

**Before the  
Federal Communications Commission  
Washington, DC 20554**

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

**Comments of the American Council of the Blind**

I. Introduction

These comments, in response to the Federal Communications Commission’s (FCC’s) Consumer and Governmental Affairs Bureau and Wireless Telecommunications Bureau, are provided on behalf of the American Council of the Blind (ACB), a nonprofit organization that represents the interests of blind and visually impaired people throughout the United States. Based in the Washington D.C. area, ACB has tens of thousands of members from across this country who belong to more than 70 state and special interest affiliates. Being the nation’s leading blindness organization, ACB represents members from all walks of life who display interests in a variety of activities including business, education, the arts, to name a few. Its special interest groups are comprised of, among others, teachers, government employees, attorneys, students, information technologists, and artists.

ACB and its affiliates conduct a large number of advocacy, social, and cultural activities. Central to these are many activities such as collaboration with the government, K-12 and higher education, the private sector, and international entities to improve opportunities for all blind and visually impaired people. Recent examples of such collaboration include addressing concerns such as full access to education for students, full access to the work environment for blind

employees, access to entertainment and educational content such as visually displayed information at sports facilities and information contained in videos as well as full access to the increasing array of advanced communications options in a multitude of settings.

Constructed to provide feedback specifically tailored from the perspective of blind Americans—who stand to benefit from the proposed provisions in Section 104 of the Twenty-First Century Communications and Video Accessibility Act (Accessibility Act)) through the implementation of the “advanced communications” provisions, the sections below focus on responses to organizational questions, respond to potential financial effects of potential regulations, as well as address specific concerns regarding technical standards and the needs faced by persons who are blind, visually impaired, or deaf-blind. As requested by the Commission, the responses to this inquiry are structured in a specific order to accommodate the questions posed by the Consumer and Governmental Affairs Bureau.

ACB commends the FCC for conducting a rigorous assessment of the landscape facing the blind community throughout the nation. Incorporating responses from this inquiry into the development of the NPRM that will promulgate regulations will allow the Commission to avoid significant pitfalls and help to move the process forward without unnecessary delay.

In implementing Section 716, 717, and 718, ACB urges the Commission to consider the primary purpose of the Accessibility Act. In a rapidly changing technology landscape, the industry has simply failed to keep up with the needs of consumers who are blind, visually impaired, or deaf-blind. It is quite clear that service providers and manufacturers believe otherwise. In some cases, this thinking is quite evident in the way manufacturers and service providers have responded to this request for comment. For instance, Comments by the Consumer Electronics Association and Verizon seem to imply that the industry has been quite effective in delivering third-party solutions to meet the needs of consumers with disabilities. Feedback from ACB

members suggests that this is far from the truth. In order to achieve true accessibility several factors must come together. ACB's comments are intended to bring these factors to the forefront. A combination of strong performance objectives, a tangible partnership among service providers and manufacturers to deliver appropriate solutions, the consistent and timely feedback from blind or visually impaired people, and a consistent and effective reporting and enforcement mechanism will ensure that the intent inherent in the passage of the Accessibility Act will be fully met.

## II. Section 716 Requirements

### 1. Advanced Communications Services

Through prior regulation and implementation, the scope and meaning of the term “interconnected VoIP service” is well understood within the framework of FCC’s understanding. However the newly defined terms—namely: (1) “non-interconnected VoIP service;” (2) “electronic messaging service;” and (3) “interoperable video conferencing service”—are not only given specific definitions in the Accessibility Act but must be defined in such a manner as to understand their application as it relates to usability, accessibility, and compatibility requirements of Section 104. And, even though the Accessibility Act refers to the previously defined definition of interconnected VoIP service, it must be framed to clarify its context. It is important to the American Council of the Blind that the FCC clarify the software and equipment that is deemed to be covered under the various definitions (either promulgated through regulations of the Accessibility Act or through prior regulations). In order to achieve full access as intended through the Accessibility Act, it is ACB’s firm belief that all equipment and software with which a blind, visually impaired, or a deaf-blind person comes in contact when accessing covered advanced communications services under given definitions must be

made accessible. With that in mind, ACB urges the Commission to utilize the following language while discussing covered equipment in the regulations:

“Cover advance communication services shall include: (1) equipment; (2) web-based and stand-alone software; (3) equipment furnished with software with which persons with disabilities must interact in any manner; (4) equipment with hardware features with which persons with disabilities must interact in any manner; or (5) any other type of software or equipment with which persons with disabilities must interact in order to access interconnected VoIP services, non-interconnected VoIP services, electronic messaging services, or interoperable video conferencing services.”

