Peering and Regulation – a European View

Presentation to ENOG 3 - Odessa

Mike Blanche

Disclaimer

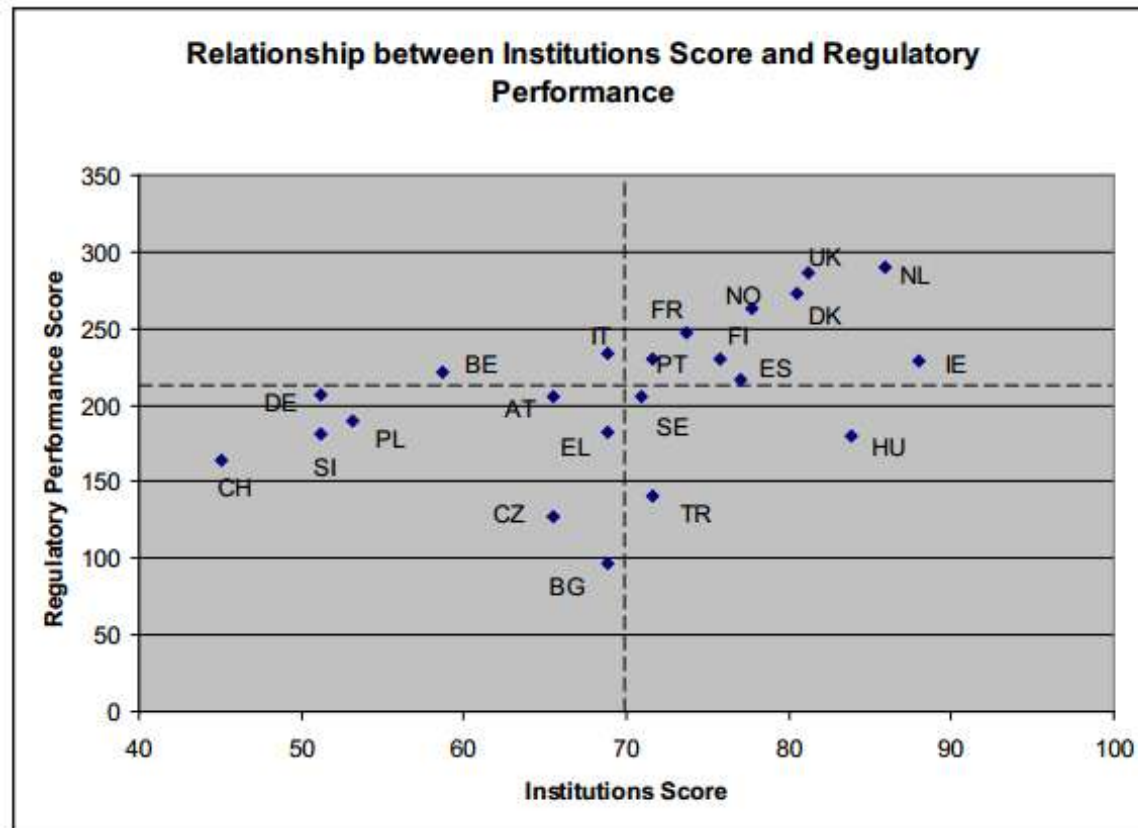Views are my own and nobody else's!

Why This Stuff Matters...

- The Internet has enjoyed 20 years of development almost free of regulation

- Unique attributes:

  - bottom-up formal and informal systems of governance

  - informal nature of peering interconnection agreements

- This has resulted in

  - Internet traffic successfully scaling by 8 orders of magnitude in past 20 years

  - IP Transit pricing ~5 orders of magnitude smaller than voice interconnect rates

Agenda

- The Background to European Internet Access Regulation

- Manoeuvres on Peering

- Regulatory Interest in Peering
  - Poland
  - France (x 2)
  - Others
  - Pan-European (European Commission, BEREC)
  - ITU

- Action?

