

19th August 2017

Dear Sir/Madam,

The Asia Internet Coalition (AIC) appreciates the opportunity to submit comments to the ITU's Council Working Group on International Internet-Related Public Policy Issues (CWG-Internet) open consultation on OTT services.

The AIC is a policy voice of the digital industry in the Asia-Pacific comprising Apple, Expedia group, Facebook, Google, LINE, LinkedIn, PayPal, Rakuten, Twitter and Yahoo!. Our aim is to ensure users can enjoy the maximum economic, social and cultural benefits from the online world in the years ahead, and that they can do so safely, securely and confidently.

The AIC shares the ITU's recognition that information and communication technologies (ICTs) form the backbone of today's digital economy and have enormous potential to improve people's lives in fundamental ways.

In this regard, AIC respectfully submits in writing our comments on the open consultation on Over-The-Top (OTT) applications.

Yours sincerely



Jeff Paine

Managing Director Asia Internet Coalition

ITU: ONLINE OPEN CONSULTATION (June – September 2017)

PUBLIC POLICY CONSIDERATIONS FOR OTTS

Public Policy considerations for OTTs

"Considering the rapid development of information and communications technology (ICT) which led to the advent of Internet-based services commonly known as "over-the-top" (hereafter: OTT), all stakeholders are invited to submit their inputs on the following key aspects from policy perspective:

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

What is OTT? Online content or services that operate separately from the network layer without the direct control or commercial distribution by network operators are often referred to as Over-The-Top (OTT) applications. This term, however, is vague and does not acknowledge the global infrastructure and engineering efforts in which OTT providers invest, the results of which are valuable new benefits to consumers, and increasing demand for Internet Service Providers' (ISP) data services.

Different definitions of OTT vary wildly, in some cases capturing only a subset of messaging services, and in other cases the entire content layer of the Internet. Different definitions can cover diverse applications including communication services, transportation services, entertainment services, educational services, business services, and health services and pet welfare services. This shows the inherent challenge of seeking to single out and regulate a supposed "OTT sector".

OTT applications can offer many different functionalities including: texting, sending pictures, sharing videos, group voice or video chat, voicemails, browser based use, location data, VoIP, stickers/GIFs, timeline/channels/profiles, sending data files, in-app gaming, encryption, money transfer, local commerce platform, mobile payment, translation, dedicated partners – the list goes on.

Regional Examples: Go-Jek, Grab Taxi & iflix

The opportunities associated with OTTs are that there are very low barriers to entry, meaning that there are opportunities for all, in comparison to traditional business models. One example of this in Asia is GO-JEK. GO-JEK is an Indonesian hyperlocal transport, logistics and payments startup founded in 2010. It is the first startup of Indonesian origin to be classified as a transport system after closing a round of funding in August 2016. GO-JEK started in 2010 with a call centre and fleet of 20 riders, their fleet now exceeds 200,000 drivers and includes motorcycles, cars and trucks. People in 25 cities in Indonesia can now hail a ride via GO-JEK. Another example from Asia is Grab Taxi, which was established in 2012 as MyTeksi in Malaysia. GrabTaxi is a Southeast Asian focused taxi-booking app, which now operates in more than 50 cities across 7 other nations (Malaysia, Indonesia, Philippines, Vietnam, Thailand, Singapore and Myanmar) in Southeast Asia. The success of OTT startups in Asia is not limited to transport. iflix is a subscription video-on-demand service focused on emerging markets. Its regional headquarters for Asia is based in Kuala Lumpur, Malaysia. The site serves as a digital hosting and distribution platform for Western and Asian dramas obtained through partnerships with over 150 studios and content distributors globally including Metro-Goldwyn-Mayer, Disney, Warner Bros, Paramount, NBC Universal, Fox, CBS, BBC, Sony Pictures and Discovery. iflix is currently available in Malaysia, the Philippines, Thailand, Indonesia, Sri Lanka, Brunei, the Maldives, Pakistan, Vietnam, Myanmar, Saudi Arabia, Jordan, Iraq, Kuwait, Bahrain, Lebanon, Egypt, Cambodia, and Sudan. As of May 2017, iflix has more than five million subscribers using its service. In April 2015, iflix announced the completion of a \$30 million round of funding, led by leading international investment firm, Catcha Group and Philippine Long Distance Telephone Company (PLDT), the largest integrated telecommunications company in the Philippines. The company launched its service in Malaysia and the Philippines one month later.

