

Net Neutrality: What's At Stake & How to Protect It.

CALPIRG Education Fund

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Winter 2013



2013 CALPIRG Education Fund

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Introduction

With the meteoric rise of the Internet economy, regulations advancing network neutrality principles - better known as *net neutrality* - have become highly contested both in the United States and abroad. Yet it is precisely these principles that we have had in place that have allowed the Internet to progress from an [academic research tool](#) to the multi-billion dollar worldwide industry it is today. This briefing paper sets forth a working definition of net neutrality, explains its relevance, outlines appropriate regulatory responses, and concludes with a *Question & Answer* section highlighting key issues surrounding net neutrality.

At its core, net neutrality is a network design principle laid out at the earliest development stages of what would eventually grow into the *World Wide Web*. It is the principle that Internet service providers (ISPs) - such as AT&T, Time Warner or Comcast - must send and receive all Internet data without delay or preference through their networks. ISPs can charge more to access the Internet at higher speeds, but once online, ISPs are barred from charging again for preferential access to specific content. While private internal networks may choose to block or filter content, net neutrality principles require that public Internet networks treat all content, websites, and platforms equally without bias, interference, or discrimination.

The rapid expansion of the Internet has proven the importance of net neutrality for consumer choice, improved e-commerce, new educational opportunities, and increased access to critical information. With open access to a worldwide audience, entrepreneurs have generated new content and created new Internet platforms. This in turn has driven demand and exponentially increased the number of Americans using the Internet.¹

Net Neutrality Today

In 2010, the Federal Communications Commission (FCC) released the [Open Internet Order](#), formulating net neutrality principles into industry guidelines. The order prevents ISPs from blocking or unreasonably discriminating against different types of Internet traffic. Any attempt by ISPs to give preferential treatment to their own services, while blocking or slowing down competing services, is a violation of these net neutrality rules. While the FCC did not specifically ban “pay for priority” contracts², the FCC warned ISPs that, “as a general matter, it is unlikely that pay for priority would satisfy the ‘no unreasonable discrimination’ standard” of the 2010 rule. In practical terms, an ISP like Comcast is prevented from providing NBC Universal (a subsidiary) with higher traffic priority and better speeds online, since this would be in violation of the FCC’s Open Internet Order.

¹ In 1995, only about one in 10 adults in the U.S. were going online. By August 2011, the U.S. internet population included 78% of adults and 95% of teenagers. Source: *Digital differences*, Kathryn Zickuhr, Aaron Smith, Pew Research Center, April 13, 2012.

² E.g. a business practice where a company or individual can pay an ISP to prioritize their Internet traffic over others.

Some large ISPs have complained that Internet users and business have enjoyed a “free lunch”³, taking advantage of their infrastructure investment that allows 81% of Americans to go online. Yet this complaint is untrue, since both users and Internet businesses already pay to get online. According to a recent survey of major American cities, home Internet plans cost approximately \$35 per month, while similar mobile Internet plans cost consumers approximately \$40 per month.⁴ Large Internet businesses also pay telecom companies to access high-speed transmission lines to connect to end-users (often called backbone providers). Net neutrality principles do not restrict ISPs from charging more for faster Internet service. But once online, ISPs are prevented from providing preferential treatment for some traffic or charging for faster delivery of online content. Undermining net neutrality protections could increase ISPs revenue in the short term, yet it would come at the cost of stifling consumer choice and blocking the innovative online products that drive Internet use.

Net Neutrality at Risk

The U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) is about to rule on a case in which Verizon [challenged](#) the FCC’s 2010 Open Internet Order.⁵ In its court filings, Verizon argued that it has a constitutionally protected First Amendment right that allows it to choose what is “said” over its networks, much like a newspaper can choose what is “said” on its front-page. Furthermore, Verizon is arguing that the FCC has authority to enforce net neutrality rules only over business defined as “common carriers”, while the FCC currently recognizes Verizon as an “information service” provider. Verizon is asking the D.C. Circuit court to eliminate the rules that prevent it from discriminating among online traffic and applications by establishing tiers of online service where those who pay more receive better service. During the oral arguments in the case, [Verizon’s lawyer said](#), “I’m authorized to state from my client today that but for these [FCC] rules we would be exploring those types of arrangements.”