European Internet Access Regulation

- 27 national regulators, with some pan-European directives from EU

- Varies widely between
  - Open infrastructure approach, highly competitive market
  - Less open approach, more protective of incumbent

Relationship between Institutions Score and Regulatory Performance

See ECTA Regulatory Scorecards at: www.ectaportal.com

European Internet Access - Regulation

- Generally pro-market, pro-liberalisation, pro-consumer, open access

- Peering issues currently handled under existing competition law
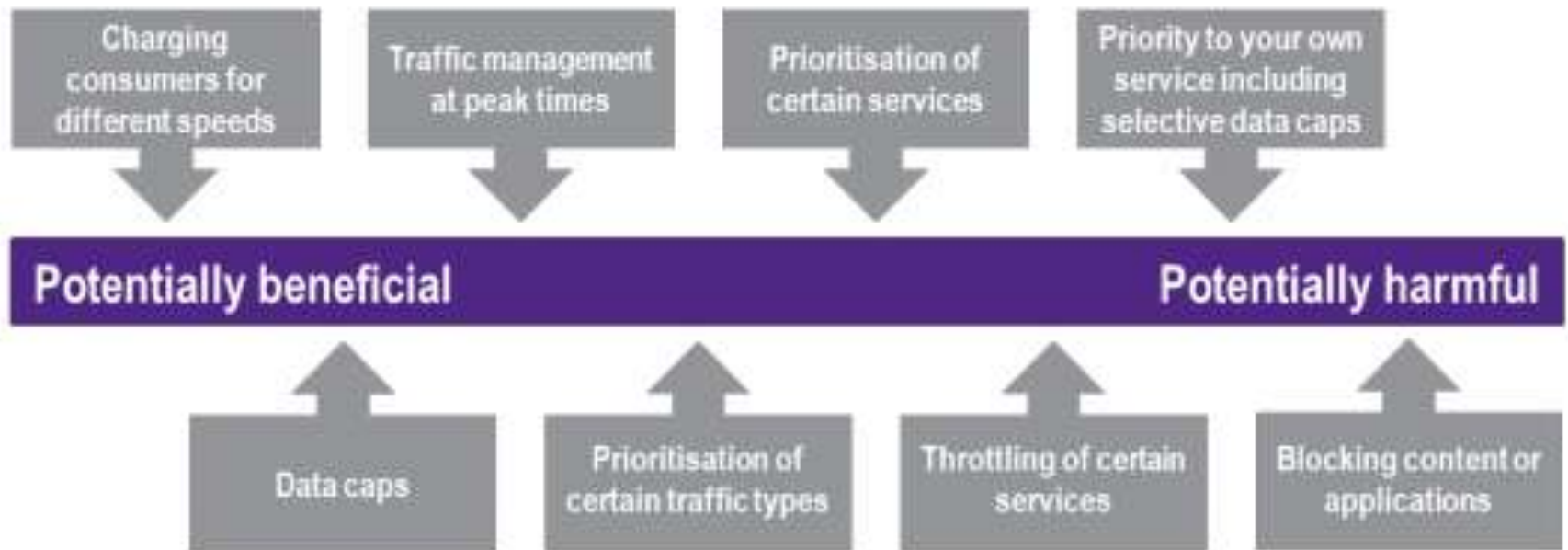
- European Union Directive:

Neelie Kroes – EU Commissioner

"End-users should be able to decide what content they want to send and receive, and which services, applications, hardware and software they want to use for such purposes, […] ability to access and distribute information and to run applications and services of their choice."