It should be well noted that, to the extent that hardware and software are both used to provide services in the context of these definitions, each such element of these services must be accessible to people who are blind, visually impaired, or deaf-blind. In lieu of seeking specific technical usability and accessibility requirements, ACB favors a performance-based approach where specific criteria for accessibility are defined through national (or international) standards. Utilizing existing standards and guidelines will allow manufacturers and service providers to refer to a common set of development documents in order to promote best practices as well as to manage resources. Work is well underway by the Access Board to revise the standards leading to accessibility of equipment and software falling under the scope of Sections 508 and 255. In many instances, it is expected that the revised standards will be able to provide specific guidelines in order to make products accessible; when specific software and hardware guidelines are unable to provide the necessary information to manufacturers and other covered entities, the functional requirements specified in potential new guidelines implementing Section 255 and 508 should be utilized to make products and services accessible. With performance criteria being in

place, techniques for different aspects of achieving accessibility can differ depending on emerging technologies.

Take, for example, a router such as the MiFi that is able to allow a consumer to connect to a VOIP-enabled device or allow a consumer to connect multiple wireless devices to access advanced services. Such a router, as a covered device, must be designed in such a way as to not prevent a blind, visually impaired, or a deaf-blind person to operate it independently. When made accessible, it may implement the techniques defined by the web accessibility provisions of Section 508 so that the web-based interface for setting up the router is fully accessible by using assistive technology software utilized by people who are blind. In addition, the hardware design for such a router could incorporate accessible elements from the hardware design section of the revised Sections 255 and 508 guidelines.

Similarly, wireless or other devices providing text-based messaging services that are covered under the definition of “electronic messaging service”—whether such messaging services are implemented by dedicated text-messaging or by implementing various instant messaging services—should be covered by applying software accessibility standards from Sections 255 and 508. The hardware portion of those devices can be made accessible by applying the respective hardware accessibility standards. It will be necessary for the FCC to ensure that the software and hardware standards being considered for revision by the Access Board cover appropriate advanced communication devices and services. Furthermore, it will also be vital that the Access Board release the updated standards in time to synchronize the regulatory process that must be followed by the FCC to implement the relevant provisions of the Accessibility Act.

Through these comments, FCC seeks information on the extent to which equipment used by people with disabilities for point-to-point video communications and video relay services should be considered equipment used for “interoperable video conferencing service.” While ACB has

provided detailed comments on the National Deaf-Blind Equipment Distribution Program, it is important to reiterate the fact that equipment used for relay purposes must be accessible to persons who are deaf-blind to the extent functionally feasible. For instance, video controls and hardware design of such equipment must fall under the definition of interoperable video conferencing service. This will increase the amount of equipment choices available to many deaf-blind persons. It is ACB's belief that having point-to-point video communication or relay equipment accessible will dramatically increase the choices available for deaf-blind persons. It will reduce the amount of funds that FCC will need to expend in order to conduct research and development.

Other than these specific points, ACB fully agrees with the comments submitted by the Trace Research and Development Center regarding the considerations that should be made related to various definitions established in the Accessibility Act.

## 2. "Achievable"

ACB is pleased to see the Accessibility Act adopt a standard which, while providing some flexibility to manufacturers and network and service providers, enables the Commission to measure aspects of reaching accessibility. Unlike the "readily achievable" standard implemented in Section 255, the current "achievable" standard provides a specific set of criteria that, when evaluated, provides the Commission a framework for gauging compliance. More important, however, these criteria allow manufacturers to set up processes that help them to consider product accessibility within a flexible manner. From ACB's perspective, these criteria will allow manufacturers, operators, and service providers to begin the consideration of accessibility at an organizational level rather than at the departmental level. Strategic application of accessibility at an organizational level allows businesses to associate the principles of universal design into their product development cycles, providing innovative thinking from all stakeholders.

Overall, the definition of “achievable” establishes that the covered entity expend “reasonable effort or expense.” In determining whether the requirements of the provisions of Section 104 are “achievable,” the Commission must consider the following factors: (1) the nature and cost of the steps needed to meet the requirements of this Section with respect to the specific equipment or service in question; (2) the technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies; (3) the type of operations of the manufacturer or provider; and (4) the extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points. When considering “reasonable effort or cost,” it may be helpful to understand that, even when the organization expends reasonable effort and cost, it must be negatively impacted in a significant manner. Thus, ACB’s analysis utilizes a claim of “extraordinary impact” when the organization fails to show any reasonable effort or cost other than conducting a technical or market analysis. These analyses, in and of themselves, cannot be considered to be reasonable.

As stated above, the “achievable” standard allows the service provider or a manufacturer to establish enterprise-wide processes that ensure that the entire organization is able to engage in delivering quality usability and accessibility to its product or service. It is important, therefore, that the Commission begin its evaluation by understanding the overall commitment of the organization to achieving accessibility. In doing so, the following factors play a significant role:

1. The engagement of upper-level executives of the organization with the process of providing accessibility;
2. The consideration of the budgeting process for accessibility as compared to the entire organization’s budget;

3. The inclusion of accessibility during the planning phase of each product developed or service delivered by the organization;
4. The extent to which the service provider or the manufacturer devotes personnel during each product/service development to achieving accessibility;
5. The extent to which the organization has a plan for testing the product or the service by including persons with disabilities. This includes persons who are blind, visually impaired, or deaf-blind;
6. The extent to which the service provider or the manufacturer plans to devote resources to supporting the specific needs of persons with disabilities. This includes persons who are blind, visually impaired, or deaf-blind; and
7. The extent to which the service provider or the manufacturer has a record of delivering accessible products or services as compared to its total products or services.