The Internet has been the most powerful platform for innovation in human history. The rise of online services and OTTs has been a fundamentally positive development for a wide variety of stakeholders globally. Some of the benefits of OTTs and the opportunities they are associated with are listed below.

Benefits to Consumers

- OTTs have helped people around the world connect, trade, entertain and learn from each other at an unprecedented rate. Over the past decade, the cost of smartphones has dramatically reduced, while telecoms providers have extended the reach and quality of mobile data, all at increasingly affordable prices for consumers. This has contributed to the growth of consumer demand for data driven services like communications applications and video platforms. The freedom to consume and create through a diverse set of different channels supports more content in more languages, accessible to more people. The Internet allows people to not just consume, but to create and participate in the digitized economy with low barriers to entry, connecting with each other and letting the world's best content and creativity flourish, wherever it came from. Openness and flexibility – including the freedom to develop and consume new services is a key aspect of this. The Internet provides access to a wide array of platforms and distribution channels – ranging from traditional media groups distributing professional content online in new forms, to innovative content delivery services, to free forums where amateurs can share their independent creations. This diversity allows citizens to create and participate in the digital world at low cost. And when barriers to participation are low, the widest group of people possible are able to contribute to the development of content that is local, relevant, and accessible. Demand for Internet content can create its own supply when regulatory frameworks support continued investment and innovation rather than create costly burdens. When more content is available it demonstrates the value of connectivity for everyone, demand for that content and ISPs' delivery services increase. This creates a virtuous circle that drives development in the use of the Internet.
- OTTs are drivers of global economic growth Many studies have shown that usage of the Internet and digitization of the economy drive economic growth. For example, a CCIA study recently found that 'rich interaction applications' (RIAs)¹ generate a significant component of the socioeconomic impact of digitization and utilization of the Internet itself. Each 10% increase in usage of these apps has added on average US\$5.6 trillion in global GDP (0.33% of GDP).²
- OTT applications confer a wealth of opportunities. They contribute greatly to the social and economic development of users (whether government, businesses, or citizens/consumers) and the countries and economies in which they are used. There are numerous use cases and examples that support this³. These cases show that:
 - OTT applications generate a significant component of the socioeconomic impact of digitization and utilization of the internet, growing GDP far in excess of basic telecoms services. This benefits stakeholders at all levels in the supply chain, from the ISP providers who are able to invest in improved services and infrastructure, to end-users such as governments and businesses that use these rich applications and the underlying network connectivity needed for these services, and ultimately end-user consumers. Further information on the symbiotic relationship between OTTs and traditional telco providers is provided in response to Q 4 below.
 - OTT applications are able to generate new local value creation. For example, advertising of local merchant services, and integration of payment and money transfer functions that enable remittances from overseas workers back to their

¹ [CCIA](#): RIAs are “applications that are used for a wide range of functions, allowing two parties to interact with each other in a long and growing number of ways”

² [CCIA](#) - “The Socioeconomic Value of Rich Interaction Applications (RIA)”

³ See the recent WIK report on The Economic and Societal Value of Rich Interaction Applications (RIAs) (May 2017): <http://www.wik.org/index.php?id=879&L=1>

local communities, which in turn enables wealth distribution and additional wealth creation in these communities.

