

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

In the Matter of)	
)	
Broadband Industry Practices)	WC Docket No. 07-52
)	
Free Press et al. Petition for Declaratory)	
Ruling that Degrading an Internet)	
Application Violates the FCC's Internet)	
Policy Statement and Does Not Meet an)	
Exception for "Reasonable Network)	
Management")	
)	
Vuze, Inc. Petition to Establish Rules)	
Governing Network Management)	
Practices by Broadband Network)	
Operators)	

COMMENTS OF THE OPEN INTERNET COALITION

The Open Internet Coalition's goal is to ensure that the Internet remains open and accessible to all Americans.¹ The Coalition is troubled by the recent revelation that at least one major broadband network operator, Comcast, was degrading and in some cases effectively blocking peer-to-peer Internet traffic.

The recent petitions filed by Free Press and other consumer groups (collectively referred to hereinafter as "Free Press") and by Vuze, Inc. ("Vuze") highlight the

¹ Open Internet Coalition supporters include the following organizations: eBay, Google, IAC, Sling Media, TiVo, Free Press, Educause, Earthlink, American Library Association, American Association of Law Libraries, Association of Research Libraries, the Computer and Communications Industry Association, Electronic Retailing Association, Internet 2, NetCoalition, Public Knowledge, Skype, TechNet, US PIRG, and the Future of Music Coalition. A more complete list and more information can be found at www.openinternetcoalition.org.

dangers posed by Comcast's actions to the right of consumers to access lawful content and run applications and use services of their choice.² The facts discussed in the Free Press and Vuze petitions confirm the Coalition's position that given the state of competition in the broadband market, market forces alone are not enough to ensure an open Internet that best serves consumers' needs.³ The Coalition urges the Commission to demonstrate its commitment to the *Broadband Policy Statement* by making clear that Comcast's actions interfere with the consumer rights spelled out in the *Policy Statement* and go against the Commission's policy of preserving and promoting the open and interconnected nature of the Internet.⁴

I. INTRODUCTION AND BACKGROUND

A. The Free Press and Vuze Petitions

The Petitions filed by Free Press and Vuze both address the same underlying facts, first reported by the Associated Press — studies have shown that Comcast has taken steps to impede certain peer-to-peer traffic by actively interfering with its subscribers' ability to upload and share files.⁵ Independent studies by the Electronic Frontier Foundation ("EFF") agreed with the AP —

² Petition for Declaratory Ruling of Free Press et al., WC Docket No. 07-52 (filed Nov. 1, 2007) ("Free Press Petition"); Petition for Rulemaking of Vuze, Inc., WC Docket No. 07-52 (filed Nov. 14, 2007) ("Vuze Petition").

³ See Comments of the Open Internet Coalition, WC Docket No. 07-52, at 5-11 (June 15, 2007).

⁴ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Policy Statement*, CC Docket No. 02-33, FCC 05-151, at 3 ("*Broadband Policy Statement*").

⁵ Peter Svensson, *Comcast Activity Hinders Subscribers' File-Sharing Traffic, AP Testing Shows*, Associated Press, Oct. 19, 2007 (describing studies showing blocking and/or degrading of P2P traffic and quotes from Comcast users whose uploads were stifled).

Comcast was blocking or degrading peer-to-peer applications, including those using the BitTorrent protocol and other P2P applications such as Gnutella, as well as other applications and services such as Lotus Notes and FTP.⁶ Comcast's actions are disturbing because it—

- Arbitrarily blocks or degrades P2P and other file-sharing traffic;
- Fails to provide notice to its subscribers;
- Surreptitiously and fraudulently inserts forged packets with false messages;
- Negatively affects the ability of all Internet users to access content using applications that use BitTorrent and other P2P protocols stifled by Comcast; and
- Anticompetitively disrupts video distribution platforms that compete with Comcast's own video programming.

