

November 16, 2009

***Electronic Filing***

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 12th Street, SW  
12th Street Lobby, TW-A325  
Washington, D.C. 20554

**Re: *Written Ex Parte Communication***  
**Broadband Accessibility for People with Disabilities: “A Few More Questions” Posted to Broadband.gov Blog (October 29, 2009)**  
**GN Docket Nos. 09-47, 09-51, 09-137.**

Dear Ms. Dortch:

In response to Elizabeth Lyle’s “A Few More Questions” Blog post to Broadband.gov on October 29, 2009, CTIA - The Wireless Association® (“CTIA”) takes this opportunity to comment on the ways the wireless industry is meeting the unique needs of persons with disabilities (the “accessibility community”). In recent filings, CTIA has demonstrated that as a result of a robust and competitive wireless ecosystem and voluntary market based approaches to accessibility, individuals with disabilities in the U.S. have the kind of choice and value that consumers around the world strive for. Wireless broadband services hold the potential to significantly improve the quality of life for persons with disabilities through new opportunities in employment, education, health care, and public safety. CTIA submits the following responses to the Federal Communication Commission’s (“FCC” or “Commission”) follow up questions.

1. *There was a lot of discussion at the roundtable about the concept of getting companies, independent software developers, consumers, government, and universities together to share best practices, understand consumer needs, and foster innovation. What are the next steps to establishing an innovation center or focus center program? Are there some specific ideas on this and more information about models we can follow?*

CTIA supports consumer-industry collaborative bodies that share and address specific and prioritized accessibility issues through fact-based and data-driven approaches. Several of these bodies have successfully addressed specific accessibility issues, including among others, Hearing Aid Compatibility (HAC) and the Commercial Mobile Alerting Service (CMAS); while others are working now to address next generation 9-1-1 services.<sup>1</sup> Collaborative processes have proven effective at addressing the fast-moving,

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<sup>1</sup> See FCC, Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets, First Report and Order, WT Docket No. 07-250, para. 23 (Feb. 28, 2008)(describing the *Joint Consensus Plan* developed by representatives of handset manufacturers, service providers, and members of the hearing impaired community); FCC, *Commercial Mobile Alerting System*, First Report & Order, PS Docket No. 07-287 (April 9, 2009) (“CMAS First Report & Order”). See also National Emergency Number Association

innovative and ever-changing aspects of the wireless industry with careful attention to the needs of the accessibility community. Collaborative bodies can help to find solutions that rely on voluntary standards which allow industry stakeholders to evaluate and account for sometimes conflicting industry and international standards, identify compatible technologies or develop and implement proprietary solutions.

As a next step, the FCC should encourage the continued use of collaborative bodies that are narrowly focused to address priority issues related to the accessibility of communications services and devices. Advocates for individuals with disabilities have requested that the FCC incorporate principles of accessibility into the National Broadband Plan. With respect to mobile devices and services, recent reports have demonstrated that accessibility to mobile devices continue to improve as barriers to access are diminishing including cost and consumer awareness.<sup>2</sup> Research institutions should be encouraged to work with the industry to produce commercially available and technically feasible results and present a market analysis that demonstrates the need for specific accessibility features on mobile devices and services which are readily achievable.

Today, consumers are better informed about the variety of accessible devices and services available because of industry and accessibility community educational efforts. Wireless carriers and manufacturers have taken a number of steps to educate the accessibility community about the plethora of available and affordable wireless products, services and features available. Specifically, CTIA has developed AccessWireless.Org as a clearinghouse of information about accessible wireless products and services. CTIA welcomes input from the accessibility community about content that may be helpful on AccessWireless.Org. The FCC should consider AccessWireless.Org a model of information to help ensure consumers remain informed about available devices and services.

