

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Broadband Industry Practices) WC Docket No. 07-52
)
)

**REPLY COMMENTS OF THE CENTER FOR DEMOCRACY &
TECHNOLOGY**

The Center for Democracy & Technology (“CDT”) respectfully submits these reply comments in connection with Commission’s Notice of Inquiry in the above-captioned proceeding. CDT is a non-profit, public interest organization dedicated to preserving and promoting free expression, privacy, individual liberty, and technological innovation on the open, decentralized Internet. CDT submitted a longer set of initial comments in this proceeding on June 15, 2007.

1. Overview

Many of the comments submitted by broadband providers and related industry groups focus primarily on arguing against the idea of neutrality-focused regulations. While CDT believes that many of these arguments are overstated or ignore the equally serious risks of providing no governmental guidance in this area, CDT agrees that it would not be appropriate for the Commission on its own authority to devise and impose a regulatory regime mandating neutrality.

At the same time, however, there is no basis for dismissing the risk that certain types of discriminatory treatment of traffic by network operators could undermine competition, innovation, and free expression on the Internet. The initial round of comments suggests that network operators may place significant importance on maintaining the ability to prioritize traffic and depart from the largely “bill-and-keep” fee model that has prevailed on the Internet to date. As CDT outlined at length in its previous comments, such practices could raise significant concerns under some circumstances. Whatever one thinks about the debate over regulation, careful ongoing monitoring by the Commission and clear disclosure by broadband providers when they engage in differential treatment of traffic remain important safeguards.

Nor do the arguments against regulation provide any serious reason to refrain from adding to the Commission’s broadband Policy Statement a nondiscrimination

principle along the lines of what CDT suggested in its comments.¹ The principles have neither the detailed specificity nor the enforceable status of true rules, so most of the arguments against regulation simply do not apply. While this limits the legal protection the principles provide, a nondiscrimination principle nonetheless could play the useful role of sending a signal that discriminatory practices merit scrutiny and that the Commission seeks to promote and protect the full range of characteristics that have made the Internet uniquely open to innovation, competition, and speech.

CDT's responses to several particular points and arguments raised by various commenters are set forth below.

2. Commenters seek to maintain the option of charging applications providers for prioritized delivery to subscribers, which could represent a substantial change to the Internet.

While the comments appear to offer only limited examples of packet management practices in common use today, a number of network operator comments argued for preserving their future ability to charge online content and applications providers for enhanced quality of delivery to the operators' subscribers.² To provide the increased delivery quality, the network operators might prioritize some packets over others, so that in the event of network congestion high priority packets are forwarded before unprioritized packets.³

CDT recognizes that prioritizing some packets over others may be useful for managing traffic volume and enabling real-time applications. As CDT suggested in its initial comments, prioritizing traffic selected by the subscriber – e.g., allowing a subscriber to purchase or request prioritization for VOIP traffic from his chosen VOIP provider – seems unobjectionable.⁴ Alternatively, CDT has suggested that network operators might strike deals with content and applications providers for high quality delivery over the non-Internet portion of broadband networks.⁵ For example, a cable television channel or other capacity could be dedicated to high-volume, two-way gaming traffic.

Prioritizing Internet traffic based on contractual deals between network operators and non-subscriber applications providers, on the other hand, would represent a substantial departure from the way the Internet has worked to date. The common term for such arrangements is “quality of service” (“QoS”), but it is important not to lose sight of the fact that a network operator provides broadband service to its subscribers, and is not today providing any “service” to parties offering content that those subscribers choose to receive. The QoS deals that commenters envision would not just involve improving the quality of an existing service; they would create a whole new “service”

¹ CDT Comments at 14.

² See AT&T Comments at 63-66; Hands Off the Internet Comments at 25; National Cable & Telecommunications Association at 19-20; Qwest Comments at 5; Verizon Comments at 41-44.

³ See AT&T Comments at 41.

⁴ CDT Comments at 8.