The upcoming D.C. Circuit court ruling will be critically important for the future of the Internet as billions⁶ of people around the world have come to know it. Practically speaking, there are three probable verdicts from the court:

1. The court upholds existing non-discrimination FCC net neutrality rules;
2. The court strikes down existing non-discrimination FCC rules, allowing ISPs to prioritize certain content, but upholds prohibition on blocking content;
3. The court decides the FCC does not have regulatory authority to create or enforce net neutrality rules over “information service” providers and allows ISPs to regulate traffic however they want, including blocking and prioritizing traffic.

³ *Verizon Executive Calls for End to Google's 'Free Lunch'*, Arshad Mohammed, Washington Post, February 7, 2006.

⁴ *The Cost of Connectivity 2013*, New America Foundation’s Open Technology Institute, October 2013.

⁵ See *Verizon v. FCC*, Case No: 11-1355, U.S. Court of Appeals for the District of Columbia Circuit Court.

⁶ In 2012 there were more than 2.4 billion internet users worldwide. See *Internet Usage Statistics*, available online at: <http://www.internetworldstats.com/stats.htm>

Clearly the last result would have the worst outcome for both consumers and business. Without net neutrality guidelines in place, instead of an information highway where everyone can drive along, both end-users and business would find a tiered system where some enjoy preferential treatment while others languish in the slow lane.

When ISPs provide preferential treatment to their own services while blocking or slowing down competing services, innovative new businesses are blocked from entering new markets and consumer choice is curtailed. The absence of net neutrality rules could create a “pay to play” culture where only those businesses that are able and willing to pay ISPs can reach end users and markets. Limiting net neutrality is particularly worrisome in the United States, where ISPs like Comcast also generate online content (through its ownership of NBC Universal⁷) that is in competition with other content providers.

Protecting Net Neutrality

Regardless of the D.C. Circuit court’s ruling, there are key actions the FCC can take. “Common carrier” principles currently govern regular telecommunications services. These principles dictate that the pipes carrying communications should be open and affordable for all Americans. This is the case for telephone lines that carry our conversations, and should be equally true for the Internet lines that carry our communications. But a series of prior misguided FCC compromises left ISPs outside the scope of regulation by defining them as “information service” providers. A first immediate step would be for the FCC take back authority it gave up in the early 2000’s and classify ISPs as regulated “common carriers” instead of the weaker “information services” as they are defined today. Correctly placing a “common carriers” framework on ISPs will give the FCC with the authority it needs to ensure fair and open access to the Internet for millions of Americans, while also strengthening the FCC’s arguments before the Circuit court.

CALPIRG Education Fund recommends that the FCC take practical steps and enforce the following guidelines to ensure a robust and open World Wide Web:

1. **Net Neutrality:** All data traffic should be treated equally regardless of its origin, sender, recipient, or content. This means strict prohibitions on online censorship, blocking, or throttling.
2. **End-to-End service:** Users must be able to efficiently connect to all end-points on the web, without any restriction or delay.
3. **Multiple Platforms:** With millions of Americans accessing the web via smartphones and mobile tablets, the FCC must also have authority over wireless Internet service providers and not just traditional wired Internet services.
4. **Open Internet:** ISPs shall not interfere with Internet users’ freedom to access content and use of applications online from any location and any device, unless such interference is absolutely necessary for network management, preserving network security and safety, protecting consumers from spam or other malicious content, or the fulfillment of legal obligations.

⁷ *Comcast Buys Rest of NBC's Parent*, By Martin Peers, John Jannarone & Kate Linebaugh, Wall St. Journal, February 13, 2013.

In today's market, ISPs hold disproportionate power over American consumers – already deciding where we can and cannot access the web, at what speeds, and from which devices. For the Internet to maximize its fullest potential, the FCC must watch over powerful ISPs to remove potential barriers. With strong guidelines in place, Americans can enjoy a *World Wide Web* with open and reliable access that will continue to drive the economy, promote educational opportunities, and advance social and political developments.

