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Net Neutrality: Background and Issues

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Summary

As congressional policymakers continue to debate telecommunications reform, a major point of contention is the question of whether action is needed to ensure unfettered access to the Internet. The move to place restrictions on the owners of the networks that compose and provide access to the Internet, to ensure equal access and non-discriminatory treatment, is referred to as "net neutrality." There is no single accepted definition of "net neutrality." However, most agree that any such definition should include the general principles that owners of the networks that compose and provide access to the Internet should not control how consumers lawfully use that network; and should not be able to discriminate against content provider access to that network. Concern over whether it is necessary to take steps to ensure access to the Internet for content, services, and applications providers, as well as consumers, and if so, what these should be, is a major focus in the debate over telecommunications reform. Some policymakers contend that more specific regulatory guidelines may be necessary to protect the marketplace from potential abuses which could threaten the net neutrality concept. Others contend that existing laws and FCC policies are sufficient to deal with potential anti-competitive behavior and that such regulations would have negative effects on the expansion and future development of the Internet. While a consensus on this issue has not yet formed, the 110th Congress continues to address the debate over net neutrality largely within the broader issue of telecommunications reform. Net neutrality legislation has been introduced in the House (H.R. 5353, H.R. 5994) and the Senate (S. 215). This report will be updated as events warrant.

Network Neutrality

As congressional policymakers continue to debate telecommunications reform, a major point of contention is the question of whether action is needed to ensure unfettered access to the Internet. The move to place restrictions on the owners of the networks that compose and provide access to the Internet, to ensure equal access and non-discriminatory treatment, is referred to as "net neutrality." There is no single accepted definition of "net neutrality." However, most agree that any such definition should include the general principles that owners of the networks that compose and provide access to the Internet should not control how consumers lawfully use that network; and should not be able to discriminate against content provider access to that network.

What, if any, action should be taken to ensure "net neutrality" has become a major focal point in the debate over broadband, or high-speed Internet access, regulation. As the marketplace for broadband continues to evolve, some contend that no new regulations are needed, and if enacted will slow deployment of and access to the Internet, as well as limit innovation. Others, however, contend that the consolidation and diversification of broadband providers into content providers has the potential to lead to discriminatory behaviors which conflict with net neutrality principles. The two potential behaviors most often cited are the network providers' ability to control access to and the pricing of broadband facilities, and the incentive to favor network-owned content, thereby placing unaffiliated content providers at a competitive disadvantage.[1]

In 2005 two major actions dramatically changed the regulatory landscape as it applied to broadband services, further fueling the net neutrality debate. In both cases these actions led to the classification of broadband Internet access services as Title I information services, thereby subjecting them to a less rigorous regulatory framework than those services classified as telecommunications services. In the first action, the U.S. Supreme Court, in a June 2005 decision (*National Cable & Telecommunications Association v. Brand X Internet Services*), upheld the Federal Communications Commission's (FCC) 2002 ruling that the provision of cable modem service (i.e., cable television broadband Internet) is an interstate information service and is therefore subject to the less stringent regulatory regime under Title I of the Communications Act of 1934.[2] In a second action, the FCC in an August 5, 2005 decision, extended the same regulatory relief to telephone company Internet access services (i.e., wireline broadband Internet access, or DSL), thereby also defining such services as information services subject to Title I regulation.[3] As a result neither telephone companies nor cable companies, when providing broadband services, are required to adhere to the more stringent regulatory regime for telecommunications services found under Title II (common carrier) of the 1934 Act.[4] However, classification as an information service does not free the service from

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[1] The practice of consumer tiering, that is the charging of different rates to subscribers based on access speed, is not the concern. Access tiering, that is the charging of different fees, or the establishment of different terms and conditions to content, services, or applications providers for access to the broadband pipe is the focus of the net neutrality policy debate.

