



# PUBLIC NOTICE

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## COMMENT SOUGHT ON BROADBAND MEASUREMENT AND CONSUMER TRANSPARENCY OF FIXED RESIDENTIAL AND SMALL BUSINESS SERVICES IN THE UNITED STATES

NBP Public Notice # 24

PLEADING CYCLE ESTABLISHED

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

Comment Date: December 14, 2009

In a Notice of Inquiry adopted earlier this year, the Commission sought comment on whether there are opportunities to protect and empower American consumers by ensuring sufficient access to relevant information about communications services.<sup>1</sup> In this public notice, we seek to gather additional information on a specific sub-set of the services covered by the *2009 Consumer Information and Disclosure NOI*, specifically fixed residential and small business internet broadband services (“Fixed Services”). We also expand on questions asked regarding service quality (specifically measuring, tracking and reporting of Fixed Services). Finally, we ask additional questions on transparency issues for multi-unit buildings. We recognize that some of the questions below may be related to issues raised in the *2009 Consumer Information and Disclosure NOI* or in other proceedings. We encourage parties who have provided responses on related issues in other proceedings to respond to this Public Notice by citing previous filings and expanding on previous comments as appropriate, to ensure that all relevant information is included within the National Broadband Plan record we are developing.

**Consumer transparency regarding Fixed Services:** We seek to understand how to increase transparency (display, communication and comparability of information) in Fixed Services. Specifically, we seek comment on the following questions:

1. In the *2009 Consumer Information and Disclosure NOI*, the Commission described the types of information that consumers need in order to (1) choose a provider, (2) choose a service plan, (3) manage the use of the service plan, and (4) decide whether and when to switch an existing provider or plan.<sup>2</sup> We seek comment on how that framework should factor in to development of the National Broadband Plan for Fixed Services.

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<sup>1</sup> *2009 Consumer Information and Disclosure; Truth-in-Billing and Billing Format; IP-Enabled Services*, CG Docket No. 09-158; CC Docket No. 98-870; WC Docket No. 04-36, Notice of Inquiry, 24 FCC Rcd at 11380 (rel. Aug. 28, 2009) (*2009 Consumer Information and Disclosure NOI*).

<sup>2</sup> *2009 Consumer Information and Disclosure NOI*, 24 FCC Rcd at 11389, para. 23. Specifically, the 2009 Truth-in-Billing NOI notes that “to choose a provider, consumers need information on the availability and quality of network

2. What information should providers display and communicate to potential new customers when advertising offerings?
  - a. How will that information vary by format (television vs. online, etc.)?
3. What information and data should providers display and communicate to existing customers?
  - a. How will information provided vary by interaction (call center discussion vs. bill, etc.)?
  - b. What tools could service providers offer to customers to monitor performance?
4. At what level will the information and data be comparable for consumers?
  - a. What data is helpful for consumers in comparing providers while not placing undue burden on providers?
5. How do we ensure that consumers have increased transparency and adequate privacy?
  - a. What are the balances that need to be considered?
  - b. How should providers disclose their privacy policies?
  - c. What limits should be placed on the use of customer information?
6. What reporting mechanisms and metrics are appropriate to promote transparency?
  - a. What data should providers report, how frequently and to whom should they report?
  - b. What complaint procedures should be established and which regulatory bodies should hear such complaints (e.g., if customer service is not adequate or a provider believes testing is inaccurate?)

**Measurement of Fixed Services:** We seek to understand how Fixed Services could be better measured in the future. This understanding would augment existing information, such as data on broadband connections collected on Form 477, while also providing more transparency to consumers about these services. Specifically, we seek comment on the following questions:

1. What measurements are typically performed by ISPs today to track network performance?
  - a. Technologies used?
  - b. Measurement methodologies (direct, sampled, etc.)?
2. Going forward, how should Fixed Services be measured?
  - a. What parts of the network should be measured -- what exact starting and ending points are most useful and actionable for consumers, regulators and providers (See exhibit 1 below for a network diagram and associated definitions for use in responding to this question)?
  - b. What performance characteristics should be tracked across these starting and ending points including but not limited to peak and average throughput, upload and download speeds, and the extent of network outages?<sup>3</sup>
  - c. If actual speeds are tracked, how should they be measured and reported?
  - d. If quality of service is to be tracked, how should it be measured and reported?
  - e. If the effects of network management practices on customer experience are to be tracked, how should they be measured and reported?
3. How should this measurement system be configured?
  - a. What technology approaches should be used to measure Fixed Services?

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services and related equipment (coverage and reliability), various provider fees for similar services, and full disclosure of the contractual commitments they are undertaking. To choose a service plan, they need to be able to compare and contrast service plans offered by different providers and assess the full costs of each option. To use a service plan well, they need accurate and transparent billing statements, clear usage information, and accurate disclosures about changes in fees or terms of service during the relevant period.” *Id.*

<sup>3</sup>See *id.* at 11390, para. 26.

