Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Advanced Communications Provisions of the	)	CG Docket No. 10-213
Twenty-First Century Communications and	)	
Video Accessibility Act of 2010	)	

COMMENTS OF THE VOICE ON THE NET COALITION

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TABLE OF CONTENTS

Page

SUMMARY

The Twenty-First Century Communications and Video Accessibility Act of 2010 will ensure that individuals with disabilities can take advantage of emerging communications technologies. The Act also provides the Commission with needed flexibility to implement the specific provisions in a manner that will not deter investment or impede development. Thus, the Commission should apply the Act in a manner that fosters innovation and meets accessibility goals.

The Voice on the Net Coalition proposes that the definition of advanced communication be narrowly construed to include only those services, products and applications where communications is the primary purpose. In addition, service providers should be able to meet accessibility obligations across a product line, rather than on a product by product basis. In certain cases, waivers may be appropriate for services and applications where voice is not the primary function.

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COMMENTS OF THE VOICE ON THE NET COALITION

The Voice on the Net Coalition (VON Coalition)[1] hereby submits these comments in response to the Public Notice issued in the above-referenced proceeding.[2] In this proceeding, the Commission is seeking input on the meaning of key provisions in the Twenty-First Century Communications and Video Accessibility Act of 2010 ("Accessibility Act")[3] that will be considered in the development of a Notice of Proposed Rulemaking required by the Accessibility Act. The VON Coalition supports the laudable goals of the Accessibility Act, which has been drafted to ensure that individuals with disabilities can take advantage of emerging communications technologies and recognizes that regulatory flexibility and clearly defined, narrow interpretations will promote investment in and the continued development of these new technologies.

[1] The VON Coalition works to advance regulatory policies that enable Americans to take advantage of the promise and potential of IP enabled communications. VON Coalition members are developing and delivering voice and other communications applications that may be used over the Internet. VON Coalition members include AT&T, Broadvox, Cisco, Google, iBasis, Microsoft, Skype, T-Mobile, Vonage and Yahoo.

[2] Public Notice, DA 10-2029 (rel. October 21, 2010).

[3] Pub. L. No. 111-260, 124 Stat.2751 (2010).

BACKGROUND

The first decade of the Twenty First Century has seen many technological changes, but few have had the dramatic impact on people's lives as the shift to Internet Protocol ("IP") enabled applications, products or services – whether accessed over the public Internet or supported by managed networks, which empower people to easily communicate, share and access information, and engage in business relationships around the globe. IP has successfully allowed for the seamless convergence of voice, video and data over single platforms – breaking down many barriers once faced by people with disabilities.

The IP communications industry was an early leader in addressing disability access issues. In July 1999, the VON Coalition announced the industry's voluntary commitment to make voice applications accessible (as that became readily achievable) and to consider the needs of people with disabilities in the development of new Voice over Internet Protocol ("VoIP") applications, products, and services. In December 1999, the VON Coalition organized a day-long VoIP disability forum at the FCC in cooperation with various disability rights organizations and FCC staff — including the Alexander Graham Bell Association, American Federation for the Blind, Consumer Action Network, Gallaudet University, Self Help for Hard of Hearing People, and Telecommunications for the Deaf Inc. These efforts have helped ensure that disability access issues are forethought and not an afterthought for VoIP developers.

IP communications companies have already taken important steps to make their products and services accessible and are committed to continuing that progress. In particular, IP communications companies have contributed to accessibility standards and guidelines created by the International Telecommunications Union (ITU), the Internet Engineering Task Force (IETF), and the Telecommunications Industry Association (TIA).

For example, IP communications companies have developed standards and implemented technology that is interoperable with TeleTypewriter/Telecommunications Device for the Deaf ("TTY/TDD") devices. Often, a G.711 digital codec coupled with a dependable broadband connection is used for TTY/TDD access. In some cases, IP equipment manufacturers have gone beyond traditional TTY implementations to develop technology that enables people with TTY/TDD interfaces to leave messages and access to the same messaging capabilities available to other voice-only users. This allows hearing-impaired users to operate their voicemail account to record and playback TTY/TDD messages that would have otherwise been inaccessible to them, involving no additional investment in hardware and allowing use of the same voicemail system as their co-workers. In addition, IP providers are making available voice mail to text services that can be used by the hearing-impaired.[4] Others, including Google, Skype and Yahoo incorporate instant messaging ("IM") technology directly into their products. Combined with wireless short messaging service ("SMS") capabilities, these IM products all but eliminate the need for TTY/TDD devices.[5]

