

Arab regional Forum on
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**Towards Same Rules for
Digital Services**

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Towards Same Rules for Digital Services Content

- ❖ Yesterday's rules ill-suited to XXIst century's challenges
 - ✓ Lack of regulatory symmetry and consistency
 - ✓ The specific case of VoIP in international traffic
- ❖ New Rules for a sustainable Internet ecosystem
 - ✓ Key principles to build new digital rules
 - ✓ Robust Rules need new definitions and re-organization of obligations
 - ✓ Same Services, Same Rules Principle
 - ✓ To boost Investment through a Fair Economic Model
 - ✓ Open Access To Digital Services
- ❖ Conclusion

Yesterday's rules ill-suited to XXIst century's challenges



Lack of regulatory symmetry and consistency (1)

- ❖ Liberalization of the telecom industry in the 90's : a transition phase mainly oriented towards regulation of incumbents. In its wake many policies aimed at protecting consumers and ensuring public interest:
 - ✓ On the consumer side: access to emergency calls; simpler number portability rules; privacy and confidentiality obligations.
 - ✓ On the public interest side: interoperability requirements; universal service; provisions on legal interceptions and financial contributions.

Generally speaking, the current sector-specific regulations were drawn up to govern telecom operators in their primary function as providers of **connectivity and interoperability** services (so-called electronic communication services (ECS) in the EU) which are essential for society and economy, while an other category (so-called Internet Society Services (ISS) in the EU) was designed to cover the **wide range of internet intermediaries' activities**.

Lack of regulatory symmetry and consistency (2)

- ❖ **New Online Platforms** (e.g. search engines, social media, e-commerce platforms, app stores, sharing economy platforms, etc.) have profoundly modified the landscape through business models based mainly on information gathering.
Tech Companies /“Over-the-Top” players (OTTs) deploy their activity on those Internet platforms.

- ❖ Digital markets have considerably changed and converged into one digital market:
 - ✓ Mobile telephony (voice + text) evolved to mobile computing (more than one million of applications for all digital services and user needs)
 - ✓ Customers have moved **from voice to data-centric** forms of communication like VoIP, Instant Messaging, social networking, and file sharing.
 - ✓ Competition at both the network and service layer has increased dramatically with the **entry of new players**.

Lack of regulatory symmetry and consistency (3)

- ❖ The Tech Companies directly compete with highly regulated telecom operators. Voice, messaging or video services may be provided as electronic communications service or as information society services. Sector specific regulation imposes strict rules only on telecoms communication services and therefore rules depend on the provider or the technology.
- ❖ This imbalanced situation can be detrimental to consumers (emergency services, data portability rights, privacy and security rules), to public authorities (Cybersecurity, Tax, Investment, Jobs), and to the development of fair competition between industry players.
- ❖ With the growth of VoIP and messaging applications directly competing with telecom operators' service (telephone and SMS), the regulatory asymmetry has become significant and causes a distortion in competition. End-users, public authorities and Telecom operators bearing the costs of inconsistent regulation.
- ❖ In the mean time “Telecommunication” has diversified, became data-centric and remains an important part of data explosion.

The specific case of VoIP in international traffic (1)

- ❖ The issue of **fair revenue sharing and fair compensation for carried traffic** has been one of the key topics raised in international fora, notably at the ITU (WCIT2012, ITU Telecom World 2012).

- ❖ **Identified Challenges for Operators :**
 - ✓ Difficulty of distinguishing traffic over their networks being used by OTT providers
 - ✓ Decreased traffic and revenues from traditional telecom services, e.g. SMS, voice etc., which is now going over OTT services
 - ✓ Decreased international call termination revenues
 - ✓ Consequently, high pressure on telecom operators to increase data prices as only option to cover costs and restore capacity to invest
 - ✓ Maintaining quality of Service difficulties in light of increased bandwidth usage by OTT services
 - ✓ Risks on return on investment, declining revenues, and ability to further invest in network capacity

- ❖ This **distorted competition** between OTTs and Telecom Operators has important negative impact on **economy, jobs, and investment in telecom infrastructures.**

- ❖ To secure investment profitability and financial position, network builders and operators have to **align revenue models more with traffic.** This would reverse current trends.

