

Inquiring Minds Topic -- 14 July 2017

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Let's talk NETWORK NEUTRALITY

QUESTIONS

1. How does it impact me?
2. How much about the WEB & Net Neutrality should I know?
3. Are we too late in the process and must leave it to the experts?

Net neutrality law refers to laws and regulations which enforce the principle of [net neutrality](#).^{[1][2]}

Opponents of net neutrality enforcement claim regulation is unnecessary, because broadband service providers have no plans to block content or degrade network performance.^[3] Opponents of net neutrality regulation also argue that the best solution to discrimination by broadband providers is to encourage greater competition among such providers, which is currently limited in many areas.^[4]

On 23 April 2014, the [United States Federal Communications Commission](#) (FCC) was reported to be considering a new rule that would permit [Internet service providers](#) to offer content providers a faster track to send content, thus reversing their earlier position on net neutrality.^{[5][6][7]} [Municipal broadband](#) could provide a net neutral environment, according to [Professor Susan Crawford](#), a legal and technology expert at [Harvard Law School](#).^[8] On 15 May 2014, the FCC decided to consider two options regarding Internet services: first, permit fast and slow broadband lanes, thereby compromising net neutrality; and second, reclassify broadband as a [telecommunication](#) service, thereby preserving net neutrality.^{[9][10]} On 10 November 2014, [President Obama](#) recommended the FCC reclassify broadband Internet service as a telecommunications service in order to preserve net neutrality.^{[11][12]} On 26 February 2015, the FCC ruled in favor of net neutrality by reclassifying broadband access as a telecommunications service and thus applying [Title II \(common carrier\)](#) of the [Communications Act of 1934](#) to [internet service providers](#).^[13] In April 2017, a recent attempt to compromise [net neutrality in the United States](#) is being considered by the newly appointed FCC chairman, [Ajit Varadaraj Pai](#).^{[14][15]}

Legal background

[Common carrier](#)

In [common law](#) countries, common carrier is a legal classification for a person or company which transports goods and is legally prohibited from discriminating or refusing service based on the customer or nature of the goods. The common carrier framework is often used to classify [public utilities](#), such as electricity or water, and [public transport](#). In the United States, there has been intense debate between some advocates of net

neutrality, who believe Internet providers should be legally designated common carriers,^[16] and some [Internet service providers](#), who believe the common carrier designation would be a heavy regulatory burden.^[17]

Historical precedent

The concept of network neutrality predates the current Internet-focused debate, existing since the age of the [telegraph](#).^[18] In 1860, a U.S. federal law ([Pacific Telegraph Act of 1860](#)) was passed to subsidize a telegraph line, stating that:

messages received from any individual, company, or corporation, or from any telegraph lines connecting with this line at either of its termini, shall be impartially transmitted in the order of their reception, excepting that the dispatches of the government shall have priority ...

— *An act to facilitate communication between the Atlantic and Pacific states by electric telegraph*, June 16, 1860. ^[19]

In 1888 [Almon Brown Strowger](#), suspecting his loss of business was caused by a nepotistic telephone operator redirecting his business calls to a competitor, invented an [electromechanical](#)-based [automatic telephone exchange](#) that effectively removed human interference of telephone calls.^[18]

Degrees of enforcement

Full neutrality

Chile became the first country in the world to pass net neutrality legislation in 2010.^[20] The laws adopted there prohibit organizations such as [Facebook](#) and [Wikipedia](#) from subsidizing mobile data usage of consumers.^[21] The adoption of net neutrality law usually includes allowance for discrimination in limited conditions, such as preventing spam, malware, or illegal content. The law in Chile allows exceptions for ensuring privacy and security.^[20] The [law in the Netherlands](#), allows exceptions for congestion, security, spam, or legal reasons.