When determining that an organization is in compliance with the provisions of Section 104, these factors will provide significant indicators regarding the level of commitment that accessible product development requires. Positive indicators for each of these factors suggest that the organization has done its due diligence for achieving accessibility. However, if the Commission determines that a failure of an overall commitment to accessibility exists, it can consider specific factors related to the development of a particular product in question. This requires the FCC to scrutinize the organization more closely when it claims that accessibility for a particular product or service was “not achievable.” Other than considering these broad factors, it is essential that the Commission has a plan to actively engage with the community of blind, visually impaired, and deaf-blind people to understand the history of working with the organization in question.

When a product manufacturer or a service provider claims to not meet the “achievable” standard, it may become necessary for the FCC to apply the four-step process as provided in the definition in order to evaluate the claim: the first of these asks the Commission to consider the “nature and cost of the steps needed to meet the requirements of this Section with respect to the specific equipment or service in question.” According to this requirement—in order to prove that accessibility of service or a product is “not achievable,” an organization must show:

1. That the totality of steps it needs to take are extraordinary and
2. That the cost for making this one product accessible, when compared to the organizations entire budget, is extraordinary.

The second specific consideration that the FCC is required to make when evaluating a ”not achievable” claim is the “technical and economic impact on the operation of the manufacturer or provider and on the operation of the specific equipment or service in question, including on the development and deployment of new communications technologies.” This claim requires that the service provider or a manufacturer provide the proof of an overall negative technical impact as well as a negative impact on an organization’s overall economic outcome. To show this, however, the organization in question must:

1. Demonstrate, through technical analysis, that adding accessibility requirements will result in the product or service in question being extraordinarily impacted such that the product performance is severely compromised;
2. Demonstrate, through market analysis, that introducing accessibility features in a product or service will result in extraordinary loss in profit as compared to the overall profit.

When developing and deploying a new network service, accessible design and deployment requires an organization to consider accessibility from the beginning of the product development

cycle. A company cannot conduct its technical or market analysis after the product has been developed and make a subsequent claim of extraordinary negative impact. It is, therefore, essential that service providers and manufacturers consider implementing accessibility analysis throughout the organization.

The definition of “achievable” requires that the Commission further consider the “type of operations of the manufacturer or provider.” ACB agrees that this is an important distinction to make—especially considering the fact that recent developments in the wireless arena have brought together three distinct manufacturers and service providers to meet consumer needs. Two distinct models have emerged which provide a study in contrast. The first of these models, followed by Apple and Research in Motion (RIM), involve only two parties—namely, the wireless operator (or service provider) and operating system and hardware developer (or manufacturer). While the responsibility for providing accessibility is joined, the role for the manufacturer is more defined. With this model, the responsibility for providing access to the wireless device lies primarily with the manufacturer. The unique blend of software and hardware capabilities must be matched by the manufacturer to ensure that its devices are accessible, whether through a built-in screen reader, magnifier, or a third-party solution at a “nominal” cost. (See discussion of “nominal” below.) Until now, Apple has provided an example of a manufacturer who has considered accessibility to be an essential part of its business process. RIM, on the other hand, has relegated accessibility for blind, visually impaired, or Deaf-blind people to a third-party provider—accessibility which, at \$500 or more per wireless device, cannot be considered “nominal” by any common definition of the word.

The second model, followed by Google and Microsoft, relies on these companies serving primarily as operating system developers to power hardware developed by other manufacturers. This model breaks down the responsibility for ensuring accessibility to multiple parties.

Operating system manufacturers remain the largest party responsible for ensuring access to the operating system while hardware manufacturers such as Samsung, HTC, and Motorola are responsible for hardware. As current operations prove, however, the line between software development and hardware development is blurred. Current sets of wireless hardware manufacturers develop software which often replaces the one made available by the operating system developer. In this case, the responsibility for ensuring access to the software is combined with the operating system developer. It requires that (1) the operating system developer provide underlying features that would enable software developers to make their products accessible and (2) the hardware manufacturer developing software take advantage of the underlying accessibility features to ensure that the add-on software complies with given access requirements.

Regardless of which model prevails, the operating role of the service provider remains important. In the wireless and other arenas, the service provider (or network operator) often chooses devices, the price at which these devices will be made available to the consumer, and the features and capabilities that these devices will have. As such, the service provider serves as the arbiter of choice for consumers. Therefore, the service provider not only must ensure that it carries a choice of devices that provide varying level of capabilities, but must ensure that sufficient, accessible choices are available for blind or visually impaired consumers from among these varying capabilities and price points. This necessitates a close coordination with manufacturers, internal operations, and the community of blind, visually impaired, and deaf-blind consumers. It further necessitates a close consideration of the requirements for hardware and software manufacturers. Culminating this list of responsibilities is the fact that the service provider must consider that it be able to provide adequate pre-sale and post-sale support to blind, visually impaired, or deaf-blind consumers as it does for everyone else.

