

SCOM/ SRSI Net Neutrality

Ana Aguiar DEEC, FEUP 2018-19



Network Neutrality

Best Effort Service



- Packets are treated individually
 - No notion of flow
- Best-effort networks treat all packets alike
 - No service differentiation
- Network and hosts do not "talk" to each other
- Congestion control and avoidance mechanisms
 - Fair = Equal

Network Neutrality



- Keeping Internet best effort
 - No traffic discrimination
 - To a large extent, also means no QoS
- Laws passed recently in EU for guaranteeing net neutrality
 - https://ec.europa.eu/digital-single-market/en/open-internet-net-neutrality
- Laws passed 2015 in the US, changing now
 - 2015 Open Internet Order
 - 2017 Restoring Internet Freedom
 - Position paper on 2017 ruling by Internet experts

FCC on Net Neutrality



- No Blocking: broadband providers may not block access to legal content, applications, services, or non-harmful devices.
- No Throttling: broadband providers may not impair or degrade lawful Internet traffic on the basis of content, applications, services, or non-harmful devices.
- No Paid Prioritization: broadband providers may not favor some lawful Internet traffic over other lawful traffic in exchange for consideration of any kind—in other words, no "fast lanes." This rule also bans ISPs from prioritizing content and services of their affiliates.

Source: Federal Communications Commission (page was online in 2016, but it has changed now and I could not find it again)

Main Economic Arguments



- Telcos: "lighter" net neutrality
 - Need to pay for investment to support ever growing traffic and service to areas with little population/ few subscribers
 - Not getting a share of the multi-million business of over-the-top applications
- (Some) Large content providers
 - Better service to their customers
 - Can afford to pay

Main Economic Arguments



- SMEs: usually pro net neutrality as understood today
 - Throttling innovation
 - Cannot afford to pay for service
 - Barrier for users to not adopt new solutions
- Customers: often agnostic
 - Their QoE will be limited
 - Choice will be limited