[Cardozo Law School](#) professor [Susan P. Crawford](#) believes that in a neutral Internet, packets on the network must be forwarded on a first-come, first-served basis, with no consideration given to [quality-of-service](#) concerns.^[22]

A number of net neutrality interest groups have emerged, including [SaveTheInternet.com](#) which frames net neutrality as an absence of discrimination, saying it ensures Internet providers cannot block, speed up, or slow down content on the basis of who owns it, where it came from, or where it's going. It helps create the situation where any site on the Internet could potentially reach an audience as large as that of a TV or radio station, and its loss would mean the end for this level of freedom of expression.^[23]

Only allow discrimination based on type of data

[Eric Schmidt](#)

[Columbia University Law School](#) professor [Tim Wu](#) observed the Internet is not neutral in terms of its impact on applications having different requirements. It is more beneficial for data applications than for applications that require low [latency](#) and low [jitter](#), such as voice and real-time video. He explains that looking at the full spectrum of applications, including both those that are sensitive to network latency and those that are not, the IP suite isn't actually neutral. He has proposed regulations on Internet access networks that define net neutrality as equal treatment among similar applications, rather than neutral transmissions regardless of

applications. He proposes allowing broadband operators to make reasonable trade-offs between the requirements of different applications, while regulators carefully scrutinize network operator behavior where local networks interconnect.^[24] However, it is important to ensure that these trade-offs among different applications be done transparently so that the public will have input on important policy decisions.^[25] This is especially important as the broadband operators often provide competing services—e.g., cable TV, telephony—that might deferentially benefit when the need to manage applications could be invoked to disadvantage other competitors.

The proposal of Google and Verizon would allow discrimination based on the type of data, but would prohibit ISPs from targeting individual organizations or websites:^[26] Google CEO Eric Schmidt explains Google's definition of Net neutrality as follows: if the data in question is video, for example, then there is no discrimination between one purveyor's data versus that of another. However, discrimination between different types of data is allowed, so that voice data could be given higher priority than video data. Google and Verizon are both agreed on this type of discrimination.^[27]

Individual prioritization without throttling or blocking

Some opponents of net neutrality argue that under the ISP market competition, paid-prioritization of bandwidth can induce optimal user welfare.^[28] Although net neutrality might protect user welfare when the market lacks competition, they argue that a better alternative could be to introduce a neutral *public option* to incentivize competition, rather than enforcing existing ISPs to be neutral.

Some ISPs, such as [Comcast](#), oppose blocking or throttling, but have argued that they are allowed to charge websites for faster data delivery.^[29] [AT&T](#) has made a broad commitment to net neutrality, but has also argued for their right to offer websites paid prioritization^{[30][31][32]} and in favor of its current sponsored data agreements.^[33]

No direct enforcement

While many countries lack legislation directly addressing net neutrality, net neutrality can sometimes be enforced based on other laws, such as those preventing anti-competitive practices. This is currently the approach of the US FCC, which justifies their enforcement based on compliance with "commercially reasonable" practices.^[34]

In the United States, author [Andy Kessler](#) argued in [The Weekly Standard](#) that, though network neutrality is desirable, the threat of [eminent domain](#) against the telecommunication companies, instead of new legislation, is the best approach.^[35]

In 2011, Aparna Watal of Attomic Labs said that there had been few violations of net neutrality. She argues that transparency, threat of public backlash, and the FCC's current authority was enough to solve the issues of net neutrality, claiming that the threat of consumers switching providers and the high cost of maintaining a non-neutral network will deter bad practices.^[36]

The [Wall Street Journal](#) has written about the government's responsibility being more along the lines of making sure consumers have the ability to find another Internet provider if they are not satisfied with their service, as opposed to determining how Internet providers should go about managing their networks.^[37]

By geographic regions

Europe

European Union

The 2002 regulatory framework for electronic communications networks and services in the European Union consisted of five directives, which are referred to as "the [Framework Directive and the Specific Directives](#)":
[\[citation needed\]](#)

- Access Directive (Directive 2002/19/EC)
- Authorization Directive (Directive 2002/20/EC)
- Framework Directive (Directive 2002/21/EC)
- [Universal Service Directive](#) (Directive 2002/22/EC)
- [Directive on privacy and electronic communications](#) (Directive 2002/58/EC)

When the [European Commission](#) consulted on the updating of the Framework Directive and the Specific Directives in November 2007, it examined the possible need for legislation to mandate network neutrality, countering the potential damage, if any, caused by non-neutral broadband access. The European Commission stated that prioritization "is generally considered to be beneficial for the market so long as users have choice to access the transmission capabilities and the services they want" and "consequently, the current EU rules allow operators to offer different services to different customers groups, but not allow those who are in a dominant position to discriminate in an anti-competitive manner between customers in similar circumstances".

