

US Open Internet access hotly debated before FCC

Experts debate net neutrality before US Federal Communications Commission

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Fighting insomnia one night, all Robert Topolski wanted to do was send digital recordings of 19th-century barbershop quartet music to some friends.

His attempts were blocked by leading Internet service provider Comcast and that ignited a national firestorm around digital peer-to-peer file sharing and "net neutrality" and lead Thursday to Topolski, a software quality engineer from Oregon, testifying before the Federal Communications Commission at Stanford University before a vocal crowd of several hundred people.

During the eight-hour hearing, the second time the FCC has listened to testimony about net neutrality this year, 17 experts from songwriters and independent filmmakers to economists and engineers along with dozens of members of the public argued about the practice by some big ISPs to control, and sometimes prevent, legal data from moving on their networks. All top 12 ISPs declined the FCC's invitation to testify Thursday.

However, L. Brett Glass, founder of the small wireless ISP Larinet.net of Laramie, Wyoming, testified as one of the more than 4,000 wireless ISPs (WISPs) in the US, which he described as dependent on being able to mitigate peer to peer file transfers, prioritize data traffic, and cache files to manage rural networks without charging higher prices to offset the expense of Internet backbone access.

"Should the FCC mandate that small, independent, or rural ISPs cease to employ these and similar technological measures to ensure the quality of their service, many or most small, local operators would have to raise prices dramatically or quit business," Glass said.

While Glass described network management practices such as prioritizing Voice over IP packets over other data so calls go through quickly, most testimony looked at the larger picture of open access, free speech, and the lack of transparency by ISPs to customers about how they manage files flowing on networks.

Throughout the hearing witnesses criticized recent actions by Comcast of misrepresenting to the FCC its practice of continuing to block legal file sharing and its public relations moves this week to set up a consumer bill of rights with Pando Networks, a New York City start-up that offers free P2P software, without inviting consumer advocacy groups and other companies on the P2P Workgroup to participation its development.

Last October, Comcast practices were made known through the efforts of Topolski and others. Following that public revelation, Vuze, Inc., a Palo Alto, California company that uses P2P to

legally distribute video content, alleged in a complaint last November that Comcast hampered traffic between users without notice, violating the Internet's tradition of equal treatment of traffic. Vuze and Pando compete. The two FCC hearings are part of an effort to determine if Comcast's practice of degrading P2P connections on its network goes beyond "reasonable network management."

Vuze testified at the first hearing in Boston but not Thursday at Stanford, although its lawyer Jay Monohan said the company has been running a huge test of P2P blocking and offers a Windows plug-in on its Web site for consumers to use to help Vuze gather evidence about how ISPs are "throttling P2P traffic."

Topolski charges that Comcast's practice of using transmission control protocol (TCP) reset flags to tear down P2P connections as a way of managing network traffic is both rare and harmful.

"Every router has inherent ability to handle congestion without having to resort to out of band or non-standard methods," he said.

Independent engineer George Ou, who has been prolific blogger arguing that the vast majority of P2P files are pirated content, testified that adding bandwidth capacity or speeding file sharing will not make network management issues disappear. Japan has the world's fastest and fattest fiber-to-home network and still video and other P2P files clog its network.

"Since P2P applications use disproportionately large amounts of bandwidth, it's only fair to throttle them either through TCP resets or conventional protocol prioritization built in to routers," said Ou, who claimed he has no ties to ISPs.

Jon Peterson, co-director of the real-time applications and infrastructure (RAI) for the Internet Engineering Task Force, said among IETF volunteer members there is "no consensus on how to manage in elastic and elastic applications" and as a technical body not apolitical one it hasn't an opinion on public policy regarding the Internet.

The hearing drew diverse groups in support of net neutrality from Free Press, which in two years has collected 1.5 million signatures on its Save the Internet petition, to the Christian Coalition of America, the largest and most active conservative grassroots political organization in the US.

"We believe that organizations such as the Christian Coalition should be able to continue to use the Internet to communicate with our members and with a worldwide audience without a phone or a cable company snooping in on our communications and deciding whether to allow a particular communication to proceed, slow it down, block it, or offer to speed it up if the author pays extra to be in the 'fast lane'," said Michele Combs, vice president of communications of the CCA.

Three years ago the FCC established four principals supporting open Internet access but has not established any specific regulations. Meanwhile despite the Supreme Court confirming the FCC's right to regulate ISPs, Comcast has challenged the FCC's authority.

"We are here facing these problems because of a failure of FCC policy," said Larry Lessig, a Stanford Law School professor and founder of the Center for Internet and Society. "The FCC has failed to make it absolutely clear that network owners, if they're building the Internet, have to make it absolutely open. Consumers are saying don't tread on me."

In remarks before the testimony, one of the FCC commissioners, Deborah Taylor Tate, said that she was encouraged by several steps Comcast and other network operators made after the Harvard Law School hearing last February.

"Technology and the marketplace seem to be responding to appropriate oversight mechanisms," Tate said. Her remarks were heckled by some in the audience.

Ben Scott, policy director of Free Press, shot back accusing the FCC of "weak" management and said Comcast's recent actions to calm the net neutrality debate is not a change of heart by the ISP but "the magic of regulatory threat at work."

Jean Prewitt, president and chief executive officer of the Independent Film & Television Alliance, testified that "discrimination should not be an outcome of legitimate network management. While copyright issues are of critically important to our members, copyright concerns can't be the excuse to prevent access to the market. Don't use copyright laws to block usage. That will backfire for all of us."

During a two-hour public comment period at the end of hearing, dozens of speakers urged the FCC commissioners to protect network neutrality and free speech. Many pointed toward open access is crucial to minority groups being able to communicate and connect via the Internet and their speech would be curtailed with by tiered or pay to play Internet access proposed by some ISPs.

With consumer choices limited to one or two ISPs most locations, marketplace fails to provide a level playing field, said L. Peter Deutsch, a pioneering Xerox Palo Alto Research Center computer scientist.

"Comcast's actions to date have shown that they cannot be trusted to self-regulate," Deutsch said.

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