

**Before the  
Federal Communications Commission  
Washington, DC 20054**

In the Matter of	)	
	)	
Accessible Mobile Phone Options for	)	CG Docket No. 10-145
People Who Are Blind, Deaf-blind, or	)	
Have Low Vision	)	

**COMMENTS OF AT&T, INC.**

AT&T Inc. (“AT&T”) files these Comments in response to the Public Notice (“*Notice*”) released by the Federal Communications Commission (the “Commission”) pertaining to accessible mobile phone options for people who are blind, deaf-blind, or have low vision.<sup>1</sup>

**I. INTRODUCTION**

In the Notice, the Commission seeks comment on a number of issues implicating the accessibility of mobile phone features and technologies for persons who are blind, deaf-blind, or have low vision. AT&T applauds the Commission for focusing on improving accessibility for this community. Though accessibility can be improved for persons who are blind, deaf-blind, and have low vision, and the Commission can take steps to facilitate that improvement, the communications industry and the individual players in that industry have made substantial strides in applying technology to make communications accessible.

As discussed more fully below, AT&T, for its part, works with its mobile phone vendors to bring accessible phones to market. Though the majority of those mobile phones may be

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<sup>1</sup> Accessible Mobile Phone Options for People who are Blind, Deaf-blind, or Have Low Vision, CG Docket No. 10-145, *Public Notice* (rel. July 19, 2010) (“*Notice*”).

offered at mid-level and high-end price points due in part to the technology needed to support accessibility, AT&T makes a sincere effort to offset some of that cost and bring the accessible phones to market at a reasonable price. AT&T also has established a National Call Center for Customers with Disabilities (“NCCD”), where specialized customer service representatives can arrange for bills in an alternate format, such as Braille or large print, respond to questions regarding AT&T’s free voice dial program or Code Factory accessibility software available from AT&T, or help customers find the equipment, accessories, features, and service plans that best fit their needs.<sup>2</sup> Moreover, AT&T assisted in the design of the Commercial Mobile Alert System (“CMAS”), which took into account the needs of persons with disabilities. When this service is offered in the next few years, mobile phones will have specific alert tones/cadences and vibration cadences that customers who are blind, deaf-blind and have low vision will be able to use to identify receipt of a CMAS message.

These and numerous other steps occurring in the wireless marketplace demonstrate the increased accessibility for persons who are blind, deaf-blind or have low vision. It is also important to keep in mind that people with disabilities often benefit from innovations that are not geared specifically to accessibility. Enhanced battery life, increased transmission speeds, and increased processing power have made it possible to use technologies that benefit people with disabilities, including the ability to work effectively with screen readers or provide larger displays with greater contrast. Bluetooth and other industry supported standards also make it possible for assistive technologies to connect to commercially available devices. With that in mind, AT&T cautions against prescriptive regulations that may act to discourage innovation in the wireless industry generally or more specifically, in the application and mobile device field.

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<sup>2</sup> See [www.wireless.att.com/learn/articles-resources/disability-resources/nccd.jsp](http://www.wireless.att.com/learn/articles-resources/disability-resources/nccd.jsp).

Equally important, in this age where technology, including communications assistive technology, evolves quickly, prescriptive regulation risks imposing requirements that may become obsolete, thus restricting people with vision loss to using out of date technologies and requiring manufacturers to support inefficient and rarely used assistive technologies.

## **II. DISCUSSION**

### **A. The Cost and Feasibility of Technical Solutions to Achieve Wireless Accessibility.**

Facilitating accessibility of wireless communications for persons who are blind, deaf-blind or have low vision requires more than an accessible handset. The wireless ecosystem is made up of many different players—mobile phone manufacturers, platform developers, accessory device manufacturers, wireless service providers, accessibility software developers, and application developers—each with its own role to play. By and large, wireless provider networks facilitate accessible communications for persons who are blind or have low vision, but the constant evolution in communications and communications assistive device requires wireless providers to work with other players to bring to market cutting edge accessibility technologies. Significant efforts must also be made by manufacturers and developers to insure that their creations can work together. AT&T offers a range of handsets, some with built-in accessibility and some compatible with specialized software, and offers a significant discount on screen reading and enlarging software created by a third party.

