Arab Regional Forum on "Future Networks: Regulatory and Policy Aspects in Converged Networks".
(Rabat, Morocco, 19-20 May 2015)

Regulating "Over-The-Top" Services
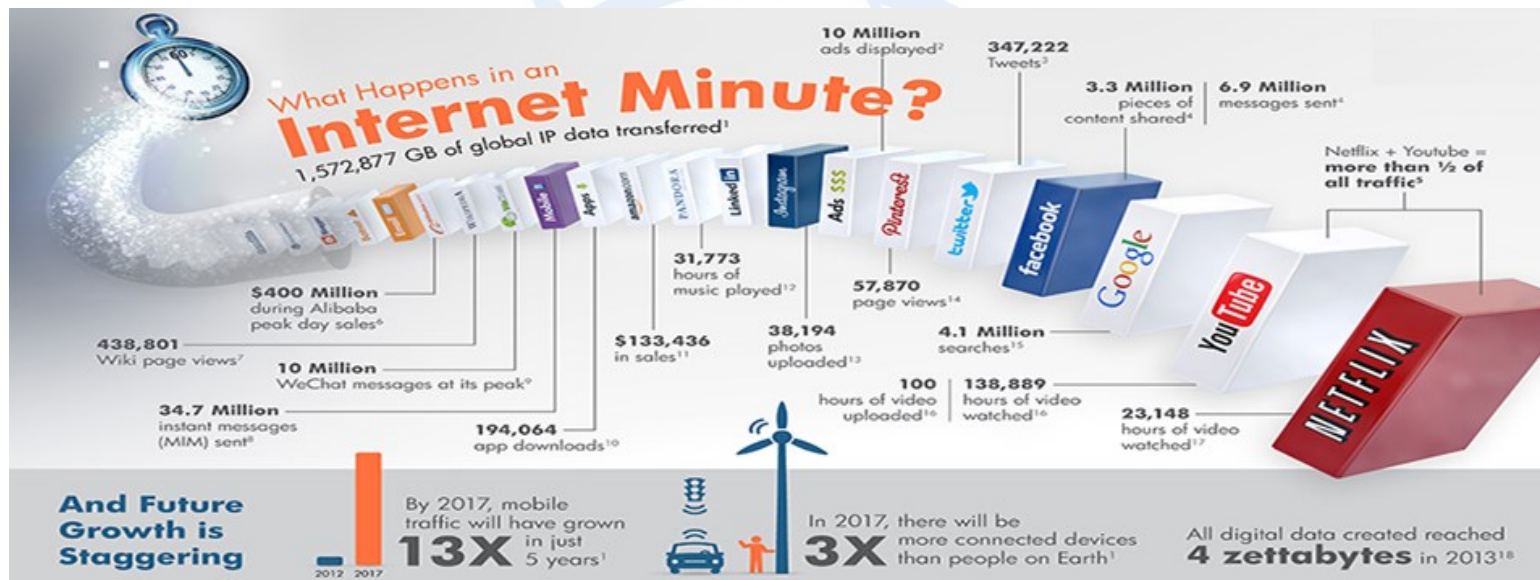# -
Need and Efficicency

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Introduction

Source: Intel, 2012

▶ What regulatory issues can be generated by OTT services

▶ Are changes required in the current regulatory frameworks

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OTT-related
Policy and Regulatory Issues

Source 1: DETECON Consulting, "Policy and Regulatory Framework for Governing Internet Applications", March 2014
Source 2: Strand Consult, "Tier 0: A new category of telecom operators is born"

Regulatory Imbalances

Areas of regulation	Network Operators	OTT Players
Licensing	Must purchase licenses from the government to operate	Often exempted
Quality of service	Licenses include requirements for SLAs	❑ No QoS guarantee ❑ QoS issues blamed on network provider
Price changes	Regulators' approval is needed in advance	❑ No need for authorization ❑ Loose agreement is offered which is subject to change at any time
Operating Area	Only serve customers within the regulated jurisdiction	Serve any user globally

