Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C.

In the Matters of	)	
	)	
International Comparison and Consumer	)	
Survey Requirements in the Broadband Data	)	GN Docket No. 09-47
Improvement Act	)	
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Inquiry Concerning the Deployment of	)	
Advanced Telecommunications Capability to	)	
All Americans in a Reasonable and Timely	)	
Fashion, and Possible Steps to Accelerate Such	)	GN Docket No. 09-137
Deployment Pursuant to Section 706 of the	)	
Telecommunications Act of 1996, as Amended	)	
by the Broadband Data Improvement Act	)	

COMMENTS OF AT&T INC. — NBP PUBLIC NOTICE #4

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INTRODUCTION AND SUMMARY

As AT&T noted in its initial comments on the National Broadband Plan, Americans with disabilities must be given the same opportunities to benefit from new and innovative communications technologies as all other American consumers.[1] In fact, as the Commission has recognized, "[p]ersons with disabilities can benefit, perhaps more than any other group of Americans, from advanced services. Advanced services can bring this population significant educational, employment, and recreational opportunities."[2]

AT&T already is taking steps to support these objectives with respect to its own service offerings. Working closely with the disabilities community, AT&T continually seeks to ensure that its products and services are maximally accessible to customers with disabilities. For example, the company has developed and made public a Universal Design methodology so that wireless equipment and application developers can better create accessible products for AT&T customers.[3] In partnership with AOL, AT&T recently became the first provider to offer real-time IM relay services to allow those with hearing disabilities to better communicate with standard telephone users.[4] The iPhone 3GS, which uses AT&T's 3G network, offers captioned movies, and AT&T's U-Verse customers can program their DVR from their PC, allowing visually impaired subscribers to more easily schedule recordings.[5]

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1 Comments of AT&T Inc., GN Docket No. 09-51, at 51-55 (filed June 8, 2009).

2 Second Report, *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*, 15 FCC Rcd 20913, 21000 ¶ 234 (2000).

3 *See* AT&T, Disability Services, http://www.att.com/gen/press-room?pid=2760.

4 AT&T, Press Release, *AT&T Premieres Real Time IM Relay For Customers With Hearing And Speech Loss* (Sep. 28, 2009), http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=27175.

5 *See* AT&T, Disability Services, *supra*, note 3.

Nevertheless, on the whole, Americans with disabilities are far less likely to use the Internet than other Americans.[6] Regulators, consumer groups, and the industry must address this disparity to reach the Recovery Act's goal of bringing broadband to "all people of the United States."[7] In that regard, AT&T is pleased to offer these comments in response to the Commission's National Broadband Plan Public Notice #4,[8] and commends the Commission's ongoing efforts to more fully address this issue. We focus our discussion on Part 5 ("Policy Solutions and Recommendations Panel") of the Notice.

To summarize our comments, AT&T urges the Commission and other stakeholders to take a holistic approach in addressing the goal of improving broadband accessibility for Americans with disabilities. Accessibility in the Internet age cannot be effectively accomplished through single-channel regulations such as those the Commission crafted in past eras for television and telecommunications service and equipment. No measures can be effective unless they are supported and adopted by a broad range of stakeholders, working cooperatively. A broadband Internet access provider, acting alone, cannot ensure accessibility of the services offered over its network. Instead, applications providers, website operators, equipment manufacturers, technical standards organizations, and various other actors must also play critical roles.

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[6] Data from a large-scale survey by the U.S. Bureau of Labor Statistics and the Census Bureau reveal that only 26.4 percent of American adults with disabilities use the Internet at home, compared to 54.4 percent of those without disabilities. Kerry Dobransky & Eszter Hargittai, *The Disability Divide in Internet Access and Use*, 9 Info. Comm. & Soc'y 313, 319, 324 (June 2006), *available at* http://www.eszter.com/research/pubs/dobransky-hargittai-disabilitydivide.pdf ("*Disability Digital Divide*").

[7] American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 § 6001(k)(2) (2009).

[8] Public Notice, *Comment Sought on Broadband Accessibility for People with Disabilities Workshop II: Barriers, Opportunities, and Policy Recommendations NBP Public Notice # 4*, GN Docket Nos. 09-47, 09-51, 09-137 (rel. Sep. 18, 2009).

