A comparison between European and US approaches to net neutrality

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Norway and net neutrality

✓ Norway has the longest running net neutrality regime in Europe

✓ Norway was the first country outside US that was connected to the Internet

✓ Norway has one of the oldest constitutions in the world which is still in use

European vs. US approaches to NN (1/2)

1. Can regulated local loop unbundling ensure net neutrality in Europe?

2. Significant level of restrictions on Internet access in the European market

3. Europe, despite the European Union, still consists of many strong national states

European vs. US approaches to NN (2/2)

4. The most successful content and application providers are US-based

5. European telecom / mobile success and US Internet / IP paradigm shift

6. How come US citizens show such enthusiasm in protecting net neutrality?

Fundamental elements of NN regulation

➢ Application-agnosticism

➢ Reasonable traffic management

➢ Specialised services
(non-Internet access services)

➢ Zero-rating and price discrimination

➢ **Application-agnosticism**

- Equal treatment of traffic from different applications, so-called *application-agnosticism*, is the essence of net neutrality

- *Non-blocking* and *non-throttling* are obvious

- FCC even clearer: include *non-prioritization*

- European proposed rules, in the Council, application-agnosticism waived by introducing "*equally treat equivalent types of traffic*", allowing traffic classes on the Internet?

➢ **Reasonable traffic management**

- The proposed European rules have fairly well designed ***exceptions*** for reasonable traffic management:
    - ➢ Legal obligations
    - ➢ Integrity and security
    - ➢ Network congestion *(ref. discussion below…)*
    - ➢ Unsolicited communication etc.
- ***Network congestion*** is complex to assess
    - ➢ Endpoint-based congestion control (TCP)
    - ➢ Dynamic adaptive media codecs (UDP)
    - ➢ Application-agnostic methods (e.g. Comcast)
    - ➢ Long-term network planning ("*exceptional / temporary*")

➢ «Specialised services» / non-IAS

Specialised services provide extensive exceptions from net neutrality – therefore they

1. ***must be isolated from Internet traffic***

   US: "*use some form of network management to isolate the capacity*"

2. ***must not be provided at the expense of IAS***

   Europe: "*not impaired in a material manner*", a wording actually allowing degradation of the quality of the Internet access service!

Specialised services use built-in QoS mechanisms, and they do not need protection against IAS!

➢ It is the other way round;
IAS needs protection against specialised services!

➢ **Zero-rating and price discrimination**

- *Simple data caps* can be application-agnostic.
- Exempting particular applications from the cap, so-called *zero-rating*, is not application-agnostic.
- In the legislative initiatives this is *not resolved yet*.
- *US* indications are given about a case-by-case basis.
- In *Europe* there are a few national initiatives:
  - ➢ *Netherlands & Slovenia*,
    regulatory action based on the national laws.
  - ➢ *Norway*, would be a breach of the national guidelines.

Rough NN comparison Europe vs. US

	Europe	US / FCC
No blocking	X	X
No throttling	X	X
No prioritisation		X
«Specialised services»	X *	X
Ban zero-rating	**	Case-by-case
IP interconnect		Case-by-case

The devil is in the details
***Some national initiatives*