Industry Briefing on Over the Top (OTT) Services in South Africa

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“The prevalent use of networked, wireless technologies as well as the OTT services has and will dramatically shape the ICT sector in South Africa. In addition, ICT ecosystem plays a pivotal role in information gathering and interactive communications that are of value to business or professional life”

To address concerns over the impact and utility of OTT services on the national ICT sector, the Committee will convene an all-day meeting of key stakeholders on 26th January 2016
What are OTT Services?

OTT Definition:

An over-the-top (OTT) service is defined as “content, a service or an application that is provided to the end user over the open Internet.” Including in the definition that what is provided can be either content, a service or an application, means that anything provided over the open Internet is an OTT service”

OTT services include the provision of content and applications such as voice services provided over the Internet, web-based content (news sites, social media etc.), search engines, hosting services, email services, instant messaging, video and multimedia content, etc.

Source: Body of European Regulators for Electronic Content (BEREC) Report of October 2015
At its birth in 1969, the Internet was recognised as an evolutionary innovation with the potential to disrupt the traditional way of transporting information using digital encoding. Email and web browsing were some of the first OTTs which changed how consumers communicated and impacted on revenue for Telkom and SAPO. “Over the Top” services are modern examples of such disruption.

All governments “converged” on the ITU in the late 1990s to define such a “converged Next Generation ICT Network” (NGN)

The NGN definition led to a vision of a converged ICT ecosystem in which all services would be provided over technologically neutral broadband internet networks

This vision of an ICT ecosystem that is fully converged onto a common broadband internet platform is still unfolding in developing countries, where the cost of broadband rollout limits the speed of such convergence

OTTs are modern innovations that take advantage of converged broadband internet networks where they exist, providing services “over the top” of these networks
The current OTT conversation

OTT entry and growth is a direct consequence of the ITU 2001 definition and growth of the NGN:

• “It enables unfettered access for users to networks and to competing service providers and/or services of their choice”
• “It supports generalized mobility which will allow consistent and ubiquitous provision of services to users”

➢ As broadband networks expand in both coverage and quality, the “competing service providers”, especially the OTT operators, leverage the opportunities presented by the NGN;
➢ Similarly the users welcome and demand the wider choices of services offered by OTT through “unfettered access” to networks and services of their choice;
➢ As operators strive to expand their networks towards “generalized mobility for consistent and ubiquitous provision of services to users”
ICASA issues three types of individual licences:

1. Electronic Communications Network Services (ECNS)
2. Electronic Communications Services (ECS)
3. Broadcasting Services
South Africa Electronic Communications Licensing Regime:

- Network operators hold both ECNS and ECS licenses. Each type of license has certain rights and obligations attached. ECS and ECNS license holders have to comply with their license conditions and South African laws.

- International OTT are not licensed in South Africa but provide their services “Over The Top” of South African ECNS licenses networks.

- International OTTs are not currently required to adhere to the same licensing, regulatory, legal and tax regimes as South African companies.
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<tr>
<th>Area of Regulation</th>
<th>Network Operators</th>
<th>OTT</th>
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<tr>
<td>Licensing (ECS / ECNS) including Annual Fees, licence obligations and spectrum licence obligations</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Interconnection and interoperability</td>
<td>Yes</td>
<td>No: OTT providers are per definition “over the top” of the network, and don’t require interconnection.</td>
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<tr>
<td>Quality of Service</td>
<td>Yes: End-User and Subscriber Service Charter</td>
<td>No: OTT QoS problems generally blamed on network provider, not the OTT</td>
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<tr>
<td>Universal Service Obligations</td>
<td>Yes, usually a license obligation.</td>
<td>No</td>
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## Disparities in application of Laws

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<th>Area of Concern</th>
<th>Network Operators</th>
<th>OTT</th>
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<tr>
<td>Provision of legal intercept</td>
<td>Yes</td>
<td>No: OTT content often encrypted and cannot be intercepted. E.g. WhatsApp does not comply with South African RICA laws.</td>
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<tr>
<td>Financial reporting and taxation</td>
<td>Yes: All related laws and obligations apply</td>
<td>No: Offshore operators not obliged to adhere to national accounting standards, financial reporting systems. Most revenue realised outside of South Africa</td>
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<td>National ownership rules</td>
<td>Yes: National ownership and company structures designed to reverse historical injustices apply</td>
<td>No: Offshore OTT operators not obliged to adhere to South Africa’s company ownership rules and their transformative objectives</td>
</tr>
<tr>
<td>Consumer Protection Act, other National Socioeconomic obligations</td>
<td>Yes: Local operators and service providers must adhere to all personal and public protection laws and other social obligations</td>
<td>No: Offshore OTT operators are not obliged to adhere to any of these laws and related social obligations such as labour laws, skills development levies, etc.</td>
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Issues of Current Discussion on OTTs:

- OTTs present a disruptive impact on VOICE revenues for Network Operators and thus potentially on investment for 4G network roll out
- OTT provide a growing source of DATA revenues of Network Operators
- Network Operators are licensed and governed under the laws and licensing regime of the country in which they are providing the network - which do not evenly apply to OTTs
- SA is not unique - globally regulators and policy makers are also grappling with these issues
Examples of OTT Services (Voice)

Voice Services (Voice over Internet Protocol or VoIP):

One of the first OTT products was ordinary telephone calls transported over the internet instead of the traditional Public Switched Telephone Network (PSTN), a 150 year-old technology still in use today:

• VoIP services took advantage of the extensive high growth global internet, developing new OTT voice services such as Skype and WhatsApp that use the global internet and in South Africa the ECNS infrastructural base as their transport platform

• With the innovation of VoIP the “telecom” industry developed the “Multiprotocol Label Switching” (MPLS) technologies to overcome the inability of the early “best effort” internet to deliver acceptable quality real time voice services. There are now two ways of delivering VOIP – managed and “best effort.”

• The ease of delivering voice (VoIP), messaging (e.g. SMS), or any other communication services over the evolving internet, which in general also uses the existing “telecommunications” infrastructure as its underlying transport platform, introduced a new type of competition in the global ICT industry

• OTT services are the current variant of new innovative competition in today’s global ICT sector
Examples of OTT Services (Voice)

Voice Services (VoIP Continued):
As South Africa enters the year 2016, the introduction of new voice telephony and messaging OTT products and services continues:

Skype is a well-known voice telephony OTT service introduced in 2003 to offer low cost voice and video calls to those users with a PC or other connected device, and an internet connection.

WhatsApp, a messaging (SMS) and voice (VoIP) service equivalent to those provided by traditional fixed and mobile telephone operators.

The list of OTT Messaging and Voice Products and services continues to grow:
A Growing Range of OTT Services

TV and Video
- Crackle
- Netflix
- YouTube
- Google Play
- Hulu Plus
- Amazon Instant Video

Music
- Spotify
- Pandora
- Last.fm
- iTunes Match
- Amazon Cloud Player
- Rhapsody
- Deezer

Communication
- Skype
- Messenger
- iMessage
- Viber
- WhatsApp

Productivity
- Evernote
- Salesforce.com
- Zoho
- Outlook.com
- Google Docs

Technology
- Dropbox
- iCloud
- Amazon Cloud Drive
- Rackspace
- Amazon Web Services

Community
- Foursquare
- Pinterest
- Twitter
- Google+
- Facebook
A South African Innovative Success Story

• Mxit, South Africa’s own OTT innovation was introduced in 2003 from a concept developed by South Africa’s Stellenbosch University in 1997
• The multi-device instant messaging service peaked at 10.5 million active users by late 2014 early 2015
• Global coverage included users in South Africa, Malaysia, India, Indonesia, United Kingdom, United States, Nigeria, Brazil, France, Germany, Italy, Portugal, and Spain
• By November 2014, new disruptive innovations that provided the same service with improvements began to erode Mxit’s success
• Mxit ceased operations in October 2015, succumbing to new disruptive OTTs such as WhatsApp and Facebook Messenger
• Mxit’s 12-year existence must be deemed a major global success in this era of rapid disruptive innovative change
South Africa’s Times Media Group was the first local company to launch a streaming Video on Demand (VOD) service in September 2014, offering 100s of online TV programmes and video rentals to customers with high speed broadband internet connections.

South Africa’s MTN launched its “FrontRow” video streaming subscription service in December 2014, and rebranded it as VU in December 2015 with free data usage for MTN subscribers to counter the growing OTT (video) competition.

South Africa’s global media giant Naspers launched its VOD streaming service in August 2015, with clear intention of competing head on with similar global OTT giants like Netflix, leveraging Naspers African footprint, and its strategic global partners which include China’s Tencent OTT giant. Naspers partners with local network operators, including Mweb and Telkom for online content distribution.

ONTAPtv launched a competing VOD service in Sept. 2015, announcing plans to produce TV content locally in anticipation of local content preferences and regulations. The Hong Kong Telecom (HKT) owned service will be operated by HKTs international subsidiary PCCW Global, a global broadband service provider.

South Africa’s CSIR, recognising the inevitability of OTT, assisted the development of a video streaming OTT service Tulongtulu, which enables cost-effective video downloads even on slow mobile networks.

