

Outline

- Background
- Overview of OTT services
- Impact of OTT services
- Approaches to the treatment of OTT
 - services

BACKGROUND

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Background – T&T's Situation

- On 5th July, 2014, Digicel announced its intention to block the OTT VoIP service Viber, later Nimbuzz, Tango and Fring in Trinidad and Tobago;
- The Authority met with Digicel and it was agreed that Digicel will refrain from blocking the service until an investigation into the matter is conducted by the Authority;
- The Authority began its investigation and is currently consulting on a discussion paper
- In December 2014, the other major service providers (Columbus and bmobile) also announced their support to block OTT VoIP services in Trinidad and Tobago

Purpose of the Investigation

- To understand the interplay between the markets of OTT service providers and authorized telecommunications operators; and
- To understand the impact such interactions are having on the telecommunications industry in Trinidad and Tobago
- Consult with the general public for feedback



OVERVIEW OF OTT



Introduction

What are OTT services:

- CANTO has described OTT Services as:
 - 'a general term used for services that a customer may use which rides on top of a network to which the customer is connected'
- Services whose primary applications lie in communications but use the **Internet as the transport medium** rather than the legacy telephony infrastructure

Types of OTT services

- OTT VoIP (Voice over Internet Protocol) technology used to deliver voice communication over private and/or public IP networks, such as the Internet;
- Variations of OTT VoIP:
 - App to App
 - App to PSTN
 - PSTN to App

Examples of OTT VoIP services

	Skype	 300 mn users (2013) Allows for free voice/ video skype to skype calling Enables calling to POTS via skype-out service
	Facetime	 Allows for free video calling (using data when on mobile network) between iPhone users
	Viber	 200 mn users (May 2013) Free calling between Viber users

Types of OTT services

• OTT Messaging – similar to OTT VoIP, however the difference lies in the ability of a third party to provide instant messaging services to the consumer over the Internet

WhatsApp	 Top selling app in 47 countries Processing 27bn messages daily (June 2013) 300 m active users (May 2013) Available on all Smartphone platforms
Tencent	 800m active accounts (March 2013) Available on all Smartphone platforms Primarily China/ Asia based
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Types of OTT services

• OTT Media - the broadband delivery of video and audio without a cable or satellite service operator being involved in the control or distribution of the content itself. It is understood that the content arrives from a third party, and is delivered to an end user device over the Internet

You Tube "	 User Generated Content Owned by Google 100 hours of videos uploaded every minute 1 bn users every month
Youtube	 Accounts for 17.1% of all US peak downstream fixed access traffic¹¹
NETFLIX Netflix	 Curated/ Studio programming ~40 mn subscribers (May 2013) Accounts for 32.3% of all US peak downstream fixed access traffic
Spotify Spotify	 Audio Streaming 24mn active users including 6mn paying subscribers (May 2013) Access to over 20mn songs in library

Focus on OTT VoIP Services

- The complaint received by the Authority stemmed from OTT VoIP services and its impact on:
 - Potential loss of financial revenues for authorised service providers
 - The utilisation of 'dedicated network resources' of authorised service providers
 - Regulation for the provision of a public telecommunications services

IMPACT OF OTT SERVICES ON AUTHORISED SERVICE

PROVIDERS

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Global Financial Impact - Total revenues lost to OTT VoIP for the period 2009 – 2020



Source: Ovum

Global Financial Impact - Decrease in Mobile Voice Revenues by Region (2009 – 2016)



Global Financial Impact - Decrease in Fixed Voice Revenues by Region (2009 – 2016)



Global Data and Voice Revenues



Global Financial Impact

- With the introduction of various communication platforms including OTT, it may be inferred that the reliance on traditional voice and SMS communication is declining;
- It is predicted that authorised service providers may be losing revenues from voice services with the proliferation of OTT VoIP services;
- However the fall experienced in the mobile voice revenue market may be absorbed by a larger proportionate increase in mobile data revenues;
- It is forecasted that mobile data revenues will overtake voice revenues globally by 2018.

Impact of OTT services on the General Public

- Advantages:
 - Low cost
 - Choice
 - Portability
 - Availability
 - Value-added features

- Disadvantages:
 - Reliability
 - Power Outages
 - Emergency Calls
 - Treatment of
 - Complaints

REGULATORY IMPACT OF OTT IN T&T

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Mandate of the Telecoms Act

- In accordance with T&T's Telecoms Act:
 21. (1) No person shall operate a public telecommunications network, provide a public telecommunications service or broadcasting service, without a concession granted by the Minister.
 - (2) A person who wishes to operate a network or provide a service described in subsection (1), shall apply to the Authority in the manner prescribed.



Legislative and Regulatory Remit

- Based on the definitions within the Telecommunications Act, aspects of OTT VoIP services can be considered a "public telecommunications service";
- Any entity wishing to provide a public telecommunications service must apply to the Authority for a concession in order to do so;
- OTT VoIP services may be offered over the Internet and considered an Internet service.
- The national regulatory framework may be limited in its regulatory oversight of services provided over the Internet.

APPROACHES FOR THE TREATMENT OF OTT SERVICES

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Options for the Treatment of OTT

• Aggressive Strategy:

- This involves blocking off the content of OTT players
- We have already seen attempts to employ this strategy in the regional markets by authorized service providers e.g. Jamaica, Haiti
- Used in some Middle Eastern countries

Options for the Treatment of OTT services

Collaborative Approach:

- This approach involves the partnering with select OTT
 VoIP players to develop a mutually beneficial relationship
- the use of commercial agreements between the authorized telecommunications providers and OTT VoIP operators
- However will it be viewed as selective or arbitrary to target OTT VoIP operators for such treatment?
- Should this arrangement be required for all OTT service providers?
- Opportunistic Approach:
 - Offering of premium 'Internet' packages to customers

Way Forward

- 'Free and Open' Internet policy and does not allow authorized services providers to 'block' any OTT services;
- TATT recommends a collaborative arrangement between OTT VoIP operators and authorized service providers:
 - When there is use of PSTN facilities to originate/terminate OTT VoIP calls
 - When there is need for the provision of comparable quality of service (better than best effort) by the Internet Service Provider to ensure a quality of service similar to public telephony (voice) services.

