

Good Fences Make Bad Broadband

Preserving an Open Internet through Net Neutrality

A Public Knowledge White Paper
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Executive Summary

The genius of the Internet is its promise of unlimited accessibility. With very limited exceptions, any consumer with an Internet connection and a computer can visit any web site, attach any device, post any content, and provide any service.

While the openness of the Internet is universally praised, it is no longer guaranteed, at least for broadband services. Recent Supreme Court and FCC rulings define broadband networks as unregulated “information services,” which means that the operators of broadband networks are no longer under any legal obligation to keep their networks open to all Internet content, services and equipment.

Broadband providers now have the same authority as cable providers to act as gatekeepers: the network owner can choose which services and equipment consumers may use. Network operators can adopt conflicting and proprietary standards for the attachment of consumer equipment, can steer consumers to certain web sites over others, can block whatever Internet services or applications they like, and make their preferred applications perform better than others.

This concern is not just theoretical – broadband network providers are taking advantage of their unregulated status. Cable operators have barred consumers from using their cable modems for virtual private networks and home networking and blocked streaming video applications. Telephone and wireless companies have blocked Internet telephone (VoIP – Voice over the Internet Protocol) traffic outright in order to protect their own telephone service revenues. Equipment manufacturers are marketing equipment specifically designed to “filter” out (*i.e.* block) VoIP traffic. Wireless companies often write limitations into consumers’ service agreements that have nothing to do with excessive bandwidth consumption.

The problem is likely to become worse in the near future. One telephone company executive threatened to put a stop to on-line providers that use the telephone network “for free” (even though on-line providers pay to connect to the network). Another telephone company executive openly announced that his company intends to establish a higher-priced “tier” of service reserved *exclusively* for content providers chosen by the network operator. This raises the concern that consumers and start-up application providers will be relegated to the “slow lane” on the information superhighway.

These examples of discrimination, which this paper shows are greater in number than the network operators like to acknowledge, are on the increase because network operators have economic *incentives* to discriminate. Network owners today are more than just passive providers of transmission capacity (the “conduit”); they also own and provide services, applications and equipment (the “content”). By giving their own (or their affiliated) applications and content preferential access to the network, they can extract greater profits than if they operate the network on a non-discriminatory basis.

As a result, several groups have called upon Congress to enact, or the FCC to adopt, an enforceable “Net Neutrality” rule to ensure the Internet remains open and accessible to all. Not surprisingly, the network owners object, arguing that such a policy is unnecessary and will delay their deployment of broadband technologies.

This paper analyzes the Net Neutrality debate in more detail. The paper is divided into four parts:

Part I is a reference guide on the Net Neutrality issue. It reviews the rights at stake, describes the terms used in the debate, provides a brief legal history of broadband network regulation, summarizes the positions of the parties, describes documented examples of discrimination or blocking, and includes matrices that compare the differences among parties and proposals for action.

Part II makes the case in favor of a Network Neutrality rule. It describes the enormous societal and economic benefits of keeping the broadband Internet network open to all users. Broadband networks are fast becoming the essential lifeline of our economy and society, carrying on-line commercial transactions, current events, local and national advertising, telemedicine and distance learning, music and entertainment, interactive games, and videoconferencing. Allowing the increasingly concentrated cable and telephone industries to have unchecked control over our access to these sources of information, entertainment and commerce is cause for great concern.

Net Neutrality is also important for our high-tech manufacturing industry. Billions of dollars are invested every year at the “edge” of the network by the high-tech computing industry, the on-line commerce industry, the gaming industry, the news and information industry, and the research community. A statutory Net Neutrality rule will give investors the confidence to support new, innovative

applications. On the other hand, giving network operators the *potential* to block competing applications from getting on the network may be enough to frighten investors away from otherwise worthy new Internet applications.

In short, open broadband networks are vitally important to our society, our future economic growth, our high-tech manufacturing sector, and our First Amendment rights to information free of censorship or control. Even if an openness policy imposes some slight burden on network operators, these microeconomic concerns pale in comparison to the macroeconomic benefits to the society and economy at large of maintaining an open Internet.

Part III responds to four arguments against Net Neutrality raised by the network operators:

- 1) *Network operators allege that Net Neutrality is a “solution in search of a problem” because there is only one documented case of blocking.* In fact, network operators have already engaged in at least 8 known cases of blocking in the U.S. and are likely to block or interfere with more traffic in the future. Network operators have incentives to leverage their control over the network to reap additional profits in upstream markets.
- 2) *Network operators allege that Net Neutrality will interfere with their ability to manage their networks, for instance, to prevent spam, viruses and congestion.* In fact, there is no reason to believe that a simple non-discrimination policy should interfere with the operators’ network management responsibilities. Telephone companies have always managed their networks to protect against unlawful use even under a much more onerous common carriage regime.
- 3) *Network operators allege that Net Neutrality will interfere with their ability to earn a return on their broadband investment and that it will stifle their deployment of broadband networks.* In fact, Net Neutrality *promotes* broadband deployment because it increases the value of services and applications over the Internet, which increases consumer demand for broadband networks. The greater the demand, the more network operators will invest in broadband to meet it. Furthermore, there remain many opportunities for network operators to profit from their broadband investment that do not involve blocking or discrimination. For instance, network operators can continue to develop their own content and/or enter joint marketing arrangements or other promotional arrangements with other content providers.
- 4) *Network operators maintain that Net Neutrality will prevent them from creating “tiers” of service, or a “private Internet.”* In fact, Net Neutrality does not necessarily prevent network operators from offering levels of access, at higher rates, as long as the tier is offered on a nondiscriminatory basis to every provider and as long as all broadband customers are offered a minimum

level of broadband service. A Net Neutrality principle does, however, prohibit the creation of a “private Internet” that grants *exclusive* access to the higher bandwidth levels to certain providers selected by the network operator.

Part IV provides an outline of a possible Net Neutrality rule or statute. Net Neutrality does not require detailed rules that require network operators to obtain government pre-approval to manage their networks. Network Neutrality can be enforced through a simple complaint process, as long as the network operator bears the burden of demonstrating that any interference with traffic is necessary.