[2] 47U.S.C. 151 et seq. For a full discussion of the Brand X decision see CRS Report RL32985, *Defining Cable Broadband Internet Access Service: Background and Analysis of the Supreme Court's Brand X Decision,* by Angie A. Welborn and Charles B. Goldfarb.

[3] See [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260433A2.pdf] for a copy of FCC Chairman Martin's statement. For a summary of the final rule see Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities. *Federal Register*, Vol. 70, No. 199, October, 17, 2005, p. 60222.

[4] For example, Title II regulations impose rigorous anti-discrimination, interconnection and access requirements. For a further discussion of Title I versus Title II regulatory authority see CRS Report RL32985, cited above.

regulation. The FCC continues to have regulatory authority over information services under its Title I, ancillary jurisdiction.[5]

Simultaneous to the issuing of its August 2005 information services classification order, the FCC also adopted a policy statement outlining the following four principles to "encourage broadband deployment and preserve and promote the open and interconnected nature of [the] public Internet:" (1) consumers are entitled to access the lawful Internet content of their choice; (2) consumers are entitled to run applications and services of their choice (subject to the needs of law enforcement); (3) consumers are entitled to connect their choice of legal devices that do not harm the network; and (4) consumers are entitled to competition among network providers, application and service providers, and content providers. FCC Chairman Martin has not called for their codification. However, he stated that they will be incorporated into the policymaking activities of the Commission.[6] For example, one of the agreed upon conditions for the October 2005 approval of both the Verizon/MCI and the SBC/AT&T mergers was an agreement made by the involved parties to commit, for two years, "... to conduct business in a way that comports with the Commission's (September 2005) Internet policy statement...."[7] In a further action AT&T included in its concessions to gain FCC approval of its merger to BellSouth to adhering, for two years, to significant net neutrality requirements. Under terms of the merger agreement, which was approved on December 29, 2006, AT&T agreed to not only uphold, for 30 months, the FCC's Internet policy statement principles, but also committed, for two years, to stringent requirements to "... maintain a neutral network and neutral routing in its wireline broadband Internet access service."[8]

In perhaps one of its most significant actions relating to its Internet policy statement to date, the FCC, on August 1, 2008, ruled that Comcast Corp., a provider of Internet access over cable lines, violated the FCC's policy statement, when it selectively blocked peer-to-peer connections in an attempt to manage its traffic.[9] This practice, the FCC concluded, "... unduly interfered with Internet users' rights to access the lawful Internet content and to use the applications of their choice." While no monetary penalties were imposed, Comcast is required to stop these practices by the end of 2008. Comcast stated that it will comply with the order, but it has filed an appeal in the U.S. DC Court of Appeals.

Separately, in an April 2007 action, the FCC released a notice of inquiry (WC Docket No. 07-52), which is still pending, on broadband industry practices seeking

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[5] Title I of the 1934 Communications Act gives the FCC such authority if assertion of jurisdiction is "reasonably ancillary to the effective performance of [its] various responsibilities." The FCC in its order, cites consumer protection, network reliability, or national security obligations as examples of cases where such authority would apply (see paragraph 36 of the final rule summarized in the *Federal Register* cite in footnote 3, above).

[6] See [http://www.fcc.gov/headlines2005.html]. August 5, 2005. *FCC Adopts Policy Statement on Broadband Internet Access.*

[7] See [http://hraunfoss.FCC.gov/edocs_public/attachmatch/DOC-261936A1.pdf]. It should be noted that applicants offered certain voluntary commitments, of which this was one.

[8] See [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-269275A1.pdf].

[9] See [http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-183A1.pdf].

comment on a wide range of issues including whether the August 2005 Internet policy statement should be amended to incorporate a new principle of nondiscrimination and if so, what form it should take. On January 14, 2008 the FCC issued three public notices seeking comment on issues related to network management (including the now-completed Comcast ruling) and held two (February 25 and April 17, 2008) public hearings specific to broadband network management practices.