The final consideration under the definition of “achievability” for the FCC is the “extent to which the service provider or manufacturer in question offers accessible services or equipment containing varying degrees of functionality and features, and offered at differing price points.” This particular consideration goes to the heart of some of the discussions in the previous paragraph relating to the responsibility of the service provider to choose devices with varying capabilities and at differing price points. It is a well-known fact that consumers, in general, are not homogeneous; their purchasing preferences and usage patterns suggest that their capabilities differ. Some prefer to obtain devices that are feature-rich and those that enable them to communicate in various ways while others prefer to restrict their device usage to limited functions such as text-messaging. Blind, visually impaired, or deaf-blind consumers should be considered no different than general consumers. Their limited income or limited need often means that they will choose to obtain a device with limited functionality. At this time, extremely limited number of choices exists for these consumers, forcing them to utilize devices with capabilities that they do not need and forcing them to pay for devices for which they have no use. This occurs largely due to the fact that most devices such as smartphones have the capacity for third-party add-ons to make them accessible. It is essential that manufacturers and service providers make available a range of devices that fit various price ranges along with corresponding accessible features; this may be accomplished by dividing devices into classes and making certain that each class has at least one option that is fully accessible.

### 3. Industry Flexibility

Models that create accessibility by utilizing resources that are available on devices as well as external, potential third-party solutions are true signs of innovation. ACB firmly believes that, in order to provide access to devices and features in multiple ways and to suit the needs of multiple markets that people who are blind or visually impaired represent, it is necessary to not restrict the

means by which manufacturers and service providers achieve full access to devices. ACB is unwilling to restrict innovation and creativity by placing artificial barriers to device manufacturing or service provision.

That being the core thinking that would benefit ACB's members and the community of blind, visually impaired, or deaf-blind individuals in the long-term, it is also necessary to note that the priority should be placed on built-in accessibility solutions at all times when technical factors do not prohibit those solutions. If a third-party solution is chosen by the service provider or manufacturer, these significant points must be kept in mind:

- The third-party solution cannot be an after-market sale for which the user must perform additional steps to obtain.
- The third-party solution must not cost more than a "nominal" amount to the user. (See below for a discussion about the meaning of "nominal.")
- The third-party solution must provide full access to advanced communications services covered in the Accessibility Act.
- The third-party solution must be fully operable by a person with a disability without having to turn to people without disabilities in order to perform setup or maintenance.
- The accessibility solution, regardless of whether it is built-in or third-party, must be fully documented and supported.

Taking the current state of the wireless industry as an instance of possibilities for providing accessibility, it is clear to ACB that not all manufacturers and service providers are engaging at the level needed in order to provide the most effective solutions. Over the last year-and-a-half, Apple's iPhone stands as an outlier which is the only product that fulfills all the requirements listed above. By introducing a screen reader, a magnifier, and other universal accessibility features for the iPhone at no additional cost, Apple Corporation has shown considerable

innovation. Google's Android-based wireless devices, while providing a screen reader with some capabilities, do not provide full access to blind or visually impaired users who need a screen reader. The screen reader cannot be independently installed or maintained without assistance; key features of the operating system are not fully accessible by using the screen reader. The documentation remains poor at best. Wireless devices provided by RIM require blind users to purchase and install a third-party solution at a considerable out-of-pocket cost. At this time, the screen reader neither provides full access to the operating system nor does it provide essential support or documentation. Windows mobile 6.5 and Symbian-based devices follow a similar model in that they require a third-party solution at a substantial out-of-pocket cost to the consumer. In the wireless market, accessibility to what are termed as "feature phones" is far worse for consumers. Other than one phone manufactured by Samsung and offered by a single network operator, the availability of low-cost solutions with full access is nonexistent for people who are blind or visually impaired. The landscape of accessible wireless devices for deaf-blind consumers is even more dire. iPhone and a few other third-party solutions (with high cost of ownership) provide braille output. No feature phones, however, are currently available to meet this population's need for access at an affordable price.

While it is indeed recognizable that myriad solutions must be sought in order to achieve true accessibility, it cannot be said that these solutions must come at a great additional out-of-pocket cost and with a significant lack of independence for the consumer. When accessibility is incorporated as a part of innovation as Apple has done in making touchscreen based input possible for blind and visually impaired people, it is most certainly possible to incorporate different types of accessibility by utilizing built-in solutions. With a singular focus on a touch-based input, Apple has eschewed physical keyboard input in all its products. The company has sought multiple innovative strategies to make input flexible for blind and visually impaired

people. ACB agrees that it cannot be expected to make a fundamental design change to include a physical keyboard on the device. However, combined with touch-based input, Apple has allowed the community to utilize external devices with either physical braille or QWERTY keyboards. This not only provides flexibility to touchscreen access but enables additional methods of input.