Recognizing this reality, AT&T, the broad-based Coalition of Organizations for Accessible Technology (COAT),[9] and other stakeholders have already come together to support the Twenty-first Century Communications and Video Accessibility Act of 2009.[10] That pending legislation provides a roadmap for the broadly-focused approach that is required. The bill recognizes that in a number of cases, careful study of the technological challenges and other consideration must be undertaken before establishing any regulatory obligations. The need for such analysis makes this Notice especially welcome and timely. The Commission is well-suited to oversee the inquiries that will be necessary to craft accessibility solutions for the communications industry. Devising solutions will almost certainly require collaboration with other government agencies; indeed, some of the relevant stakeholders, products, and services may lie outside the Commission's jurisdiction. But the Commission's support and oversight will be a critical component of the process, and jurisdictional concerns are no barrier to a fact-gathering, analytical initiative that begins to try to understand the needs of the disabilities community and the contributions that would be required from all sectors to ensure accessibility.

5a. Additional Legislative and Regulatory Action Relating to the Accessibility and Universal Service Provisions in the Communications Act.

Differences between telecommunications and broadband accessibility. The Commission's legacy accessibility rules were developed for traditional communications and media services and technologies—PSTN telephony, broadcast television, and cable television.[11]

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[9] COAT is a coalition of over 240 national, regional, state, and community-based disability organizations advocating for legislative and regulatory safeguards that will ensure full access by people with disabilities to evolving high speed broadband, wireless and other IP technologies. *See* COAT, http://www.coataccess.org/.

[10] H.R. 3101, 111th Cong. (2009).

[11] *See, e.g.*, 47 U.S.C. § 255 (obligating providers of "telecommunications service" to ensure accessibility); *id.* §§ 303(u); 610; 613.

The success of the accessibility rules for these legacy communications and media services was due in large part to the highly standardized technologies utilized by these legacy services, or the ability of the Congress or the Commission to require the adoption of a single technology that would enable accessibility. For example, in the Television Decoder Circuitry Act of 1990, Congress authorized the Commission to require that all new television receivers be equipped with the ability to decode closed-captioning information.[12] The Commission was able to rely on the widespread existence of closed-captioning decoders to take steps to ensure that television programming would be accessible to hearing-impaired individuals.[13] Because there were only limited means of distributing video programming—broadcast television stations and multi-channel video program distributors—the Commission required these distributors to ensure that programming was captioned, which compelled them to require that their program suppliers insert captioning data.[14]

The same is true for other legacy communications technologies. Historically, service providers were able to support the transmission of TTY tones with relative ease because TTY was the only technology available for deaf or hard of hearing consumers to access the PSTN, and there was an established standard for TTY transmission. Similarly, the Commission was able to require that a significant percentage of new cellular telephones be hearing-aid compatible because, while there were many models of cellular telephones, they operated on a limited

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12 Pub. L. No. 101-431, 104 Stat. 960 (1990) (codified at 47 U.S.C. § 303(u)).

13 *See* Report and Order, *Closed Captioning and Video Description of Video Programming Implementation of Section 305 of the Telecommunications Act of 1996 Video Programming Accessibility*, 13 FCC Rcd 3272, 3276-77 ¶ 7 (1997).

14 *See* 47 C.F.R. § 79.1(b).

number of network technologies (*e.g.*, TDMA, CDMA, GSM). Thus all phone models had to be compatible with those standards.[15]

However, as the means and technologies for delivering communications services have changed through innovation, it is no longer possible to ensure accessibility through adoption of one-size-fits-all solutions. The Commission already has seen evidence, for example, that video accessibility can no longer be ensured simply by regulating video distributors. Most new models of digital televisions are equipped with a High Definition Multimedia Interface (HDMI) connector that enables a simple high-quality connection to the set-top box. The HDMI standard, adopted by an industry group not subject to current FCC regulation, does not permit the transmission of closed-captioning information due to incompatibility of captioning with the digital rights management features of HDMI.[16] The developers of the HDMI standard apparently assumed that captioning would be decoded in the video input device before being sent to the receiver, but if a video signal is sent directly to the receiver over the HDMI port, the captioning function built into the receiver will not work.

Similarly, broadcast and cable video signals can now be viewed over personal computers, which often rely on software, rather than built-in hardware, to decode closed-captioning. Beyond this, users have a choice of hardware and software options, which can add another layer of complexity: It is possible that some options—or combination of options—might not allow captions to be displayed. As with the developers of the HDMI interface, the software developers may not fall within the Commission's regulatory authority and, thus, the Commission's ability to ensure universal accessibility of video programming may not be clear.

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[15] Report and Order, *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, 18 FCC Rcd 16753, 16769-70 ¶ 38 (2003).

[16] *See* HDMI FAQ, http://www.hdmi.org/learningcenter/faq.aspx (discussing difficulty with closed captioning and HDMI).