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[4] *See Junction Networks Teams Up With PhoneTag to offer Voicemail-to-Text, 07/20/2010* http://www.onsip.com/press/press-releases/2010/07/20/junction-networks-teams-up-with-phonetag-to-offer-voice?__utma=1.1668761808.1290114553.1290114553.1290114553.1&__utmb=1.2.10.1290114553&__utmc=1&__utmx=-&__utmz=1.1290114553.1.1.utmcsr=google|utmccn=%28

[5] *See Good Bye TTY*? by Kevin Ball**,** reproduced at http://www.hearinglossweb.com/tech/tty/gby.htm. Mr. Ball states: "IM brings everything that TTY provides; text based communication, instantaneous response and the ability to print conversations. In addition, IM is an efficient and very cost-effective medium (its costs nothing to download) for co-workers and supervisors to communicate effectively with deaf employees. The historical barrier to communication is minimized as the communication facilitator, whether an interpreter, co-worker, laptop or CART reporter is removed from the conversational process."

IP Communications can offer better voice quality than traditional PSTN services. Most users claim the same or better voice quality and service reliability than traditional landline service. Now some IP communications providers are offering wideband voice technology known as High Definition, HD, or wideband voice service over broadband. These enhanced capabilities have the potential to improve voice intelligibility through CD quality sound, surround sound for conference calls, and even telepresence for better communication.[6]

In addition to better voice quality, video calling is finally made possible — enabling communication by sign language. IP protocols (SIP, H.323 and others) allow people with disabilities to communicate using video and sign language. IP providers have built video phones, allowing parties using American Sign Language to converse without operator intervention. Video relay services are also becoming more available, allowing hard-of-hearing, deaf, or speech impaired people to call anyone they want and communicate naturally.[7]

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[6] See The Power of the Silk Codec, Jonathan Rosenberg, Chief Technology Strategist, Skype, http://blogs.skype.com/en/2010/09/the_power_of_silk.html describing Skype's high definition voice codec, SILK. "In order to make it sound like the other person is in the room with you, it is necessary to capture the full frequency range of their speech, transmit it over the network, and reconstruct it at the other end. This is something that the traditional telephone networks – including mobile and landline – are not very good at. Those networks were designed to convey "just enough" of the frequency range of human speech to make the call intelligible, but not nearly enough to make it sound like they are in the same room as you. "

[7] See *Lone Star College System*, May 26, 2010, ASL Students Help Parents of Deaf Children Improve Communication Skills Through Family Signs Program http://www.lonestar.edu/15171.htm**.** American Sign Language Students at Lone Star College-CyFair and teach parents of deaf children sign language via Skype video. A parent of the program commented, "I loved the opportunity to get to learn new signs and to teach the new signs I learned to my daughter when she came home on the weekends. I think this is a great idea for the family of students with a hearing disability to be able to communicate with them better."

IP communications is also driving down communications costs, benefitting consumers with disabilities who in the past have often needed expensive, specialized equipment to communicate. Some providers have made their IP enabled video calling software available for download for free on the Internet. The only cost may be an inexpensive video camera. IP communications has enabled Gallaudet University to "video telephone booths" on its campus.

Computers provide new and different accessibility features which enable consumers to communicate. Softphones – which are either installed in most standard computers or accessed through peripherals -- can be easily and inexpensively customized to provide accessibility capabilities by leveraging the accessibility features in the operating systems of computers, such as text-to-speech for audible Caller ID and message waiting indication. This makes the blind-friendly communications device affordable for more users.