In short, Comcast's actions, if left unchecked, will establish a precedent that the Commission's principles can be ignored. Such a message ultimately puts in jeopardy consumers' expectations of an open and interconnected Internet and moves us closer to a platform more resembling cable television.

⁶ Free Press Petition at 9. FTP has existed since 1971, long before the World Wide Web, when it was a principle means for education, military and governmental personnel to share files across disparate locations and networks even prior to the time the Internet went "public."

In response to Comcast's actions, Free Press and a number of other consumer groups and academics filed a Petition for Declaratory Ruling asking the Commission to "clarify that an Internet service provider violates the FCC's Internet Policy Statement when it intentionally degrades a targeted Internet application."⁷ Free Press also explains that the exception for "reasonable network management" contained in the *Policy Statement* cannot be read to include the blocking or degrading of a particular application or technology. Shortly after Free Press filed its Petition, Vuze filed a Petition for Rulemaking based on the same underlying behavior by Comcast. Vuze's petition explained how Comcast's actions harm companies like Vuze, which use P2P technology to distribute via the Internet high-resolution digital content from both traditional sources and independent producers of content that lack the means to access traditional distribution mechanisms such as cable or broadcast networks.

The Commission has repeatedly affirmed that the *Broadband Policy Statement* is indicative of its commitment to an open Internet that empowers consumers to access information and use applications and services of their choice. The Commission now has the opportunity to demonstrate its commitment to the principles set forth in the *Policy Statement* and make clear that actions such as Comcast's violate these principles.

⁷ Free Press Petition at i. Note also that Free Press filed a Formal Complaint on the same day. Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications (filed Nov. 1, 2007).

B. Peer-to-Peer Technology Allows for More Efficient Use of Broadband Networks and P2P Applications Should Not Be Blocked or Degraded *Per Se*

The true genius of the Internet is its ability to empower consumers, not just to receive content of their choice but also to initiate voice and video communications with and publish content to the world. As e-commerce websites have grown in popularity, the Internet enabled disintermediation in the stream of commerce and resulted in a more efficient market for goods and services.⁸ As the Internet continues to evolve, and as Web 2.0 applications become more pervasive, the same is becoming true for the market for content. An open Internet enables us to move away from a one-way model for content delivery to a more democratic communications platform in which citizens are able to exercise their right of free expression.

P2P technology, at its most basic, embodies such disintermediation. It is designed for many-to-many communications, enabling ordinary citizens to exercise greater control over their own communications and be less reliant on centralized, one-to-many communications platforms. P2P technology also makes content distribution more efficient by making use of resources on a decentralized basis.⁹ Simply put, P2P technology is the essence of the Internet's future — it prefers decentralization over centralization and user control over gatekeeper behavior.

⁸ eBay, for example, has enabled the formation and growth of countless small businesses across the United States, giving even smaller, rural-based businesses access to a global customer base.

⁹ Vuze Petition at 7-8.

Moreover, P2P is a technology that can be implemented in a variety of ways and used for a wide range of applications.¹⁰ For example, Skype has used P2P technology to develop a community of over 250 million users around the world who are able to stay connected with each other using voice, video, and text communications. Similarly, content distribution platforms such as Vuze and BitTorrent are used for distribution of legal content from independent producers and/or that caters to niche audiences – content that is often not distributed via traditional one-to-many platforms.

Thus, P2P technology is just a technology – it can be used for a variety of applications, and it can be implemented using different protocols that all share the general advantages of P2P. Moreover, not all P2P applications impact the network in the same way; in fact, many are optimized to minimize their impact on broadband networks. In short, P2P applications and services are used for a variety of purposes, and have varying impacts on broadband networks – making the blocking or degrading of all P2P applications, without regard to their impact on the network, particularly problematic.

II. COMCAST’S ACTIONS VIOLATE THE COMMISSION’S BROADBAND POLICY STATEMENT

Comcast’s actions amount to blocking of legal Internet content in violation of the *Broadband Policy Statement*. Under the four principles announced in the

¹⁰ While the discussion here has focused on P2P technology, the arguments hold true for *any* technology. As explained below, traffic should not be blocked or degraded based on whether it uses a particular technology or is associated with a particular application.