Citizens' Rights Directive 2009/136/EC, para 28

What is "network neutral"?
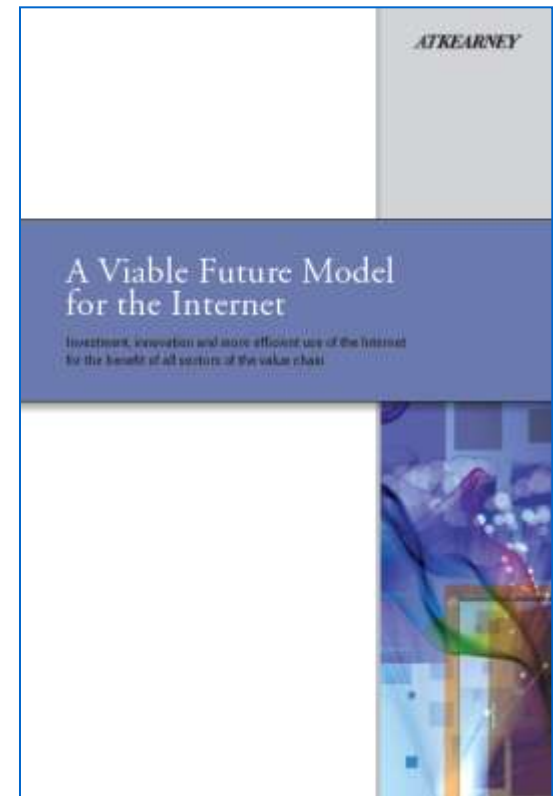
Figure 4-2: Taxonomy of conduct

"An Open Internet – A Platform for Growth" – Plum Consultancy, October 2011

Regulatory Interest

- EU directives on Open Internet, Network neutrality, transparency of traffic management

- Constrained peering is seen as an impediment to the free-flow of content and services demanded by users

- Decline of need to regulate voice interconnection

- Peering disputes (e.g. Cogent/Orange), and operator lobbying

- Peering - an informal market that regulators would like to better understand
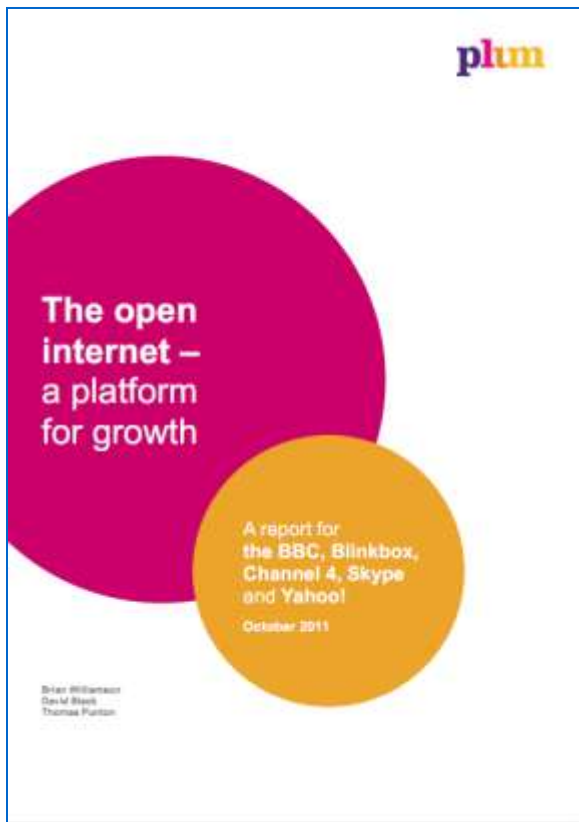
Manoeuvres on Peering

- AT Kearney report: "A Viable Future Model for the Internet"

- Funded by Orange, Deutsche Telekom, Telefonica, Telecom Italia

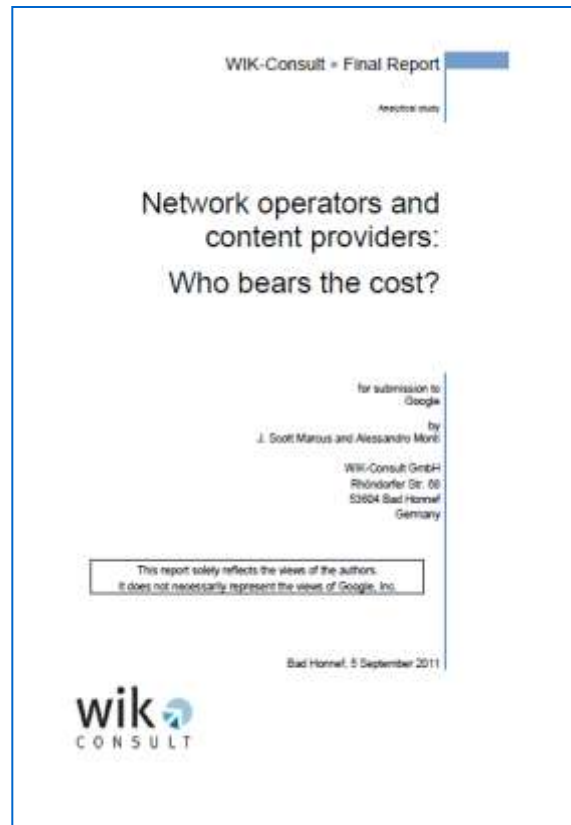- Proposed an "IP data termination rate"

