" game. Both the TSPs and OSPs are able to benefit from and support the growth of the other's business model. And OSPs contribute to this rich ecosystem. Forward-looking operators and providers recognise that they benefit from OSPs and have embraced this symbiotic relationship.

Operators, in their turn, 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 favor proprietary applications over competitive alternatives (i.e., net neutrality protections).

TSPs should be able to rebalance their tariffs to reduce their dependence on revenue from voice and SMS. Operators who have adopted data-centric tariff structures enjoy “benefits such as reduced churn, increased net promoter scores, more stable in-bundle revenue streams, and the ability to link returns more directly to network investment”[14].

Considering all the above, we believe that one of the main discussions of this debate on a conceptual level relates to the difference between an *ex ante* and an *ex post* approach to regulation. An *ex ante* regulation means an anticipatory interventionist regulation in a given sector. It has a preventive nature and aims to interfere in the structure of a given sector. In other words, **an *ex-ante* regulation is advisable whenever there is a market structure that, without preventive regulation, would fail to achieve social goals.**

On the other hand, *ex post* regulation means a later incidental regulatory control over a given market. The general rule in any democracy is free initiative, by which anyone can

[14] *Rebalancing the value from voice and SMS to data*. Calum Dewar and Mark Giles, August, 2014. (Available at https://www.gsmaintelligence.com/research/?file=2014-08-29-rebalancing-the-value-from-voice-and-sms-to-data.pdf&download).

pursue its own enterprise, as long as it observes the general legal framework (*e.g*. consumer law, antitrust regulation). ***Ex post* approaches are efficient whenever the public interest is not violated by the structure of the market itself, but when the behaviour of a given economic actor infringes the social interest. This kind of approach incentivizes innovation, promotes entrepreneurship and foster competition.**

We believe that the *ex post* approach – in accordance with each country's set of rules around competition laws - is the appropriate regulatory response to OTTs. We also believe that countries should also foster a discussion on how to seek regulatory relief for TSPs, so they can also be benefited with the incentives of an ex post approach.

5. HOW CAN OTT PLAYERS AND OPERATORS BEST COOPERATE AT LOCAL AND INTERNATIONAL LEVEL? ARE THERE MODEL PARTNERSHIP AGREEMENTS THAT COULD BE DEVELOPED?"

It is extremely important to expand and strengthen discussions and both the local and international levels among all OTT players in order to ensure that online services reach more and more the customers' daily lives. These discussions must uphold principles of a neutral, free and non-discriminating internet.

And, although we do not suggest a model partnership agreement, we believe the segment's stakeholders should be free to innovate and develop business models that are beneficial to all included, specially consumers.

We remain available for any questions on this matter.

Sincerely,

CÂMARA BRASILEIRA DE COMÉRCIO ELETRÔNICO
Leonardo Augusto Furtado Palhares
President

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ABOUT THE CÂMARA BRASILEIRA DE COMÉRCIO ELETRÔNICO

The camara-e.net was founded in 2001 and, since then, set as its mission the sustainable development of the Digital Economy. It is, currently, the major multi-sector entity in Latin America and the most representative Brazilian entity of the Digital Economy. Its role has been fundamental in promoting security in electronic transactions, formulating public policies in line with the aspirations of modern society, and improving regulatory frameworks to provide legal support to the development of the country. In addition to fostering digital business, the camara-e.net aims to encourage innovation, the generation of knowledge, and the sustainable growth of the Digital Economy.

Our associates are the most relevant companies of the digital economy, which includes content and internet service providers, payment and digital certification companies, social media, banks, stores, among others.