Policy Statement, consumers are entitled “to access the lawful Internet content” and “to run applications and use services” of their choice. The Commission should make demonstrate its commitment to the *Policy Statement* by making clear that Comcast’s actions are impermissible, thereby protecting consumers’ rights, encouraging broadband deployment, and preserving the open and interconnected nature of the Internet.

A. Technology- and Application-Specific Blocking is Contrary to the Public Interest and Should Not be Permitted

The Open Internet Coalition agrees with Free Press and Vuze that Comcast’s actions amount to blocking and obstructing of P2P traffic in violation of the Broadband Policy Statement. The Free Press and Vuze petitions discuss in detail the facts concerning Comcast’s actions, and how they stifle P2P traffic.¹¹ In some cases, users are blocked from uploading content to make it available to other Internet users. In other cases, the traffic is degraded sufficiently that it amounts to blocking – when files that should take minutes to transfer take several hours or longer, the effect is the same as blocking.¹²

The *Policy Statement* permits network operators to engage in “reasonable

¹¹ Free Press Petition at 7-14; Vuze Petition at 9-11.

¹² On the Internet, any amount of degradation can be the functional equivalent to blocking. For example, when two sites with comparable content load at different speeds, consumers will gravitate to the site that loads faster. In addition, consumers will have no way of knowing that a delay in the delivery of certain content or applications is the fault of the content provider of the network operator. In most cases, because the network operator’s practices are not disclosed, the consumer will assume the delay is the fault of the content provider. In this way, Comcast’s actions raise serious competition problems as its cable service competes with those applications that have been and are being blocked by Comcast.

network management,” and the Coalition does not dispute network operators’ ability to engage in reasonable efforts to prevent harm to their networks.¹³ However, “reasonable network management” cannot include *per se* blocking or obstructing particular technologies or applications without regard to their actual impact on the network.¹⁴ The AP and EFF studies indicate that Comcast blocks traffic based on the use of a particular protocol, rather than based on actual impact on the network.¹⁵ Such overbroad efforts to degrade all traffic that uses a particular technology or that is associated with a particular application cannot be deemed to be “reasonable” network management. The Commission should make clear that technology- and application-specific degradation or blocking is a *per se* violation of the *Policy Statement*.

The Commission should be all the more skeptical when traffic is being blocked or degraded by network operators who are also in the business of creating and delivering applications, services and content in competition with

¹³ As discussed below, an analogy can be drawn to the allowance for avoiding “harm to the network” in the context of the open platform requirements for the 700 MHz C Block license. *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, WT Docket No. 06-150, at 92, ¶ 206 (rel. Aug. 10, 2007) (“700 MHz Order”).

¹⁴ It is an entirely separate question whether broadband providers should be able to give preferential treatment to certain types of applications, such as latency-sensitive video streams; that situation is not presented here.

¹⁵ As the Open Internet Coalition already has indicated, it does not object to reasonable network management practices designed to, for example, block spam, viruses, or other harmful traffic, or to block content that is plainly unlawful (such as child pornography). However, efforts to block plainly unlawful content cannot be so overbroad as to assume that all traffic using a particular technology or application is unlawful. In other words, using a neutral technology or application as a proxy for plainly unlawful content violates the FCC’s principles and cannot be viewed as legitimate network management when there are more targeted means of management.

the blocked P2P applications. For example, content delivery platforms such as Vuze and BitTorrent make available high resolution digital content via the Internet and therefore compete with Comcast's own cable offerings. Because network operators have the incentive to block or degrade competing applications and content, the Commission should be especially careful to examine behavior such as Comcast's in this instance.