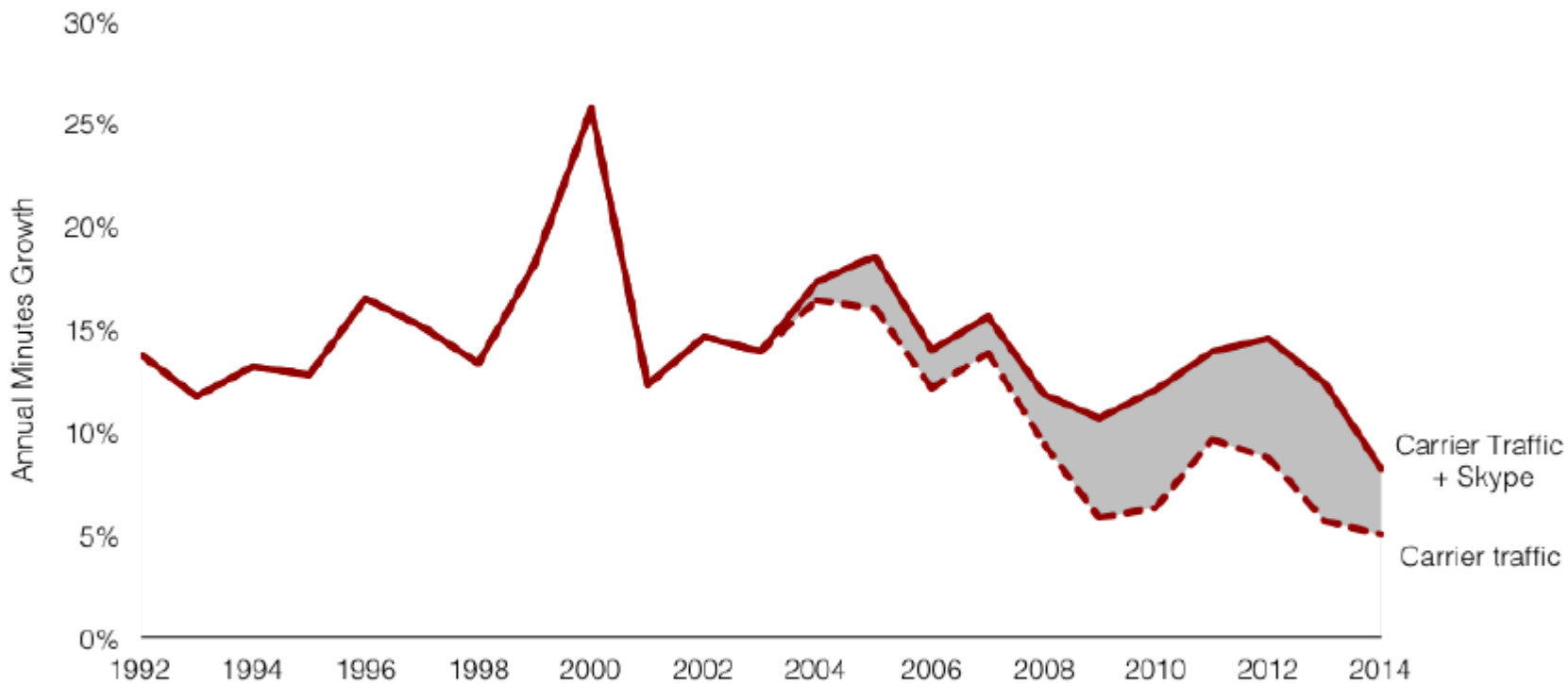
The specific case of VoIP in international traffic (2)

VoIP effect on international long-distance industry

(Telegeography report)

https://www.telegeography.com/page_attachments/products/website/research-services/telegeography-report-database/0005/5686/TG_executive_summary.pdf

Where Did the Missing Traffic Go?: The Skype Effect



Notes: Telephone traffic volumes for 2014 are projections. Skype traffic reflects on-net (Skype-to-Skype) cross-border traffic only, and excludes calls originated via Skype but terminated to the PSTN.

The specific case of VoIP in international traffic (3)

Different regulatory responses to those challenges

- ❖ Recognizing the difficulties of translating existing regulatory frameworks into the IP world, the **European Commission** advocated a 'light regulatory touch' when it first examined VoIP regulation in 2004.