- OTT applications are able to generate significant social benefits particularly in bridging communication gaps, and supporting users with disabilities - standard Internet application 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). OTT applications also have important roles to play in aiding disaster relief, e.g., assisting to connect loved ones separated during a disaster, providing life-saving information back to communities affected by a disaster, etc.
 - OTT applications can help provide crucial health and education information, e.g., providing important medical information, helping train health workers in remote locations, helping education projects and learning groups by establishing direct lines of communication between teachers and student groups to distribute learning materials and supplement traditional learning methods.
 - OTT applications help improve enterprise and government efficiency (e.g., through eGovernment initiatives). For example, OTT applications offer governments better and more efficient ways in which to communicate with citizens through eGovernment initiatives which not only benefit central governments 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. Ensuring closer and more direct links between the citizen and delivery of government services leads to a more engaged citizenship, who are able to better participate in society.
- Consumers and end-users are a critical stakeholder group, often overshadowed by a focus on industry interests. Consumers see real value in the diversity and richness of the functionalities OTT applications offer, which go beyond traditional voice calls and SMS text messaging. Increased consumer use of OTT applications should be encouraged as a way to incentivise greater competition and investment by traditional telco providers and other players in the wider communications ecosystem.
 - Users see real benefit in being able to switch seamlessly between different applications without having to make an *'all or nothing'* choice between apps and services (multi-homing), being able to use the services across multiple devices and operating systems, and being able to add on additional services as and when they choose, with application providers working hard to differentiate themselves through the diversity of features offered. These feature rich options form a material part of consumers' and end-users' decisions in choosing to use OTT applications alongside traditional telco services, over and above purely monetary considerations and the fact that typically RIAs are provided for free.
 - Messaging services are powering the dynamic App economy, allowing startups to reach millions and improving consumer life through innovation. The App Association details this rise of a \$120 billion ecosystem in its annual report. Message and communication services are being integrated into all sorts of apps - from travel booking services to dating services⁴.
 - There is huge potential for further innovative applications and use cases to be developed. In order to do so, however, it is critical that the right environment exists that promotes rather than stifles innovation. This is discussed further in response to Q2.

⁴ http://actonline.org/wp-content/uploads/2016_State_of_App_Economy.pdf

Benefits to Businesses

Platforms and OTTs enable local value creation for businesses (particularly Small and Medium Enterprises). Small and Medium Enterprises (SMEs) use OTT technology to become competitive with large corporations, enabling multi-sided interaction that can help local merchants grow with almost no barrier to entry and little monetary risk. OTTs and Internet services give SMEs direct access to billions of potential customers instantly, and SMEs can use the world's best technology with easy to use tools to gather critical information on foreign markets - all at zero (or close to zero) cost.

Small firms use systems provided by OTTs to establish trust and international brand awareness, which allow them to grow and export. A website and the use of trusted online services gives SMEs instant international presence and legitimacy with potential customers and suppliers. SMEs that are online are almost 4 times more likely to be exporting⁵. In addition, "web-savvy" SMEs utilizing OTT's brought in 2 times as much revenue through exports as a percent of total sales than other companies and created more than 2 times as many jobs⁶. SMEs also leverage OTTs for payment and money transfer functions that enable remittance payments at substantially lower cost; for India alone, this could amount to saving US\$4.4 billion annually. As these OTT⁷ functions that are high in demand from consumers require data to be utilized, this has a substantial positive impact on telecommunications providers' business.

OTTs and Internet services are also a cross-cutting enabler, and allow entrepreneurs to devise new solutions to address issues as diverse as efficiently managing energy consumption, revolutionizing education and learning, and improving the effectiveness of government services and institutions. One should note that most of OTT players are SMEs, not big players. They are start-ups. Innovation has mainly taken place in the online space. Unlike with traditional telephony services, competition among messaging services is fierce and the barriers to entry are low. Some online service providers have taken great risks in trying to provide innovative solutions at a small cost for the consumer. The risk of imposing disproportionate regulatory constraints on OTT service providers is that the market is likely to concentrate and leave behind only the major players. It is thus important that regulations promote competition, sustain innovation and allow consumers the ability to choose amongst a diverse range of service providers.