Regulatory Imbalances

Areas of regulation	Network Operators	OTT Players
Net neutrality	Best effort data transport without discrimination, independent of source or nature of data	No obligations (control over content and freedom of choice concerning customers)
Interconnection	Required as part of regulatory regime ➜ Additional costs	"Over-The-Top" of the network ➜ no interconnection requirements
Number Portability	Obligation to offer number portability between providers	OTT service independent from mobile number
Taxes	Local and national taxes	Locating operators in low cost locations and tax havens

Regulatory Imbalances

Areas of regulation	Network Operators	OTT Players
Infrastructure/ Network	❑ Investing in networks to deliver services to end users ❑ Practicing technologies to use resources efficiently (e.g. multicasting)	❑ No investments in networks that reach end users ❑ Telcos are incumbent to deliver competitors services regardless of the impact to its networks
Fees	Customers' fees support the costs to underwrite the network	Services offered without any relationship to the underlying cost of the network
Privacy	Strict data protection and privacy requirements for users	Practiced on a limited and generally voluntary basis
Public Safety services	Mandatory	No such obligations

Security Issues

- **Cyber security threats**

- **No provision for Legally approved surveillance**

  ➢ Calls originated from other countries from virtual numbers

  ➢ Apps with special encryption

- **Cultural Sensitivity** *(because of global nature)*

Privacy Issues

- **Collect users' private information for commercial gains** *(targeted advertisement)*

- **No check for risk assessment and apps at App stores' level**
    - ➡ *Negative impact on devices and companies' internal network*

- **Use of Apps with location tracking for crime**
    - ➡ *Threats on the nation's security and financial health*

- **Malicious Software** brought by Internet Apps

Negative Impacts on National Economy

- **Difficulty for traditional and local companies to compete with global OTT players** (lower costs of content storage and hosting, better negotiation of content deals)

- **Tax Losses**
  - ❑ Location-agnostic: benefit from the **variable tax rates across states globally**
  - ❑ Costumers purchase goods and services from global players **rather than local entities**

- **Lower government revenues due to the lowering of telecom revenues**

  ➡ less investment in infrastructure from Telcos

Other Issues

Social engineering

Psychological manipulation of people into performing actions or divulging confidential information (especially via social networks)

Copyright violation

Omnipresence of pirated contents (books, movies, videos, …): regulatory imbalance regarding content owners

No regulatory framework for Health Apps

❑ **Sharing personal Health details with various unregulated healthcare sites**
❑ **Providing unregulated medical advices**

Ecommerce issues

No satisfaction for consumers expectations in the real world (no contact addresses, quality of goods can be assessed only by the website)

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Current International Legislations
(Case of OTT Voice services)

Examples of International Legislations
European Region

EU

- ❑ **Two rules were approved in April 2014:**
  1. *to ensure equal access of firms and individuals to online services*
  2. *to harmonize rules across national borders to create a unified European market*
- ❑ In individual countries (e.g. France, Spain), **OTT providers have been blocked when offering voice services that connect to the PSTN**
  - ➢ ***Justification:*** OTT behaves like a Telco and should fulfill the Telco's obligations too (offer emergency services, LI, etc.)

Examples of International Legislations 2
American & Asian Regions

USA

New FCC draft internet rules was released on March 12, 2015 (will take few years to be finalized)

➢ *Objective:* **ensue reasonable network management** (no blocking, no throttling, no paid prioritization)

Singapore

❑ **Specific licenses for VoIP connecting to PSTN**
❑ **Peer-to-peer not licensed**, subject to competition law

Examples of International Legislations
MENA Region

UAE

❑ **OTT only allowed if they work with licensed telecoms companies** (*according to TRA*)
❑ **VoIP defined as a regulated activity**

Egypt

❑ **Legislation expected soon (NTRA), but none at present**
❑ **VoIP using mobile network is forbidden** *(because international calls have to go via the international gateway)*

