REGULATORY APPROACHES Over the Top (OTT) Services

PRESENTED BY MUHAMMAD AHMAD KAMAL DIRECTOR GENERAL (STRATEGY & DEVELOPMENT)

ITU / PTA TRAINING PROGRAMME 21 JULY 2016

Over The Top (OTT) Services

- OTT refers to services provided over the Internet rather than solely over the provider's own managed network.
- The user's ISP/telco is not involved in the supply of an OTT service
- Examples of OTT Services include:
 - Chat applications (WhatsApp, WeChat, Facebook Messenger);
 - Streaming video services (Netflix, Amazon Prime, YouTube);
 - ✓ Voice Calling and Video chatting services (e.g. Skype, Facetime)

•OTT players rely on IP based networks to reach customers, do not make any direct contribution towards the cost of providing it;

OTT Communications

- OTT Voice / Video
 - Shifting of voice to OTT VoIP
 - Multibillion Dollars Loss to Telco
 - Changes in Telco Tariff Plans









Telecommunications: a sector in the midst of transformation

- ✓ The telecommunications industry is transformed in past 10 years, rise of data- consumers, need more bandwidth for smart devices.
- Operators expanded service portfolios, overhauled price plans, catering growing demand,
- ✓ Rising capital expenditures underline ongoing imperatives to upgrade network capabilities.
- Many players are diversifying revenue streams, ensuring new services yield healthy margins.
- ✓ At the same time, over-the-top (OTT) players expanding offerings, disrupting different industry verticals in this process.
- ✓ All entities in the digital ecosystem seeking new points of differentiation to maximize their share of customer spending.
- ✓ While operators still enjoy a majority of ecosystem revenues, OTTs have grown share to 10% in the space of a few years, and competition in retail and distribution is becoming more intense.

The Challenges Faced by the Stakeholders in the Value Chain

- Enhancement of Data Communication to continue over the next decade with visible impact on Telecom Operators challenged by new players reshaped Eco-system.
- The growing impact of OTT services on telco's voice and messaging revenue, a **widely accepted phenomenon**. Re-thinking of business models to adapt to a **new paradigm.** Stay focused on core connectivity business? On providing digital services? On finding new revenue streams?... Will operators have resources to invest in all these segments?
- **Regulators** played an extremely **positive role** in the past decade making the development happen. They are questioned today about ensuring sustainability of the new ecosystem including affordable quality services to the maximum Populace. **Are Regulators prepared and ready?**
- **OTT Players** are taking full benefit of Telco Infrastructure and Investments for OTT Business. Will they accept to "Contribute" on balanced Value share and Cost/Revenues vs. Net Neutrality Assurance?

"Customers are increasingly focused on data. Media and video were ~10% of traffic in 2010; new it's~ 50%

The share of various partners in telecom value chain



Over-the-Top Services The ITU Focus

- The following points about OTT services, which have been put forward by the ITU (ICT Regulation Toolkit: Regulating 'Over-the-Top' services):
 - Proliferation of content and applications services is to be welcomed (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.

Regulatory Imbalances

Regulatory Obligations	Operators	OTT Players
Licensing	Must purchase license to operate	Often not subject to specific licensing
Accessible Market	Only serve customers within the regulated jurisdiction	Serve any user, any where
Taxes	Subject to local and national taxes	Locating operators in low cost locations and tax heavens
QoS	License includes requirements for SLA's	No QoS guarantees
Pricing Regulations	Regulators' approval is needed in advance	No need for authorization. Loose agreement subject to change at any time

Regulatory Imbalances			
Regulatory Obligations	Operators	OTT Players	
Interconnection	Required as part of regulatory regime	no interconnection requirements	
Net neutrality	Besteffortdatatransportwithoutdiscrimination,independent of source or natureof data	No obligations	
Number portability	Obligation to offer number portability between providers	OTT service independent from mobile number	
Infrastructure /Network	Unbundling, open access to Infrastructure obligations,	Proprietary Infra with no obligations	
Privacy	Strict data protection and privacy requirements by Law	Practiced on a limited and generally voluntary basis	

Regulators	Regulator Initiatives
European Union	The European Union approved rules in April 2014 to ensure equal access of firms and individuals to online services and harmonize rules across national borders to create a unified European market Individually certain countries like France and Spain have blocked OTT providers when offering voice services that connect to the PSTN
Netherland	Included net neutrality principles into a law in 2011. Telecom operators are prevented from blocking or charging consumers over and above the regular data charges, for using VoIP based apps and other internet-based communication services