The convergence of voice, video and data enables new kinds of accessibility. For example, IP communications allows bridging voice with text, video with the PSTN, and new kinds of mobility (permitting access anywhere the user has an Internet connection). Combining voice, video and data gives users the choice to decide how they want to communicate. A deaf-blind person could sign his conversation and then read the response on text with a Braille display. A hearing-impaired person might use text for the main communication, then video to show his or her reaction to the conversation. Speech recognition software allows people with visual or mobility impairments to use spoken commands to access a corporate phone directory, place or transfer a call, establish a conference call or remotely activate call forwarding. Live voice chat rooms use IP to allow people to hear and speak to each other, whether using

microphones or text, like instant messenger, allowing consumers with disabilities multiple options for successful communication.[8]

Google Voice is an example of an IP-based product that ensures usability by individuals with disabilities. Google Voice will transcribe a user's voicemail messages into text that are in turn emailed to that user. For those who are hard of hearing, this feature makes voicemail almost instantly accessible to them. In addition, a user of Google Voice is able to access voicemail features from the device of their choice; that in itself broadens accessibility, as the user is no longer limited by the features of the physical device that is associated with a given phone number.

Inclusive Technologies, a company that provides consulting services on how products can better meet the needs of all users, including users with disabilities and the elderly, has identified a number of accessibility opportunities for VoIP and IP-enabled applications. The benefits range from easier set up and use, to improved intelligibility and better access to emergency services. Much of this is due to the integration of voice, text and video, across both wired and wireless platforms.[9]

Employers are turning to IP communications to meet Americans with Disability Act Requirements. IP communications can help the disabled perform their jobs better and give them access to tools that allow them to pursue new opportunities. The applications may include allowing the blind to use voice enabled applications; the deaf to use video phone applications; and people with physical disabilities to use their work phone number from home.

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[8] See http://www.disabled-world.com/communication/voip/.

[9] *Potential Accessibility Opportunities: VoIP and Related IP-enabled Applications,* at http://www.inclusive.com/trng/voip/opps.htm.

For example, AccessWorld Solutions, the consulting arm of the American Foundation for the Blind, was engaged by Cisco to evaluate VoIP hardware/software phones.[10] The study noted productivity benefits from VoIP, including reduced operational expenses, unified messaging capability, mobility, value-added applications, non-proprietary technology that encourages third party development of accessibility features and a reliable architecture for TTY services. The study also complimented specific features of the phones, including easy access to features and functions; large buttons with logical layout; large LCD display screens that display information visually; documentation available in large print or Braille; programmable lines, speaker phones and touch screen operation. The study further noted that SoftPhones are compatible with screen reader and screen magnifier software, can identify line status (including missed calls) and have mouse driven functions allowing performance from a computer keyboard of the user's choosing.

IP communications can also allow for better communications between the disabled community and first responders, allowing our communities to be healthier, safer and more secure. For example, as 911 call centers transition to IP, the ability to integrate voice, video, and data over one network would be especially advantageous for the disabled and particularly in emergencies. For example, with an IP-enabled emergency network, the deaf could sign to emergency call takers over a VoIP-enabled video connection, and the blind can send text message to call takers for help.[11]

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[10] *Improving Accessibility Through Usability of Voice-Over IP Phones,* found at http://www.afb.org/Section.asp?SectionID=45&TopicID=281&DocumentID=2415.

[11] The Department of Commerce is using IP communications for an emergency broadcast system. Commerce Department phones allow officials to deliver targeted warnings in an emergency by department — a reverse 9-1-1. The tool simultaneously sends audio streams and text messages to multiple Cisco IP phones, so that deaf and blind workers won't miss

The Accessibility Act. The Accessibility Act was signed into law by President Obama in October. It is designed to ensure that individuals with disabilities have access to emerging IP-based communication technologies – most of which are not currently regulated by the Commission today -- by adding Sections 716, 717 and 718 to the Communications Act. These new sections supplement Section 255 of the Act, which applies to most regulated telecommunications technologies, including interconnected VoIP.[12]

In the Public Notice, the Commission is seeking comments on new definitions for advanced communications services and non-interconnected VoIP. In addition, the Commission seeks comments on the how manufacturers and service providers can comply with the requirements to make equipment or services available to individuals with disabilities, and whether third party applications might be acceptable. In addition, comments are requested on whether technical standards may be used as safe harbors for compliance. The Commission also seeks comments on what factors should be used to grant waivers of the accessibility requirements and timetables.

