

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

In the Matter of)	
)	
A National Broadband Plan for Our Future)	GN Docket Nos.
)	09-47, 09-51, 09-137
NBP Public Notice #24:)	
Broadband Measurement and Consumer)	
Transparency of Fixed Residential and Small)	
Business Services in the United States)	

**COMMENTS OF THE CENTER FOR DEMOCRACY & TECHNOLOGY
NBP PUBLIC NOTICE # 24**

The Center for Democracy & Technology (“CDT”) respectfully submits these comments in response to the Commission’s NBP Public Notice #24, regarding transparency and measurement of residential and small business broadband services.

CDT agrees that better and more easily comparable information about broadband services can play an important role in empowering consumers and promoting a more competitive broadband market. The focus of these brief comments, however, is narrow and targeted. CDT seeks to highlight two particular elements of transparency that may receive little attention compared to, for example, the public claims service providers make in their marketing or subscriber terms of service agreements. These two elements are (i) transparency to individual subscribers about actual usage; and (ii) transparency regarding network utilization and congestion.

1. Transparency to Individual Subscribers about Actual Usage

Certainly consumers need good information about the terms and performance characteristics of competing broadband service offerings before making a purchasing decision. Even after the purchasing decision has been made, however, broadband subscribers could benefit from greater ability to see information about their individual usage of their broadband connections.

Today, wireline broadband subscribers often have no reasonable means of monitoring how much data they are sending over the network. As result, subscribers of services with monthly throughput caps may have no idea whether or when they are at risk of hitting the caps. Subscribers may have no idea when they are engaged in the kind of heavy usage that could make them the target of congestion management techniques that focus on “bandwidth hogs.” Subscribers whose connections have been secretly conscripted into a spam or phishing “botnet” will not get tipped off by seeing that the patterns, timing, or volume of reported usage seem suspicious. Subscribers may have no clue whether or when particular applications they use are efficient with bandwidth or wasteful – and applications providers have less reason to strive for efficiency when users cannot tell the difference.

There are signs this could be changing. Comcast is testing a usage-meter tool in Oregon.¹ In the wireless context, it was recently reported that AT&T is contemplating incentives for

¹ See, e.g., Todd Spangler, Comcast Tests Data-Usage Meter in Oregon: Feature Lets Subscribers See How Much Internet Bandwidth They Use, Multichannel News, Dec. 1, 2009 (http://www.multichannel.com/article/391268-Comcast_Tests_Data_Usage_Meter_In_Oregon.php).

subscribers to reduce or modify usage to reduce congestion.² Going forward, the Commission should encourage the deployment of “dashboards” or similar tools that give subscribers clear information about their own data usage patterns and volume.³

2. Transparency Regarding Network Utilization and Congestion

Exposure of technical information about the status of a broadband provider’s network can also be a crucial tool for helping applications providers and other network operators optimize their users’ experiences and reduce unintended negative consequences for the users’ broadband networks. By exposing information about network utilization or congestion, for example, broadband providers can provide helpful clues to end-user applications about how those applications might tune their data transmission rates so as to achieve the best performance without adversely impacting other users on the network. This same information can also be usefully shared between network operators that exchange traffic, giving each operator a sense of the volume of congestion to expect from the other.

Although broadband providers already maintain – and, in some cases, expose – technical information about the state of their networks, more effort is needed to surface the kinds of information that would help to optimize network performance. One potential avenue is the proposed Congestion Exposure (CONEX) working group at the Internet Engineering Task Force (IETF).⁴ The group is beginning to contemplate ways to make congestion information visible within IP packets. The Commission should encourage broadband providers to engage in this and similar efforts, to think innovatively about increasing technical transparency within their networks, and to work together and with applications providers to identify future technical transparency needs.

Respectfully submitted,

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² Marguerite Reardon, AT&T considers incentives to curb heavy data usage, CNET News, Dec. 9, 2009 (http://news.cnet.com/8301-1035_3-10412804-94.html)

³ Such tools should not, however, lead broadband providers to collect and retain increasingly detailed subscriber usage information on a centralized basis. The tools should be designed to put information in the hands of subscribers.

⁴ Congestion Exposure Wiki, <http://trac.tools.ietf.org/area/tsv/trac/wiki/re-ECN>.