

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

In the Matter of)	
)	
Broadband Industry Practices)	WC Docket No. 07-52
)	
Vuze, Inc. Petition to Establish Rules)	
Governing Network Management)	
Practices by Broadband Network)	
Operators)	
)	
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")	

REPLY COMMENTS OF VUZE, INC.

Vuze, Inc. ("Vuze") urges the Commission to bring clarity and fairness to the broadband network marketplace by affirming that its *Broadband Policy Statement*¹ prevents network operators from blocking or degrading particular applications or technologies on a *per se* basis. The Commission also should foster greater transparency by requiring network operators to publish information regarding their network management practices, thereby providing consumers and Internet companies with an indispensable basis for competing in that marketplace. Such transparency will also enable the Commission to respond

¹ *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Policy Statement, CC Docket No. 02-33, FCC 05-151 ("*Broadband Policy Statement*").

more efficiently to complaints concerning unreasonable network management practices. Thereafter, as requested by Vuze, the Commission should issue a notice of proposed rulemaking with the goal of adopting general rules on the responsibilities of broadband network operators *vis a vis* Internet users and companies and streamlining the process by which the Commission responds to particular complaints on a case-by-case basis.

The comments filed in this proceeding highlight the need for further Commission action with respect to network management practices. According to Comcast and other network operators, the Commission now has neither the ability to address potentially discriminatory conduct by network operators nor the authority to enact rules governing the same in the future. This position is not only wrong on the law, it betrays an attitude that undermines the operators' assurances of good faith in managing their networks and should prompt the Commission to take immediate steps to ensure that the benefits of an open Internet are realized.

I. THE COMMENTS OF COMCAST AND OTHER NETWORK OPERATORS REINFORCE THE NEED FOR GREATER REGULATORY CERTAINTY REGARDING CONSUMER RIGHTS AND BROADBAND NETWORK MANAGEMENT PRACTICES

The comments filed by Comcast and other network operators, and indeed this entire comment process, demonstrate the need for Commission action to achieve greater regulatory certainty regarding the rights of broadband consumers and the extent to which network operators can manage traffic on their

networks. After spending page after page justifying the need for network operators to engage in “reasonable network management” – something that no commenting party disputes – and claiming that their actions fall within the parameters of the Commission’s *Broadband Policy Statement*,² Comcast and others argue that not only does the Commission lack the authority to enforce the consumer rights announced in the *Policy Statement*, but that the Commission lacks the jurisdiction to take any action at all, no matter how unreasonable or discriminatory a network operator’s practices might be!³

This argument cannot be taken seriously, since it would mean that network operators have *carte blanche* to take whatever steps they wish in the name of network management. Consumers and innovative applications developers like Vuze would have only the network operators’ assurances of good faith to safeguard the ability of Internet users to access all lawful content and run the applications and use the services of their choice. Operators’ assurances alone do not offer sufficient confidence of network access to justify continued investment by Internet companies in developing innovative applications. Network operators’ self-serving claims of good faith simply are not enough to ensure that consumers can continue to enjoy the benefits of an open

² Comments of Comcast Corp., WC Docket No. 07-52, at 11-39 (Feb. 12, 2008) (“Comcast Comments”); *see also* Comments of Time Warner Cable Inc., WC Docket No. 07-52, at 14-21 (Feb. 13, 2008) (“Time Warner Cable Comments”); Comments of National Cable & Telecommunications Assoc., WC Docket No. 07-52, at 3-8 (Feb. 13, 2008) (“NCTA Comments”); Comments of AT&T Inc., WC Docket No. 07-52, at 6-11 (Feb. 13, 2008) (“AT&T Comments”); Comments of Verizon and Verizon Wireless, WC Docket No. 07-52, at 18-48 (Feb. 13, 2008) (“Verizon Comments”).

³ Comcast Comments at 42-54; *see also* Time Warner Cable Comments at 26-28.

Internet. The Commission requires much more of network operators.

Commission action is needed now to vindicate its broadband policy principles and to protect the consumer's access to a full range of content and uninterrupted service.

Vuze recognizes that broadband networks and the applications that run on them continue to evolve, and that operators' reasonable network management practices will continue to evolve and adjust accordingly. However, the claim that any Commission action to address unreasonable network management would prevent network operators from adapting to changing Internet traffic⁴ presents the Commission with a false choice. The Commission can and should provide regulatory certainty to Internet companies and consumers while permitting network operators to manage their networks to block harmful or illegal content or to take reasonable and nondiscriminatory measures to address congestion.

