



Comments of Mobile Telecommunications Company KSCP (“Zain Group”) on the ITU Internet Working Group’s Public Consultation on Issues in relation to Public Policy Considerations for OTTs

16th August 2017

A. General Introduction

1. Ever since the emergence of over-the-top (OTT) communications, content and applications services, with the launch of messaging platforms¹ such as Internet Relay Chat (IRC) in 1988, ICQ™ in 1996, AOL Instant Messenger in 1997 and voice-over-IP platforms such as Skype™ in 2003², stakeholders have contended on the benefits and challenges that these services bring to the digital ecosystem, on the one hand, and to the telecommunications industry on the other.
2. Today, with mobile and fixed broadband services reaching at least 50% population coverage³ in almost every country and high smartphone penetration, end-users have access to a plethora of internet-based OTT services which have expanded significantly in usage with hundreds of millions or in some cases billions of monthly active users across multiple geographies. These services are generally categorized as (a) communications – which includes IP messaging, voice-over-IP, video conferencing and unified communications (b) content/media – which includes audio-streaming, video streaming, video-on-demand services and gaming (c) applications – which serves as a catch-all description for several verticals including social media, software-as-a-service, fin-tech, eHealth, e-Commerce, mobile advertising, connected cars and many others. Within the communications space, end-users have access to Skype, WhatsApp™, Google Hangout™, Tango™, Viber™, Telegram™, WeChat™, LINE™, Facebook Messenger™, Slack™, FaceTime™, Zoom™ and Blue Jean™. Within the content space, options include YouTube™, Netflix™, Iflix™, StarzPlay™, Icflix, Amazon Prime and various OTT content platforms offered by broadcasters. Within the applications space, there are several offerings within each vertical such as Twitter, LinkedIn, Snapchat, Facebook, Amazon, eBay, etc.
3. All relevant stakeholders – Consumers, Micro-Small-Medium-Enterprises, Corporations, Governments, National Security Agencies, Regulators, Advocacy Bodies, Traditional Operators and OTT Service Providers – all acknowledge that the use of these applications has greatly enhanced connectivity, has resulted in a tsunami in content consumption as well as data generation over networks and has dramatically improved digital capabilities, provided greater access to healthcare and has improved productivity. However, stakeholders have very divergent views on who benefits and the disruptive nature and impact on the business models of some of the stakeholders. As a

¹ Global Information Assurance Certification Paper , “Evolution of Instant Messaging”,

² Fortune Magazine, 12th May 2011 Edition

³ GSMA Intelligence



consequence, the regulation or lack thereof, of OTT services has proven to be a very challenging topic.

4. Focusing on OTT communications, Table 1 reflects the various positions which stakeholders have. Ultimately, unless a revised balanced regulatory framework, which takes these positions into account, is introduced, the expansion of network infrastructure, at a national level, to support the digital agenda of a country such as the deployment of 5G services, will continue to be at risk due to the declining profitability of traditional operators. At the same time, there has to be clear recognition across the board that imposing outright blocking or throttling of OTT services is not a sustainable model^{4, 5} and that the relationship between network operators and OTT service providers is a symbiotic one with network operators providing access services that allow customers of both the network operators and OTT providers to gain access to OTT services.

B. Suggested Approaches

1. One possible suggested approach would be to seek to effectively integrate OTT service providers into the fabric of regulation within the country and allow traditional operators to monetise their networks and to incentivize OTT service providers to invest in the build out of national infrastructure (data centres, fibre networks and international gateways).
2. The suggested approach is as follows:

Service Provision and Licensing

- Create a class license which will allow OTT service providers to offer public VOIP and Video Calling services in a given market. Ensure that license fees are moderate to encourage OTT service providers to enter into these licensing agreements. OTT services may also have the option of purchasing specific number blocks in a market. Licensees will need to apply and fulfil a certain set of criteria before they are allowed to offer services in the market and the national regulator may opt to license a limited number of qualified operators.
- Obligate OTT service providers to enter into wholesale commercial agreements with traditional operators (MNOs, fixed operators and ISPs) in a similar fashion to MVNOs which will then allow OTTs to provide the following: (1) Emergency calling numbers (2) interconnection (3) lawful intercept. MNOs and ISPs will be able to institute a wholesale charge on the OTT for providing these services and may also institute a monthly retail charge on customers (additional fee for post-paid customers or a charge deducted from prepaid balance for prepaid users) who utilise the OTT service provider's offering. A combination of a fair wholesale charge and fair retail charge will allow operators to recoup costs involved in building out network infrastructure and providing data connectivity.