⁵ CDT Comments at 10.

relationship between the ISP and the content provider, where none has traditionally existed.

CDT believes this could carry risks. Prioritizing traffic from content or applications providers with whom the network operator is affiliated or has exclusive deals could distort competition among online content and applications. And even where prioritization is available to any party willing to pay, there is a risk that purchasing enhanced QoS could become necessary, as a practical matter, to obtain reasonable quality of delivery to a network operator's customers. If so, the network operator becomes a *de facto* gatekeeper to its customers, which in turn raises the entry barriers facing online innovators seeking to reach those customers.

The impact of that could be significant. The history of the Internet has been marked by numerous examples of new technologies – such as instant messaging or web-based video – that emerge from humble beginnings but then become extremely popular. The “next big thing” might never have a chance to develop and become popular if the approval and cooperation of several top broadband access providers were to become a prerequisite to widespread use. The pace of innovation that has been the hallmark of the Internet could slow substantially.

In short, ISPs' comments suggest that there may be a real eventual prospect of preferential treatment of selected traffic based on commercial deals between network operators and applications providers. To the extent this occurs on the Internet portion of the network, it would represent a significant change from current practice and would raise serious concerns.

3. Competitive forces will not automatically preclude harmful forms of discrimination and preserve the benefits of the open Internet.

A number of commenters argued that the broadband market is increasingly competitive, providing a powerful safeguard against any packet management or pricing practices that might be harmful to consumers.⁶

As a preliminary matter, the extent of competition in the broadband Internet access market is subject to debate. CDT and other commenters pointed out that in most locales the market is at best a duopoly, and that for the foreseeable future most consumers will have only a small number of broadband providers from which to choose.⁷

Moreover, even where a consumer has two or more choices of broadband providers, the ISP she ultimately chooses essentially has a termination monopoly. Any content or application provider seeking to reach that consumer must transit the facilities of her chosen ISP. More extreme forms of abuse of that monopoly (e.g., blocking a highly popular Web site or service) might prompt some consumer backlash, but a consumer is not likely to go through the substantial hassle of switching ISPs simply

⁶ AT&T Comments at 55; Hands Off the Internet Comments at 11-12; National Cable & Telecommunications Association Comments at 36; Qwest Comments at 2, 5.

⁷ BT Americas Comments at 3-5; CDT Comments at 6; Open Internet Coalition Comments at 5-8.

because particular content seems a bit slow or because some new start-up service is not readily available.

Indeed, experience in the wireless industry strongly suggests that, where there is a small handful of market rivals, even vigorous competition for subscribers is no guarantee that consumers will be offered the choice of an open network. Wireless providers may compete on factors such as price and network coverage, but they generally have not chosen to try to differentiate themselves on the ground of openness to unaffiliated services or applications. Instead, each has continued to serve as a gatekeeper to its subscribers, exercising close supervision over the services and applications that subscribers can access.⁸

The lesson for the broadband market is simple. Even where providers of DSL and cable modem services compete vigorously on price or network capacity, it remains entirely possible that neither provider will see it in its interest to maintain the Internet's traditional level of openness. Competition among a few providers might offer some protection against sudden, radical changes to the way the Internet operates, but it provides no guarantee against more gradual erosion of the platform's open character.

Finally, any protection that competition may offer against harmful discrimination requires that discriminatory practices be transparent to consumers. In the absence of disclosure of prioritization and other packet management practices, consumers may have little way of knowing whether the speed or quality of the performance they observe using a particular online application is due to flaws in that application or to the actions of the ISP. Consumers who do not understand what practices their ISP is engaging in are hardly in a position to exert marketplace pressure against them. Disclosure is a prerequisite for any competitive check on network operator behavior.

4. The current system of subscriber fees and peering arrangements does not somehow enable leading content and applications providers to avoid paying their fair share of network costs.