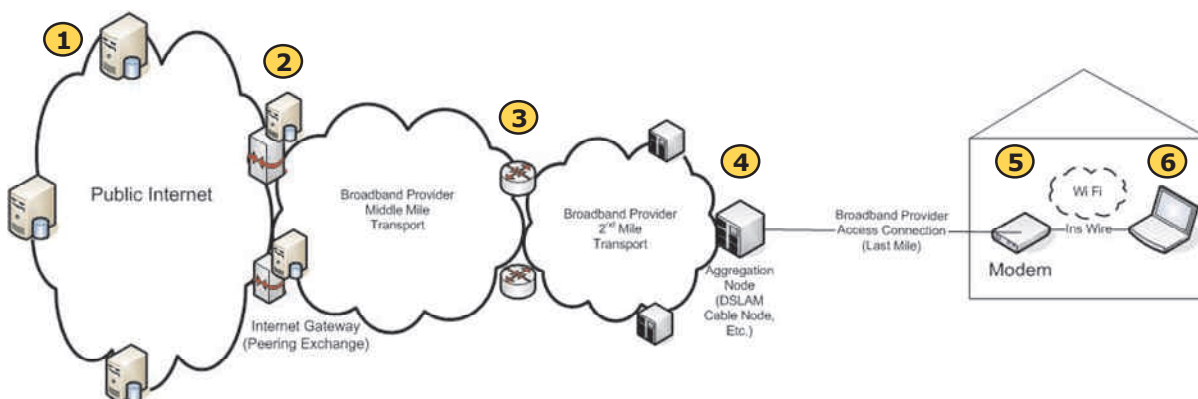
- b. How should the technology approach be composed (customer panels vs. random samples vs. specific geographies, etc)?
  - c. What role should existing governmental and other broadband measurement efforts play?
- 4. Who should host, audit and track this measurement? Examples include:
  - a. Industry-led initiative with third party auditing?
  - b. Third-party-led initiative with FCC or third-party auditing?
  - c. FCC-led initiative end-to-end?
- 5. What are the benefits and costs of measurement for providers, regulators, end-user consumers/customers and others?
  - a. What are the benefits (e.g., transparency, increased data, network comparability, etc.)?
  - b. What are the costs (e.g., hardware costs, usage of the network, consumer hassle, etc.)?
  - c. What are the privacy/security considerations?
- 6. How should measurement vary among different demographic groups?
  - a. How can we ensure rural geographies, including tribal lands, and smaller providers are accurately represented?

**Transparency regarding multi-unit buildings:** Finally, we seek to understand how to increase transparency in multi-unit buildings. Specifically, we seek comment on the following question:

- 1. How should information concerning fixed service capabilities in multi-unit residence buildings be communicated to potential investors, home-owners and renters at the point of sale/ rental?
  - a. What information is useful for comparing buildings?
  - b. When should this information be made available to different groups?
- 2. Should providers of fixed service delivered to commercial buildings, libraries, community centers, and other central points also be required to clearly communicate performance metrics to owners, businesses, organizations, and end-users?
  - a. What metrics should be included?
  - b. How should services be measured and tracked?

In addition to written responses, we encourage submission of any data, charts or proposed plans that can be entered into the public record for purposes of building a fact base on this subject. All parties with knowledge and interest are encouraged to file.

**Exhibit 1: Diagram of a Broadband end-to-end network for the purposes of responding to this Public Notice**



**DEFINITIONS**

- 1 Public internet content:** public internet content that is hosted by multiple service providers, content providers and other entities in a geographically diverse (worldwide) manner
- 2 Internet gateway:** closest peering point between broadband provider and public internet for a given consumer connection
- 3 Link between 2<sup>nd</sup> Mile and Middle mile:** broadband provider managed interconnection between middle and last mile
- 4 Aggregation node:** First aggregation point for broadband provider (e.g. DSLAM, cable node, satellite, etc.)
- 5 Modem:** CPE (customer premise equipment) typically managed by a broadband provider as the last connection point to the managed network (e.g. DSL modem, cable modem, satellite modem, ONT, etc.)
- 6 Consumer device:** consumer device connected to modem through internal wire or Wifi (home networking), including hardware and software used to access the internet and process content (customer managed)

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 responsive to this Notice as “Comments—NBP Public Notice # 24.” Further, we strongly encourage parties to develop responses to this Notice that adhere to the organization and structure of the questions in this Notice.**

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.<sup>4</sup> Comments can be filed through the Commission’s ECFS filing interface located at the following Internet address: <http://www.fcc.gov/cgb/ecfs/>. Comments can also be filed via the Federal eRulemaking Portal: <http://www.regulations.gov>.<sup>5</sup> 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

<sup>4</sup> See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

<sup>5</sup> Filers should follow the instructions provided on the Federal eRulemaking Portal website for submitting comments.

address, and the applicable docket or rulemaking number. 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.

People with Disabilities: To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer and Governmental Affairs Bureau at (202) 418-0530, (202) 418-0432 (TTY).

For further information about this Public Notice, please contact Randy Clarke at (202) 418-1500.

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