DISCUSSION

The IP communications industry has been a leader in the development of technology and services that give people with disabilities greater control over their communications experience. Most, if not all, were developed without threat of regulation or under regulatory fiat. To date,

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important alerts, like fire alarms. .http://www.cisco.com/web/strategy/government/gov_us_department_commerce.html

[12] *IP-Enabled Services*, Report and Order, WC Docket No. 04-36 (released June 15, 2007). In supporting the new requirement, the Commission noted that interconnected VoIP was increasingly being used to replace analog voice services and that "from the consumer's perspective, services that are perceived and used as a substitute for traditional telephony are subject to the same obligations that apply to traditional telephony." Id. at para. 19

there are no reported violations of Section 255 by a VoIP equipment manufacturer or services provider – and the requirement for compliance has been in place for more that three years.

Thus, as the Commission moves forward with this important proceeding, it is critical that new terms are narrowly defined to meet the specific goals of the Act, implementation schedules rationally applied, and standards for waiver requests broadly interpreted to ensure that the Commission's efforts to facilitate accessibility do not impede innovation and investment in new technologies that would have otherwise benefited people with disabilities. In addition, new rules and enforcement procedures must be clear as to culpability since the device manufacturer, broadband provider, application developer and service provider will, in many instances, be different entities. Finally, the Commission should recognize that the market for IP communications continues to develop and that the rules it adopts in this proceeding should promote –not stifle – innovation and development. Very proscriptive rules could ultimately cause more harm than good for all consumers, including consumers with disabilities.

I. THE COMMISSION SHOULD APPLY THE ACT IN A MANNER THAT FOSTERS INNOVATION WHILE ACHIEVING ITS ACCESSIBILITY GOALS.

A. The Definition of Advanced Communications Services Must Be Narrowly Construed To Apply Only To Services with an Advanced Communication Service as Their Primary Purpose.

Many services may include incidental voice, text, or video communications features. In determining which services fall within the definition of advanced communications services, the Commission should look at the core functionality of the service and not at incidental features.[13] The Commission should also look at the primary purpose for which the service is designed and marketed, and should make the determination on a service-by-service not on a product by product basis.

[13] *See* New Section 716(h)(1)(B)

Gaming products such as the Xbox and Xbox Live Service is one of the clearest examples of a service and product that leverages advanced communications, but whose primary purpose is gaming and not the provision of advanced communications services. The primary purpose of gaming services and products is not voice, video, or text communications. To enrich the gaming experience, some gaming products allow users to use an advanced communication service. But that feature does not convert a gaming service or product into an advanced communications service.

In addition to being incidental to the core gaming purpose, the voice or other advanced communications feature of a gaming service does not substitute for traditional telephony, interconnected VoIP or other advanced communications service. Indeed, the communications primarily enhance the gaming experience.

In determining a service's primary purpose, the Commission should look at the purpose for which the service or product is primarily designed and marketed, and should make the determination on a service-by-service basis. It would be unworkable for the Commission to make product by product or individualized determinations and apply the Act's substantive obligations based on a particular consumer's use or expectation of a service or device.

The Commission should also interpret the definitions of non-interconnected VoIP, electronic messaging and interoperable video conferencing narrowly.

First, the terms indicate that, to be covered, a service must be capable of being characterized either as a VoIP, messaging or video conferencing service, and not as a gaming or other service.[14]

[14] New Section 101(58).

Second, the definition applies to "a" service – not "any" service – that "enables real-time voice communication."[15] The use of "a" leaves the reach of the definition ambiguous, and the Commission has therefore been delegated authority to interpret the statute as reaching only those services that have as their primary purpose non-interconnected VoIP, electronic messaging or interoperable video conferencing

In particular, Interoperable video conferencing service is defined as "a service that provides real-time video communications, including audio, to enable users to share information of the user's choosing.[16] A service that enables "users to share information" necessarily implies a two-way service, not a broadcast-style "webinar" video. Moreover, the term "interoperable" is particularly significant, as it is uniformly understood to entail inter-platform, inter-network and inter-provider communications.[17] Two-way video applications and services are nascent, and often entail the provision of a video connection that is incidental to a particular service provider's product. Thus, with the possible exception of more mature products such as Video Relay Service ("VRS") equipment, which is already subject to an express interoperability

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[15] *See* New Section 101(58).

[16] 47 U.S.C. § 153(27).