[\[38\]](#) However, the European Commission highlighted that Europe's current legal framework cannot effectively prevent network operators from degrading their customers' services. Therefore, the European Commission proposed that it should be empowered to impose a minimum quality of services requirements.[\[39\]](#) In addition, an obligation of transparency was proposed to limit network operators' ability to set up restrictions on end-users' choice of lawful content and applications.[\[40\]](#)

On 19 December 2009, the so-called "[Telecoms Package](#)" came into force and EU member states were required to implement the Directive by May 2011.[\[41\]\[42\]](#) According to the European Commission the new transparency requirements in the Telecoms Package would mean that "consumers will be informed—even before signing a contract—about the nature of the service to which they are subscribing, including traffic management techniques and their impact on service quality, as well as any other limitations (such as bandwidth caps or available connection speed)".[\[42\]](#) Regulation (EC) No 1211/2009 of the European Parliament and of the Council of 25 November 2009 established the Body of European Regulators for Electronic Communications (BEREC) and the Office[\[43\]](#) [Body of European Regulators of Electronic Communications](#). BEREC's main purpose is to promote cooperation between national regulatory authorities, ensuring a consistent application of the EU regulatory framework for electronic communications.[\[44\]](#) The European Parliament voted the EU Commission's September 2013 proposal on its first reading in April 2014 and the Council adopted a mandate to negotiate in

March 2015. Following the adoption of the Digital Single Market Strategy by the Commission on 6 May, Heads of State and Government agreed on the need to strengthen the EU telecoms single market. After 18 months of negotiations, the European Parliament, Council and Commission reached two agreements on the end to roaming charges and on the first EU-wide rules on net neutrality on 30 June 2015,^[45] to be completed by an overhaul of EU telecoms rules in 2016. Specifically, article 3 of EU Regulation 2015/2120^[46] sets the basic framework for ensuring net neutrality across the entire [European Union](#). However, the regulation's text has been criticized as offering loopholes that can undermine the regulation's effectiveness.^[47] Some EU member states, such as [Slovenia](#) and the [Netherlands](#), have stronger net neutrality laws.

Belgium

In Belgium, net neutrality was discussed in the [parliament](#) in June 2011. Three parties ([CD&V](#), [N-VA](#) & [PS](#)) jointly proposed a text to introduce the concept of net neutrality in the telecom law.^[48]

France

In France, on 12 April 2011, the Commission for economic affairs of the French parliament approved the report of MP Laure de La Raudière ([UMP](#)). The report contains^[49] 9 proposals. Propositions n°1 & 2 act on net neutrality.

Italy

Since March 2009 in Italy, there is a bill called: *Proposta di legge dei senatori Vincenzo VITA (PD) e Luigi Vimercati (PD) "Neutralità Delle Reti, Free Software E Societa' Dell'informazione"*.^[50] Senator Vimercati in an interview said that he wants "to do something for the network neutrality" and that he was inspired by Lawrence Lessig, Professor at the Stanford Law School. Vimercati said that the topic is very hard, but in the article 3 there is a reference to the concept of neutrality regard the contents. It is also a problem of transparency and for the mobile connections: we need the minimum bandwidth to guarantee the service. We need some principle to defend the consumers. It's important that the consumer has been informed if he could not access all the Internet. The bill refuses all the discrimination: related by the content, the service and the device. The bill is generally about Internet ("a statute for the Internet") and treat different topics like network neutrality, free software, giving an Internet access to everyone.

Netherlands

See also: [Net neutrality in the Netherlands](#)

In June 2011, the majority of the [Dutch lower house](#) voted for new net neutrality laws which prohibits the blocking of Internet services, usage of [deep packet inspection](#) to track customer behavior and otherwise filtering or manipulating network traffic.^[51] The legislation applies to any telecommunications provider and was formally ratified by the Dutch senate on 8 May 2012.^{[52][53]}

Slovenia

In Slovenia, with 1 January 2013 there is a new telecommunication law in effect which explicitly defines and requires net neutrality from telecommunication operators. Net neutrality is defined as a principle that every Internet traffic on a public communication network is dealt with equally, independent of content, applications, services, devices, source and destination of the communication.^[54]

Israel

In 2011, Israel's parliament passed a law requiring net neutrality in mobile broadband. These requirements were extended to wireline providers in an amendment to the law passed on February 10, 2014. The law contains an exception for reasonable network management, and is vague on a number of issues such as data caps, tiered pricing, paid prioritization and paid peering.^[55]

North America

See also: [Net neutrality in Canada](#)