2. *There were some general concerns expressed that applying regulation to broadband services and equipment might hamper innovation. Have the processes mandated under Section 255, including as they relate to equipment and devices developed for VoIP services, hampered innovation? Have the FCC's existing captioning rules or wireless Hearing Aid Compatibility rules hampered innovation?*

The wireless industry has maintained a collective commitment to key accessibility issues. Prior barriers to the accessibility community's adoption of wireless – such as cost and accessibility – have been reduced and the accessibility community's overall satisfaction with the wireless industry continues to increase. A recent Wireless RERC survey suggests that more than eighty percent of persons with disabilities own or have

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(NENA) Next Generation Partner Program (NGPP), [www.nena.org](http://www.nena.org) (last visited Nov. 16, 2009) (a collaborative effort between public and private stakeholders to anticipate the impact of emerging technologies on 9-1-1 services and provide an expert forum to support resolution of basic issues that, if unresolved, would block progress toward NG9-1-1).

<sup>2</sup> Wireless RERC, Second Report: Findings of the Survey of User Needs (SUN) for Wireless Technology 2007-2009, 5 (March 2009) (“Second SUN for Wireless Technology 2007 – 2009”); Wireless RERC, Hearing Aid Compatible Cellphones: Findings from the Annual Survey of Consumer Experiences, 2006-2008 (May 2009).

access to a wireless communications device and use their wireless device for text-based communications (text messaging, e-mail, and instant messaging) and Internet access.<sup>3</sup>

Regulatory flexibility to address accessibility based on market demand and reasonable requirements has contributed to the extraordinary innovations we have seen in the wireless industry. As an example, the flexible approach taken in the FCC's Hearing Aid Compatibility orders, including the *De Minimis* exception and graduated implementation of mandatory requirements, has resulted in more than 600 different handsets being manufactured for U.S. consumers.<sup>4</sup> CTIA believes Section 255's flexible approach has ensured the wireless industry can respond to market demands while simultaneously incorporating new accessibility features based on readily achievable and technologically feasible solutions.

CTIA suggests that the FCC take heed not to impose specific technological solutions that could have the unintended result of limiting the industry's ability to account for technological developments and create new opportunities for the accessibility community. As an example, the wireless industry devotes substantial resources to maintain compliance with FCC rules requiring wireless devices to be compatible with external TTY devices. This requirement becomes less effective as consumers more commonly use built-in text-based mobile communications capabilities such as e-mail, short message service (SMS), instant messaging (IM) and mobile relay services.<sup>5</sup> CTIA strongly supports the goal of ensuring that the accessibility community has access to wireless communications devices and services and suggests the FCC consider the evolution of these products to provide accessible wireless communications.

The FCC can further encourage wireless innovations that serve individuals with disabilities by recognizing that the wireless industry can meet the goals of accessibility requirements through built-in features or compatibility with assistive technology (AT) and third party applications. This policy will allow individuals with disabilities to take advantage of accessible innovations developed on the "network edge."

3. *What is the effect of Section 255, HAC, and Section 508 regulations on the telecom and electronic and information technology marketplace?*

The wireless industry is committed to furthering the goals of accessibility by bringing accessible wireless products and services to all consumers. The flexibility provided by the accessibility regulatory regime has helped to usher an era of wireless innovation in the networks, handsets, operating systems and "on the edge" applications. Today, the selection of a wireless device is a highly personalized choice for a consumer based on a range of unique and personal factors including attributes of the device, abilities and product awareness. Individuals with disabilities can choose devices with technically feasible built-in accessibility features such as visual and vibrating alerts and notifications,

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<sup>3</sup> Wireless RERC, *Second SUN for Wireless Technology 2007 – 2009* at 5.

<sup>4</sup> FCC, Section 68.4(A) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, Report and Order, WT Docket No. 01-309 (July 10, 2003) (Modifying the exemption for wireless phones under the Hearing Aid Compatibility Act of 1988 (HAC Act) to require that digital wireless phones be capable of being effectively used with hearing aids.)

<sup>5</sup> See Wireless RERC, *Second SUN for Wireless Technology 2007 – 2009* at 5.

text to speech (TTS) applications, speakerphones, SMS and IM applications, tactilely discernible keypads (i.e., QWERTY), shortcut keys, displays with adjustable brightness, predictive text and word completion (AutoText) and spell check, multiple device form factors (touch, flip, candy bar, etc.), and voice control features.