Question & Answer

What is Net Neutrality?

Network neutrality, or *net neutrality*, refers to the design principle that Internet service providers (ISP) – such as AT&T, Time-Warner or Comcast - should send and receive all Internet data without delay or preference through their networks.

While private internal networks may choose to block or filter content – for instance a private business that blocks employees’ access to Facebook to improve productivity – net neutrality principles dictates that public Internet networks treat all content, websites, and platforms equally without bias, interference, or discrimination.

OK, but how does net neutrality work in practice?

Much like the electrical grid that does not care what appliance you are using, net neutrality principles do not let ISPs discriminate between different web applications, web sites, or types of data being transmitted. Just as we expect a steady and reliable electric current no matter if we are using a washing machine or watching TV, users have the right to expect the same quality of Internet service whether they are sending email or streaming their favorite TV series.

What are the rules governing net neutrality in the United States today?

In 2010, the FCC released the [Open Internet Order](#) formulizing net neutrality principles into industry guidelines. This order prohibits ISPs from blocking or unreasonably discriminating against different types of online content.

What sort of behavior would violate the Open Internet Order?

Attempts by ISPs to give preferential treatment to their own services while blocking or slowing down competing services would be in violation of net neutrality principles. These rules were put into place after the Federal Communications Commission (FCC) [fined](#) *Madison River Communication*, for blocking web-based VoIP telephone services on its network. The FCC Chairman at the time, Michael Powell, [said](#) in response to the Madison River case that "The [ISP] industry must adhere to certain consumer protection norms if the Internet is to remain an open platform for innovation."

While the FCC did not specifically ban “pay for priority” contracts, the FCC warned ISPs that “as a general matter, it is unlikely that pay for priority would satisfy the ‘no unreasonable discrimination’ standard” and would thus be in violation of the new rule. For example, if Comcast would provide NBC Universal (a subsidiary) with higher priority and better speeds online, this would be in violation of the FCC’s Open Internet Order.

Is neutrality a new idea?

Net neutrality is not a new concept, and like phone lines or the supply of electricity to consumers, draws from the common law concept of a “[common carrier](#).” Like other basic utility services, Internet access is critical for Americans to thrive in the 21st century. Given the Internet’s important role today in providing economic and educational opportunities, ISPs should fall fully under the authority of the FCC and other regulatory bodies.

Why do we need Net Neutrality?

Unrestricted access to the World Wide Web, empowering users to create, share, and interact freely online, has been recognized not only as an economic driver⁸ but also as a human right.⁹

The principle of net neutrality serves consumers by preventing anti-competitive practices that benefit some companies in the short term, but come with negative economic consequences for other business and consumers.

How does net neutrality impact consumers online privacy?

Net neutrality principles protect consumer’s privacy from companies who wish to examine their online activity. ISPs need to first decipher the type of data being sent online before they can successfully discriminate between the different types of data they transmit over the Internet. Inspection of data packets for reasons beyond the reasonable maintenance and protection of online networks by ISPs, would therefore open the door to potentially significant privacy violations for consumers.

How would the absence of net neutrality principles impact Internet users?

The absence of net neutrality protections could significantly reduce competition and consumer choice online. By blocking or restricting access to online content, web users would find fewer choices online - whether trying to learn about a news event or find the most competitive price for a desired product. Without net neutrality protection, ISPs would be able to discriminate between different online traffic for whatever reason they desire – profit, competitive advantage, or politics. In a world without net neutrality rules, ISPs could have the power to silence dissenting voices and limit the robustness of public debate.

Without net neutrality, instead of an information highway, where everyone drives along in the most efficient manner, consumers would find a tiered system where some enjoy preferential treatment while others languish in the slow lane. When ISPs provide preferential treatment to some while blocking or slowing down other services, innovative new businesses are blocked from entering new markets and consumer choice is curtailed. This possible outcome is particularly worrisome in the United States, where ISPs like Comcast also control online content (e.g. the ownership of NBC Universal¹⁰) that is in direct competition with other

⁸ *Press Release: High speed internet is key to economic growth and job creation in developing countries*, World Bank, June 30, 2009.