For example, the Commission's recent *700 MHz Order* adopted open platform rules for the C-Block license that require licensees to allow customers, device manufacturers, third-party application developers, and others to use or develop devices and applications of their choice, subject to reasonable network management.⁵ While adopting broad rules that permit operators to engage in

⁴ Time Warner Cable Comments at 22-24; Comcast Comments at 8-11; AT&T Comments at 24-27; Verizon Comments at 18-20.

⁵ *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").

reasonable network management, the Commission made clear that certain measures – such as *per se* blocking of applications or discriminatory pricing for subscribers who use third party applications – will not be considered “reasonable network management.”⁶ The Commission also required licensees to publish standards, recognizing that doing so would increase transparency in the marketplace and allow applications developers and device manufacturers to better design their products and, ultimately, better serve consumers.⁷

What the Commission’s 700 MHz open platform rules demonstrate is that the Commission can, and in this case must, adopt rules that give consumers, applications developers, and content providers greater certainty regarding the openness of networks and freedom from blocking or degrading lawful traffic. Moreover, these rules preserve the ability of network operators to block illegal or harmful content and manage network congestion.

Commission rules cannot, of course, address all current or future network management practices, but can enable the Commission to focus on specific disputes on a case-by-case basis. Under the alternative view put forward by Comcast, in which the Commission cannot enforce its *Policy Statement* and lacks the authority to even address potentially discriminatory network management practices, the financial community may very well hesitate to invest in innovative companies if the only assurances of a free and open marketplace are good faith

⁶ 700 MHz Order at 99-100, ¶ 222.

⁷ 700 MHz Order at 100-01, ¶ 224.

assurances by network operators and a “watchful eye and occasional raised eyebrow”⁸ by regulators.

II. GREATER TRANSPARENCY REGARDING NETWORK OPERATORS’ NETWORK MANAGEMENT PRACTICES WILL LEAD TO A MORE EFFICIENT BROADBAND MARKETPLACE

Comcast and other network operators oppose greater transparency regarding network management practices, claiming that they already provide consumers with useful information about their bandwidth management practices and that this proceeding demonstrates that the public can learn about network management practices without the need for rules requiring greater disclosure and transparency.⁹ This argument vastly underestimates the burden facing companies like Vuze.

It is worth noting how the public got some inkling about Comcast’s network management practices a few months ago. The Associated Press published an article regarding the blocking and/or degrading of certain P2P traffic by Comcast.¹⁰ After initially denying the reports, Comcast admitted that it engaged in so-called “traffic shaping,” but provided no details regarding its network management practices. After Vuze and several consumer groups filed with the Commission a formal complaint, a petition for declaratory ruling, and a

⁸ Comcast Comments at 55.

⁹ Comcast Comments at 39-42; NCTA Comments at 10-11; AT&T Comments at 32-34; Verizon Comments at 14-18.

¹⁰ Peter Svensson, *Comcast Activity Hinders Subscribers’ File-Sharing Traffic, AP Testing Shows*, Associated Press, Oct. 19, 2007 (describing studies showing hindering of access to P2P traffic, including quotes from Comcast users whose uploads were stifled).

petition for rulemaking, the Commission issued public notices seeking public comment on the petitions. In response, Comcast finally provided *some* information regarding its network management practices¹¹ – information that is short on details and that appears inconsistent with additional studies¹² and the real world experience of companies like Vuze that employ P2P techniques to distribute content to consumers.

The disclosures provided by Comcast and other network operators regarding their network management practices are insufficient, both with respect to the substance of the information provided and the process by which such disclosures (if any) were made. Start-up companies, which abound on the Internet, do not have the resources to investigate the practices of network operators. A basic premise of markets is that they work well when information about the marketplace is freely available and the transaction costs associated with obtaining information are low. Neither of these conditions is true in this instance, and especially given the lack of competition in the market for broadband services, this lack of information results in an inefficient marketplace in which consumers and other market participants lack the information to make informed decisions.

¹¹ See Comcast Comments at 27-33.

¹² Electronic Frontier Foundation, *Packet Forgery By ISPs: A Report On The Comcast Affair*, Nov. 28, 2007, available at http://www.eff.org/files/eff_comcast_report2.pdf (“EFF Report”); Seth Schoen, *EFF Tests Agree With AP: Comcast is Forging Packets to Interfere With User Traffic*, October 19, 2007, available at <http://www.eff.org/deeplinks/2007/10/eff-tests-agree-ap-comcast-forging-packets-to-interfere>.

The Commission should require network operators to publish information regarding their network management practices.¹³ Greater transparency will allow Internet companies to ensure that their applications and services will work on broadband networks without adversely affecting the ability of network operators to address legitimate network congestion issues. Such transparency also promises to end the “cat-and-mouse” game that applications developers like Vuze must currently engage in, whereby resources are wasted adjusting to network operators undisclosed network management practices.

