Asia-Pacific | Europe | North America



Policy challenges and opportunities from a changing digital eco-system Presentation to ITU Regional Workshop for CIS, Moscow, 7-8 September, 2017

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## About CEG

#### Who we are

CEG is a leading global economic consultancy that provides expert economic and financial analysis in competition and regulatory cases, litigation and general commercial advice



#### CEG in a nutshell

- Formed in 2007
- Offices in Europe, Asia-Pacific and North America, including in Brussels, London, Milan, Paris, Rotterdam and Düsseldorf
- CEG is ranked among the Global Top 21 economics consultancies according to Global Competition Review
- Our experts are consistently recommended in arbitration and/or competition experts guidelines
- Dedicated Telecoms and Media team

## The changing digital ecosystem



CONTENT RIGHTS	ONLINE SER	VICES				EN. AN
Premium rights <ul> <li>Video (excluding sports)</li> <li>Sports video content</li> <li>Music</li> </ul>	E-retail (B2B, B2B) e.g. Alibaba.com, Amazon, EC21, Groupon, Rakuten		E-travel e.g. Airbnb, Expedia, Uber			Desi • Des • We e.g. 0
<ul> <li>Music</li> <li>Publishing</li> <li>Gaming</li> <li>Non-entertainment content</li> </ul> BBC, Blizzard Enter- tainment, Bloomberg, Disney, Major League Baseball, Time Warner Cable, Vivendi Made for digital Professional content	Video e.g. Netflix, Youku, Youtube		Music e.g. Pandora, Spotify		e.g VIS	Payr e.g. / VISA
	Publishing e.g. Amazon Kindle, DMGT, FT	Gamin e.g. Kin Minicli Tencen	ing, ip,	Gambling e.g. Betfair, Bwin		M2M • SIM M2l • Ap e.g. E
	Social and community e.g. Facebook, Goog- le+, LinkedIn, match. com, Tencent, Twitter, Yahoo		Communications e.g. Cisco, Kakaotalk, Skype, Snapchat, Tencent, WhatsApp			Adve • On • On • On • Thi e.g. (
User-generated content	Search e.g. Baidu, Google, Yandex					Veriz
Buzzfeed, Fullscreen, Machinima, Maker, Xmedia DS	Information and reference e.g. Experian, Google Maps, Wikipedia		Cloud services e.g. Amazon Web Services, Microsoft Azure			Man cont • Col inte • Col
	Other e-services e.g. Charles Schwab, Duolingo, Nest, TaskRabbit				• Cor e.g. A Level	

	ENABLING TECHNOLOGY AND SERVICES	CONNECTIVITY	u u
b, Expedia,	Design and hosting <ul> <li>Design and development</li> <li>Web hosting</li> <li>e.g. Go Daddy, Ipower</li> </ul>	Mobile access e.g. América Móvil, Axiata, China Mobile, Docomo, Loon for all, MTN,	Ha • S • P • S
ra, Spotify ambling g. Betfair, win	Payment platforms e.g. Alipay, MasterCard, PayPal, VISA M2M platforms • SIM management and M2M platforms • Application and solutions e.g. Bosch, Cumulocity	Ooredoo, Telefonica, TMobile, Verizon Wireless, VimpelCom, Vodafone	• C b • D • T • T • V • C • C • C
ications ; Skype, Tencent,	Advertising <ul> <li>Online agencies</li> <li>Online networks and exchanges</li> <li>Third-party ad servers</li> <li>e.g. Google AdWords, Verizon-Aol, WPP</li> </ul>	Fixed access (including VPNs and Wi-Fi)	e.g Ler Rol
	Internet analytics e.g. Adobe, Nielsen	e.g. at&t, Google fiber, Liberty Global, Orange Business	Sy: sol
rvices on Web Microsoft	Managed bandwidth and content delivery  • Core network and interchange • Content delivery networks	Services, Telekom Malaysia Satellite	• A • S si e.g Ma
TaskRabbit	Content optimisation     e.g. Akamai, BT, Equinix,     Level 3, Ooyala	e.g. Eutelsat, Inmarsat, Iridium, SES	Syn

CTIVITY	USER INTERFACE
ccess ica Móvil, vile, Docomo, II, MTN, Telefonica, ferizon VimpelCom,	Hardware devices • Smartphones • PCs • Smart TVs • Connected set-top boxes • Digital media receivers • Tablets • Wearables • Consoles • Other smart items • Other hardware e.g. Apple, Arris, Fitbit, Lenovo, Logitech, MI, Roku, Samsung, Sony
:ess g VPNs 'i)	
Google rty Global, isiness Telekom	Systems and software • Operating systems • App stores • Security and software
eat, Inmarsat, ES	e.g. Apple, Cisco, Google, McAfee, Microsoft, Symantec

#### **Emerging themes:**

USER

- 1. Greater interdependencies
- 2. Deflationary impacts
- 3. Greater market concentration driven by high upfront costs & scale economies 4. Abundance

