www.tiaonline.org | 10 G Street, NE, Suite 550 Washington, DC 20002 | Tel: +1.202.346.3240 Fax: +1.202.346.3241

August 31, 2009

Marlene H. Dortch
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: *Defining "Broadband,"* GN Docket Nos. 09-47, 09-51, 09-137

Dear Ms. Dortch:

The Telecommunications Industry Association (TIA) submits this letter in response to the Public Notice, *Comment Sought on Defining 'Broadband,'* issued August 20, 2009.[1] In the *Notice* the Commission seeks comment on defining "broadband" for purposes of the development of a National Broadband Plan pursuant to the American Recovery and Reinvestment Act of 2009, and for related purposes. Specifically, the *Notice* seeks comment on three specific 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.

TIA is the leading trade association for the ICT industry. Its 500 member companies manufacture or supply the products and services used in the provision of broadband and broadband-enabled applications. TIA members' products and services empower communications in every industry and market, including health care, education, security, public safety, transportation, government, the military, the environment and entertainment and are directly impacted by the Commission's definition of broadband.

TIA recommends, as it has in previous filings, that the Commission not limit itself to one narrow and arbitrary definition of broadband.[2] Instead, the Commission should recognize all technologies playing an important role in our broadband market, and the capabilities they promote. A tiered speed analysis as adopted in the Commission's broadband data collection Form 477 proceeding,[3] allows the Commission to take into account current and future technologies and recognizes the diverse uses and benefits of broadband and broadband-enabled products and services.

---

[1] *Comment Sought on Defining "Broadband"*, GN Docket Nos. 09-47, 09-51, 09-137, Public Notice, (rel. Aug 20, 2009)("Notice").
[2] TIA Comments, *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion*, GN Docket No. 07-45 (submitted May 16, 2007) ("Section 706 NOI").
[3] *In the Matter of Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans*, WC Docket No. 07-38, Report and Order and Further Notice of Proposed Rulemaking, at para. 20 (rel. June 12, 2008).

TIA also continues to assert that any definition of broadband must include two-way transmission capability.[4] The definition of "advanced telecommunications capability" in Section 706(c) (1) includes the words "voice, data, graphics, and video" and refers to a capability that enables users to "originate and receive" information. This definition does not contemplate one-way transmission. However, this is not to suggest that such two-way transmission must be symmetric.

As part of its National Broadband Plan, the Commission has stated that it must incorporate the use of broadband infrastructure and services in advancing a broad array of public interest goals, including consumer welfare, civic participation, public safety and homeland security, community development, health care delivery, energy independence and efficiency, education, worker training, private sector investment, entrepreneurial activity, job creation and economic growth, and other national purposes.[5] These public interest goals are achievable with the added element of broadband.

In an effort to achieve these goals and develop a tiered analysis, the Commission should focus on the demand or requirements of a given application. The Commission should also take into account that the ability to deliver end-to-end capacity and the appropriate applications encompasses more than the first mile technology. The Commission should then craft tiers in a manner that allows for the use of all technologies to achieve various policy objectives. This approach will allow the Commission to avoid attaching goals to speeds not capable or that are not necessary for delivering the application or service required to meet that particular goal.

TIA notes that the quality of a consumer's experience is not solely determined by speed. Latency, for example, is an important quality parameter for certain applications, and, as with other parameters of broadband, application demands differ in latency requirements. It will be important for the Commission going forward to recognize the affect latency can have on the end-user experience.

As TIA stated previously on record, a consumer's right to receive meaningful information and full disclosure regarding their broadband service plans is a cornerstone of TIA's Connectivity Principles.[6] Today the majority of broadband offerings disclose no more than price and a peak bandwidth number that is only attained on a limited basis, in actuality. Quantity, duration, and time of day limitations are not disclosed to the consumer but they may affect the amount of bandwidth available. Any application and device limitations also must be disclosed so that the connectivity principles can work together.

---

[4] TIA Comments, *Section 706 NOI* at 5.
[5] *In the Matter of A National Broadband Plan for Our Future*, Notice of Inquiry, GN Docket No. 09-51, FCC 09-31, at para. 9 (rel. April 8, 2009).
[6] TIA Comments, *Broadband Industry Practices*, WC Docket No. 07-52, at 9, June 13, 2007.

TIA also continues to advocate that a "minimum" broadband speed should consider the varying attributes of wireless versus wireline technology.[7] Wireline and wireless are different technologies with their own distinct benefits. Thus a speed comparison of these technologies is inappropriate due to the spectrum environment and technical constraints that make it more difficult for wireless technologies to attain higher speeds. Wireline technologies can operate at much higher transfer rates and as a baseline is considered, the ability to transmit an HDTV signal is an appropriate floor.[8] The ability of a wireline technology to transmit a bandwidth intensive application, such as HDTV, is consistent with the demands of telemedicine, public safety, and other applications that serve the public interest.

Thus, consistent with TIA's prior filings,[9] the FCC should ensure that its efforts to define broadband are not structured in a way that directly or indirectly values one aspect of service (*i.e.*, speed or mobility) without considering all aspects of the service in concert. Technologies should be distinguished by capability, capacity and ability to address geographies. The direct comparison of wireline and wireless will prove quite difficult and is not recommended.[10] Different broadband networks offer different capabilities, and the expectations of users will vary depending on the context. To truly address the broadband needs across the country, *both* mobile and fixed technologies play a critical role. The Commission's policies and definitions should reflect the variations in customer demand and should seek to ensure that users have access to the broadband services they need at any given time.

Finally, TIA reiterates its support for updating the definition of "broadband" periodically to reflect not only the technology generally available to the public at a given time, but also to encourage future capabilities that ought to be supported by broadband infrastructure.[11] At the outset, we suggest that the Commission's periodic Section 706 inquiries represent a logical forum for revisiting, if necessary, wireless and wireline broadband speeds. Clearly the definition of broadband and its capacity needs to evolve as applications, technology, spectrum availability, and user demand also evolve, and at a pace consistent with such changes. The Commission needs to balance the benefits of driving an infrastructure designed not just for today but for the future and ability of the nation to cost effectively provide such technology.

---

[7] *Id.*

[8] *Id.* For wireline technologies, an HDTV channel can be transmitted a 6 Mbps utilizing MPEG-4 compression.

[9] TIA Comments, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, at 17, June 5, 2009.

[10] As TIA stated in prior Comments, the FCC should recognize that the applications and bandwidth required with mobile solutions may be different than those that are fixed and business- and home-based. TIA Comments, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, at 16, June 5, 2009.

[11] *See* TIA Comments, *Section 706 NOI*, at 7.

www.tiaonline.org | 10 G Street, NE, Suite 550 Washington, DC 20002 | Tel: +1.202.346.3240 Fax: +1.202.346.3241

For the foregoing reasons, TIA reiterates the position that the Commission should recognize that all technologies will play an important role in the creation of a National Broadband Plan and craft a definition that recognizes tiers of services, capabilities and offerings, and also includes explicit reference to two-way transmission capability. TIA and its members remain available to offer further input.

Respectfully submitted,

/s/ _____
Danielle Coffey