Compatibility with assistive technology remains a challenge. To provide access for people who are blind, deaf-blind or have low vision, operating systems must directly address accessibility or must include an accessibility application programming interface. If direct access cannot be included, assistive technology developers must develop application solutions to meet the needs of their customer base. Even the manner in which devices connect can be problematic.

For example, to set up an accessory Braille keyboard that interfaces with a mobile phone via Bluetooth, an initial confirmation using the visual display may be required to partner with the device.<sup>3</sup> To insure that people with vision loss can provide that confirmation, it is essential that a person who has low vision can start screen magnifier software and that a person who is blind can hear the confirmation request by using screen reader software. However, installing or addressing compatibility issues of this nature can be problematic for people who are deaf-blind and difficult for customer care personnel to provide problem solving solutions. While AT&T can and does provide specialized training to its customer care personnel, an in depth understanding of low incidence disabilities may be required to resolve compatibility issues, such as with deaf blindness, which can take many forms and require many types of accommodations.<sup>4</sup>

AT&T believes that it would be inadvisable for the Commission to adopt prescriptive regulation to mandate accessibility for all devices. Differentiation among mobile phones (and manufacturers) is good and leads to a healthy marketplace. Consumers who are blind, deaf-blind, or have low vision will gravitate toward the handset manufacturer, wireless provider, and other wireless ecosystem company that provides the features and functionality they need. Mandating universal accessibility requirements for all mobile phones would add costs to all of those phones, often to the detriment of those least able to afford it. In particular, low end phones would increase in price, further putting the financial squeeze on elderly or persons in lower income brackets who are already struggling in today's economic climate. Instead, the Commission should continue to allow the wireless marketplace to develop as technology evolves

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<sup>3</sup> A demonstration of this process can be viewed at *APH Refresh Braille Display Paired with the iPod Touch-iPhone*, available at <http://www.youtube.com/watch?v=UJWMRIEID1E>.

<sup>4</sup> As simple as this seems, it is not always easy to do in a way that does not confuse people without visual disabilities who may inadvertently engage an accessibility feature.

and support efforts to help companies harness the potential of technology to address the needs of people with disabilities and those with functional limitations associated with aging including impaired vision and hearing.

**B. Accessible Phones.**

Question No. 3 of the Notice asks for input on the reasons why there are not a greater number of wireless phones—particularly among less expensive or moderately-priced handset models—accessible to people who are blind or have vision loss. AT&T applauds the Commission for seeking to maximize the number of mobile phones accessible to persons who are blind or have low vision. However, there are, in fact, a number of mobile phones with accessibility features available on the market today, with differing degrees of accessibility and at different price points. Yet, without a doubt, more mid-level and high-end mobile phones than low-end phones are available to persons who are blind, deaf-blind or with low vision.

By design, many low-end mobile phones would not be low-end if they included the features and functions that drive accessibility, just as they might not include other features, such as web browsing or a camera. Further, certain phones without built-in accessibility functions can often support third party accessibility software, which may be as good, if not better for some individuals, than a built-in capability. Speech to text, screen enlargers, screen readers, etc. are available on different platforms, including the Apple iPhone, Android phones, and Symbian devices. Some manufacturers also offer built-in accessibility features at no cost, addressing a significant concern raised by the disability community. In addition, given the breadth of disability and accessibility related needs, this approach may allow end users with disabilities to address a range of access and life style needs. This additional flexibility may be extremely beneficial to a person with multiple disabilities..

