



PUBLIC NOTICE

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COMMENT SOUGHT ON DEFINING "BROADBAND" NBP Public Notice #1

PLEADING CYCLE ESTABLISHED

GN Docket Nos. 09-47, 09-51, 09-137

Comment Date: August 31, 2009
Reply Comment Date: September 8, 2009

In this public notice, we seek tailored comment on defining "broadband" for purposes of the Commission's development of a National Broadband Plan (Plan) pursuant to the American Recovery and Reinvestment Act of 2009 (Recovery Act), and for related purposes.¹

The Recovery Act directs the Commission to create a national broadband plan by February 17, 2010, that seeks to ensure that every American has access to broadband capability and establishes clear benchmarks for meeting that goal.² To this end, on April 8, 2009, the Commission initiated a Notice of Inquiry (NOI) seeking comment on the approach to developing this Plan, key terms of the statute, and a number of specific policy goals.³ The Recovery Act also provides that the Rural Utilities Service of the Department of Agriculture (RUS) and the National Telecommunications and Information Administration of the Department of Commerce (NTIA) distribute grants and loans for broadband. The RUS and NTIA have provided guidance to potential applicants which included a definition of "broadband."⁴ In addition, the Commission has begun holding a series of staff workshops

¹ American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (Recovery Act); *see also* *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, A National Broadband Plan for Our Future*, GN Docket Nos. 09-137, 09-51, Notice of Inquiry, FCC 09-65 (rel. Aug. 7, 2009); *Comment Sought on International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act*, GN Docket No. 09-47, Public Notice, 24 FCC Rcd 3908 (2009).

² Recovery Act § 6001(k).

³ *See generally A National Broadband Plan for Our Future*, GN Docket No. 09-51, Notice of Inquiry, 24 FCC Rcd 4342 (2009) (*National Broadband Plan NOI*).

⁴ *See* Department of Agriculture, Rural Utilities Service, Department of Commerce, National Telecommunications and Information Administration, *Broadband Initiatives Program; Broadband Technology Opportunities Program*; Notice, 74 Fed. Reg. 33104 (July 9, 2009) (*BIP-BTOP NOFA*); Department of Commerce, National Telecommunications and Information Administration, *State Broadband Data and Development Grant Program*, Notice, 74 Fed. Reg. 32545 (July 8, 2009).

“to promote an open dialogue between the FCC and key constituents on matters important to the National Broadband Plan.”⁵ In light of the record received in response to the *National Broadband Plan NOI* and the discussions at the workshops that have been held to date, we recognize that we must seek additional, focused comment on certain specific topics.

In this first Public Notice, we seek tailored comment on a fundamental question—how the Plan should interpret the term “broadband” as used in the Recovery Act, recognizing that our interpretation of the term as used in that statute may inform our interpretation of the term in other contexts.⁶ In particular, the Recovery Act requires the Commission to develop a “national broadband plan” that seeks to ensure “access to broadband capability” for the entire United States.⁷ An understanding of what constitutes “broadband” thus is essential to evaluating the extent to which “broadband capability” is available, and informs the evaluation of particular policy approaches intended to ensure access to broadband capability. The *National Broadband Plan NOI* observed that “broadband can be defined in myriad ways,” and sought comment on possible approaches.⁸ We now seek more targeted comment on three aspects of this issue: (1) the general form, characteristics, and performance indicators that should be included in a definition of broadband; (2) the thresholds that should be assigned to these performance indicators today; and (3) how the definition should be reevaluated over time.

1. **Form, Characteristics, and Performance Indicators.** Much of the discussion of any proposal to define “broadband” tends to center on download and upload throughput.⁹ Download and upload throughput are important, but neither is precise or diverse enough to describe broadband satisfactorily.¹⁰ For example, advertised throughput rates generally differ from actual rates, are not uniformly measured, and have different constraints over different technologies.¹¹ In addition, it is unclear what the end points of the connection are over which throughput is measured or whether the performance of the end points is reflected in the stated throughput. Moreover, there are network characteristics – such as latency, reliability, and mobility – that are relevant for certain applications but not others. Accordingly, we seek comment on:
 - a. the form that a definition of broadband should take;
 - b. whether to develop a single definition, or multiple definitions;

⁵ Workshops, <http://www.broadband.gov/workshops.html> (last visited July 28, 2009); The FCC and Broadband: The Next 230 Days at 10-13, http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-291879A1.pdf (July 2, 2009).