Examples of International Legislations
MENA Region

KSA

- ❑ **OTTs blocked because of legal intercept problems**
- ❑ **Viber App was banned in June 2013**

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**

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OTT Regulatory Policy

Source 1: DETECON Consulting, "Policy and Regulatory Framework for Governing Internet Applications", March 2014
Source 2: DETECON Consulting & Deutsche Telecom Group, "The rise of OTT players – what is the appropriate regulatory response?", 2014

Some Recommendations

1 — **Reconsider the broadband market** to determine whether political rollout targets are commercially viable, **develop/adapt policy as appropriate**

2 — **Implement a review of regulations faced by network operators** to ensure that these reflect the changed market situation **and rebalance obligations as found to be necessary**

3 — Determine whether the provision of free OTT services represents **unfair competition and is detrimental to the development of the market** as well as take action as required

Some Recommendations

4 **Determine whether a lack of competitive pressure on the fixed broadband providers is preventing the market from functioning.**
If so, take steps to open up the market to more competition

5 **Define a framework for net neutrality regulations** to enable commercial service offers and cost-oriented market pricing while protecting the consumers' interests

6 **Update the license/operating conditions of existing operators and service providers** in relation with net neutrality and growing data protection and security requirements

Some Recommendations **7**

Establish coordination procedures between financial service regulation, data privacy and protection regulation, broadcasting/publishing regulation and communications regulation to ensure that measures are consistent and coherent. At a maximum, consider the integration of broadcasting, communications (and publishing) regulation
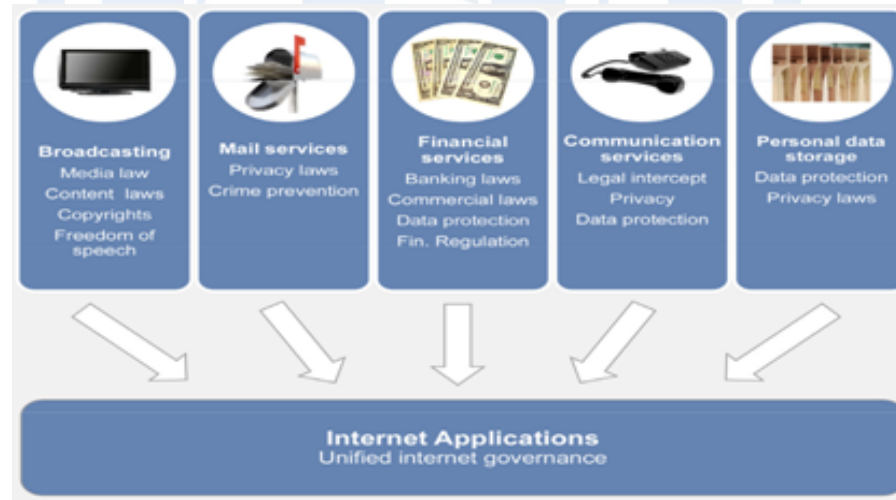
Some Recommendations

8 **Draft and ratify cybercrime legislation**

9 Investigate the feasibility of establishing **a regional cybercrime center**

10 **Draft and implement new/updated data protection law**

Some Recommendations

11 Develop specific procedures to **facilitate content regulation**

12 **Develop strategy for consistent and continuous user information** concerning the risks and benefits of the internet

13 **Encourage development of the local CDN market** with the objective of establishing a data center hub for the region

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Conclusions

Conclusions

❑ A major enabler of OTT growth has been **the lack of regulation** that it has faced to date

❑ **Regulation is unlikely to provide a solution to network operators' concerns**

❑ The regulators' objectives should be **to catalyze additional opportunities** offered by OTT services to the benefit of the consumer and **to support competition** while **avoiding the OTT-related risks** in the areas of security and data protection – both for consumers and nations

❑ **A collaborative work between financial service regulators, data privacy and protection regulators, broadcasting/publishing regulators and communications regulators** could be established in order to build a consistent and coherent regulatory framework for OTT services

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Thank You For Your Attention

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