The **United States** initially took a similar approach, but VoIP is **becoming more regulated** over time, especially in the context of security concerns (whether and how VoIP traffic can be monitored) and access to emergency call services.

With a 'light touch', regulation is confined to specific matters such as access to telephone numbers, number portability, access to emergency services, universal service, and national security. This approach may be appropriate in liberalized markets with revenues mainly coming from the domestic market

- ❖ Countries with public telecom services and especially those that recognize substantial income from international termination are more likely to **regulate OTT players** in near term.

In middle East, some countries have regulated voice OTT. **In China, VoIP** is classified as a basic voice call service, thus only major operators with basic telecom service licenses are allowed to provide mobile VoIP services.

New Rules for a sustainable Internet ecosystem

Key principles to build new digital rules (1)

- ❖ **It's time to update legal framework** for better customer protection, for more investment and jobs creation. It should allow regulators :
 - to improve consumer satisfaction and usage through affordable data traffic prices, more choice and better protection;
 - to build trust in digital services (privacy, security, emergency);
 - to stimulate (ensure) digital infrastructure investment and job creation; and to take action against anti-competitive practices.
- ❖ Digital rules should be **future-proof, tech neutral and applying same rules for the same services**
- ❖ For the whole Digital Market, the application of a common set of general principles is required including various products and services. With new provisions **taking into account the digitalisation of the economy and applicable without sectorial frontier**, whether these laws concern consumer protection, commercial contracts, competition, personal data or taxes. General obligations of loyalty and transparency, openness and no-blocking, portability and in some circumstances interoperability, should be introduced.
- ❖ Specific “telecommunications” regulation should be **limited to networks and to internet access service**.

Key principles to build new digital rules (2)

- ❖ Provisions on **social policy and consumer protection**, including emergency services, should be imposed on all service providers. Universal Service should be limited to network access.
- ❖ To avoid inconsistencies and to ensure the level playing field, the **Security obligations should explicitly include all the players of the Internet value chain**: access services, digital services, software and hardware providers.
- ❖ Transparency, information, control and accountability are principles that should be the cornerstone of a new architecture that would best **protect consumers in an online environment without jeopardizing innovation**.

Robust Rules need new definitions and re-organization of obligations

- ❖ Digital Market players provide different groups of services. As a general rule, these groups can be clustered as infrastructure, devices and digital services. **Appropriate Digital services definitions** are central to build efficient and robust regulatory rules
- ❖ The starting point for the reforms could be the creation of:
 - ✓ a **digital services category** including the traditional communication services, followed by the reorganization of the associated obligations such as openness, transparency and non-discrimination, security, privacy, data retention, emergency services, and consumer rights, interoperability and portability.
 - ✓ an **internet-access services category**, with corresponding obligations (provisions on consumer protection, interoperability and net neutrality for example);

Same Services, Same Rules Principle (1)

- ❖ From the consumer perspective **many communication services substitute each other** regardless of whether these services are provided by telecom operators or OTTs.
- ❖ Andrus Ansip, the European Commission's vice-president for the digital single market *said "Everybody knows today that with telecom service providers and OTT [players], there are unbalanced relations and we have to find a better balance," and added that "Financing of broadband networks is crucial."* (March 2015)
- ❖ Telecom Operators continuously request a regulatory framework that guarantees the same rules for the same services, while effectively **protecting the citizens, allowing fair competition and encouraging investments.**

Same Services, Same Rules Principle (2)

To effectively achieve a level playing field between all the stakeholders involved in the Internet value chain, local regulation should be effectively enforced outside borders whenever citizens are targeted or an approach based on the country of residence of the customers targeted.

- ❖ For example personal data collection, processing, storage and protection are crucial issues for all digital services, and need law enforcement outside borders given the global reach of the Internet.
it is essential that businesses comply with data protection and security rules in force in the country of residence of the data subjects
- ❖ **Taxation in the country of consumption should be made effective** : the topic of taxation covers corporate taxes and value-added taxes in the field of e-commerce. The issue of corporate taxes also illustrates the current discrepancies in the rules. Some progress can be expected at the International level, as the OECD is developing the status of "virtual permanent establishment" which aims to restore a relevant national tax base.