This is even more true with respect to video content provided over the Internet. A growing percentage of viewers view television and other video programming over the Internet, often shortly after it is first shown on broadcast or cable networks. While some providers of this type of Internet video may support closed captioning,[17] one prominent source of video programming on the Internet points out that "[t]he closed captioning data that is used for broadcast TV isn't easily translated for online use."[18] Further, video content is offered over the Internet in an enormous number of formats. Videos formatted for Windows Media Center cannot be played using RealPlayer software—and those are just the two most prominent video formats. The diversity of sources and formats multiply the complexity and technological challenges that will have to be overcome to achieve universal accessibility. For example, there is an enormous variety in the type of video content on the Internet today, ranging from home-made individual user uploaded video clips to episodes of TV shows previously aired on broadcast or cable television.

Thus, as a preliminary matter, a determination will have to be made regarding which types of video should be the subject of a captioning obligation. Second, video *service* providers will need to offer closed captioning to their end users, and video *programmers* will need to meet the challenge of providing captioned programming for a myriad of incompatible formats. Third, manufacturers of end-user equipment, software developers, and network providers will have to devise means of receiving and processing closed captioning for multiple video formats. And, of course, the accessibility standards will have to be flexible enough to reflect the fact that the range of end user equipment over which Internet content is viewed, shared, and copied expands daily.

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[17] The ABC video player, for example, will decode closed captioning information. *See* ABC, Player Features, Closed Captioning, http://abc.go.com/vp2/help.

[18] Hulu, Programming Info, http://www.hulu.com/support/content_faq.

Finally, the jurisdiction of the Commission or any other agency to impose accessibility obligations over all the relevant players will need to be addressed.

Similar issues would arise if an effort to ensure accessibility of the broadband Internet experience were focused solely on Internet service providers. While broadband Internet access providers represent an easily identifiable group of providers, it would do little good to impose accessibility requirements only on this link in the chain. There are countless online content and service providers that would be unaffected by any such requirement. Thus, an accessible broadband Internet access service could not, without more, ensure users with disabilities the ability to use the same full range of Internet services enjoyed by other Americans. For example, users of AT&T's broadband services can download any number of applications from third-party providers that provide basic voice communication functionality, such as Skype, Google Voice, CallCentric, VoIP.com and others. If these third party providers do not offer accessibility features with their services, consumers with disabilities will not be able to use them, regardless of any steps AT&T or any other underlying provider of broadband Internet access takes. In fact, the lack of accessible applications and content may well be a factor in the low adoption rates among consumers with disabilities today.

This is not to say that there can be no accessibility solutions in the next generation communications marketplace. But the diversity and innovation in this market compel a simultaneously more granular and comprehensive approach than what was needed in the legacy telecommunications market. This forward-looking approach will have to be flexible and capable of modification in order to account for the dynamism of this market and constant evolution in technology and capabilities—which may in some cases make it easier to overcome hurdles, and may present new challenges in other cases. Perhaps most importantly, a forward-looking

approach must devise a solution that takes into account the full range of providers and the full set of technical challenges as well as the full range of services and products consumers use for electronic communication today. Where once consumers were limited to voice calling over the PSTN and use of a TTY, today consumers routinely use text messaging, email and IM to satisfy the same basic communications needs. No matter what the final goal, the burden of compliance cannot rest on a single actor in the chain—both because this would be unfair and because, even more important, it would be wholly ineffective.

Of course, this broad-based approach likely would implicate issues and providers that fall outside the Commission's traditional jurisdiction. The Commission will have to engage manufacturers of computers and IP-enabled devices, applications providers, and many others to effectively respond to forward-looking accessibility challenges. At minimum, the Commission would have to revisit its prior decisions interpreting and applying the accessibility provisions of the Communications Act, and it would have to determine whether these provisions are sufficient to achieve all the necessary objectives. For example, the Commission's rules implementing Section 255 currently apply only to "provider[s] of *telecommunications* service," "manufacturer[s] of *telecommunications* equipment," and—as a result of a recent rulemaking—interconnected VoIP providers.[19] The rules do not now cover any other IP-based services—and the Commission has never even considered whether section 255 could be used to reach broadband applications providers, for example. Similarly, while Section 713 of the Act broadly requires closed captioning of "video programming" (a term that is not defined), it not clear that

[19] 47 C.F.R. § 6.1; Report and Order, *IP-Enabled Services; Implementation of Sections 255 and 251(a)(2) of The Communications Act of 1934, as Enacted by The Telecommunications Act of 1996: Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons with Disabilities; Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, 22 FCC Rcd 11275 (2007).

the Commission could rely on this provision to reach all the types of video programming that could be at issue in a broadband environment. It may be that effectively confronting the challenges of twenty-first century communications accessibility lies beyond the realm of the Commission acting alone. Nevertheless, as discussed below, the Commission remains the key, expert agency in this area, and its resources and leadership will remain critical as we move forward.

