

Net Neutrality in Europe

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The Internet Society

- Non profit organisation (1992)
- Internet related standards, education and policy.
- 100 organisational + 55,000 individual members + 80 Chapters around the world
- Regional Bureaus: Africa, Asia, Europe, Latin America & Caribbean, North America

My contribution to to-day's discussion

1. Back to the key principles: the [Internet Model](#)
2. How to address the « NN » debate?
3. Need to establish some [common terminology](#)
4. Address some [key challenges](#)

1. Internet key characteristics: the Internet Model

The Internet is successful in large part due to its unique model of development and deployment:

- Shared global ownership- **no central control**
- **Open** technical standards
- Collaborative Engagement models- researchers, business, civil society, academia, government
- Freely accessible processes for technology and policy deployment
- **Transparent** and collaborative governance

Internet key characteristics

- An network of network (inter-network) designed to pass standardized packets of data
- The Internet does **not** care what is in the packets
- **Best-effort** transport between and within networks
- Openness allows
 - innovation in application and services (‘**innovation without permission**’)
 - rapid growth and distributed coordination (without central control)

2.« Network Neutrality »: the origin of the debate

- Increasing demand for Internet connections with greater bandwidth
- More pressure on network capacity, hence greater deployment and use of congestion management and traffic shaping
- At core of the debate: is traffic management (i.e. ability to treat packets differently) a threat to the open architecture of the Internet?
- Network Neutrality*: broad term - no clear definition (free expression, user choice, traffic management, pricing, discrimination, etc.)

Desired Outcome: Open Internet

- Openness is the overarching principle that has ensured the success and growth of the Internet to date,
- ...and it offers useful guidance on how to best address some of the core issues as part of the NN debate.
- Users expect an Internet in which traffic is conveyed in a manner that is agnostic to source, content and destination.
- Key enablers: [Access/Choice/Transparency](#)

3. Internet: need to establish some common terminology

- Key concern to-day stems from the **very success of the Internet Protocol (IP)** as a networking technology:

Number of networked services are offered in addition to Internet service (eg. VoB, TV & video delivery)

➤ Some concerns re: traffic priority?

- Need to clearly distinguish Internet service from any other IP-base services...and of course, this should be made clear to consumers

Internet Service

***Internet service* is: connection of an Internet endpoint or network to the rest of the Internet with non-discriminatory, best-effort routing of data packets as part of the Internet.**

- Non-discriminatory by definition
- Networks should simply move the bits along the wire
- Can include application-agnostic congestion management, for example, or traffic management to maintain network resilience

IP-based services (Specialized services)

***IP-based services* are: services that are built using the Internet Protocol, but that operate within a restricted set of networks, or only one network.**

- Often optimized for a single service or service type, and rely on a single administrative domain controlling the network in order to ensure (or enforce) specific service characteristics.
- Examples of IP-based services include video delivery and some communications service offerings (such as voice over broadband).

Internet-based services and applications

***Internet-based services and applications* are: services and applications that are delivered over or made possible by the Internet service direct to end-users.**

- *Do not* rely on administrative control from the network.
- *Do* rely on the underlying Internet service conforming to standardized best practices and non-invasive network management techniques.
- Skype is an example of an Internet-based online communications application. Blinkbox is an example of an Internet-based video-on-demand service.

4.1. Key challenges: Traffic Management

- Traffic management is a **normal part** of every day network operation and network management- It is needed to ensure that all subscribers are able to obtain adequate service, esp. at peak time (congestion is a 'natural' consequence of the Internet's design)...but
- Should remain protocol or **application neutral**
- Should not be used as a tool for anticompetitive behaviour
- Should be **transparent**
- ...and should not be considered as a panacea (adding capacity to networks is also critical to alleviating congestion!)

Comparison?

Imagine your **electricity provider** could charge you more for the electricity you use to light, heat and power ICT devices in your home office.

- they can't do that
- if new technology made that possible, would we welcome it?

This has nothing to do with 'reasonable network management' and everything to do with trying to segment the market for commercial advantage.

It is an abuse of the network operator's role.

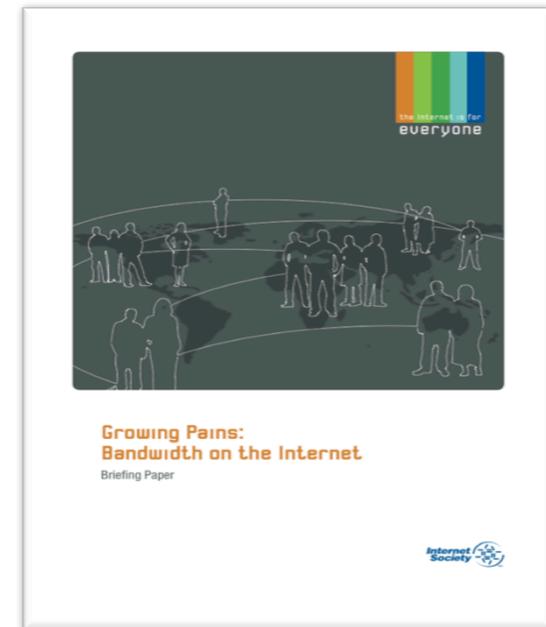
4.2. Key Challenges for Policymakers and Regulators

- Effective competition
- Enable the users to make an informed choice
- Clear information on limitations and traffic management practices that the subscriber is subject to,
- Reasonable network management, neither anti-competitive nor prejudicial
- Share common terminology of Internet service
- ...and Internet service monitoring

Relevant ISOC outputs

Bandwidth Panel

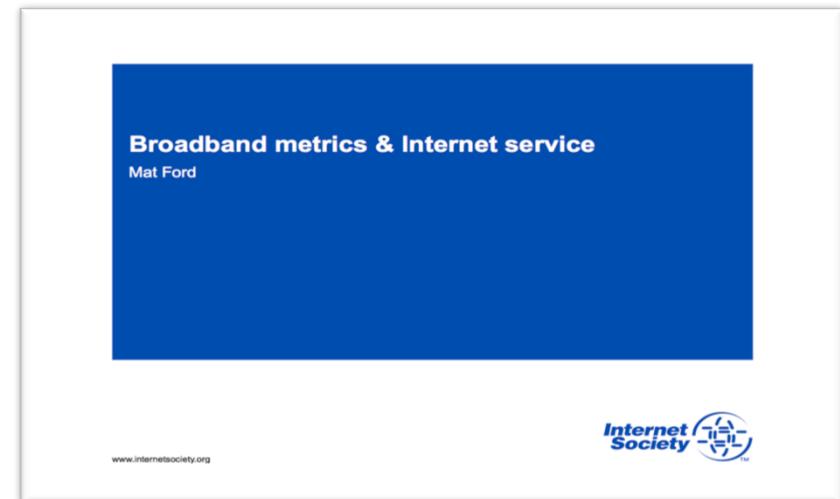
- <http://www.internetsociety.org/news/isoc-briefing-panel-internet-bandwidth-growth-dealing-reality>



Submission to OECD/FCC Broadband Metrics Workshop

- <http://www.fcc.gov/events/oecd-broadband-metrics-workshop>
- In collaboration with, and on behalf of OECD Internet Technical Advisory Committee

The Internet Society



Read more

- On the Internet Society contributions to public policy discussions on Open Inter-networking: <http://www.isoc.org/internet/issues/openinternet.shtml>
- On the Internet Society European activities: <http://www.isoc.org/regions/europe/>
- On the Internet Society in general: <http://www.isoc.org/>
- ...And feel free to contact the **European Regional Bureau** for any questions: donck@isoc.org