

Jon M. Peha

Carnegie Mellon University

**Associate Director, Center for Wireless & Broadband Networking
Professor of Electrical Engineering and Public Policy**

www.ece.cmu.edu/~peha

**Views expressed are those of the presenter alone.
Not affiliated with any major actor in this debate**

Just The Facts

- Incorrect to say Comcast merely “delays” P2P
 - They terminate P2P TCP sessions, block P2P traffic
- Comcast practices are “discriminatory”
 - Unless they’ve blocked traffic from all applications
- Incorrect to say Comcast “does not degrade P2P”
 - Service degraded for senders, recipients, & originators
- Incorrect to say Comcast targets P2P because P2P has an adverse effect on other applications.
 - All traffic contributes to congestion, not just P2P.
 - Comcast polices implicitly give them the right to selectively block based on any criteria

The Comcast Case

- It was reported that Comcast promised not to block, degrade, interfere with, or discriminate against P2P.
 - Customer expectations were violated.
- *If* these reports were accurate, Comcast is guilty of false advertising and probably fraud.
- But what does this mean for network neutrality?
 - about transparency
 - about discriminatory practices

Misinformation and Transparency

- Misinformation about Comcast practices did harm
 - Users of Lotus notes lacked information needed to diagnose problems with their system.
 - Users of closed P2P network might be fooled into thinking that there was a server problem
 - Users who fear secret measures may take countermeasures
- Providers may profit through misinformation about congestion and how it is handled
 - Info may convince consumers to switch providers
 - If all ISPs provide enough info, consumers can choose

Harmful and Beneficial Discrimination

- Discriminatory blocking can harm consumers
 - Example: Cable company blocks dissemination of 30-minute videos to protect legacy service
- Discriminatory blocking can benefit consumers
 - Example: ISP blocks denial of service attack
- Congestion is a legitimate problem
 - ISPs need some flexibility to address congestion
 - Discrimination can be useful for congestion.
 - There are good reasons to treat P2P differently from VOIP
 - FCC should not mandate “protocol-agnostic” approaches

Future Policy on Discrimination

- FCC should
 - continue oversight of discriminatory practices
 - further clarify policies to support intervention in egregious cases
 - be cautious about adopting overly broad limitations.

Carnegie Mellon University



For more info, see

**Misstatements on Comcast P2P Practices, and
Implications for Network Neutrality**

http://fjallfoss.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6519870758

Jon M. Peha

Carnegie Mellon University

Associate Director, Center for Wireless & Broadband Networking

Professor of Electrical Engineering and Public Policy

www.ece.cmu.edu/~peha

Testimony before FCC En Banc Hearing, April 17, 2008