Regulators	Regulator Initiatives
South Korea	 The KCC announced "Net Neutrality (NN) and Internet Traffic management Guidelines" in2011 (Transparency, No blocking; No unreasonable discrimination, Reasonable traffic management) It is legal for telecom operators to charge their customers extra fees to use VoIP apps or block their use entirely
UK	OFCOM permits experimentation with new business models that rely on certain forms of traffic management(the "best effort" Internet is then protected)
Canada	The CRTC has banned zero-rated mobile video streaming of carriers own services

Regulators	Regulator Initiatives
USA	New FCC draft internet rules to ensue reasonable network management were released on March 12, 2015. This might take few years to be finalized
Chile	In July 2010, net neutrality principles have been introduced in the National Telecommunications Act. "zero-rating" was recently banned in May 2014
Singapore	Specific licenses for VoIP connecting to PSTN. Peer- to-peer not licensed, subject to competition law
KSA	OTT only allowed if they work with licensed telecoms companies. VoIP defined as a regulated activity

Regulators	Regulator Initiatives
Egypt	Legislation expected soon (NTRA), but none at present. VoIP using mobile network is forbidden.
Kingdom of Bahrain	Voice services connected to PSTN only allowed for license holders. Foreign providers not actively marketing their services in the country will not be pursued

OTT Business Model

Advertising	Services funded by display of advertisements or collection of user data for advertisers.	Google, Facebook, WeChat, Line, Viber, Angry Bird, Cand Crush, Pinger, Spider man etc.
In-app purchases / content	Purchase of extra features or stickers etc.	Kakao, Line, WeChat, 8 ball mini pool, bad land, device 6 etc.
Software Licensing	Services are bundled with hardware as white label services	Skype, Minecraft, Heads Up, Dropbox etc.
Subscription	Charges for basic service or additional features	Skype, Viber, Whatsapp, Pay TV services, Lumosity etc.
Unit Pricing	Revenues from off-net calls and SMS	Skype, Viber, etc.

Policy Challenges

- Facilitate the availability, accessibility and affordability of ICT services
- Consumer protection
- Embrace market developments and digital opportunities
- Create a competitive and enabling policy environment
- Promote investment and innovation
- Policy need balance innovation, investment and competition
- Consider the benefits of change vs. costs

Policy and Regulatory Issues on OTT

Consumer aspects:

Protection of rights;

>Internet should be free and open;

Data protection and privacy

Competition aspects:

Promote service-based competition (greater consumer choice);Better pricing of services

>To regulate or not to regulate ECS providers? Regulation of services and/or content and not entities?

>Two licenses: ECNS (regulated) and ECS (not regulated),

- >Implication for vertically integrated players?
- > What is the real issue? Stimulate innovation or stifle it?

Regulatory Challenges

- Licensing
- Frequency Spectrum
- Interconnection
- Infrastructure Obligations
- Quality of Service
- Emergency Services
- Regulatory Levies
- Universal Service Obligations
- Bank Guarantees

9

10

Scope of Services

Consumer Security

- Loss of Privacy
- Data Security
- Social Engineering
- Data Portability
- Loss of Control on Data
- Lacking isolation of data on Cloud Networks
- Deletion of Data

National Security

- Lack of visibility into Internet traffic
- Increasing amount of data and diversity
- Threat to Critical Infrastructure
- Encryption of Data
- Non-registration of OTT Players locally
- Insensitivity to religious and cultural values
- Public reaction on traffic monitoring

Impact on Economy

- Competition with Global Markets
- Low fixed cost and cost of entry
- Increase in Trade
- Tax Evasion
- Universal Service Obligation Funds
- Internet / Online Advertising above USD 130 Billion

Conclusions

- OTT services are growing exponentially
- Risks of disclosure of personal data, loss of control on data and data security are increasing for consumers and governments
- Change in telcos tariffs flat tariff to fair data usage tariff
- Network management by telcos to sustain their revenues
- Net neutrality turning out to be an important regulatory issue
- Policy to support investments in networks
- Law enforcement for OTT Services

Recommendations

- Create regulatory framework supporting telcos and innovation of OTT players
- Costing of transport and access networks to decide about regulatory intervention
- Policy on net neutrality
- Policy to support investments in networks
- Enact laws for consumer privacy, data protection and electronic transactions