⁴ ADL, "Digital Platforms and Services: Operating in the OTT Environment", SAMENA Trends Magazine, June 2017

⁵ ADL, "The OTT Conundrum for MENA Telecoms: Achieving sustainable growth in a digital world", February 2016



- Traditional operators may be allowed to offer a "freemium model" which supports IP messaging only and to also have a "premium model" which includes VOIP and video calling. The first model may offer basic OTT services but with the second model (for which users will pay an access fee) traditional operators can allow high quality services, including OTT video calling, voice calling, etc.
- Allow traditional operators (MNOs, fixed operators and ISPs) to block traffic of OTT service providers that have (a) not secured licences in a particular market (b) not entered into a commercial agreement with a traditional operator.
- Institute a policy which calls for OTT service providers to provide support on demand to traditional operators whenever a lawful intercept requirement is mandated by the national security agencies.
- Penalise traditional operators who permit the offering of OTT VOIP services of OTT providers who have not (a) secured a licence to offer services (b) entered into a commercial agreement with the traditional operator.
- Allow MNOs and ISPs to prioritise traffic of OTT service providers who have entered into a preferential commercial agreement.

Encouraging Further Investment

- Encourage OTTs to (a) build data centres in the country by offering incentives to do so (b) build IXPs which ultimately will lower the cost of data services. Potentially propose a PPP arrangement with OTT service providers.
 - Liberalise international gateways and allow traditional operators and OTT service providers to build cable landing stations - all in a bid to lower the cost of data services and to boost internet services access. Operators can enter into revenue share arrangements with the Government which allow a risk-reward-sharing approach.
3. The implementation of the regulatory framework is heavily dependent on wide-spread (or even global adoption) and standardisation: If only a few countries elect to implement the new regulatory approach, it is likely that it will not be successful.



| Table 1 - OTT Communications – Stakeholder Positions | | |
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| Public Consumers | Small-Medium-Enterprises and Corporations | Governments |
| <ul style="list-style-type: none"> Serves as substitute for international and local voice calls and messaging offered by traditional operators Lowers cost of international and national calls and messaging considerably Most OTT applications are perceived to offer significant user-friendly benefits over Telco platforms Blocking, throttling or degrading of the quality of OTT communications (particularly in markets where there are large diaspora communities who rely on international communications) may give rise to consumer-led boycott of telecommunications services^{6,7} | <ul style="list-style-type: none"> Lowers communications costs and business cost structure Significantly enhances business productivity through group-chat, group-video calling services IP messaging services such as WhatsApp and WeChat are now integral to the customer service offerings of established companies, financial institutions, etc. IP messaging services may also find increasing use in Application-to-Person (A2P) messaging replacing bulk SMS creating more value for SMEs. | <ul style="list-style-type: none"> Usually a secure form of rich OTT communications is expected to be part of the digital transformation of the country and its digital economy agenda Some governments promote ready access to VOIP and IP messaging services as supportive of business friendliness of the country Given widespread adoption of OTT VOIP in most developed economies, Governments do not want to adopt a position of blocking OTT VOIP services in order not to be perceived as non-innovative or to be “left behind”. |
| Regulators | Ministries of Interior / National Security Agencies | Advocacy Bodies and Regional Regulator Groups |
| <ul style="list-style-type: none"> In an effort to promote net neutrality, many regulators have opted to prohibit national operators from blocking, throttling or degrading OTT communications services whilst allowing reasonable traffic management. The lack of a uniform standard of treatment of OTT communications globally gives rise to very different approaches. For example in UAE, OTT voice services are blocked; whereas in Bahrain, blocking of OTT voice services is prohibited. In Saudi Arabia and Jordan, selective blocking of applications is implemented. It is practically impossible to impose taxation on a telecom service if the telecom service does not generate any revenues. This is a fundamental problem with the fermium telco model adopted by OTT providers. Even if revenue is generated from other sources such as advertising, it will be difficult to desegregate revenue by country – particularly if revenues are not reported by country. OTT providers are <u>unable</u> to (a) guarantee a certain quality of service (b) interconnect with other operators (c) offer emergency calling (d) guarantee that consumer data will remain in country (e) guarantee transparency | <ul style="list-style-type: none"> Given heightened national security requirements – either of a cyber nature or terrorism – there is a requirement from time to time to intercept voice calls or messaging of specific individuals. Owing to the fact that OTT service providers are not subject to the laws of the jurisdiction and implement sophisticated encryption schemes, lawful intercept mechanism implemented by national security agencies are unable to decipher calls – a departure from the approach adopted with traditional, national operators. | <ul style="list-style-type: none"> Advocacy bodies (GSMA, SAMENA) promote the concept of “<i>Same service, Same Rules</i>” essentially advocating that OTT communications services which are substituting traditional voice services should have the same regulatory treatment as traditional voice and should be considered as part of the voice market⁸. In GSMA’s report⁹ in response to BEREC’s report on OTT services, GSMA has stated that: <ul style="list-style-type: none"> <i>“Internet telephony, instant messaging, social networks and many other services compete with the more traditional voice and text services.”</i> <i>“In relation to communications services, the market is competitive independent of regulation and consumers are extensively using new OTT communication services with popular, attractive and innovative functions and at low cost. In contrast, traditional communication service providers are burdened by fragmented, prescriptive ex ante regulation.”</i> |

⁶ Jordan Times, “Activists urge 24-hour boycott of telecom services”, 31 Jan 2017