Benefits to Sustainable Development

OTTs are helping the world reach the UN Sustainable Development Goals (SDGs) and drive inclusive growth. OTTs are moving the needle towards the achievement of UN Sustainable Development Goals. New services provided over the Internet support innovation, economic development, and better paying jobs, which is crucial to attaining SDG8: Decent Work and Economic Growth.

Regulating OTTs would reduce the likelihood of achieving various SDGs such as increasing accessibility to communications and technologies, as well as stifling innovation. Regulation of OTTs would also stifle the usage of the Internet and investment in broadband deployment. Internet services are also providing innovation solutions that support the attainment of other human rights, such as freedom of movement, freedom of expression, and full participation in the cultural life of the community.

Benefits to the Telecommunications Sector and Operators

OTTs drive revenues for telecoms operators. Online communication services are accelerating demand for mobile broadband and smartphones, helping to stimulate the growth of traditional telecommunication markets. Their disruption of traditional markets is unavoidable and in most economies far outweighed by positive impacts, opening up huge profit opportunities for telecom players with the switch to data (seen as the natural evolution of the telecommunication markets), and new economic opportunities even beyond telecom markets. The value from this demand flows not only to the ISPs, but also directly to consumers, who benefit from email and messaging, platforms to buy and sell goods, and access to information, education and healthcare, often for free.

Countries that have been more open to online communications services have seen a faster adoption of mobile broadband, smartphones and consequently of their economic growth through mobile applications

⁵ [Local Business, Global Ambition: How the Internet is Fuelling SME Exports in Asia-Pacific](#). Oxford Economics.

⁶ [Internet matters: The Net's sweeping impact on growth, jobs, and prosperity](#). McKinsey Global Institute May 2011

⁷ Forthcoming (2017) Indian Council for Research on International Economic Relations (ICRIER) research

and services. In Indonesia alone, for example, online content and applications drove over IDR89 trillion⁸ (USD \$6.6b) in economic value for consumers and telecom operators in Indonesia in 2015. Of this, IDR48 trillion were paid to telecom operators for Internet access.⁹

Telecommunications operators are looking to the Internet and digital services to fuel a new period of growth. Recent reports have shown that operators could benefit strongly from further interactions with OTTs, directly through partnerships, and indirectly by adapting their business to consumers' fast-growing demand for online content and services. This process of 'digital transformation' is well underway. The telecoms industry and online service providers are stronger when working in close partnership. Analysys Mason has estimated that if operators in Europe, the Middle East and Africa accelerated this process and deepened their partnerships with OSPs, they could improve annual cash flows by billions of Euros in a matter of years¹⁰. A similar impact could be extrapolated to other regions in the world.

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

- Policymakers and regulators should develop frameworks that will drive innovation and investment and ensure users are able to benefit from increased use of OTT applications.
- Overly-strict regulation or regulation imposed too early in the development lifecycle of RIAs would stifle innovation and investment and dampen competition.
- 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 legacy regulations to new services and technologies, regulators should seek to deregulate incumbent telecommunications operators, as appropriate.
- OTT applications and traditional telco services are often used by consumers / end-users in a complementary manner – but they are not the "*same service*".
- There are important differences between OTT application providers and traditional telecoms services providers:
 - Telecoms operators control the underlying broadband access infrastructure, with few market players and high barriers to market entry.
 - In contrast, Internet companies that provide OTT applications do not control the underlying broadband access points, have significantly lower barriers to market entry and are faced with many competing services. Consumers can add or stop using OTT applications at will and are typically not subject to long term contracts.

The "*same service, same rules*" argument is entirely misplaced when used to press for extension of legacy service regulations to OTT offerings.