Network Prioritization

As consumers expand their use of the Internet and new multimedia and voice services become more commonplace, control over network quality also becomes an issue. In the past, Internet traffic has been delivered on a "best efforts" basis. The quality of service needed for the delivery of the most popular uses, such as email or surfing the Web, is not as dependent on guaranteed quality. However, as Internet use expands to include video, online gaming, and voice service, the need for uninterrupted streams of data becomes important. As the demand for such services continues to expand, network broadband operators are moving to prioritize network traffic to ensure the quality of these services. Prioritization may benefit consumers by ensuring faster delivery and quality of service and may be necessary to ensure the proper functioning of expanded service options. However, the move on the part of network operators to establish prioritized networks, while embraced by some, has led to a number of policy concerns.

There is concern that the ability of network providers to prioritize traffic may give them too much power over the operation of and access to the Internet. If a multi-tiered Internet develops where content providers pay for different service levels, the potential to limit competition exists, if smaller, less financially secure content providers are unable to afford to pay for a higher level of access. Also, if network providers have control over who is given priority access, the ability to discriminate among who gets such access is also present. If such a scenario were to develop, the potential benefits to consumers of a prioritized network would be lessened by a decrease in consumer choice and/or increased costs, if the fees charged for premium access are passed on to the consumer. The potential for these abuses, however, is significantly decreased in a marketplace where multiple, competing broadband providers exist. If a network broadband provider blocks access to content or charges unreasonable fees, in a competitive market, content providers and consumers could obtain their access from other network providers. As consumers and content providers migrate to competitors, market share and profits of the offending network provider will decrease leading to corrective action or failure. However, this scenario assumes that every market will have a number of equally competitive broadband options from which to choose, and all competitors will have equal access to, if not identical, at least comparable content.

Despite the FCC's ability to regulate broadband services under its Title I ancillary authority and the issuing of its broadband principles, some policymakers feel that more specific regulatory guidelines may be necessary to protect the marketplace from potential abuses; a consensus on what these should specifically entail, however, has yet to form. Others feel that existing laws and FCC policies regarding competitive behavior are sufficient to deal with potential anti-competitive behavior and that no action is needed and if enacted at this time, could result in harm.

The Congressional Debate

The issue of net neutrality, and whether legislation is needed to ensure access to broadband networks and services, has become a major focal point in the debate over telecommunications reform.[10] Those opposed to the enactment of legislation to impose specific Internet network access or "net neutrality" mandates claim that such action goes against the long standing policy to keep the Internet as free as possible from regulation. The imposition of such requirements, they state, is not only unnecessary, but would have negative consequences for the deployment and advancement of broadband facilities. For example, further expansion of networks by existing providers and the entrance of new network providers, would be discouraged, they claim, as investors would be less willing to finance networks that may be operating under mandatory build-out and/or access requirements. Application innovation could also be discouraged, they contend, if, for example, network providers are restricted in the way they manage their networks or are limited in their ability to offer new service packages or formats. Such legislation is not needed, they claim, as major Internet access providers have stated publicly that they are committed to upholding the FCC's four policy principles.[11] Opponents also state that advocates of regulation cannot point to any widespread behavior that justifies the need to establish such regulations and note that competition between telephone and cable system providers, as well as the growing presence of new technologies (e.g., satellite, wireless, and power lines) will serve to counteract any potential anti-discriminatory behavior. Furthermore, opponents claim, even if such a violation should occur, the FCC already has the needed authority to pursue violators. They note that the FCC has not requested further authority[12] and has successfully used its existing authority, in the August 1, 2008, Comcast decision (see above) as well as in a March 3, 2005, action against Madison River Communications. In the latter case, the FCC intervened and resolved, through a consent decree, an alleged case of port blocking by Madison River Communications, a local

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[10] For a more lengthy discussion regarding proponents' and opponents' views see, for example, testimony from Senate Commerce Committee hearings on Net Neutrality, February 7, 2006; [http://commerce.senate.gov/public/index.cfm?FuseAction=Hearings.Hearing&Hearing_ID=1708]. c11173008

[11] See testimony of Kyle McSlarrow, President and CEO of the National Cable and Telecommunications Association and Walter McCormick, President and CEO of the United States Telecom Association, hearing on Net Neutrality before the Senate Commerce Committee, February 7, 2006, cited above.