Several commenters suggested that content and applications providers are seeking to avoid paying their appropriate share of network costs.⁹

Every content and application provider contracts with an ISP to connect to the Internet.¹⁰ The amount it pays may be based on the capacity of its connection or the volume of traffic it sends or receives. In any event, content and applications providers that place a significant amount of content onto the Internet are indeed paying significant sums to their own ISP(s) to carry that traffic. The ISP in turn has peering arrangements with other ISPs and backbone providers with whom it exchanges traffic. At no point is any entity carrying traffic on its network which it has not agreed to carry through some

⁸ See Tim Wu, *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice in Mobile Broadband*, New America Foundation Working Paper #17 (Feb. 2007).

⁹ See AT&T Comments at 76; Qwest Comments at 13.

¹⁰ Some content providers, especially very large ones, may actually connect directly to a backbone provider instead of using an intermediary ISP.

contractual arrangement. The idea that content and applications providers avoid paying their fair share of network costs under the current system is simply a red herring.

In CDT's view, the real issue is whether the Internet will retain a structure that has kept barriers to entry low, resulting in a platform that is uniquely open to small speakers and innovators. Barriers to entry are low precisely because each provider of content or applications needs only to contract with its own ISP, and need not have any contractual or other relationship with the various ISPs of the various Internet users it would like to reach. The Commission should recognize that a call for content and applications providers to pay a share of network costs to all the terminating ISPs who deliver traffic to recipients could result in significant new barriers to entry that would undermine the Internet's openness to innovation.

5. Analogies to existing examples of multi-sided pricing are flawed.

Most network operators and related industry groups argued in their comments that multi-sided pricing is efficient and pro-consumer. They cited examples such as newspapers and travel agents.¹¹

Multi-sided pricing may have benefits in some contexts. Moreover, there may be ways to recover a share of network deployment costs from parties other than end users without creating new entry barriers to Internet innovators or distorting competition in online applications. In CDT's view, broadband providers might well experiment with offerings that ride on the broadband infrastructure but do not share capacity with the Internet service – much like cable television channels do today. These services could have any number of revenue models, and could help support the overall network buildout.

With respect to the Internet itself, however, multi-sided pricing may carry risks. The Internet has been a source of so much innovation precisely because it offers such low barriers to entry for innovative providers of content and applications. Certain kinds of multi-sided pricing could increase barriers to entry by driving innovators to negotiate with and pay fees to multiple ISPs instead of just their own. This important consideration may be unique to the Internet context.

In addition, charging for priority treatment on the Internet could mean that, in exchange for a fee, the ISP effectively would be steering its subscribers towards particular content or applications and away from others. This is unlike the newspaper example, where the inclusion of paid advertisements presumably has minimal direct impact on how the non-advertisement portions of the newspaper are perceived by or presented to readers. A more apt analogy would be a newspaper in which the advertisers pay fees not just to run ads, but to influence the placement of substantive articles – determining which articles appear on the front page and which on the interior pages, for example.

Finally, broadband Internet presents a different competitive context because, as noted above, it involves a termination monopoly. A provider of online content or

¹¹ AT&T Comments at 75; Hands Off the Internet Comments at 26; Verizon Comments at 42.

applications, in order to offer service to a particular customer, has no choice but to access that customer through the customer's ISP. The content or application provider has no way to bypass the ISP, and little ability to exert pressure on the terms the ISP offers. In contrast, if newspaper advertisers do not like a newspaper's terms, they have numerous other possible means to get their message to those same customers. Similarly, airlines do not need to go through any particular travel agent to reach any consumer, because consumers can easily and without cost switch travel agents on a transaction-to-transaction basis. Thus, one should not conclude that multi-sided pricing would work the same way in the broadband Internet market as in the newspaper or travel agency businesses.

6. Caching and enterprise-focused services are different and distinguishable from prioritization practices that raise concerns.