- Imposing the same rules from a policy and regulatory perspective therefore fails to recognise that OTT applications are fundamentally different from traditional telecoms services.
- There are physical, technological and legal differences between traditional telco services and OTT applications – 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

⁸ Idate (2017): Impact of online communication services on telecom operators in Africa

⁹ Analysys Mason (2016): [Online content and applications drove over IDR89 trillion in economic value for consumers and telecom operators in Indonesia in 2015](#)

¹⁰ Analysys Mason (2017): "Operators' Digital Transformation: Unlocking EUR15 billion through partnerships with OSPs"

introduced a "*monopoly*" and which end-users need in order to switch provider¹¹. By contrast, end-users can readily download, use, and switch between multiple OTT applications – if a "*same service, same regulatory rule*" 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 if provided by a traditional network operator.

- OTT applications and traditional telco services serve different functions and their history is different. OTT applications 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: they can be used in a complementary manner.
- In the recent WiK report on "*The Economic and Societal Value of Rich Interaction Applications (RIAs) (May 2017)*"¹² which reviews over 139 apps globally, the report identifies that a typical RIA features on average 9 functions that offer consumers a wide range of interaction opportunities such as group chat, photo and video sharing, location sharing and real-time translation; and that from a suite of functions, 23 can be identified as shared by at least 3 RIAs. The same cannot be said of vertically integrated traditional telco providers that offer access to much more limited suite of services and functionality and usually only on one device e.g., the user's mobile phone or fixed line.
- Traditional telco providers also often point to declining revenue and pricing models to argue for a "*same service, same rule*" approach for OTT applications. But the same pricing model is inappropriate for OTT applications and traditional telco services – the assumptions and metrics are different. In the traditional telco environment, the product is voice and the relevant pricing metric is minutes; in a new digital data environment, the product is connectivity (e.g., connecting users) and the relevant metric is bandwidth / throughput, where the incremental cost of sending information over the underlying IP network is typically close to zero. Downward pressure on traditional telco providers' revenue is a challenge posed not just by the collision of a new digital/data environment with the old traditional telephony voice and SMS business and regulatory model, but as a result of increased competition following liberalisation of telecoms markets and reduction in interconnection fees.
- Traditional telco providers have ways to navigate this transition from business models built around voice/minutes to compete in a new IP environment and data centric business model, and move towards more competitive markets. The solution should not be to protect those who are slow to adapt to a data-first world by extending voice-era regulation on new 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 OTT application providers alike.
- 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 favor proprietary applications over competitive alternatives (i.e., net neutrality protections).
- Telecommunications operators 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".¹³

¹¹

<http://static1.1.sqspcdn.com/static/f/1321365/27575015/1495793366237/LPFMay24.pdf?token=U9zAqtwKdfsRPHcfcwPBRXdMl6c%3D>

¹² <http://www.wik.org/index.php?id=879&L=1>

¹³ <https://www.gsmaintelligence.com/research/?file=2014-08-29-rebalancing-the-value-from-voice-and-sms-to-data.pdf&download>

- Consider just one potential rule - connecting to emergency services. While geolocation technologies are evolving, at the present time the messaging service's ability to locate the user is less exact than the cellular location available to the telecom operators (and sometimes entirely non-existent). Furthermore, emergency services in various countries are unable to connect with the VOIP technology, so even if messaging would allow such a connection, and there would be a decent internet connection, the emergency service may not receive it correctly. By suggesting to consumers that they can use messaging services to connect to emergency services, governments therefore risk great harm to users.
- Another inappropriate regulatory burden for OTTs would be interoperability. Telephone operators obviously must connect calls from different operators. But while this may make sense in the telephone market, it makes no sense in an Internet messaging market where it takes a few keystrokes to download a new, free messaging app. These are not "any-to-any" services and users enjoy being members of a closed community. This does not prevent them from being members of several other communities (e.g. WhatsApp, Snapchat, Instagram etc.) according to, for example, their age and interests.
- If OTT players are forced to abide by inappropriate telco rules, this would require such companies to establish a whole new infrastructure and ultimately change aspects of their business, such as low cost and quick innovation, that directly benefit consumers. It would also impose constraints requiring additional investments on a player that does not have unlimited resources. This could possibly lead it to revise its services offering and therefore reduce the service offer available to consumers.