The “readily achievable” accessibility standard in Section 255 of the Communications Act has provided the wireless industry a means to quickly introduce innovative wireless devices while responding to consumer demand for accessibility. As one example of the many in the wireless industry, the National Federation for the Blind recently recognized Apple’s efforts to make the iPhone, a device largely defined by its graphical user interface that works with a touchscreen, accessible and useable for persons with visual impairments while the original versions of the iPhone were initially criticized by the same community for lacking certain accessibility features. Any additional accessibility requirements for wireless broadband services that are different from or more stringent than Section 255 requires may create a disparity in the regulation of similar services and upend the wireless industry’s research and development procedures that are working to provide the plethora of accessible wireless devices and services.

4. *The record contains a few examples of companies voluntarily making devices used for Internet access accessible to people with disabilities - in particular, the Apple iPhone was mentioned several times at the workshop. What are some other examples of which we should be aware? What motivates companies to make their products accessible on a voluntary basis? Will companies consider accessibility issues in the design and development of their broadband products and devices on a widespread basis if there is no mandate to do so?*

Innovation and competition throughout the wireless ecosystem are incentivizing wireless carriers to voluntarily offer service plans specifically for persons with disabilities and educate the accessibility community about available products and services to fit their needs.<sup>6</sup> Competition is also providing many examples of voluntary efforts to incorporate a range of accessibility features into device designs and offerings. In February, Nokia began offering the “Nokia Magnifier” as a downloadable application through the Ovi Store for individuals with visual impairments which utilizes a device’s existing camera functionality to improve readability in every-day life situations, such as reading “fine print.”<sup>7</sup> In September, Nokia also unveiled the “Braille Reader” which reads an SMS messages on a touchscreen device using Braille and tactile feedback for free download from the Nokia Beta Labs.<sup>8</sup> Several of RIM’s newest Blackberry® devices incorporate the playback of closed captioned videos on its Media Player as a standard

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<sup>6</sup> See AT&T, Text Accessibility Plans (TAP), <http://www.wireless.att.com/learn/articles-resources/disability-resources/disability-resources.jsp> (last visited Nov. 16, 2009); Sprint Relay Data Only Plan, <http://sprintrelaystore.com> (last visited Nov. 16, 2009); T-Mobile, Sidekick ® Data Plan, <http://www.t-mobile.com/shop/Plans/Cell-Phone-Plans.aspx?catgroup=Internet-Email-cell-phone-plan> (last visited Nov. 16, 2009); see also T-Mobile, TTY Policy, [http://www.t-mobile.com/Company/Community.aspx?tp=Abt\\_Tab\\_Safety&tsp=Abt\\_Sub\\_TTYPolicy](http://www.t-mobile.com/Company/Community.aspx?tp=Abt_Tab_Safety&tsp=Abt_Sub_TTYPolicy) (last visited Nov. 16, 2009); Verizon Wireless, Nationwide Messaging Plans, <http://aboutus.vzw.com/accessibility/index.html> (last visited Nov. 16, 2009).

<sup>7</sup> [www.nokiaaccessibility.com](http://www.nokiaaccessibility.com) (last visited Nov. 16, 2009).

<sup>8</sup> <http://betalabs.nokia.com/apps/nokia-braille-reader> (last visited Nov. 16, 2009).

software feature in addition to support for open caption videos already provided.<sup>9</sup> The Droid by Motorola also contains text to speech (TTS) settings for TalkBack which speaks the labels or names of items on the phone's user interface as a standard feature.<sup>10</sup> These voluntary efforts demonstrate how the wireless industry considers accessibility an integral part of both maturing and nascent markets.

The wireless industry also recognizes the significant ability to improve accessibility from the "network edge" that is already occurring even absent a government mandate. Wireless manufacturers incorporate "accessibility" into their application interfaces that encourage third party developers to provide applications specifically for persons with disabilities. One example getting increased attention is AssistiveWare's Proloquo2Go™ which offers a full-featured communication solution through natural sounding text-to-speech voices, symbols, automatic conjugations, and a default vocabulary for people who have difficulty speaking. Proloquo2Go™ is available through the App Store on the iPhone or iPod touch.<sup>11</sup> Similar third party applications are available for the consumers to choose and add directly to a wireless device without incorporating expensive AT.

