

MARK MILLIMAN

March 9, 2006

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Subject: In the Matter of Broadband Industry Practices
Proceeding: 07-52

Dear Federal Communications Commission:

I am a customer of Comcast Corporation's High Speed Internet Service in Boulder, Colorado. Typically I have found the quality of service satisfactory given the fact that we only have one other alternative broadband provider in my service area. Ideally we would have more choices in triple-play services if municipalities were not hampered by the state with legislation preventing municipalities from building open-access fiber networks.

Recently I have been disturbed by the blocking of the BitTorrent protocol by Comcast on their High Speed Internet (HSI) service. I use an open source video aggregator called Miro to legally download video podcasts. Miro has the capability to utilize the BitTorrent protocol to improve the distribution of these videos. I choose the BitTorrent feeds because downloads are faster than directly from servers, and if enough people nearby have watched the video, the burden on the Comcast network is actually less. My attempt to be efficient was thwarted by Comcast when I noticed that the videos utilizing the BitTorrent protocol were not downloading. I first noticed that these downloads were being impaired around August of 2007.

I troubleshooted the problem by switching to a direct download of the same content avoiding the BitTorrent protocol on the Comcast network. This switch worked. Next, I moved the computer to a T1 purchased from Qwest for Internet access. The BitTorrent protocol worked without a problem. I subsequently tested the same downloads on Verizon's FiOS and AT&T's U-Verse. Both services worked during my tests the week before Thanksgiving. When I inquired as to why BitTorrent did not work to Comcast's technical support, the technician claimed not to know anything about BitTorrent, and they stated that their HSI was not for watching video; instead I should watch video on the television. I reminded the technician that Comcast had a trial of video over the Internet last year before disconnecting from the call. My final step in troubleshooting was to monitor the BitTorrent traffic directly. I noticed that the connection to other BitTorrent nodes was being disconnected. I found it strange until I heard that Comcast was doing deep packet inspection to shape traffic on their network.

All Internet service providers as common carriers should have the ability to manage traffic on their network to ensure compliance with their terms of service agreement and provide the best possible service experience for their customers. Also, they should be allowed to offer differentiated services to consumers that prioritizes certain traffic over others. For instance, a carrier could offer to prioritize all VoIP traffic for an extra \$3 per month with certain

latency and jitter parameters just as they do with businesses. What carriers, such as Comcast, cannot do is block legitimate traffic that do not violate their Terms of Service Agreement.

BitTorrent has many lawful uses like the use I described above. Used properly, it could even reduce traffic on backhaul networks because customers will be transmitting information between their neighbors instead of distant servers. The argument that Comcast is limiting BitTorrent traffic because peer-to-peer protocols consume a majority of the bandwidth on the network is flawed. Users consume too much bandwidth, not protocols. A specific protocol should not be blocked or banned just because there are a couple of illegal uses or that some users consume too much bandwidth.

If peer-to-peer traffic is consuming too much bandwidth on portions of the network, then that traffic should be managed by IP address. Deep packet inspection equipment such as the type that Comcast purchased can implement rules based on time-of-day that identify a specific user by IP address then slow down, not block, peer-to-peer traffic such as BitTorrent. These restrictions could be eased as network congestion goes down.

There is no legitimate reason for Comcast or any broadband carrier to block access to any site or any protocol such as BitTorrent. The FCC stated this in the 2005 Internet Policy Statement. As a common carrier in fact, Comcast does not have the right to block free and open access to any location on the Internet utilizing any protocol. Allowing carriers to inhibit a free and open Internet not only deprives consumers access to information, it also inhibits innovation of new and innovative services. These restrictions could potentially be perceived as an anti-competitive move by a carrier to prevent competition for alternate content distribution; giving preference to their own distribution means.

There are other technical solutions that carriers can implement that are more effective in identifying excessive users. Comcast should utilize the tools that they purchased for deep packet inspection to manage their network in a more granular fashion, not in the brute force method they chose by making BitTorrent dysfunctional. I trust that Comcast, as a leader in the industry, will utilize this alternative providing a better Internet experience for its customers without the Commission taking any substantive action.

Sincerely,

A handwritten signature in black ink that reads "Mark Milliman". The signature is written in a cursive, slightly slanted style.

Mark Milliman