Regulating OTTs is effectively regulating the entire Internet - which will hamper digital growth and innovation

Regulating OTTs (if broadly defined) is essentially equivalent to regulating the entire 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 distinction between different types of "OTTs" is not always clear, when it comes to the features and capabilities of an app. Communication features, for example, can be embedded and ancillary to an app that primarily performs a non-communications function in a wholly different sector. This highlights the dynamic nature of the app economy as an engine of innovative solutions for consumers, and the danger of attempting to squeeze apps into regulatory categories established for traditional communications services.

Because OTTs can encompass such a broad array of services, treating OTTs like traditional forms of telecommunications services is ultimately harmful to an economy and its citizens. OTTs should be able to operate across national and international networks, and efforts to block or charge consumers different data rates just for choosing different types of apps and services should be prohibited.

In some cases, OTT applications and tools on the Internet can introduce individual policy challenges, and governments need to respond to them as individual issues. For example, it is integral that all communications services to abide by basic data protection principles, and this includes services that run over the Internet. Any policy changes need to be carefully considered so that they do not jeopardize the environment that enabled the growth of the Internet to begin with. That means supporting other¹⁴ policies that keep the Internet open and free, retaining the capacity to foster innovation and economic growth.

Finally, in most cases, there are already extant offline solutions that can be applied to the online world (e.g. privacy).

Level-playing field?

¹⁴ Access Now: ["Watch Bad Regulation on OTT Services"](#)

There is no evidence that OTTs are harming telco revenues overall - quite the reverse. A number of different researchers have shown that the introduction of VOIP and instant messaging have not harmed traditional telcos and associated overall revenues. In fact, there appears to be a net benefit: losses to SMS revenues have been balanced by overall increases in revenue from data-tariffs - driven by consumer demand for OTTs. Consumer demand is also driving Internet traffic, which has continued to grow in recent years, despite that telecoms operator capital expenditure has remained relatively flat as a percentage of revenue: a trend that is expected to continue.¹⁵

OTTs and other content providers invest and work closely with broadband providers and telecoms operators to deliver services efficiently and cost-effectively. Globally, Internet content providers invest approximately USD \$35 billion annually (growing by 13% YOY) on data centers, content distribution networks (CDNs), as well as buying or leasing capacity to move content across the Internet.¹⁶

The Internet has brought innovation that has benefited consumers deeply. The solution is not to erode the consumer benefits from Internet companies but to ensure that telecommunications companies and other ISPs can compete and partner to also avail of these benefits. Outdated regulatory structures should be reviewed, removed, lowered or lessened so that telecoms operators can gain from the growth the Internet brings.