5. *What can the government do to attract additional capital investment to make products accessible? What can the government do to incentivize independent software designers to create innovative assistive and adaptive technologies?*

In the National Broadband Plan, the Commission should maintain focus on programs and policies that CTIA has recommended to facilitate the deployment of wireless broadband to all Americans which will simultaneously encourage broadband adoption by and provide accessible services to persons with disabilities. CTIA and its members are equally committed to continuing voluntary collaborative initiatives with the accessibility community that will ensure accessible wireless broadband products and services based on readily achievable and technologically feasible solutions. These initiatives are a proven method of addressing accessibility in the fast-moving, innovative and ever-changing aspects of the wireless industry.

6. *How is the development and distribution of assistive and adaptive technologies currently funded, including assistive and adaptive technologies used to access the Internet? What specific recommendations should we make to address concerns expressed in the record about the expense of assistive and adaptive technologies? Are there specific recommendations regarding how state programs could partner with a federal universal service program?*

Mobile devices offer significant potential to provide individuals with disabilities access to broadband services at significantly less cost than expensive, immobile specialized assistive communication devices. Because wireless carriers offer service plans with devices subsidized for post-paid customers, the wireless industry provides the accessibility community a means to ensure that wireless services and devices are

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<sup>9</sup> RIM, Inc., BlackBerry® Accessibility, [www.blackberry.com/accessibility](http://www.blackberry.com/accessibility) (last visited Nov. 16, 2009).

<sup>10</sup> DROID by Motorola, <http://www.motorola.com/Consumers/US-EN/Consumer-Product-and-Services/Mobile-Phones/Motorola-DROID-US-EN> (last visited Nov. 16, 2009).

<sup>11</sup> *iPhone App Gives Voice to Those Without*, WJLA-7, July 16, 2009 available at <http://www.wjla.com/news/stories/0709/640918.html>.

affordable for persons with disabilities. In addition, individuals with disabilities can take advantage of the new wireless market reality where unique accessibility opportunities are developing as mobile devices utilize accessible technology developed for personal computers. For example, Microsoft's Windows 7 operating system includes accessible features that are available on wireless netbooks including a resizable On-Screen Keyboard (OSK) with integrated word prediction, a full screen magnifier with a lens to view specific parts of a screen, voice recognition features, and an open source screen reader.<sup>12</sup>

The Commission should focus its efforts on ensuring that the accessibility community is fully informed about accessible devices and services available to all consumers. CTIA believes that consumers who are more informed about the options available in the wireless industry are generally more satisfied. As an example, the Commission should consider the AccessWireless.Org model which has provided individuals with disabilities an information gateway to the wireless industry.

7. *Are there specific recommendations about the best way for the FCC to get more involved in International efforts to harmonize standards relating to accessibility?*

CTIA suggests the Commission allow the wireless industry flexibility to consider the harmonization of global accessibility standards in wireless devices and services brought to the U.S. market. Collaborative bodies should work to find voluntary solutions that do not conflict with other international standards, rely on incompatible technologies or require manufacturers and carriers to implement proprietary solutions. The Commission should encourage the continued use of these collaborative bodies that are narrowly focused to address priority accessibility issues.

CTIA and its member companies are committed to meeting the needs of the accessibility community based on regulatory requirements that properly balance the need for flexibility in responding quickly to technological and market changes with voluntary initiatives and collaborations that ensure the delivery of the benefits of wireless broadband services and devices to all Americans. As requested, portions of this letter will be posted to [www.broadband.gov/blog](http://www.broadband.gov/blog). Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

*/s/ K. Dane Snowden*

K. Dane Snowden

cc: Elizabeth Lyle, Attorney Advisor, Broadband Team

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<sup>12</sup> David Banes, *Seventh heaven: Microsoft's latest release provides some much needed help for users with special needs*, Computing (Nov. 12, 2009)

<http://www.computing.co.uk/computing/comment/2252850/disabled-users-windows-seventh-4883939>