Google’s approach to developing the screen reader for its Android operating system, by contrast, focuses on a physical keyboard; the screen reader requires it. No fundamental access to touch is available on Android-based devices for blind or visually impaired people. This choice renders all phones with touch-gesture-only screens entirely inaccessible when using the screen reader. More important, however, is the fact that many elements of the operating systems (including the web browser) are inaccessible even when using a device with physical input. The fundamental design of the operating system makes it possible for people without disabilities to access the operating system with or without a physical keyboard being included as a part of the actual device. Therefore, it should be fully expected that all elements of the operating system be accessible with or without using a physical keyboard to people who are blind or visually impaired.

#### The Meaning of “Nominal”

To ACB, the definition of the term “nominal”—as the common understanding of the term implies and as is used in the context of daily usage—means nothing more than “mere token” or “in the name only.” As such, the interpretation of the term—when applied to the Accessibility Act and its provisions—should mean no more than this common understanding suggests. The cost for accessibility, when provided through third-party software or hardware solutions, should, therefore, be “so small or trivial as to be a mere token.” Any other broad interpretation of the term would be against the spirit of the Accessibility Act. It is imaginable that collection of a

nominal fee in order to provide accessibility would be a symbolic gesture. Nonetheless, the collection of such a nominal fee will result in more actual costs for the service provider or the manufacturer in the form of business costs for processing the trivial amount. ACB does not imagine instances when the manufacturer needs to charge for accessibility, no matter how this accessibility is delivered. In various industry comments to this request, the FCC has been asked to interpret “nominal” in the broadest possible manner. ACB firmly objects to broadening the cost burden for consumers. For too long the burden for accessibility has been placed on consumers with disabilities—a kind of burden that no other segment of the market is asked to take on.

#### 4. Compatibility

Section 716 states that “if compliance is not achievable, manufacturers and service providers must ensure that their equipment and services are compatible with devices commonly used by persons with disabilities to achieve access.” In this, the example given above regarding Apple’s use of compatible refreshable braille displays serves as an illustrative instance of what could be considered accessibility. As a physical keyboard could not be inserted into the iPhone nor a braille display be added, Apple chose to provide access by ensuring that the operating system supported output to Bluetooth-based braille displays. This ensured that deaf-blind persons have full access to the iOS operating environment. Similarly a device such as a network router could ensure that its setup and maintenance functionality is fully accessible to assistive technologies. These assistive technologies could include screen readers, screen magnifiers, or speech recognition software. Thus, when accessibility is “not achievable” by incorporating a first-party solution or a third-party solution, it must be made compatible to the specialized software and equipment that blind, visually impaired, and deaf-blind people often use.

This being said, however, it should be noted that reliance on either a third-party solution or compatibility with assistive technology hardware or software must be the method of last resort. As has been noted above, this compatibility often comes at a considerable cost of labor and money for consumers who are blind, visually impaired, or deaf-blind. Devices and services are no longer a luxury for employment and other day-to-day needs. As a consequence, efforts to burden consumers with costs of additional technology must be avoided. When relying upon third-party or assistive technology solutions, the cost for these solutions must be borne by manufacturers or service providers. In its response to the FCC, Verizon consistently suggests that the third-party method of achieving access is optimal. ACB cannot agree with Verizon or other manufacturers that this is so. A third-party method of achieving access is the “method of last resort” and is only in compliance with the provisions suggested above.

Devices and products “commonly used by persons with disabilities to achieve access” can no longer be considered to be only specialized equipment. Many off-the-shelf technologies and solutions built with such technologies are found to be better at delivering accessibility than equipment specially designed for that purpose. Regulations must provide sufficient flexibility for manufacturers and service providers to consider all solutions that can achieve accessibility.

#### 5. Network Features, Functions, and Capabilities

Not only will the Commission need to ensure that manufacturers and service providers do not actively block accessibility features and capabilities by imposing restrictions--see question 7 below--but it will need to consider the fact that some manufacturers and service providers may be passively inactive such that accessibility is inherently impeded. The regulations must reflect this consideration.

#### 6. Performance Objectives

The FCC must establish performance objectives that can guide manufacturers, service providers, and developers. These will not only ensure that the industry partners will have comprehensive criteria that they may use to test products and services, they will be able to provide consistency and predictability for consumers. These performance objectives must also ensure that developers are able to test products and services against recognized objectives. The use of a general, ambiguous and vague accessibility standard such as “accessible to and usable by” persons with disabilities is inadequate for the purposes of either Section 716 or 718. A specific performance standard will allow companies to know that they have complied and consumers will know that the service or product in question is compliant. As discussed below in question 8, a standard such as the World Wide Web Consortium’s Web Content Accessibility Guidelines provides performance objectives with technical guidance. The technical guidance can change over time with new techniques for compliance as technology changes.