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

- Consumer security, safety, and privacy cannot be guaranteed by any one party. Multistakeholder and multiparty cooperation between application providers, telecommunications service providers, governments, the technical community and civil society organizations is critical to building confidence in the use of Internet services.
- OTT applications positively contribute to safety, privacy and security issues, greatly benefiting the consumer. OTTs provide many solutions in the privacy and security spaces, giving consumers peace of mind and increased independence. In the app ecosystem, OTT providers are incentivized to protect the privacy, security and safety of the consumer, considering that app usage is based upon trust from users.
- It is important to note that privacy is an intricate national issue that differs in each country and jurisdiction and is dependent on a number of factors including social and cultural norms. However, unlike the situation of network-focused regulations that do not fit OTT models, OTTs do not necessarily face special privacy challenges that other players in the Internet, media, and communications ecosystem do not as well. Principles should apply to all holders of user data, not only to OTT (for e.g., health, financial, education and government sectors).
- In fact, platforms and services over the Internet contribute to a more robust system of security online. An open, robust, and competitive online environment fosters the development of new products and services to market that support secure solutions and empower users. For example, services like personal password managers empower users to securely manage the constellation of different online accounts, without resulting to passwords that are easier to remember but insecure.
- In most countries, data security concerns with regard to OTTs are adequately addressed by existing laws and regulations, such as consumer protection laws, financial regulations, and competition laws that cater to different aspects of safeguarding consumer interest. Typically, privacy legislation relates to all matters of privacy, whether in the offline or online worlds. It is important to note there are already many national and international bodies focused on privacy and consumer protection.
- Many OTT players offering app messaging services applies end-to-end encryption to their chat services in order to protect user privacy, security and safety. End-to-end encryption means that data (e.g. messages, photos, videos, voice and video calls) is encrypted or scrambled the moment it is sent from one device until it reaches the intended recipient. End-to-end encryption means that data (all types of messages, photos, videos, voice and video calls) is encrypted (or scrambled) the moment it is sent

¹⁵ GSMA: "GSMA Intelligence: Capex outlook: coverage, capacity and competitive edge."

¹⁶ Analysys Mason "[Investment in networks, facilities and equipment by content and application providers](#)"

from one device until it reaches the intended recipient. This data can't be picked up the middle by anyone else.

- Some countries indeed are strengthening censorship over users of OTTs, which would be an invasion of privacy of users. In many regions, too, demands to store data locally represent a real obstacle. This forced data localization leads to additional state surveillance, industrial protectionism and a fragmented web – as well as driving up OTT costs, making them often uneconomical.

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

- **OTT** application providers and traditional telcos have a symbiotic, mutually-reinforcing relationship. Rich applications drive a huge demand for data capacity provided by traditional telco providers' and other ISPs' infrastructure whilst the ISP infrastructure enables end-users to access innovative online services and content. It is not a "zero sum" game. Both the broadband providers and OTT application providers are able to benefit from and support the growth of the other's business model. And OTT applications contribute to this rich ecosystem. Forward-looking operators and providers recognise that they benefit from RIAs and have embraced this symbiotic relationship.
- A recent German study concluded that consumers who use online services and OTT applications are more likely to have purchased new mobile plans with more high-speed data allowances within the last 2 years and that the plans purchased are more likely to be pay monthly rather than pay-as-you-go¹⁷. The study concludes that as monthly plans include voice and SMS allowances the telco operator is unlikely to see a decline in revenue based on any further increase in use of online services / OTT applications.
- As providers look forward to 2020 a new area of growth in the telecoms sector will be in the capability provided by 5G. 5G innovation will require investment from traditional telco providers and other operators and the return on this investment will, in part, be driven by consumer demand for new innovative services.
- OTT applications 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 RIA providers.
- It is incorrect to suggest that OTT application providers do not contribute to / invest in the infrastructure ecosystem. Whilst broadband and mobile network infrastructure is fundamental to the provision of rich applications, it is not the only infrastructure required. The development of new technologies to connect distant population centers and hard to reach communities, and to provide content delivery networks and data centers, are also important elements of the overall infrastructure required for OTT applications to operate efficiently before they reach last-mile networks. This complementary 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.
- The goal of regulation should be the welfare of the end-user and consumer, not protection of specific business models and/or delivery mechanisms. Discussing ICT-based services, policy should focus on the consumer first, not the business models that deliver those services. Regulating specific types of services based solely on how they are delivered will fundamentally harm the consumer. By arbitrarily putting barriers before some types of services but not others, consumers will face cost increases and have fewer choices of innovative solutions, while at the macroeconomic level decreases in investment, reduction in healthy competitiveness, Needand a reduction in local content production.