Legislative action. The Commission has specifically asked about legislative action that can address broadband accessibility and affordability. AT&T believes the best answer to this question lies in H.R. 3101, the Twenty-first Century Communications and Video Accessibility Act of 2009.[20] Sponsored by Rep. Ed Markey and developed in conjunction with COAT, H.R. 3101 would begin the process of tackling accessibility issues in next generation communications services. Among other things, the bill would:

- Extend accessibility obligations by requiring certain providers of Internet equipment, services, and networks to make their products and services accessible or compatible with third-party accessibility tools;
- Designate income-eligible people with disabilities as eligible for Lifeline and Linkup supported broadband service;
- Develop real-time text capabilities for emergency communications for people with disabilities as part of the migration to an IP-based emergency communications network;
- Direct the Commission to undertake technical inquiries to identify the formats, software, and other data necessary to ensure that Internet closed-captioning and video description rules will be effective; and
- Require all video devices that transmit sound, including those receiving video via the Internet, to pass through closed-captioning and video description data, as well as to make user interfaces and guides accessible to those with disabilities.

[20] H.R. 3101, 111th Cong. (2009).

H.R. 3101 is not a magic bullet that would solve all accessibility problems, but it would address some of the most pressing needs of broadband customers with disabilities and lay the groundwork for more detailed efforts. The bill is particularly noteworthy in at least three respects. First, it recognizes that many different actors in the broadband ecosystem—not just traditional service providers and equipment manufacturers—have critical roles to play. For example, section 104 of the bill requires that a broader group of equipment manufacturers and software companies help ensure accessibility for advanced communication services such as VoIP and IP-enabled videoconferencing and clarifies that the Commission has jurisdiction to regulate such entities for this purpose.

Second, the bill reflects an appreciation for the complexity of the issues, mandating in several cases that the Commission undertake studies in conjunction with the relevant stakeholders to better understand the challenges and possible solutions *before* imposing any regulatory requirements. Section 201 of the bill, for example, provides that the Commission should undertake an inquiry concerning closed captioning decoder and video description capability, user interfaces, and video programming guides/menus and provides guidance for that inquiry.

Third, the bill addresses some of the uncertainty surrounding the application of universal service funding to broadband by explicitly designating income-eligible people with disabilities as a distinct group eligible for Lifeline and Linkup universal service support in connection with Internet access and other advanced communication services—an issue that has been pending before the Commission for some time and that merits prompt and decisive legislative resolution.

Reforms to the Interstate TRS Fund. Telecommunications Relay Service (TRS) is an essential accommodation for those with hearing and speech disabilities, and the Commission

should take steps to preserve and improve it for the era of IP communications. In particular, AT&T supports the measures USTelecom has endorsed in the Commission's TRS docket, which would help ensure that the TRS Fund is stable, predictable, and capable of serving the needs of the disability community as technology and communications evolve.[21]

First, the Commission should reexamine Video Relay Services (VRS) compensation. VRS now accounts for nearly 87 percent of the TRS Fund, and is largely responsible for the Fund's dramatic growth.[22] Given the size and growth in VRS funding, the Commission must ensure that services are secured "in the most efficient manner."[23] Unfortunately, there is substantial evidence that the Fund is significantly overfunding VRS providers, including their branded marketing efforts and revenue sharing with uncertified providers.[24] If continued unabated, this could undermine the integrity of the program and unnecessarily burden consumers.

Second, the Commission must improve oversight of TRS providers and increase anti-fraud efforts. While TRS is an important and valuable service, the Commission has long been aware that fraud and waste has grown in the TRS industry. Indeed, the FCC Inspector General has urged "stronger sanctions . . . to combat fraud and abuse" of the TRS Fund.[25] For instance, there is evidence that a substantial portion of recent VRS growth is in fact "manufactured" use

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21 *See* Comments of the United States Telecom Ass'n, CG Docket No. 03-123, at 9 (filed July 6, 2009).

22 *Id.* at 5-7.

23 47 U.S.C. § 225(b)(1).

24 *See* USTelecom Comments at 9-11.

25 *See* FCC Office of the Inspector General, *Semi-Annual Report to Congress* at 15 (Oct. 31, 2008), (revised Dec. 19, 2008), *available at* http://www.fcc.gov/oig/SAR_Revised_12242008.pdf.

that does nothing to support the mission of the TRS Fund.[26] To protect the long-term viability and integrity of the Fund, the Commission must clarify its rules and assert its authority to limit fraudulent or exploitative use of TRS by unscrupulous providers.