Finally, while in some cases it is possible for applications that use P2P technology to be redesigned to overcome the technical blocking/degrading means being used by Comcast, such efforts result in a dead-weight loss in which consumers are the losers. By engaging in the blocking described in the Free Press and Vuze petitions, Comcast and other network operators simply precipitate a virtual "arms race" in which P2P applications are forced to modify their technology and implement counter-measures such as encrypting packets. This situation is less than ideal, however, as such measures require the deployment of valuable engineering time that can be better used for innovating and improving the product.

B. The Commission Should Order Comcast to Stop its Blocking And Obstruction Practices and Should Provide Guidance Regarding Unacceptable Network Management

The Commission should act immediately to stop Comcast from blocking or severely degrading P2P traffic as described in the Free Press and Vuze petitions. "Internet speed" compels the Commission to act now to send a clear message to Comcast and other network operators that blocking P2P traffic is not

permissible. Likewise, the Commission should make clear that it is impermissible to obstruct or degrade P2P traffic based on the technology or application used without regard to the actual impact of such traffic on network performance. By clarifying that Comcast's actions violate the Commission's *Broadband Policy Statement*, the Commission would provide consumers as well as broadband applications developers and service providers with some certainty regarding unacceptable network management practices.

As a first step, the Commission should resolve the Formal Complaint filed by Free Press. The complaint should be decided as soon as possible, making clear that Comcast's actions that were the subject of the complaint violate the Commission's *Broadband Policy Statement* and are therefore unlawful.

Next, the Commission should promptly act on the Free Press Petition, making clear that the *Policy Statement's* four principles are enforceable, and that degrading applications without regard to the actual burden to the network violates the *Policy Statement*. By doing so, the Commission can make clear that certain network management practices, such as those discussed in the Free Press and Vuze petitions, are unlawful, thereby providing greater guidance to network operators, consumers and application developers regarding unacceptable network management practices.

The recent 700 MHz Order, in which the Commission announced a general rule regarding open platforms for the C Block and provided guidance as to what sorts of network management practices would be unacceptable, provides

a model for how the Commission can provide greater guidance to the industry regarding what would not be considered “reasonable network management.”¹⁶

Since network operators have an informational advantage with respect to their own network management practices, the Commission should also require network operators to publish their network management practices, consistent with network security. The Open Internet Coalition has long believed that greater transparency regarding network management practices will not only enable consumers to more easily determine when the Commission’s broadband policies are being violated, but also will deter network operators from engaging in discriminatory practices in the first instance.¹⁷

The Commission should also provide clear guidance on complaint procedures under Title I so that broadband applications developers can bring any future violations to the Commission’s attention in an organized and efficient manner. The process for resolving complaints under the rules should place the burden on network operators to justify discriminatory practices once a *prima facie* case of a violation is made.¹⁸

¹⁶ 700 MHz Order at 99-101, ¶¶ 222-25.

¹⁷ See Comments of the Open Internet Coalition, WC Docket No. 07-52, at 12-14 (June 15, 2007).

¹⁸ See 700 MHz Order at 103, ¶ 230 (“[O]nce a complainant sets forth a *prima facie* case that the C Block licensee has [violated the open platform requirements], the licensee shall have the burden of proof to demonstrate that it has adopted reasonable network standards and reasonably applied those standards in the complainant’s case.”); see also Ex Parte Filing of Skype Communications Sarl, WT Docket No. 06-150, at 1-2 (July 24, 2007); Ex Parte Filing of Google Inc., WT Docket No. 06-150, at 4 (July 24, 2007).

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Respectfully submitted,

OPEN INTERNET COALITION

/s/Henry Goldberg
Henry Goldberg
Devendra T. Kumar
GOLDBERG, GODLES, WIENER
& WRIGHT
1229 19th St., N.W.
Washington, DC 20036
(202) 429-4900 - Telephone
(202) 429-4912 - Facsimile

Of Counsel

/s/Markham C. Erickson
Markham C. Erickson, Esq.
Executive Director
OPEN INTERNET COALITION
400 N. Capitol St., NW, Suite 585
Washington, DC 20001

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