[17] *See* 47 C.F.R. § 90.7 (defining "interoperable" in the public safety wireless context as "An essential communication link within public safety and public service wireless communications systems which permits units from two or more different entities to interact with one another and to exchange information according to a prescribed method in order to achieve predictable results."); *Telecommunications Relay Services for Individuals with Hearing and Speech Disabilities*, CG Docket No. 03-123, Declaratory Ruling and Further Notice of Proposed Rulemaking, 21 FCC Rcd 5442 (May 9, 2006) (imposing interoperability obligation such that "All VRS consumers should be able to place a VRS call through any of the VRS providers' service, and all VRS providers should be able to receive calls from, and make calls to, any VRS consumer."); *see also* 47 C.F.R. § 51.325(b) (defining "interoperability" as "the ability of two or more facilities, or networks, to be connected, to exchange information, and to use the information that has been exchanged."). Congress necessarily had this history in mind. *See Sweet Home Chapter of Communities For a Great Oregon v. Babbitt v. Babbitt*, 17 F.3d 1463, 1471 (D.C. Cir. 1994) (Congress presumed to be cognizant of and legislate against background of existing agency interpretation of law), *rev'd on other grounds*, 515 U.S. 687 (1995).

mandate,[18] such services and products are generally not yet genuinely interoperable. Moreover, for the reasons discussed above, those products that offer a video connection that is incidental to the principal purpose and nature of the end user offering fall outside the definition as well.

There is a real risk to innovation if the mere inclusion of an incidental advanced communications capability were to trigger the Act's obligations. Manufacturers and providers – most of whom are not otherwise subject to Commission jurisdiction - would be disincentivized to add advanced services capability to emerging services and applications that were designed for purposes other than serving as a functional substitute for telephone, non-interconnected VoIP, electronic messaging or interoperate video conferencing services.

B. The Commission Can Use Its Authority To Waive Application Of Section 716 To Services Whose Primary Function Is Not Voice Communications.

If the Commission nevertheless interprets the definition of non-interconnected VoIP as reaching services with multipurpose offerings such as gaming services and products, it should use its authority to waive application of Section 716 to services whose primary function is not voice communications, specifically including gaming platforms. Section 716(h) expressly grants the Commission the authority to waive the requirements of Section 716 for any feature or function of equipment used to provide or access advanced communications services.[19] The Commission should use this authority to waive the application of the Section 716 requirements to gaming services and products and other similarly situated equipment and services whose primary function is not advanced communications services.

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[18] *See Public Notice* at 2 ("seek[ing] comment on the extent to which equipment used by people with disabilities for point-to-point video relay services should be considered equipment used for 'interoperable video conferencing services.'").

[19] New Section 716(h)(1).

Granting prospective blanket waivers is essential to encourage manufacturers and service providers to build communication features into services and equipment devices that do not have as their core purpose advanced communications. Fostering this innovation will enrich the communications choices and solutions available to all consumers, including those with disabilities, and further the goals of the Act. Prospective waivers are particularly important in light of the Act's recordkeeping requirements. Without prospective waivers, innovation may be stifled if manufacturers elect not to introduce products or features because they did not from the outset anticipate that their product or service would, by virtue of incidental communications features, fall within the recordkeeping requirements of the Act.

While waivers should not be granted indiscriminately, the Commission should consider factors such as the primary purpose of the equipment or service; whether it is made available to the general public or is serving a niche market, whether it has been designed for a specific purpose, and whether other similar equipment or services are generally available (at comparable prices) that are accessible by individuals with disabilities.

Industry requires adequate time to implement the key provisions of the Accessibility Act. The Commission should develop realistic timetables for compliance, keeping in mind that not all service providers, equipment manufacturers and application developers have readily available capital, or a general awareness of the Commission's new jurisdiction or these requirements. Also, as technology changes and new applications are developed, new compliance challenges arise. The Commission should not put new technologies at a regulatory disadvantage vis-à-vis more traditional, established technologies. The promise of IP communications and the Internet should be embraced, `and not discouraged because every service or application cannot immediately meet the needs of all users.

C. "Advanced Communications Services" Are Expressly Enumerated In The Act, Precluding The Commission From Implementing Rules Covering Unenumerated Services.