Several commenters pointed to caching and enterprise-focused services (including "managed IP services" and some virtual private networks or "VPNs") as examples of services that allow content providers to pay for improved performance.¹² Some suggested that if these examples are benign – as most would agree they are – then it would be arbitrary or unfair to classify other types of non-neutral treatment as problematic.¹³

But as CDT stressed throughout its initial comments, it is crucially important to analyze specific practices that could be characterized as "discriminatory" or "non-neutral" and distinguish those that are benign from those that may be harmful. Some practices may be perfectly consistent with an open Internet, while others may give network operators a new and unwelcome level of gatekeeper control or impose new entry barriers on innovators.

In the case of caching, there is no serious risk of new gatekeeper control. Caching is available from multiple parties; a content provider need not obtain it from the ISPs of the Internet users it hopes to reach. In contrast, an ISP selling prioritized delivery has a termination monopoly over access to its customers. Moreover, when one content provider purchases caching services, it has no negative impact on the performance of other traffic, and can even have a positive impact by relieving traffic congestion on some parts of the network.¹⁴ ISP prioritization of some packets over others, on the other hand, could mean a longer wait for the non-prioritized packets when the network is congested.

Put another way, there is nothing inherently objectionable about the concept of a company paying to improve the quality of its online offerings. After all, purchasing more server capacity or fancy Web design could also improve an online service. The key policy challenge is to determine when differential treatment by the network operator could undermine core characteristics of the Internet that have led to its success. By that measure, caching appears to pose no serious risk.

¹² AT&T Comments at 40, 44; National Cable & Telecommunications Comments at 24; Verizon Comments at 35-36.

¹³ See AT&T Comments at 36, 46.

¹⁴ CDT addressed the specific issue of caching in its prior comments. See CDT Comments at 8-9.

Enterprise-focused services, which may use terms like managed IP or VPN, generally involve communications between fixed locations specified by business or institutional customers. CDT believes such business-oriented services represent a different market from and are not subject to the same kinds of concerns as consumer-class broadband service. To the extent that services labeled “VPNs” are offered over consumer-class broadband, they often are limited to providing secure access to a corporate or institutional network. In short, there is no basis for asserting that concerns about potential prioritization practices automatically extend to enterprise services as well.

7. There is no basis for imposing new obligations on network providers to police the contents of their subscribers’ communications.

Comments submitted by NBC Universal asked the Commission to impose an explicit obligation on network operators to police their networks for copyright infringement.¹⁵ This request turns the neutrality debate on its head. Where CDT and others have expressed concerns about the prospect of creeping gatekeeper control over a medium that has thrived in large part due the absence of gatekeepers, NBC Universal seeks to have the Commission affirmatively obligate network operators to assume an active gatekeeper role. Yet Congress has on several occasions indicated that ISPs should not be held broadly responsible for controlling the behavior of Internet users.¹⁶ There is neither a sound policy argument nor legal jurisdiction for the Commission to take any step in the direction of imposing mandates on ISPs to actively police the content of Internet traffic.

8. Conclusion

CDT believes that there are a variety of possible packet management and pricing practices that would pose few risks and may offer useful options for helping ISPs to deal with bandwidth demands and other challenges on the evolving Internet. It does not follow, however, that any and all types of discriminatory practices should be presumed harmless. CDT’s initial comments were therefore focused on outlining specific types of potential practices and analyzing where concerns are likely to arise and where not. While CDT does not believe the Commission should seek to impose neutrality requirements on its own authority, the Commission should remain vigilant and make clear that it will be on the lookout for discriminatory behavior that is not transparent or that appears to create new gatekeepers to innovation on the Internet.

¹⁵ See NBC Universal Comments at 8.

¹⁶ See 47 U.S.C. § 230 (stating that an ISP shall not be treated as a speaker or publisher of content supplied by third party); 17 U.S.C. § 512(a) (limiting ISP liability for transmitting infringing material supplied by a third party).

CDT appreciates the opportunity to comment on these important questions.

Respectfully submitted,

Leslie Harris
David Sohn
John Morris
Alissa Cooper
Center for Democracy & Technology
1634 I Street, N.W. Suite 1100
Washington, DC 20006
(202) 637-9800

July 16, 2007