Source: AT Kearney

# Cannibalisation : What OTTs can do to Telco markets



Over-the-top (OTT) revenue cannibalization, relevant revenue, % Messaging Fixed voice Mobile voice "Just parasites" Mitigate cannibalization OTT mainstream: all IP Source: McKinsey and Ovum by bundling

## A new set of policy challenges and opportunities





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- Net Neutrality (NN) online traffic managed in a non-discriminatory fashion, with no charge to content providers for sending information to end users
- Europe focus on ensuring transparency, allowing traffic management in specific cases, allowing for specialised services and introducing *ex-ante* rules on offers 'where end users' choice is materially reduced in practice' (e.g. zero-rating)
- US/Canada focus on fixed networks where wholesale access is weak or nonexistent meaning consumers face few alternative suppliers
  - In US, new FCC chairman has indicated that ex-ante rules to be scrapped with a move to a voluntary industry code and reliance on general antitrust

# Zero-rating: Competition and economic issues



#### The economic benefits

- Free access for users
- Increasing usage
- Facilitating entry
- Promoting competition between ISPs

#### The potential concerns

- Vertical agreements that restrict competition
- Downstream : ISP foreclosure (due to exclusive 'must have' content)
- Upstream: Content application foreclosure
- BUT will depend critically on level of competition/customer choice (e.g. US/Can vs EU)

#### The competition analysis required

- In considering the risk of content application foreclosure the following factors appear relevant
  - Extent of customer data capacity constraints
  - Number of Content Applications target customers falling under the offer
  - Can other Content Applications join offer?
  - Explicit agreement between ISP and Content Application?
  - 1. General competition rules may take time and be difficult to apply (i.e. need for an explicit agreement)
  - 2. Careful ex-ante 'case-by-case' review needed
  - 3. Are NRAs skilled to decide on complex competition issues ex-ante? Risk of over-zealous action
  - 4. Reverse Foreclosure risk for ISP market to compete with CAPs?

# Zero-rating – Some themes from recent European regulatory assessments



Multi-factors	NRA assessments/Commercial offers	Key take-outs for regulatory compliance
The goals of the Regulation	<ul> <li>Hungary, Austria and Sweden: Regulator intervened to stop offers that extended beyond a customers data cap.</li> <li>Three &amp; Virgin (UK) offer within data cap</li> </ul>	• Offers should be throttled once customer monthly cap used
The market position of ISPs & Content App providers	<ul> <li>Impact of multi-homing (BIPT – Belgium)</li> <li>Facebook/Whatsapp don't have control over network (BIPT-Belgium)</li> </ul>	<ul> <li>Ensure data allowance sufficient to allow customers to use competing apps (zero and non-zero rated)</li> <li>Offers apps that are not owned by ISP</li> </ul>
Effects on consumer & business customer end-user rights	<ul> <li>Drei (Austria) increased data limits to address regulator concerns</li> <li>Proximus (Belgium) used customer survey to choose services and increased bundle caps</li> <li>Messaging service allowed as data usage low (Ofcom – UK)</li> </ul>	<ul> <li>Offer relatively high data allowance caps – show that most customers not hitting cap</li> <li>Use customer surveys to choose zero-rating services</li> <li>Allow customers to choose zero-rating service from a range</li> <li>Offer services that have low data usage</li> </ul>
Effects on Content App Provider end- user rights	<ul> <li>Three/Virgin (UK) and Telenor (Norway) offers allow other content applications to join.</li> <li>Netherlands case - T-Mobile "was not discriminating because any music streaming service could participate without charge."</li> </ul>	• Allow other app providers to join
Scale of the practice and presence of alternatives	<ul> <li>Music streaming service allowed as temporary offer (Ofcom – UK)</li> </ul>	<ul> <li>Smaller ISPs/Content App providers unlikely to cause issues</li> <li>Time-limited offers ok</li> </ul>

## Key policy and regulatory take-outs



- Regulators likely to face significant implementation challenges (regulations to force operators to charge end-users for some services previously offered without charge)
- Regulators required to apply competition principles to assess the legality or otherwise of certain services (many NRAs not equipped to do this)
- Courts likely to play a major role in setting precedent for new and existing offers
- 5G : Who pays? Are there opportunities for new funding models between OTT and MNOs across both sides of the market

Minimum QoS rather than strict Net Neutrality restrictions?

## Regulatory issues for Machine2Machine communications and Internet of Things





### **Global SIM**

 Regulation preventing the use of a Global Sim in some countries

#### **Data Localisation**

 Rules that restrict the ability to provide cross-border services using centralised systems

#### Legacy consumer regulations

Mis-application of legacy consumer regulations

#### **Net Neutrality**

 Rules potentially impacting on the ability of MNOs to offer specialised services (differentiated by QoS)

### Level playing field : A new European Communications Code



ECC – Proposed new service category – Interpersonal Communications Service (ICS)



Proposals appears to be more housekeeping rather than major reforms



## Thank You

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