To boost Investment through a Fair Economic Model (1)

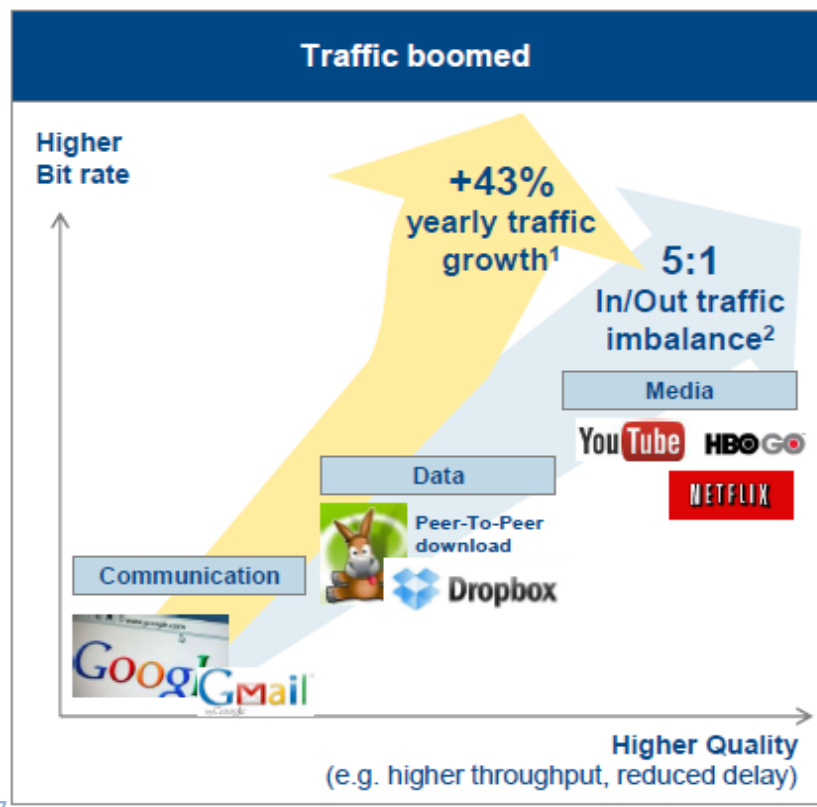
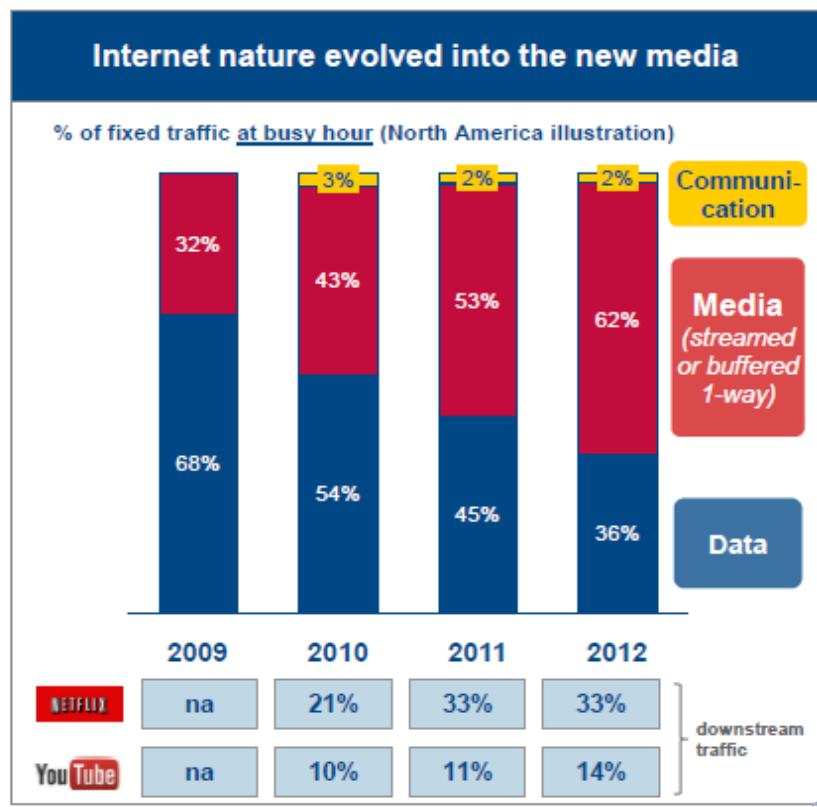
- ❖ As digital Economy development relies on the availability of high-speed and reliable broadband networks, **investments in broadband networks should be a key priority.**
- ❖ Network Capacity and Coverage: Telecom Operators are facing huge investment challenges in fixed and mobile infrastructure to cope with the traffic increase, while **the disconnection between the traffic increase generated by digital services and the revenue is growing.** OTTs have no direct incentives to contribute to investment in additional network capacity, whereas their growth is also a consequence of the deployment of new network capacity.
 - ✓ Recent traffic growth and mid-term forecasts raise serious challenges of the Internet model in the future: Internet traffic delivered via fixed networks is growing at 35% p.a. and at more than 100% for mobile networks.
- ❖ The emergence of high-bandwidth service, in particular streaming video, hosted by specialized CAP networks has led to highly asymmetric traffic exchanges between formerly homogeneous peering partners. This has resulted in situation where costs are not properly internalized and where artificially low prices for traffic delivery induce an excessive growth of traffic volumes.
- ❖ Content and Applications Providers will adopt more efficient coding of their data **only if the efficiency gains are internalized.** That is, when they are accountable for the volume of traffic they generate.