In addition, AT&T supports the TRS reforms included in H.R. 3101. The bill would clarify that TRS should be used to ensure that those with hearing or speech disabilities can communicate *with each other* and not just with those without such disabilities. It would also require providers of IP-enabled communications services to contribute to the TRS Fund—increasing the stability of the Fund and ensuring that all providers share the costs of this invaluable service.

5b. Other Legislative and Regulatory Action.

Even before passage of H.R. 3101 or any other legislation, the Commission can take action by beginning the type of technical inquiries contemplated in H.R. 3101. The Commission's unparalleled expertise in disabilities issues in the communications field, combined with its ability to marshal experts and stakeholders in this area, puts it in a unique position to begin the work of understanding how accessibility standards should function with respect to broadband networks, software and devices. And, as H.R. 3101 recognizes, such inquiries are a necessary predicate before the Commission or any agency or lawmaker can develop realistic and effective standards and, where necessary, regulatory mandates. The Commission does not need new regulatory authority to convene technical experts and to begin such studies, and there is no need to wait for the passage of legislation to begin this process since the results will be valuable regardless of the legislative outcome.

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[26] USTelecom Comments at 17.

AT&T recommends in particular that the Commission devote immediate attention to two issues. The first is closed-captioning, one of the areas in which H.R. 3101 also would mandate inquiry. This issue is of significant importance as video programming increasingly migrates from television to the Internet and other interactive technologies. And, as described above, it is an issue that is particularly complex in light of the numerous technologies, formats, and types of providers. A second area that could benefit from immediate initiation of a comprehensive inquiry is real-time text services. Members of the disability community have identified the need for real-time text communications with emergency services as a critical need as we migrate to an IP-enabled emergency services network.[27] The Commission should begin a collaborative inquiry, using a process modeled on the one established in the WARN Act,[28] to examine the issues surrounding the development of technical standards and requirements to effectuate the availability of real-time text communication with emergency services. The inquiry should include the identification of relevant communications devices and equipment, the technical and administrative requirements of network providers, and public safety answering points needed to make real-time text communication with emergency services available to people with disabilities. Such an effort should involve all stakeholders. In undertaking these and other inquiries, the Commission should continue the outreach effort it has begun in this proceeding to bring in the technical experts, service providers and other groups not traditionally within the Commission's ambit. Successful accessibility standards will need the cooperation of

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[27] *See* Comments of Telecommunications for the Deaf and Hard of Hearing, Inc., GN Docket No. 09-51, at 5 n.6 (filed June 8, 2009) (discussing disability community petition for rulemaking seeking development of real-time text standard for IP-based communications with emergency services).

[28] Warning, Alert, and Response Network Act of 2006, Pub. L. No. 109-347, 120 Stat. 1884, 1936-1941 (codified at 47 U.S.C. §§ 1201-1205). *See* 47 U.S.C § 1202 (establishing broad-based "Advisory Committee" to develop recommendations for CMRS emergency alert system).

government agencies, technical standards organizations, access providers, equipment manufacturers, online service providers, disability organizations, and consumer organizations.

5c. Non-regulatory Action.

In addition to technical studies, the Commission can also work with other government agencies at all levels to expand accessibility of *governmental* online services and content.[29] For instance, the Commission can encourage online government services to comply with universal design principles so that functionality does not rely exclusively on sight—for example, incorporating alternatives to touch screens, icons, and text. Online government services and content also should be offered in a mode that is compatible with adaptive equipment and software commonly used by people with disabilities.[30] For example, website designs should be capable of being interpreted by screen-reader programs.[31] Even without any new regulations, the Commission and other agencies can lead by example. The Commission can provide opportunities to develop and recognize expertise in accessibility internally by ensuring that widely-used government services comply with Web accessibility guidelines, offering content that is accessible to people with disabilities (including captioning), and encouraging deployment and use of existing accessibility tools, such as two-way video communications for people who use sign language. Finally, the Commission can take a leadership role in assessing and addressing the potential positive and negative impact of emerging broadband-related technologies on people with disabilities.

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29 *See* Comments of AT&T at 54-55.

30 *See Disability Digital Divide* at 316-17.

31 A number of entities are working to develop web accessibility standards. One such initiative can be found at http://www.w3.org/WAI/, the official site for the World Wide Web Consortium's (W3C) Web Accessibility Initiative.

CONCLUSION

AT&T urges the Commission to move forward with these measures as it pursues full accessibility to broadband services for Americans with disabilities.

Respectfully Submitted,

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