Launched in South Africa in January 2016: Details and local partners, if any, still to be announced.
Impact of OTT on traditional broadcasters

1. Traditional broadcasters are less prone to revenue losses by OTT services where broadband infrastructure remains under-developed:
   - Traditional broadcasters control all content on their chosen transport paths;
   - OTT services do not use traditional broadcast networks.

2. In countries where broadband infrastructure is reasonably well developed, OTT services can become a threat to broadcaster revenues:
   - Alternative content access via broadband networks and smart TVs or PCs.

3. In the context of South Africa, with less than 5% penetration of fixed broadband, OTT remains a future threat to broadcasters in general, but........
   - One major broadcaster in South Africa perceives the opportunity for alternative content delivery – set up a broadband subsidiary in readiness;
   - Traditional “telecommunications” companies have identified new business opportunities and are building broadband infrastructure specifically to compete with broadcasters for content delivery

4. While broadband remains underdeveloped and costly for the mass market, even the STB internet access facility will not pose a significant threat to broadcasters.

5. There is regulatory disparity between SA broadcasters and international OTTs

Increased access to broadband will be a game changer for SA broadcasters. They should begin the development of competitive responses that will ensure their sustainability
Meeting the OTT challenge in Africa

The following case studies were chosen to assess the impact of OTTs on African Telco operators and derive region specific strategies for operators based on current trends.

**Attack Strategy – MTN play**
- **South Africa**
- OTT Video, Gaming, Music
  - MTN creates the content platform MTN Play to reduce usage of OTT content and increase brand perception
  - Subscribers get mobile access to content such as games, news wallpapers, ringtones, music, and videos
  - MTN Play is now available to MTN subscribers in 22 Markets in Africa and the Middle East

**Cooperate Strategy – Airtel Nigeria**
- **Nigeria**
- OTT Messaging
  - Partnership between OTT messaging player WhatsApp and Airtel Nigeria
  - Exclusive WhatsApp-branded mobile data plan from Airtel to compensate SMS revenue loss and increase brand perception
  - The partnership has been extended regionally to other Airtel Markets (e.g. India) and to include other OTT platforms such as Twitter and Facebook

**Cooperate Strategy – Vodafone Qatar**
- **Qatar**
- OTT Mobile Video
  - Vodafone Qatar has partnered with ‘Go by OSN’ to give customers access to a large selection of movies and series
  - The service is currently available on PC’s and Macs, Smartphones and tablets and subscribers can take advantage of dual-device screening
  - Vodafone is expecting to drive the update of its recently launched LTE service through this value proposition

SA Internet Access Market

According to PwC Annual Report on Entertainment and Media Outlook 2014 – 2018:

• Internet Access in South Africa will generate more consumer spend than any other media product or service in the next five years
• SA’s Internet Access market is dominated by the mobile platform
• 72% of SA’s mobile phone users by the end of 2018 will be mobile Internet users (35.2 million people)
• A growing number of South Africans are able to be connected through mobile Internet connections including WiFi.
• It is expected that by the end of 2018 there will be an estimated 53.7 million HSPA subscriptions in SA. 3G and 3.5G will drive Internet Growth as legacy GSM is phased out.
• Globally, mobile will generate 60% of every dollar spent on Internet Access by 2018.
• Increasing affordability of mobile broadband devices will contribute to the growth of the internet market.
Factors hindering Internet Growth

There are numerous factors that slow down South Africa’s broadband internet growth:

• The high cost of broadband rollout, which itself is influenced by:
  • Delays in assigning high demand spectrum for new converged mobile services such as LTE
  • Delays in concluding the Rapid Deployment Regulations which will reduce the costs and delays of securing way leaves for broadband infrastructure
• No clear implementation plan for SA Connect with targets for execution

It has never been more urgent for SA to take action to unblock constraints to growth of National Operators
OTTs are Disruptive Innovations

- OTT technologies, products and services are “Disruptive Innovations” which makes the same product more affordable and accessible so that a far larger population can afford it, want it, and be able to use it.

- Disruptive Innovations are a natural and highly desirable consequence of technological evolution.

- They present new entrants and incumbents with new opportunities to create new products and services, and enable improvements and cost reductions of existing products and services thereby driving user demand and satisfaction upwards.