http://goo.gl/a7VjW

Resulted in...

- "Open Internet" reports published by broadcasters, content and service providers

http://goo.gl/xJ5Pc

http://goo.gl/yI9yF

http://goo.gl/V2dRi

Regulatory Interest - Poland

- Polish regulator UKE attempted to regulate the peering and transit markets in Poland

- UKE considered that Telecom Poland had a monopoly on access to its own users, and wanted to regulate both peering and transit

- European Commission rejected the need for regulation:

*The Commission's view is that Polish consumers **already benefit from competitive services without the need of an extra regulatory burden,** and prices are falling. Moreover, the Commission considers that **if these markets were regulated, it could adversely affect alternative operators** offering transit services and **discourage them from investment in network infrastructure**.*

Republic of Poland
Office of Electronic Communications

| About UKE | Newsroom | Working Areas | Law | Consumer Issues | Contact | WAI

Regulatory Interest - France

- French regulator ARCEP wanted to "understand the peering market"

- Proposing quarterly data collection on all IP interconnection
  - Including capacity, traffic and commercial terms
  - Even if peering is outside France, between two non-French entities, if
    - it could affect French users
    - or you're hosting content in French
    - or you have .fr domains...

- Final proposal is slightly more limited – still covers hundreds of operators (French and international) who are licenced to operate in France.

Other European National Regulators

- UK - OFCOM

  - Main focus is "traffic management" practices inside ISPs

  - Research into CDNs

- Norway - NPT

  - Research into CDNs

  - Considers CDNs to be *"similar to servers that are generating content"*

- Germany – BNetzA

Regulatory Interest – European Level

- BEREC

  - Peering & Interconnection Workshop in Brussels in November 2011

- ETICS – EU funded research to develop *"QoS-ensured service across multiple heterogeneous operator networks while providing adequate revenue sharing models"* https://www.ict-etics.eu/

- ENISA – EU agency doing Internet resilience research. Proposed to *"work with telecoms regulators to insist on best practice in IXP peering resilience."*

ITR – International Telecommunications Regulations

- WCIT - December 2012 – Dubai

- Government-led forum – one country one vote

- Proposals may include:
  - An "Internet Kill Switch"
  - IPv6 registry separate to Regional Internet Registries
  - Cybersecurity; Spam and Malware countermeasures
  - Dispute resolution processes
  - Regulation of peering

ITR – International Telecommunications Regulations

"operating agencies shall determine by mutual agreement which international routes are to be used"

"ensuring fair compensation is received for carried traffic" or "ensuring an adequate return on investment in network infrastructure."

"where international telecommunication services are used for the purpose of interfering in the internal affairs or undermining the sovereignty, national security, territorial integrity and public safety of other States, or to divulge information of a sensitive nature."

"…collect and disseminate information on security and quality of service of all telecommunication and Internet networks."

Remember...

- The success of the Internet has been founded on
  - bottom-up, community-led governance
  - flexible, resilient and low-overhead interconnectivity arrangements

Actions?

- Education
    - ...of company policy teams, telecoms regulators, and governments

- Demonstration
    - ...of an open, competitive and efficient Internet market

- Cooperation
    - ...between Internet operators to keep our own house in order

Thank You

What do YOU want to see?