⁹ *United Nations Declares Internet Access a Basic Human Right*, Adam Clark, The Atlantic, June 6, 2011.

¹⁰ *Comcast Buys Rest of NBC's Parent*, By Martin Peers, John Jannarone & Kate Linebaugh, Wall St. Journal, February 13, 2013.

content providers. Moreover, the absence of net neutrality could create a “pay to play” culture where only those businesses that are able and willing to pay ISPs can reach end users in the market.

How would un-doing net neutrality impact business?

In the absence of net neutrality rules innovative new technology companies will succeed not on the merits of their own innovations, but whether or not AT&T, Verizon, Comcast, and others allow them to efficiently reach consumers.

Vint Cerf, one of the “fathers of the Internet” and currently a vice president and Chief Internet Evangelist at Google, [voiced](#) his concern that without net neutrality protections the Internet's freedom could be compromised, limiting consumer choice, economic growth, technological innovation and U.S. global competitiveness. "In the Internet world, both ends essentially pay for access to the Internet system, and so the providers of access get compensated by the users at each end," said Cerf, adding "My big concern is that suddenly access providers want to step in the middle and create a toll road to limit customers' ability to get access to services of their choice even though they have paid for access to the network in the first place."

In 2007, [AP reporting](#) found that Comcast had begun [secretly trialing](#) services in order to block popular Internet applications, such as BitTorrent. Without net neutrality rules in place, it is not unreasonable to imagine a situation where an ISP will discriminate against competing online services in order to promote their own.

Is there a current threat to the FCC net neutrality rules?

Yes. The U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) is about to rule on a case in which Verizon [challenged](#) the FCC's 2010 Open Internet Order.¹¹ In its court filings, Verizon argued that it has a constitutionally protected First Amendment right that allows it to choose what is “said” over its networks, much like a newspaper can choose what is “said” on its front-page. In other words, Verizon is arguing that the FCC is violating its own free speech by not allowing it to choose how and what others are allowed to “say” on Internet networks under its control.

Verizon is asking the D.C. Circuit court to eliminate the rules that prevent it from discriminating among websites and applications by establishing tiers of online service where those who pay receive better service. During the oral arguments in the case, [Verizon's lawyer said](#), “I'm authorized to state from my client today that but for these [FCC] rules we would be exploring those types of arrangements.”

Shouldn't ISPs be able to block online content that is harmful or illegal?

Existing rules and regulations already provide ISPs and copyright owners with the necessary tools to protect themselves against harmful or illegal online services and content. There are exceptions within the FCC's Open Internet Order allowing "unlawful content" and "reasonable network management" exceptions. But ISPs continue to argue that they should be able to block anything that interferes with "quality of service." However, that definition is too broad to protect consumers, which would allow an ISP to justify blocking YouTube or Netflix in favor of other (paid) services under the guise of better "quality of service."

¹¹ See *Verizon v. FCC*, Case No: 11-1355, U.S. Court of Appeals for the District of Columbia Circuit Court.

Shouldn't people have to pay to access the Internet?

More than 254 million Americans who currently access the Internet (about 81% of the population¹²) already pay their ISP or wireless carrier in order to access the Internet. According to a recent survey in major American cities, home Internet plans cost approximately \$35 per month, while similar mobile Internet plans cost approximately \$40.¹³ Businesses such as Google and Yahoo! also pay telecom companies that supply access to high-speed transmission lines (often called backbone providers) to connect to these Internet users.

By attacking net neutrality rules, ISPs are looking to create a new source of income by essentially placing “tolls” on the information highway. Net neutrality rules prevent ISPs from “double dipping” – initially charging consumers and business to access the Internet, and then *charging again* to allow business and consumers to reach each other.

¹² World Bank data for the United States, accessed online November 2013 at:
http://data.worldbank.org/indicator/IT.NET.USER.P2?cid=GPD_44

¹³ *The Cost of Connectivity 2013*, New America Foundation's Open Technology Institute, October 2013.