United States

This article appears to contradict the article [Network neutrality in the United States](#). *(December 2014)*

Main article: [Net neutrality in the United States](#)

There is ongoing legal and political wrangling in the U.S. regarding net neutrality. The United States [Federal Communications Commission](#) is in charge of regulating Internet service providers' conduct in the US, though the extent of its jurisdiction is subject to ongoing legal disputes.^[56]

US FCC policy (2010–present)

Under commission chairman Julius Genachowski, the FCC proposed reclassifying broadband Internet access providers under the provisions of Title 2 of the Communications Act in an effort to force the providers to adhere to the same rules as telephone networks. This adjustment was meant to prevent, "unjust or unreasonable discrimination in charges, practices, classifications, regulations, facilities or services".^[57] On 21 December 2010, these changes were put into effect by the [FCC Open Internet Order 2010](#), which banned [cable television](#) and [telephone](#) service providers from preventing access to competitors or certain web sites such as [Netflix](#). The rules also include a more limited set of obligations for wireless providers. The rules would not keep ISPs from charging more for faster access. [Republicans](#) in [Congress](#) threatened to reverse the rules through legislation.^[58]

On 23 September 2011, the FCC released its final rules for Preserving a Free and Open Internet. These rules state that providers must have transparency of network management practices, not block lawful content, nor unreasonably discriminate in transmitting lawful network traffic.^[59] These rules are effective 20 November 2011.

On 14 January 2014, the DC Circuit Court determined in [Verizon Communications Inc. v. Federal Communications Commission \(2014\)](#) that the FCC has no authority to enforce Network Neutrality rules, as service providers are not identified as "common carriers".^[60] Since the 14 January ruling, [AT&T](#) has submitted several patents ^[61] that account for specific ways to take advantage of the FCC's limited authority. [Verizon](#) is also under a mountain of allegations that they have been slowing access to both [Netflix](#) and to the [Amazon](#) Cloud services, although the company denies these allegations. Multiple independent sources have performed network speed analysis and do find slower connection times to these sites, although there is currently no proof that Verizon is purposefully causing these slowdowns.

On 29 April 2017, a clearer understanding of the latest proposal to compromise net neutrality has been described.^{[14][15]}

Proposed 2014 US FCC policy. On 19 February 2014 the FCC announced plans to formulate new rules to enforce

net neutrality while complying with the court rulings. [62] On 23 April 2014, in a press statement, the Federal Communications Commission announced their new proposed rules which would allow [Broadband Internet service providers](#), such as [Comcast](#) and [Verizon](#), the "right to build special lanes" with faster connection speeds for companies, such as [Netflix](#), [Disney](#) or [Google](#), willing to pay a higher price. Their customers would have preferential access. [5][6][63][64] On 15 May the FCC launched a public comment period on how FCC rulemaking could best protect and promote an open Internet, [65] garnering over one million responses—the most the FCC had ever received for rulemaking. [66]

The new proposed rules have received heavy criticisms, with many claiming they are ruining the internet; others have shown significant support. Proponents of the rules declared September 10, 2014 to be the "Internet Slowdown". On it, participating websites were purposely slowed down to show what they feel would happen if the new rules failed to take effect. Websites that participated in the Internet Slowdown include: [Netflix](#), [Reddit](#), [Tumblr](#), [Twitter](#), [Vimeo](#) and [Kickstarter](#). [67][68][69][70][71][72][73]

On 26 February 2015, the FCC ruled in favor of net neutrality by reclassifying broadband access as a telecommunications service and thus applying [Title II \(common carrier\)](#) of the [Communications Act of 1934](#) to [internet service providers](#). [13][74][75][76]

Russian Federation

Since September 2007, the Russian government's Resolution No 575 introduces new regulation rules of telematics services.

[Network operators](#) (ISPs) can now legally limit individual actions of the subscriber's network activity, if such actions threaten the normal functioning of the network. ISPs are obliged to exclude the possibility of access to information systems, network addresses, or uniform pointers which a subscriber informs the operator of communication in the form specified in the contract. The subscriber is obliged to take actions to protect the subscriber terminal from the impact of malicious software and to prevent the spread of [spam](#) and [malicious software](#) to its subscriber terminal. In reality, most Russian ISPs shape the traffic of [P2P protocols](#) (like [BitTorrent](#)) with lower priority (P2P is about of 80% of traffic