[12] FCC Chairman Martin has indicated that the FCC has the necessary tools to uphold the FCC's stated policy principles and has not requested additional authority. Furthermore, Chairman Martin has stated that he is "... confident that the marketplace will continue to ensure that these principles are maintained" and is "... confident therefore, that regulation is not, nor will be, required." See *Chairman Kevin J. Martin Comments on Commission Policy Statement*, at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260435A2.pdf]. However, FCC Commissioner Copps, in an April 3, 2006 speech, did express concerns over the concentration in broadband facilities providers and their "... ability, and possibly even the incentive, to act as Internet gatekeepers..." and called for a "national policy" on "... issues regarding consumer rights, Internet openess, and broadband deployment." See [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-264765A1.pdf], for a copy of Commissioner Copps' speech.

exchange (telephone) company.[13] The full force of antitrust law is also available, they claim, in cases of discriminatory behavior.

Proponents of net neutrality legislation, however, feel that absent some regulation, Internet access providers will become gatekeepers and use their market power to the disadvantage of Internet users and competing content and application providers. They cite concerns that the Internet could develop into a two-tiered system favoring large, established businesses or those with ties to broadband network providers. While market forces should be a deterrent to such anti-competitive behavior, they point out that today's market for broadband delivery is largely dominated by only two providers, the telephone and cable television companies, and that, at a minimum, a strong third player is needed to ensure that the benefits of competition will prevail.[14] The need to formulate a national policy to clarify expectations and ensure the "openness" of the Internet is important to protect the benefits and promote the further expansion of broadband, they claim. The adoption of a single, coherent, regulatory framework to prevent discrimination, supporters claim, would be a positive step for further development of the Internet, by providing the marketplace stability needed to encourage investment and foster the growth of new services and applications. Furthermore, relying on current laws and case-by-case anti-trust-like enforcement, they claim, is too cumbersome, slow, and expensive, particularly for small start-up enterprises.[15]

Activity in the110th Congress

While a consensus on this issue has not yet formed, the 110th Congress continues to address the debate over net neutrality largely within the broader issue of telecommunications reform. House Telecommunications and the Internet Subcommittee Chairman Markey, a strong advocate of net neutrality legislation in the previous Congress, introduced legislation (H.R. 5353) to address this issue and held a May 6, 2008 hearing on the measure. House Judiciary Chairman Conyers introduced H.R. 5994, a bill which establishes an antitrust approach to address anticompetitive and discriminatory practices by broadband providers as a follow-up to a March 11, 2008 hearing on net neutrality held by the House Judiciary Antitrust Task Force. A stand-alone net neutrality measure (S. 215) has been introduced and referred to the Senate Commerce, Science, and Transportation Committee where an April 22, 2008 hearing on the "Future of the Internet" was held.

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[13] The FCC entered into a consent decree with Madison River Communications to settle charges that the company had deliberately blocked the ports on its network that were used by Vonage Corp. to provide voice over Internet protocol (VoIP) service. Under terms of the decree Madison River agreed to pay a $15,000 fine and not block ports used for VoIP applications. See [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf]. for a copy of the consent decree.

[14] For FCC market share data for high-speed connections see *High-Speed Services for Internet Access: Status as of June 30, 2007,* Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, released March 2008. View report at [http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-280906A1.pdf].

[15] For example, see testimony of Vint Cerf, VP Google, Earl Comstock, President and CEO of CompTel, and Jeffrey Citron, Chairman and CEO Vonage, hearing on Net Neutrality, before the Senate Commerce Committee, February 7, 2006, cited above.