REGULATORY FRAMEWORK ON OTT SERVICES

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TRAI

What is OTT?

- Applications and services which are accessible over the internet and ride on operators' networks offering internet access services

- Three types of OTT –communications, Video content, Application eco system.

- Two broad categories of services– communications[1] & non-communications

- Three broad public policy issues- Regulatory imbalances; impact on economy & Security issues.

1- in direct competition with licensed communication services.

Need for Consultation

- Under the Indian Telegraph Act, 1885, section 4 gives power to the government to grant licence to any person to establish, maintain or use a telegraph[2].

- **Scope of Internet Service:** _Scope of this Authorization covers the following: 2.1 (i) The Licensee may provide Internet access ….The subscriber shall have_ <u>_unrestricted access to all the content available on Internet_</u> _except for such content which is restricted by the Licensor/designated authority under Law. …_

'telegraph' means any appliance, instrument, material or apparatus used or capable of use for transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, visual or other electro-magnetic emissions, radio waves or Hertzian waves, galvanic, electric or magnetic means.

Need for Consultation

- Powers under TRAI ACT
  - The license given to a service provider is governed by Sec. 4 of The Telegraph Act 1885. …..to recommend the actual terms on which a license should be granted under Sec. 4 of the afore mentioned act.
  - *Section 11-1 (a) Recommendations to the Government.*
  - *Section 11-2 … to notify the rates at which the telecommunication services shall be provided.*

Growth of OTT….

- The rapid growth of OTT services has raised a number of national policy issues relating to regulatory imbalances & security concerns that need to be addressed.

- The regulatory imbalances need examination at various levels by different agencies of Government.

- In addition public safety and privacy issues requires attention.

Important issues in CP

- Policy and regulatory environment and need for regulation
- Security concerns of OTT players providing communication services
- Issues related to security ,safety and privacy of the consumer
- Issues arising because of net neutrality
- Network discrimination[3] and traffic management practices

3-price & non-price

Regulatory Imbalances

Area of Regulation	Telecom Service Providers	OTTs
Spectrum allotment and use	Need to bear costs and adhere to rules	No such costs
Licensing	Yes, different licenses and their associated costs including licensing fee	No such licenses or costs
Spectrum related charges	Need to bear the costs	No such costs
Space related charges	Need to bear the costs	No such costs
Bank Guarantees to the government	Yes	No
Proper record keeping including methodology	Required	Required through other acts
Interconnection	Yes, required as part of regulatory regime. Requirement to interconnect entails costs.	No such interconnection required as they are 'Over the Top' networks

Regulatory Imbalances

Area of Regulation	Telecom Service Providers	OTTs
Quality of Service Parameters	Required as part of regulatory regime	No such requirement
Obligations under various Telegraph Acts	Need to adhere to rules	No such requirement
Infrastructure sharing	Need to bear the costs	No Infrastructure sharing
Security conditions	Need to adhere to rules	No such requirement
Emergency and Public utility services	Need to adhere to rules	No such requirement
Monitoring services i.e. Lawful interception and monitoring	Required as a license condition	No such requirement

National Security concerns of OTT players providing communication services

- The biggest security threat is from the select off shore OTT communication service players which are highly capitalized, global monopolies and today control multiple million customers across continents.

Issues related to security ,safety and privacy of the consumer

- Cultural sensitivity and diversity as most of the OTT players operates from outside the country
- loss of content privacy & compromised cyber security leading to cybercrimes
- free apps share the personal information with various third party developers
- In constant 'always on' connection, what information is being collected by mobile apps.(Big data)
- Cyber predators, bullies, stalkers are all online waiting to find their next victim. (Child abuse ..)

Issues related to Net Neutrality

◦ The examination of any framework for OTT will not be complete without dealing with the concept and policy of Net Neutrality.

What is Net Neutrality (NN)?

- There is no standard definition of Net Neutrality.

- Net neutrality (NN) is generally construed to mean that the network providers must treat all internet traffic on an equal basis, no matter its type or origin of content or means used to transmit packets. It should be able to deliver traffic from one point to another seamlessly, without any differentiation on speed, access or price. All internet traffic should be treated equally.