#### 7. Accessibility of Information Content

Security is often cited in implementing measures such as encryption for such content as portable document format (PDF)-based documents. In doing so, measures taken to make the document accessible are defeated without regard to accessibility. Depending on the setting chosen, security and accessibility need not be exclusive for this content. ACB members report seeing examples of devices whose functionality could have been made accessible had functions such as text-to-speech been enabled. Similarly, many network operators have been found to block video description when transmitting (or retransmitting) videos when the description is readily available. ACB can imagine future scenarios that block certain advanced communications services such as text-messaging via instant-messaging clients that could occur by manufacturers or service providers. It is important to ensure that either built-in features or applications built by

manufacturers and service providers to display content provide access to full content regardless of the type of content, its author, or its origins.

#### 8. Obligations, Safe Harbors and Prospective Guidelines

Recent years have brought about a remarkable set of changes in the way manufacturers and service providers deliver advance communication services. ACB expects that these types of changes will continue to drive innovation, resulting in differing business processes which will be used to provide products and services to consumers. The rapidly changing landscape has already resulted in the deployment of mature, successful platforms that are used by both service providers and manufacturers, allowing them to become intermediaries. Platforms typifying this intermediary behavior include “app stores” deployed by Microsoft, Google and Apple.

Additional rumored app stores—or platforms used to develop and deploy advance communication products and services—are being implemented by Verizon and Amazon. Nokia and RIM, as manufacturers, also utilize platforms that provide software and services.

The ultimate emergence of and success of this model may be questioned; but what cannot be questioned is the fact that this model has grown quite rapidly. With the need to ensure that accessibility is maintained for many years to come, the Commission must ensure that its regulatory guidance provides a framework for assessing “safe harbor” no matter what business models emerge, disappear, reemerge, or succeed. Some might indeed argue that technical guidance in the form of applying potentially new Sections 255 and 508 standards will be sufficient; however, a framework for the platform providers is more optimal. Such a framework, as one of its components, would include technical guidelines. But, the ultimate goal of the Accessibility Act being to increase choices for consumers with disabilities, this framework seeks to leverage components of various platforms in order to deliver the best possible experience.

As has been discussed, the roles of manufacturers and service providers are already quite complex. The introduction of these business models has made it even more so. Consequently, the following general framework will serve to clarify potential actions that service providers and manufacturers will need to consider. This framework is based on positive responses to these questions:

1. Does the application platform or the service infrastructure used by a manufacturer or service provider prevent (or hinder in any manner) accessibility to advance communication services?
2. Are the components of the application platform or service infrastructure with which the user is required to interact in order to access tools for advance communication services themselves fully accessible?
3. When promoting the application framework or service infrastructure for particular products or categories of products, does the service provider or manufacturer provide specific technical guidelines related to making advanced communication services fully accessible by third parties?
4. When promoting the application framework or service infrastructure for particular products or categories of products, does the service provider or manufacturer actively promote technical guidelines for making advance communication services fully accessible?

In order for the Commission to consider granting a general “safe harbor,” it is necessary that the questions listed above are answered affirmatively. A fifth question, while not necessary to be considered when granting “safe harbor,” can help blind, visually impaired, or deaf-blind persons enormously.

5. When promoting the application framework or service infrastructure for particular products or categories of products, does the service provider or manufacturer actively require adherence to technical guidelines for making advance communication services fully accessible?

In addition, ACB recommends that the FCC use an approach to Guidelines similar to that used by the World Wide Web Consortium's Web Content Accessibility Guidelines (WCAG) standards, which provide mandatory performance-based standards and non-mandatory technology-specific techniques for meeting them. The mandatory performance-based standards identify what is to be achieved, but do not mandate what technology should be used to achieve the standard. They are, thus, forward-looking and flexible – explaining what must be done, but not how to do it. The techniques then provide options and examples of how the performance standards can be met. The techniques should not be a safe harbor because it will not be possible to predict all the emerging technologies and all the best ways of providing accessibility. Nor will it be possible to identify in advance all the techniques or aspects that would be needed for a specific device in order to meet the performance criteria. Therefore, allowing the techniques or technical standards to serve as a safe harbor will result in products that are not accessible as new features or technologies are introduced for which techniques are not documented and adopted in the techniques or technical standards.

### III. Other Matters Affecting implementation of Section 716

#### 1. Applicability of Section 255

To the extent feasible, ACB highly recommends that the FCC apply the far more measurable “achievable” standard established in the Accessibility Act in favor of the “readily achievable” definition. “Readily achievable,” never having been firmly defined, provides less certainty and measurability for the Commission and the needs of the community of blind, visually impaired,

and deaf-blind people. Furthermore, as the FCC can glean from the discussion of “achievable” in the section above, it is ACB’s strong belief that doing work for accessibility for various advance communication products and services requires a true organizational commitment from manufacturers and service providers. Adherence to the “achievable” standard allows organizations to incorporate accessibility into the innovation thinking.