AT&T recognizes the challenges faced by its customers who are blind or have low vision. To assist those customers, AT&T provides a number of features and services to make telecommunications services accessible. For example, all AT&T phones with a physical keypad contain a tactile nib on the “5” key to allow customers who are blind or have low vision to navigate the key pad. Further, all AT&T wireless customers with qualifying disabilities can also access AT&T’s voice-dialing service for free—as AT&T waives the standard \$4.99 monthly feature charge—which enables customers to use any handset that works for them. This free voice dialing feature also allows customers to establish a personal address book of up to 2,000 contacts and to access verbal information services, such as news, sports, weather, finances, entertainment, and travel. Also, AT&T waives the per call charge to AT&T wireless customers for 411 directory assistance.

AT&T offers a number of wireless handsets with built-in functionality that is usable by AT&T’s customers who are blind and have low vision. For example, the Apple iPhone offers screen reader, screen magnifier, color inversion, and voice command functions. Other handsets, such as the Samsung Jack, HTC Pure and Tilt 2, HP iPAQ Glisten, Sony Ericsson W518a and C905a, numerous LG devices (LG Incite, Expo, Vu, Invision, etc.), and a few Blackberry devices, also offer voice command capabilities, which vary by phone. The Blackberry Curve 8520 also supports Oratio, a screen access package developed by Humanware, (a company that specialized in access for people with vision disabilities) for Blackberry devices that allows access to e-mail, calendar, call logs, text messaging, and caller ID.

AT&T also offers subsidized Mobile Speak screen reader and Mobile Magnifier screen magnifier software for \$89 for certain handsets, such as the Nokia Surge™ (6790), Nokia E71x, Pantech Matrix Pro™, and Samsung Jack. MobileSpeak makes many features of the phone

accessible, such as contacts, calendar, e-mail, Web browsing, call logs, and phone status information such as battery level and signal strength, and allows access to third-party applications like Twitter, GPS, Skype, and others. Mobile Magnifier allows screen magnification up to 16x, color inversion, automatic panning and cursor-tracking, and other functions. AT&T currently offers these options on a 30 day trial basis, allowing customers who are blind or have low vision to invest in only those features that have a demonstrated value to them.

Other screen reader and magnifier software is also available although not directly supported by AT&T. Talks, a Symbian-based screen reader, allows access to calendar, contacts, call logs, e-mail, and the Internet, and is supported by various mobile phones. Zooms, a magnifier, offers up to 16 times magnification as well as color inversion.

### **C. Recommendations for Technical and Policy Solutions.**

*Clearinghouse.* AT&T supports the proposal on the Commission's BlogBand to establish an online "clearinghouse" where consumers, manufacturers, service providers, assistive technology companies, third-party application developers, government representatives, and others can share information about products and services that promote accessibility.<sup>5</sup> As AT&T has explained, despite the existence of blogs, search engines, and other internet spaces designed to gather data, it remains a challenge for persons with disabilities to efficiently and effectively find information about products and services that might improve their accessibility.<sup>6</sup> A clearinghouse would provide a central location where consumers with disabilities, including those who are blind, deaf-blind, and have low vision, can access key information about

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<sup>5</sup> See Karen Peltz Strauss, *Help Us Launch the Accessibility and Innovation Forum*, FCC Blogband (May 17, 2010).

<sup>6</sup> See Comments of AT&T, Inc., CG Docket 10-100 (filed June 10, 2010).

accessible phones and assistive technologies and would be a major step in the right direction to improving accessibility to this community.

*Research and Funding* – Specialized telecommunications equipment for low incidence disabilities can be costly to develop and to purchase. AT&T encourages the Commission to work with other Federal agencies to identify and implement ways to encourage research, development and delivery of assistive technologies and to identify potential funding sources for individuals with disabilities.

*CTIA Accessibility Effort.* The Commission should participate in CTIA’s effort to look at accessibility features and applications, an effort in which the Commission has been invited to participate. CTIA’s accessibility website, [accesswireless.org](http://accesswireless.org), provides information about wireless accessibility in general and accessible wireless features based on specific disabilities. AT&T believes that Commission involvement would help to inform customers with disabilities, including customers who are blind, deaf-blind or have low vision, on how to take advantage of the options available to insure wireless accessibility.

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Respectfully submitted,

**/s/Robert Vitanza**

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