Definition of NN

- "Network neutrality is best defined as a network design principle. The idea is that a maximally useful public information network aspires to treat all content, sites and platforms equally. This allows the network to carry every form of information and support every kind of application" - Professor Tim Wu, who coined the word "Net Neutrality"

- "The principle that all electronic communication passing through a network is treated equally" - The Body of European Regulators for Electronic Communications

- "NN prohibits TSPs from speeding up, slowing down or blocking internet traffic based on its source, ownership or destination" – Jan Kramer; Lukas Wiewiorra

Definition of NN

- "NN usually means that broadband service providers charge consumers only once for internet access, do not favour one content provider over another, and do not charge content providers for sending information over broadband lines to end users" -Hahn & Wallsten.

- According to some economists, NN has no widely accepted definition, but usually means that TSPs charge consumers only once for internet access without discriminating between content providers and content over the network.

Related Issue -Net Neutrality

- TSPs must treat all internet traffic on an equal basis, no matter its type or origin of content or means used to transmit packets.

- Service providers should be able to deliver traffic from one point to another seamlessly,

- The delivery is without any differentiation on speed, access or price.

- All internet traffic should be treated equally.

Network discrimination and traffic management practices

- To prevent a small number of the customers from clogging access to the internet for others
- To maintain the quality of service to ensure that all users have a reasonable internet experience.
- Network discrimination : restrictions to users' access to internet.
  - Blocking of applications and services:
  - Slowing or "throttling" internet speeds:
  - Blocking websites:
  - Preferential treatment of services and platforms:

Traffic Management

- Internet traffic management
  - 'Best-efforts' internet access,
  - Managed services under which TSPs prioritise certain traffic according to the value they ascribe to it.
- Traffic management : techniques that may be used by a TSP to plan and allocate available resources to attain optimum performance
- Use of performance measures to define optional service levels tailored to different user needs, and to assure appropriate QoS

Present Status in India

- There has been a rapid proliferation of voice, video and OTT application services being delivered over networks.

- OTT is the future service model for communications and media, and for a whole range of other apps like e-commerce, m-commerce, e-health, e-education, smart grids and the digital economy in general, playing a vital role in Digital India.

- Encouraging India-specific OTTs will augment the supply of apps having localised content in various Indian languages. This will enable home grown OTT services and the services could be located within the country. These services can pave the way for a larger 'Make in India' programme.

Present Status in India (contd..)

- The business models of most OTT apps are predominantly advertisement driven. In India the digital advertisement revenue grew from $ 28.3 billion in 2013 to $ 41.2 billion in 2014. (Worldwide, their net digital advertisement revenues increased from $ 121.47 billion in 2013 to $ 146.42 billion in 2014).

- In India, data usage has shown a cumulative annual growth of 65.2% during December 2013 to December 2014. The data revenue has grown by more than 50% from Rs. 1413 Crores in December 2013 to Rs. 2152 Crores in December 2014. The data revenue reached 18% of the overall mobile revenue in December 2014.

- According to Cisco VNI report, there were about 140 million smartphone users in India with a growth rate of 54% in 2014.

Present Status in India (contd..)

- Smartphones/ feature phones are expected to penetrate rural Indian markets as the price of these drop and availability of apps for the use of rural population increases. In 2016, the smartphone market is expected to cross 200 million users, overtaking USA.

- The use of mobile data, will further increase with the uptake of tablets and smartphones that give users mobile access to popular applications.

- In India, the Internet traffic is expected to grow more than 5 fold from 2013 to 2018, with a compounded annual growth rate (CAGR) of approximately 40 per cent.

- In India, there are around 267.3 million internet users as of December 2014, with a penetration of 21.3% and a growth rate of 23% during 2014.

To Understand the issues…

- TRAI had released a consultation paper on Over the top services on 'Regulatory Framework for Over-the-top (OTT)' services on 27/03/2015 seeking comments of the stakeholders

- The consultation paper contains 20 questions .

- The last date for receiving the comments was on 24/04/2015 and that for counter comments on 08/05/2015.

- TRAI has received several Comments and Counter comments

Thanks