⁶ See Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008) (BDIA), codified at 47 U.S.C. § 1301 *et. seq.*

⁷ Recovery Act § 6001(k)(2).

⁸ *National Broadband Plan NOI*, 24 FCC Rcd at paras. 15-23.

⁹ See, e.g., International Broadband Electric Communications Comments at 2; MI Public Service Comm’n Comments at 1; National Consumers League Comments at 1–2; Progress & Freedom Foundation Comments at 7.

¹⁰ See, e.g., Robert Pepper, Presentation at the FCC Broadband Workshops: International Lessons (Aug. 18, 2009), http://www.broadband.gov/docs/ws_int_lessons/ws_int_lessons_pepper.pdf. See also, e.g., AT&T Comments at 20; Cisco Comments at 10–13; Native Public Media & Native Congress of American Indians Joint Comments at 7; WISPA Comments at 7.

¹¹ See, e.g., NASUCA Comments at 19 (describing a way to measure “actual speed”); AdTran, *Defining Broadband Speeds: An Analysis of Required Capacity in Network Access Architectures*, White Paper, (describing constraints on different last mile network technologies) and *Defining Broadband: Network Latency and Application Performance*, White Paper, attached to Letter from Stephen L. Goodman, Counsel for ADTRAN, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 09-51 (filed June 23, 2009).

- c. whether an application-based approach to defining broadband would work, and how such an approach could be expressed in terms of performance indicators;
 - d. the key characteristics and specific performance indicators that should be used to define broadband;
 - e. what segment(s) of the network each performance indicator should measure, such as the local access link to the end user, or an end-to-end path;
 - f. how factors such as latency, jitter, traffic loading, diurnal patterns, reliability, and mobility should specifically be taken into account;
 - g. whether different performance indicators or definitions should be developed based on technological or other distinctions, such as mobility or the provision of the service over a wired or wireless network;
 - h. the feasibility and verifiability of measuring different performance indicators.
2. **Thresholds.** After identifying key characteristics and performance indicators, a definition of broadband must identify acceptable thresholds – typically minimums.¹² Accordingly, we seek comment on:
- a. what minimum thresholds should be assigned to the performance indicators;
 - b. the minimum thresholds necessary for broad classes of applications to function properly;
 - c. whether we should adopt multiple, escalating tiers of minimum thresholds.
3. **Updates.** The Internet and broadband networks have been characterized by rapid evolution and change. While a static set of objectively measured thresholds may be useful to compare networks at a given time, or over time, a static definition will fail to address changing needs and habits.¹³ Accordingly, we seek comment on:
- a. what ongoing process should be put in place to update the definition, particularly the threshold levels;
 - b. how often should such updates should occur;
 - c. what criteria should be used to adjust thresholds over time;
 - d. how modifications over time to the definition will affect the Commission’s ability to collect and publish meaningful data on broadband deployment and adoption.

This matter shall be treated as a “permit-but-disclose” proceeding in accordance with the Commission’s *ex parte* rules. See 47 C.F.R. §§ 1.1200, 1.1206. Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented generally is required. See 47 C.F.R. § 1.1206(b). Other rules pertaining to oral and written *ex parte* presentations in permit-but-disclose proceedings are set forth in section 1.1206(b) of the Commission’s rules, 47 C.F.R. § 1.1206(b).

All comments should refer to GN Docket Nos. 09-47, 09-51, and 09-137. Please title comments and reply comments responsive to this Notice as “Comments (or Reply Comments) – NBP Public Notice #1.” Further, we strongly encourage parties to develop responses to this Notice that adhere to the organization and structure of the questions in this Notice.

¹² For example, NTIA and RUS, using an advertised throughput metric, identified a minimum threshold of 768 kbps for the definition of broadband and used a minimum of 3 Mbps to identify “underserved” areas. See *BIP-BTOP NOFA* at 74 Fed. Reg. 33108-09.

¹³ See, e.g., CDMA Development Group at 6; Independent Telephone & Telecommunications Alliance Comments at 8; KM Broadcasting Comments at 3; TDS Telecommunications Corporation Comments at 5; Western Telecommunications Alliance Comments at 12–14.

Comments may be filed using (1) the Commission's Electronic Comment Filing System (ECFS), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies.¹⁴ Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal: <http://www.regulations.gov>.¹⁵ Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554.

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For further information about this Public Notice, please contact Ian Dillner at (202) 418-1191.

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¹⁴ See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

¹⁵ Filers should follow the instructions provided on the Federal eRulemaking Portal website for submitting comments.