Transparency will also allow consumers to be better informed about their broadband service and how it might affect the applications they run, and will facilitate competition in the few areas where consumers have choices among broadband service providers.¹⁴ Finally, such transparency will allow the Commission to take action in cases where network management practices are found to be unreasonable.

¹³ Cf. 700 MHz Order at 100-01, ¶ 224.

¹⁴ Several network operators suggest that greater transparency will allow spammers and others who wish to harm the network to work around blocking measures currently in place. Comcast Comments at 41-42; AT&T Comments at 33; Verizon Comments at 16-17. Once again, this argument presents the Commission with a false choice. Certainly, the Commission should not require network operators to disclose the specific techniques they use to block spam, viruses, etc. However, network operators should be required to disclose their network and bandwidth management practices – for example, bandwidth allocations for downloads/uploads, any measures taken to degrade or block particular protocols or technologies, “peak hours” or other times of the day when traffic might be affected, tiered consumer pricing for bandwidth, and so on.

III. THE COMMISSION SHOULD AFFIRM THAT *PER SE* BLOCKING OR DEGRADING OF APPLICATIONS OR TECHNOLOGIES IS IMPERMISSIBLE

The Commission should make clear that that blocking or degrading specific applications or technologies — irrespective of their actual effect on network congestion — is not allowed. Vuze recognizes that network operators may need to take measures to address network congestion, including ensuring that individual consumers do not exceed their bandwidth limitations. However, Vuze objects to blocking of P2P traffic irrespective of the actual impact on the network of a particular application or technology. Not all P2P applications or sessions are the same,¹⁵ and network operators should not block traffic based on overbroad assumptions of how particular technologies or applications impact the network.¹⁶

In responding to the petitions filed by Vuze and the consumer groups, Comcast attempted to explain its network management practices by claiming that it temporarily delays P2P unidirectional upload sessions when such sessions have reached a predetermined threshold in a particular neighborhood. Without meaningful disclosure requirements, Vuze cannot gauge the accuracy of Comcast's claims; however, independent studies and Vuze's own experience suggests that Comcast affects certain P2P traffic more often than Comcast

¹⁵ Comments of the Open Internet Coalition, WC Docket No. 07-52, at 5-6 (Feb. 13, 2008).

¹⁶ Instead of resorting to such overbroad measures, network operators could take other steps — such as the consumption-based billing approach recently proposed by Time Warner Cable — to address actual impact of traffic to and from particular users. *See* Time Warner Cable Comments at 24.

suggests, causing delays greater than “a few milliseconds to a few minutes.”¹⁷

While Vuze cannot engage in a discussion of the specific impact of the network management actions described by Comcast without further details, it can respond to the suggestion that Comcast’s network management practices cause only very limited harm, if any, to Vuze’s content delivery. While Comcast claims to degrade only uploads, the actual impact to Vuze’s service is potentially significant since, in using P2P technology, one user’s download is another person’s upload. In addition, even if Comcast does not completely block traffic associated with Vuze, it is not necessary actually to block Vuze’s service to undermine its business.

Vuze relies critically on the ability to deliver high quality video content quickly and reliably. To a company like Vuze whose tech-savvy users have little patience for slow performance or unreliable service, slowing of its traffic or otherwise making its service unreliable, if successful, can be as or more damaging than outright blocking. If the service fails to live up to expectations, users may stop using it altogether – particularly when, as Vuze explained in its Petition, users who encounter service degradation have no way of knowing that the problems they face are a result of the network operators practices rather than problems with Vuze’s service.

Finally, the Commission should be skeptical of network operators’ claims regarding their good faith efforts to engage only in “reasonable” network

¹⁷ Comcast Comments at 32.

management. In order to deliver content to their users, Vuze and other similar Internet companies rely on networks owned and operated by third parties, network operators, with whom they compete directly. As Comcast and others admit, the network operators' own video programming offerings compete with the innovative offerings of Internet content delivery services such as Vuze. Thus, when Comcast claims it is only briefly slowing P2P traffic associated with companies like Vuze, the appropriate analogy is not cars being delayed a few seconds while entering the highway. A more appropriate analogy is a horserace in which the network operator not only owns a horse in the race, but also owns the race track itself. In such circumstances, the harm caused by slowing down "competing horses" is evident. (And to make matters worse, most parts of the country have only two racetracks in which competitors can run their horses.)

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For the reasons discussed above, Vuze urges the Commission to affirm that its *Broadband Policy Statement* prevents network operators from *per se* blocking or degrading particular applications or technologies, and to foster greater transparency by requiring network operators to publish information regarding their network management practices.

Respectfully submitted,

VUZE, INC.

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