¹⁷ http://www.wik.org/fileadmin/Studien/2016/OTT_Study_ENG.pdf

- Protect Innovation – the Internet has been the most powerful platform for innovation in human history. Continued innovation depends on an Internet that is fair, open, and friendly to experimentation. Broad regulatory approaches that limit the abilities of entrepreneurs and innovators to develop new products and services online stifle and limit the benefits of the Internet.
- “Innovation” can seem abstract, but innovative OTTs mean jobs: Oxford Economics has identified that in Southeast Asia alone, increased mobile Internet penetration is forecast to create an extra \$58.1 billion in GDP and one million new job opportunities by 2020. This is a new sector of the economy that was¹⁸ impossible to anticipate less than a decade earlier.
- Regulating OTTs will push potential developers/companies—especially new and small ones—out of the growing market, reduce competitiveness, reduce market efficiencies created by OTTs, and reduce consumer choice. This hurts both the development of the market and ultimately the welfare of consumers.
- Blanket regulation is not appropriate. The idea of blanket regulations on OTTs and apps would be a regulatory impossibility given the wide range of sectors that apps and OTTs impact. Consequently, such regulations would create a compliance burden and form barriers to entry for smaller local players, and affect market efficiency and competition.
- The ideal balance sought would be between promoting innovation, fostering competition and securing investments in addition to protecting consumer interest. In a dynamic and complex sector, it is important to invest in understanding the full causes and effects of industry changes before attempting to regulate them. Further, regulation must be careful not to merely protect a status quo and should facilitate growth, promote innovation, improve market efficiency and ensure complete information access to consumers.
- Informal tools are most appropriate. Informal tools of guidance such as non-legislative, or interpretive rules could be important in this rapidly developing sector. In contrast to rulemaking, informal tools are particularly useful in a rapidly changing industry such as online services. In such conditions of uncertainty, laws can often take too long to create to address rapidly changing issues. And while laws last a long time, they can become outdated quickly, and are likely to be designed without fully understanding the sector, potentially stifling innovation. Informal tools by regulatory agencies ensure flexibility and are less likely to hinder innovation. Some potential examples are: regulatory sandboxes, industry consultations and meetings, and voluntary codes of conduct.

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

- Authorities should permit interested parties to form pro-competitive 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.
- Various studies (including the WiK report on The Economic and Societal Value of Rich Interaction Applications (RIAs) referenced above) acknowledge the benefits that high quality affordable connectivity brings to telco providers, OTT applications 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.

¹⁸ Oxford Economics (2016) [“One million opportunities: The impact of mobile internet on the economy of Southeast Asia”](#)

- As mentioned in response to Question #2 above, OTTs combined with the Internet access provided by ISPs create a virtuous cycle of value creation. OTTs are accelerating demand for mobile broadband and smartphones, helping to stimulate the growth of traditional telecommunications markets.
- Telecommunications operators are looking to the Internet and digital services to fuel a new period of growth. This process of 'digital transformation' is well underway. The telecoms industry and online service providers are able to drive more value for consumers and the economy when working in close partnership.
- Telecoms operators and OTTs can unlock tremendous value for consumers and society at large, by partnering closely together. Here are a number of examples:
 - Business development: Liberty bundles Netflix subscription with its core services, providing services with a better local market reach while generating additional revenue from taking a share of Netflix subscription sale;
 - Technology and operations: Deutsche Telekom partners with Cisco to implement NFV technologies to offer connectivity services to small and medium-sized enterprises (SMEs) in a number of European countries;
 - New business opportunities: Bharti Airtel in India provides Android customers with an opportunity to charge the purchases of content in the Google Play Store, such as apps, games, music, video, and e-books, directly to their monthly bill; and
 - New business opportunities: MTN Business partners with Microsoft to provide a pan-African cloud platform that offers its business customers a hybrid cloud solution serviced from MTN's data centres and powered by Microsoft technology.