A. ⁷ Morocco World New, “Viber, Skype, WhatsApp: Moroccans Launch Campaign to Boycott Telecom Providers”, 14 Jan 2016

⁸ GSMA, “A new regulatory framework for the digital ecosystem”, 2016

⁹ GSMA Comments on BEREC’s report on OTT services”, 2015



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| <p>of offers to customers (f) offer customer interoperability between applications – thus for example, Viber calls cannot connect with WhatsApp calls.(g) cannot support national lawful intercept requirements.</p> | | <p>On the other hand, BEREC¹⁰ (collecting inputs from various regulators in Europe) found that only a few (the Spanish and Portuguese regulators considered OTT VOIP as part of the voice markets.</p> |
| <p>Traditional, National Operators (Mobile Network Operators, Fixed Line Operators)</p> | <p>Alternative Operators (ISPs, Fixed Wireless Access Operators, MVNOs, In-country VOIP operators)</p> | <p>OTT Service Providers</p> |
| <ul style="list-style-type: none"> ▪ OTT communications usage is resulting in significant decline in Voice revenues, messaging revenues – with declines approaching 10-30%. ▪ There is a consequent drop in the revenue share contribution paid to the national treasury as a result of the decline in revenues. ▪ OTT communications now serving as a key substitute for international voice calls and messaging, national voice calls and messaging and increasingly termination of international inbound voice calls and messaging^{11,12}. Furthermore, OTT service providers will also enter into the A2P messaging market which will further erode revenues from traditional network operators. ▪ OTT service providers are not bound by national regulations (licensing, wholesale and retail tariff regulations, competition, consumer protection, data sovereignty, privacy and security), do not invest in the acquisition of scarce resources (spectrum, numbering, and rights-of-way) and do not need to have assets in country, do not invest in CAPEX (build out of networks, fibre infrastructure, and international gateways). ▪ OTT service providers are not subject to industry taxes – revenue share, spectrum fees, universal service obligations, etc. ▪ OTT services are not considered as part of a regulator’s strategic market review for the determination of market dominance in the wholesale space or significant market power in the retail space – thus giving rise to market | <ul style="list-style-type: none"> ▪ Critical profitability issues arise for alternative telecom operators who do not have the financial wherewithal of large operators ▪ Apart from cellular networks, a large proportion of VOIP calls and IP messaging goes over Wi-Fi hotspots brought about through the use of FTTH, xDSL, fixed wireless access, etc. | <ul style="list-style-type: none"> ▪ OTT service providers believe that they are already investing billions of dollars annually in a combination of physical facilities (such as data centres), fibre network, subsea cable capacity, servers, edge caching and routers that improve connectivity in markets around the world^{13,14}. ▪ 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”.¹⁵ ▪ OTT service providers are already seeking ways to collaborate further with traditional Telcos to further develop content, expand digital literacy capabilities and to invest in alternative technologies. |

¹⁰ BEREC, “Report on OTT Services – BoR (15) 142”, October 2015

¹¹ TRA Bahrain, “Strategic Market Review”, 31 Aug 2015

¹² Sonatel Wholesale Division, “The impact of OTT on telecommunications services provided by operators in Senegal”, 2015

¹³ Analysys Mason, “Investment in Networks, Facilities and Equipment By Content and Application Providers:”, 30 Sept 2014

¹⁴ Facebook and Microsoft joint statement on rules of procedure for the UN Broadband Commission Expert Group, June 2017

¹⁵ GSMA Intelligence, “Rebalancing the value from voice and SMS to data: A new approach to data tariffs for operators in developed markets”, August 2014



distortion

- OTTs players may also be able to combine OTT communications with OTT applications to build a digital ecosystem which allows them to operate a multi-sided business model. With a multi-sided business model, an OTT service provider can afford to subsidize one side of the model but charge for the other side. For example, Facebook uses advertising but may offer Facebook messenger VOIP calling for free. In some cases, the third party OTT service is offered without costs incurred whatsoever by the third party responsible, but with significant loss of value to the traditional operator. For example, Apple's face time is offered as part of the Apple device.
- Even if operators elect to offer a similar model to OTTs and offer a “fermium” model, unfortunately, this would not work because: (1) Investors ascribe value to traditional Telcos in a very different way to how they ascribe value to OTTs - OTTs may not even make a profit but would command a high valuation; whereas if a traditional Telco was loss making, its value would plummet (2) Financing banks who fund traditional Telcos expect to see these Telcos generating a profit and a change in business model will not be welcomed.
- With declining profitability and constrained cash flows, traditional network operators may be disinclined to invest heavily to adopt new technologies (e.g. 5G), innovate or expand networks to rural areas.
- Owing to the lower revenues which result from the revenue erosion brought about by OTTs, in some markets, to close budget deficits, some national regulators are forced to introduce additional taxation which further exacerbates the profitability challenges that operators are facing.
- Although some traditional Telcos have attempted to develop competing Telco OTT products, the significant scale and network effects already achieved by existing OTT service provider and the pace of innovation may inadvertently confine planned Telco OTT competing offerings to the drawing board!