In addition, there is a more important consideration for many service providers and manufacturers. The threshold for accessibility required under Section 104 of the Accessibility Act when delivering advance communication services is far higher. In order to reach this threshold, technical changes as well as business process changes must be committed that are far higher in intensity than previously required. Especially the technical considerations that service providers and manufacturers make will mean that communication services covered in Section 255—services and features at a lower threshold—will be sufficiently affected in a positive manner. Holding to differing standards for services and features on same (or similar devices) will not only lead to immense confusion for consumers but will lead to even more confusion for service providers and manufacturers who must adhere to differing standards. It is in the interest of both consumers and industry partners that the more measurable “achievable” standard be employed.

ACB certainly cannot agree with manufacturers and service providers such as Vonage who have commented that the Commission should eschew performance standards required in the Accessibility Act in favor of Section 255 standards. In fact, it is more appropriate for the FCC to harmonize Section 255 and Section 716 requirements. This will certainly allow for predictability that manufacturers and service providers seek.

## 2. Waivers

In light of the discussion that took place in the previous section regarding the interplay between Sections 716 and 255, ACB is strongly opposed to granting categorical waivers to devices or classes of devices without the manufacturer or service provider doing due diligence on whether or not accessibility is “achievable.” Business models and devices on the market suggest that hybridization of feature sets on many devices make it impossible for the FCC to grant categorical waivers. Granting such waivers without understanding their future evolutionary path will be detrimental to consumers who are blind, visually impaired, or deaf-blind.

Microsoft, for instance, has suggested that the Commission provide categorical waivers for Section 716 requirements for “those services in which advanced communication services are incidental to the primary purpose of the product or service.” Incidental or not, advance communication service features should be covered, no matter what the device, in accordance with the “achievability” requirements of the Accessibility Act. To do otherwise would limit the use of products or a category of products solely because an industry claims the features to be “incidental.” If advance communication services were not deemed to be important for people without disabilities, they would not have been included in given products. It is illogical to believe that a feature that is useful to someone without a disability should, at the same time, be considered unnecessary to someone with a disability. So long as they are included, their inclusion must be sufficient for considering the product covered.

Should the Commission, for any reason, determine that categorical waivers are in order, ACB’s recommendation is that such waivers for a covered device or category of devices only be granted for a term whose length shall not exceed more than 12 months. Manufacturers or service providers seeking these waivers must return to the FCC at the end of such a term to receive a redetermination regarding the status of the waiver.

Similar to categorical waivers for classes of devices, ACB is opposed to granting waivers for all “small entities” without such entities having done due diligence on whether or not product accessibility is “achievable.” As discussed in prior sections, the “achievability” standard is multifaceted. A small entity, for instance, may only be required to make minor alterations to their product in order to achieve accessibility. Once again, a case-by-case approach to granting waivers would better serve the needs of consumers.

Should, for any reason, the Commission determine that categorical waivers are in order for “small entities,” it is ACB’s recommendation is such waivers for covered small entities in question only be granted for a term whose length shall not exceed more than 12 months.

Manufacturers or service providers seeking these waivers must return to the FCC at the end of such a term to receive a redetermination regarding the status of the waiver.

### 3. Rule of Construction

The rule of construction that manufacturers are not required to make every feature and function of every device accessible to every disability clarifies the fact that there will be given instances where accessibility of some features of certain multi-function devices may be “not achievable” for every disability. This certainly does not imply that manufacturers or service providers must only make devices accessible to one segment of the disabled population. To the extent achievable, all functions of covered devices must be made accessible to as many categories of people with disabilities as possible. This rule of construction is a mere recognition of the fact that some features of some devices may not be accessible to all consumers with disabilities.

### 4. Other Issues

It is necessary that the commission consider the limitations placed on accessibility of “customized” equipment to ensure that minor customizations such as visual design changes or changes to make products attractable to specific market segments do not affect accessibility in

general. Service providers and manufacturers must still be able to meet the “achievable” standard. Specific market segments such as public schools or enterprises often employ or work with people with disabilities. The covered equipment and software must be made accessible to these individuals. The limitations on “customized” equipment must only apply to the “customized” portion of the equipment and service in question so that persons who are blind, visually impaired, or deaf-blind can continue to use the noncustomized parts of the equipment. In addition, ACB believes that the definition of “public” must encompass public institutions such as schools and government entities.

#### IV. Section 717 Requirements

ACB has found that, due to procedures established by the Commission in the past, the data collection and enforcement mechanisms for Section 255 compliance have severely lacked in effectiveness. The general set of requirements in Section 717 with respect to monitoring and enforcement of Sections 255, 716 and 718 go a long way toward assuring ACB that more effective reporting and enforcement is possible. Particularly, covering Section 255 in the reporting requirements established under Section 717 will allow the FCC to consolidate differing mechanisms, allow persons with disabilities to understand a single set of procedures, and allow manufacturers and service providers to reach the ultimate goal of incorporating accessibility considerations as a part of their general, day-to-day operations.