The Accessibility Act defines the term "advanced communications service" to include a discrete list of four mutually exclusive services, deliberately excluding unenumerated services from the definition."[20] The definition of each advanced communications services is exclusive. Electronic messaging service is a non-voice service, and therefore can be neither VoIP nor video conferencing.[21] Interconnected VoIP and non-interconnected VoIP are likewise mutually exclusive categories.[22] And, while video conferencing includes audio, only services that bundle audio and video can be video conferencing service.[23] The Commission must therefore be careful to apply requirements only to the extent that a service, feature or function meets one of these definitions, and, consistent with the Act's definitions, should subject no single feature to overlapping or conflicting obligations.

Based on this analysis, disability access requirements should not apply to government entities or private networks but only to consumer services that focus primarily on one or a combination of the elements of advanced communications service. Government entities should be excluded because they historically are covered by Section 508. In addition, private networks historically are exempt from Section 255 mandates because these are not services offered generally to the public.

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[20] New Section 101(53)(A)-(D).

[21] New Section 101(56). Electronic messaging must also be between or among human beings, and it was not the intent of Congress to capture communications between devices. There is no reason to capture automatic software updates or other device to device communications. This distinction is important in order to foster innovation as the so called "Internet of things" emerges.

[22] New Section 101(53), (57), (58).

[23] New Section 101(59).

D. Congress Expressly Permitted A Manufacturer Or Service Provider To Meet Its Accessibility Obligations Across A Product Line, Rather Than On A Specific Product-By-Product Basis.

Section 716(g)(4), eschewing the specific product-by-product approach taken by the Commission with respect to Section 255, allows the Commission to consider the range of products offered by a manufacturer that have varying functionality and are offered at various price points.[24] Congress intended this consideration to mirror similar considerations in the hearing-aid-compatibility context.[25] Through this provision, Congress recognizes that providers can and should enable accessibility by providing consumers with a variety of solutions, and precludes a requirement that all features and functions of all products must be accessible or must be accessible in the same way.

Congress further buttressed this point by including the rule of construction in Section 716(j), which states, "[t]his section shall not be construed to require a manufacturer of equipment used for advanced communications or a provider of advanced communications services to make every feature and function of every device or service accessible for every disability."[26] Thus this Act does not require a manufacturer or service provider to make all products accessible nor does it require a service provider to make all features in its product accessible.

Moreover, the Commission should confirm that the legislation allows service providers, application developers and equipment manufacturers maximum flexibility in meeting the requirements of the Act. In particular, if third party applications, peripheral devices, software, hardware or customer premises equipment are available to individuals with disabilities at nominal cost – the legislation endorses the concept that these third party application are

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[24] New Section 716(g)(4).

[25] *House Report* .at 26; *see*47 C.F.R. § 20.19(c)(4)(ii), (d)(4)(ii).

[26] New Section 716(j) of the Communications Act.

sufficient to satisfy the requirement for compliance.[27] The Commission should not fix an amount to the term nominal cost. Nominal cost can be relative to the value of the service provided compared to not having the service, or the financial ability of the user to purchase the added feature. The Commission should also keep in mind that over time the cost of these third party applications can come down, particularly as demand increases.

The VON Coalition generally does not support mandated technical standards; however, it does support the development of technical standards that can be used as safe harbors so that all parties understand what is expected of them and to reduce uncertainty. Properly developed safe harbors can be an important way for companies to provide input into the standards process and avoid potential enforcement. Standards are also potentially important for IP communications, which requires the successful interoperability of different technologies.[28] The ultimate goal of the legislation should not be enforcement, but flexibility that allows the most paths to compliance while meeting the needs of the disabled community.

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[27] For instance, JAWS, a powerful accessibility solution offered by Freedom Scientific, reads information on your screen using synthesized speech is compatible with Skype software enabling blind users to take advantage of Skype's IM features.

[28] For example, peer-to-peer VoIP over the Internet depends on the following (at both ends of the communication):

- that the microphone works with the sound card
- that the sound card works with the rest of the PC hardware
- that the PC hardware works with the operating system
- that the operating system works with the VoIP softphone
- that the operating system works with the networking hardware
- that the networking hardware and software work with the access network
- that the access network works with the ISP
- that the ISP works with the Internet backbone

See http://www.inclusive.com/trng/voip

CONCLUSION

The VON Coalition looks forward to working with the Commission in this important proceeding on the development of policies that will increase accessibility to new technologies without hindering, innovation, development or investment. .

Respectfully submitted,

VOICE ON THE NET COALITION

/s/

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