To boost Investment through a Fair Economic Model (2)

Traffic volume evolution

Arthur D Little The Future of the Internet Innovation and Investment in IP Interconnection, K. Taga , May 2014)
1 The Internet is vital and mutating

The Internet has evolved from a data/communication platform into the new media platform, causing higher traffic volumes and greater imbalances



COMMUNICATION: services provided by application (Skype, WhatsApp, iMessage, FaceTime, etc.); DATA: File sharing (Bit Torrent, eDonkey, etc), Web browsing, social networking, email, etc.; MEDIA: Streamed or buffered audio and video (Netflix, non-linear TV services); (1) 2009-2012 CAGR; (2) Interviews
LIBERTY GLOBAL Source: CISCO, Sandvine; Arthur D. Little analysis

To boost Investment through a Fair Economic Model (3)

Options to **restore the link between traffic and the revenue**, and to increase investment in the digital infrastructure:

- ❖ Modify retail pricing schemes within the current commercial model (Traffic prices should cover marginal costs). **But difficult to implement in a competitive market** since consumers do not appreciate traffic sensitive pricing schemes;
- ❖ Introduce a reasonable data-conveyance charge to be paid by traffic senders (based on total volume sent or peak traffic) for asymmetric traffic. This should be done in compliance with internet openness principles;
- ❖ Develop technical and commercial partnership on a bilateral basis between connectivity providers and Content and Application Providers;
- ❖ Develop end-to-end managed services (service identified and managed by the operator) besides the best-effort Internet, providing to users innovative services and assured level of quality (not allowed by the best effort)

Open Access To Digital Services

- ❖ Internet Openness is key for a sustainable digital service development: **freedom of expression and information, customer choice, competition, meaningful transparency and appropriate traffic management.**
- ❖ Openness encompassing: open standards, open technology (networks, platforms, applications, and devices), open resource management, and open development policy.
- ❖ Achieving the objectives of openness, transparency, and Freedom to innovate should be a **matter of concern to players at all levels of the Internet value chain:** in app stores, in smartphones, in tablets, in networks, in browsers and OS.
- ❖ **Appropriate traffic management, is essential** to keep internet open and accessible for everybody and without any interference in the relation between end users and applications and content providers. It allows network operators to balance and to optimize capacity resources allocation in order to cope efficiently with traffic demand. In mobile the challenge of traffic management is much important because of the necessarily limited and shared nature of the radio access link.



Conclusion

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- ❖ The regulatory framework should be aligned with the Digital Age:
 - ✓ **Review of digital service definitions**
 - ✓ **Common set of general principles** without sectorial frontier, encompassing consumer protection, commercial contracts, competition, personal data or taxes.
 - ✓ **Digital rules should be future-proof, tech neutral and applying same rules for the same services in a lighter regulatory regime**
- ❖ A Sustainable Internet requires a fair Economic Model:
 - ✓ **allowing fair competition,**
 - ✓ **incentivizing investment** in the digital infrastructures and
 - ✓ **restoring the link between traffic and revenue, for all players of the value chain**
- ❖ Within a **profitable network business model, capacity should be funded by tariffs:** (the big users should be the big payers)

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Thank You For Your Attention

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