It is simply untrue, as some of the comments to this Commission request state, that the lack of complaints regarding the lack of accessibility to equipment such as Voice over IP or wireless devices means that the industry is doing an adequate job in providing access. In fact, the lack of complaints is a direct result of inadequate effort on the FCC’s part to hold anyone responsible for even Section 255 access. ACB must posit to organizations such as Voice On the Net and

Verizon that to think that lack of complaints directly implies compliance is a logical and factual fallacy.

With Gov 2.0 efforts transforming the way information is conveyed to the public and the federal government making a concerted effort to release significant amount of data regarding government operations, effects of the Accessibility Act should be openly tracked by the public. This can occur if the FCC makes datasets available regarding various aspects of this law. The datasets would provide detailed aggregate information on such things as: (1) complaints; (2) resolutions; (3) waivers sought; or (4) waivers granted. In order for such a dataset to have sufficient information to be effective, the Commission will need to gather data systematically. Relying on complaints alone will be neither adequate nor particularly effective. Efforts should be made to gather as much data regarding the work that manufacturers and service providers are doing in making products accessible. The criteria that ACB has laid out in other sections of these comments will provide starting points for questions that the FCC should consider while collecting data. The questions of covered equipment and software, technical and financial feasibility, organizational readiness, as well as partnerships with groups of people with disabilities will be answered by a long-term analysis of the datasets. If the Accessibility Act is to be successful in what it intends, it will have to foster multi-level partnerships among service providers, manufacturers, disability groups (including users with disabilities), and the Commission. Only properly collected and compiled data can show in the long-term whether or not this mission has been successful.

ACB urges the FCC to consider with care the need for data collection and compilation. In this, this organization certainly recognizes that some proprietary information cannot be shared nor can the requirements be so burdensome that it affects the ability to do the actual work. However processes must be in place to verify the reports being provided by manufacturers and service

providers. While ACB can imagine the complaints procedures serving in this capacity, it must not be the only means. A process of compliance only driven by complaints has not proven to be historically effective in any manner. Active participation from various disability groups must serve to verify the data being provided. A permanent advisory body that considers complaints, their validity, organizational responses, and other matters related to reporting could serve as the means of ensuring effectiveness. As a representative advisory body--which not only represents various disability groups but represents industry partners as well--this group will be able to sift through data and consider patterns as well as advise the Commission on potential actions. In particular, the advisory group can help the FCC in understanding the rapidly changing technological landscape as it relates to various aspects of accessibility to software and equipment.

This advisory group must, however, be supported by dedicated staff resources by the FCC. Not only will this help sift the data that the Commission will collect, this will help enforcement efforts. It will be absolutely essential that dedicated staff is made available for enforcement purposes to avoid the lack of enforcement that has occurred for Section 255 related complaints in the past. Through this staff or other means, the FCC must be able to evaluate the claims of noncompliance and justifications that are given by manufacturers and service providers. A careful consideration of the layers of evaluative criteria listed in other sections will suggest processes that ACB considers adequate. Service providers and manufacturers must be able to show that there is an overall progress toward accessibility of products and services in question. When necessary, the FCC cannot hesitate in levying the fines established under the Accessibility Act.

## V. Section 718 Requirements

In this modern day and age, the ubiquity of the web is taken for granted. The growth of mobile devices has fueled a surge in services that are specific to the “mobile life.” Along with the myriad of “apps” being developed for a variety of purposes, the web browser is serving other needs that cannot be met by applications. With the advent of HTML5-based technologies, the browser on mobile devices is poised to become a must-have part of the mobile experience. It is unsurprising, therefore, that Section 718 requirements specifically target accessibility to the web browser on mobile devices.

As the market place currently stands, multiple technologies in addition to simple HTML and XHTML are vying for supremacy in rendering content through the web browser. Flash, a multimedia content renderer from Adobe—which has dominated the area of video and animation on the web—is rivaled by the upcoming standards-based HTML5 set of technologies. Similarly, Silverlight is a set of technologies utilized by Microsoft in their products. What technology ultimately dominates the market place is unclear. It is uncertain that a single technology will do so; nor is that relevant. Nonetheless, these technologies or their successors will affect how web content is rendered to blind or visually impaired people. Their accessibility is highly relevant as manufacturers and service providers consider making web browsers accessible.

In consideration of the previously discussed issue regarding service providers and manufacturers not using technologies or policies to block information content that has been made accessible, full access to the browser will require that technologies such as Flash, Silverlight, HTML5, or any others that allow information content to be rendered are made accessible. For instance, videos with audio description must be passed through; but, even more important, it will be important that users are able to access these videos by having full access to the rendering technologies through the browser. Often times, such things as video controls are rendered

unusable for people who are blind or visually impaired when using technologies such as Flash or Silverlight.

Discussion regarding “achievable” and “nominal costs” should not differ for making web browsers accessible. ACB can think of no additional factors that would affect the process of making web browsers accessible by integrating accessibility directly onto the device in question or by using a third-party solution. Similar factors also affect using additional peripherals or specialized customer premise equipment.

Respectfully submitted,  
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