- They encourage traditional operators and service providers to leave their comfort zones of past successes, to become highly competitive innovators of new products and services.
Large successful corporations are vital for a nation’s wealth, wellbeing and social stability:

- They contribute greatly to economic growth, security and social stability – they provide jobs and contribute to social development;
- Wise governments must therefore support such large successful corporations;

But Industry, especially the technology industry, demands continuous innovation in order to remain competitive:

- Innovation must be encouraged and supported;
- Large corporations must seek ways of embracing new creative and innovative use of their successful products and business models and practices, even at the cost of sustaining these successful operations and business practices;

Impact on SMEs and new entrants:

- OTT services are low cost entry path for new entrants and SMEs, either through direct competitive innovation (e.g. Mxit, Tuluntulu) or through partnerships

There is concern that policy and regulations have not kept pace with technological developments, leading to a situation in which new disruptive technologies enjoy favour through much less onerous regulatory provisions compared to the still vital legacy networks and services
The European Commission is undertaking a review of the telecommunications regulatory framework

This initiative is driven by a range of significant structural changes identified by the Commission, including the emergence of over-the-top (OTT) services that are rapidly transforming the traditional telecommunications markets.

The EU Commission have recognised that rules must be simpler, future proof and must also ensure a level playing field between traditional telecoms companies and new internet players where they compete in the same market.

The Body of European Regulators for Electronic Communications (BEREC) has subsequently published a Report on OTT services

The report supports the review of the EU Regulatory Framework, more specifically in pursuit of convergent rules and legal definitions in addressing consumer protection and competition issues arising from interactions between electronic communications services and OTT services.
The Telecom Regulatory Authority of India “TRAI” released a consultation paper in March 2015 with the aim to propose a regulatory framework for OTT services, Internet services and net neutrality.

The objective of the paper was to analyse the implications of the growth of internet services / Apps and OTT’s and consider whether changes are required in the current regulatory framework.

The consultation paper highlights policy issues such as the regulatory imbalance between telecommunication operators, OTT’s and internet service providers. Telecommunication operators have regulatory obligations which OTT’s and internet service providers do not.

The consultation paper states that OTT’s bypass many identified regulations but benefit from the investment of telecommunication operators.

The question was raised as to whether there is still any incentive for telecommunication operators to invest in infrastructure due to declining revenues.

These are some of the questions the consultation paper sought to address:

- Is it too early to establish a regulatory framework for OTT services?
- Is the growth of OTT services impacting traditional revenues of telecommunication services?
- Should OTT players pay to use Telecommunication operator’s networks?

The overwhelming response to the consultation paper was a call for fair and uniform regulation across the board, through a light touch approach.

• The implications of OTT services in economic terms, is that OTT players which rely on IP based networks to reach their customers do not make any direct contribution towards the cost of rolling out infrastructure/the network. Some network service providers have argued this causes them harm.

• There were differing views on whether or not OTT services should be regulated.

• The following points about OTT services, which have been put forward by the ITU:
  ✓ Proliferation of content and applications services is to be welcomed – they add utility for users.
  ✓ Change is inevitable. As network operators migrate to next generation networks, voice services will become software applications riding over the network. During this transition, policy-makers are finding different paths to balancing innovation, investment and competition.
  ✓ Regulators cannot hold back the tides of change to maintain the status quo.
  ✓ These changes are disruptive and inconvenient for those with a stake in existing arrangements, but the benefits of change outweigh the costs.
  ✓ Regulators generally support innovation. They prevent fixed and mobile operators from blocking or degrading competing services.
Recommendations of the National ICT Policy Review Report:

a. For now a wait-and-see approach is taken so as not to stifle innovation.

b. The impact of OTT services though should be continually monitored and regulatory intervention introduced if it is deemed necessary.

Specifically with regard to Broadcasting:
The Panel recommended that: Policy measures must be developed such that external content providers, using the Internet as a medium, are subject to South African regulations if they have significant influence in the South African market.

NEXT STEP:
Gazetting of the ICT Policy White Paper, which will reflect formal policy on OTTs
### Key factors to be considered

1. The South African ICT industry is actively engaged in studying the impact of OTTs, on its own and in partnership with the Policy Maker and the Regulator (e.g. DTPS ICT Policy Review and ICASA’s Inquiry into the state of competition in the ICT sector);

2. Key regulatory issues that must be considered and developed are:

   - Regulatory reviews and revisions must focus on the outcomes rather than on the technological platforms, and must be able to stand the test of time even in this highly dynamic industry
   - The costs of regulatory development and enforcement must not outweigh the benefits derived from such regulations for consumers, operators and service providers
   - The overall aim of regulatory revisions should be to: (a) encourage innovation and new product development; (b) encourage constructive competition in a level competitive playing field; (c) foster constructive and productive relationships between the regulator and industry for immediate and flexible response to issues as they arise
   - Any possible regulatory intervention should focus on protection of consumers and their rights to privacy in a seamless manner that does not impose excessive costs; administrative obligations and overheads on operators and service providers for their enforcement
South Africa’s ICT Policymakers, the Regulator, the national ICT Industry, and all South Africans need to think deeply about OTT's: their benefit and impact on the South African ICT ecosystem.

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