

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Closed Captioning of Internet Protocol-Delivered Video Programming:	)	MB Docket No. 11-154
Implementation of the Twenty-First Century	)	
Communications and Video Accessibility Act	)	
of 2010	)	

**COMMENTS OF CTIA-THE WIRELESS ASSOCIATION®**

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**COMMENTS OF CTIA-THE WIRELESS ASSOCIATION®**

CTIA-The Wireless Association® (“CTIA”)<sup>1/</sup> hereby submits these comments in response to the Notice of Proposed Rulemaking (“NPRM”) issued by the Federal Communications Commission (“Commission” or “FCC”) pursuant to the Twenty-First Century Communications and Video Accessibility Act of 2010, seeking comment on proposed rules regarding closed captioning on certain video programming delivered using Internet protocol (“IP”).<sup>2/</sup> The wireless industry commends the Commission for striving to ensure that consumers, including individuals who are deaf or hard of hearing, can receive the full benefits of the emerging IP-delivered video programming market. As the Commission implements the Act’s closed captioning requirements, it is important that the Commission’s regulations foster an environment where video over mobile can emerge as a true competitor to traditional video distribution. Specifically, CTIA believes that the Commission should take the following steps:

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<sup>1/</sup> CTIA – The Wireless Association® is the international organization of the wireless communications industry for both wireless carriers and manufacturers. Membership in the organization includes Commercial Mobile Radio Service providers and manufacturers, including cellular, Advanced Wireless Service, 700 MHz, broadband PCS, and ESMR, as well as providers and manufacturers of wireless data services and products.

<sup>2/</sup> See *Closed Captioning of Internet Protocol-Delivered Video Programming: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Notice of Proposed Rulemaking, MB Docket No. 11-154, FCC 11-138 (rel. Sept. 19, 2011) (“NPRM”); Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260, 124 Stat. 2751 (2010) (as codified in various sections of 47 U.S.C.) (the “CVAA” or “Act”).

- Exempt mobile service providers and manufacturers from complying with Sections 202 and 203 until a stable market for video over mobile can be achieved;
- Define “technically feasible” as “demonstrably capable of accomplishment without technical or operational concerns” and, under this definition, waive the requirement to incorporate closed captioning across a diverse range of mobile devices; and
- Consider the unique technical and operational challenges that mobile service providers and manufacturers will face if the Commission applies closed captioning rules to the nascent video over mobile environment.

### **INTRODUCTION AND SUMMARY**

The marketplace for the delivery of video content has evolved tremendously over the last several years, with more and more providers offering video services to consumers, including the deaf and hard-of-hearing communities, over a wide range of distribution technologies. The wireless industry is committed to fostering these advancements and ensuring that mobile video technologies are made available and are usable by persons with disabilities. As part of this commitment, CTIA and its member companies have taken steps to increase the awareness of accessible wireless solutions for persons of all abilities through our website [AccessWireless.org](http://AccessWireless.org), which provides individuals with disabilities comprehensive and up-to-date information about and resources for accessible wireless handsets, services and applications. The issues raised by this *NPRM* present unique challenges for the wireless industry: while wireless equipment manufacturers and service providers have substantial experience ensuring access to telecommunications and are committed to providing access to advanced communication services, their ability and experience in the delivery and provision of video programming is still in its infancy.

Today, American mobile subscribers are just beginning to consider their mobile phones as an alternative to traditional video programming distribution mechanisms, such as broadcast, cable or satellite services. A recent study showed that activities such as watching video “are almost entirely confined to the smartphone population,” and that one third of American adults, or 35%, owns a smartphone of some kind.<sup>3/</sup> Further, 54% of those individuals that own smartphones use them for watching video programming.<sup>4/</sup> While the entire wireless ecosystem is actively exploring how to make video over mobile a more prominent aspect of the suite of wireless service offerings, the video over mobile market is still very much a work in progress.

Consistent with the Commission’s previous efforts to protect and promote emerging markets for video distribution,<sup>5/</sup> the Commission should exempt mobile service providers and manufacturers from the closed captioning requirements of Sections 202 and 203 of the Act until a stable market for video over mobile can be achieved. Mobile devices have the potential to bring to American consumers greater choice and flexibility with respect to video programming. Mobile services and devices may allow video content to be viewed anywhere and at anytime and become a true competitor to traditional video programming distribution mechanisms. As it has done in other contexts, the Commission should allow these new service offerings and technologies to grow, develop and emerge as meaningful participants in the video distribution marketplace, rather than adopting regulations that would effectively limit or delay the ability of

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<sup>3/</sup> Aaron Smith, Senior Research Specialist, *Americans and Their Cell Phones*, Pew Research Center, at 3 (August 2011), available at <http://pewinternet.org/Reports/2011/Cell-Phones.aspx> (“Pew Study”). See also CTIA Semi-Annual Survey (rel. Oct. 11, 2011) (noting that there were 95.8 million active smartphones or wireless enabled-PDAs among 327.6 million U.S. wireless subscriber connections from January to June 2011) available at <http://www.ctia.org/media/press/body.cfm/prid/2133> (last visited Oct. 17, 2011).

<sup>4/</sup> See *id.*

<sup>5/</sup> See *Implementation of Section 25 of the Cable Television and Consumer Protection Act of 1992; Direct Broadcast Satellite Public Interest Obligations*, Report and Order, 13 FCC Rcd 23254, ¶¶ 62-64 (1998) (“DBS Order”) (exempting DBS from children’s programming requirements).

mobile video to flourish. Refraining from imposing too many regulations too early in the service offering's development will enable the wireless industry to continue to work together with consumers to develop accessible solutions and implement such solutions as they deploy their products and services.

The Commission has clear authority under the CVAA to exempt classes of service providers or manufacturers from the Act's requirements, and mobile service providers and manufacturers fall squarely within Congress' intended purpose for granting such authority. Section 202 provides the Commission with the authority to determine that it is "economically burdensome" for mobile service providers to comply with the proposed closed captioning requirements. Under Section 203, the Commission can exempt manufacturers of mobile devices because mobile devices, unlike devices primarily designed to receive and display video programming, are "designed for multiple purposes," including voice, text and multi-media functions, and do not derive their "essential utility" from receiving or playing back video programming transmitted simultaneously with sound.

Even if the Commission declines to exempt mobile service providers and manufacturers from the Act's closed captioning requirements, Section 203's requirements apply only where incorporating built-in captioning capability is "technically feasible." The market for video over mobile is still developing and there is tremendous technical and operational uncertainty in the wireless environment over whether captioning as envisioned by the Act is possible and how such captioning can be accomplished. As it would be impossible for the Commission to delineate clear rules only for certain mobile devices that currently support closed captioning on specific video formats, the Commission should waive the application of these rules to all mobile devices

until further study of closed captioning standards in the mobile environment have been completed.

In the event that the Commission declines to grant an exemption from its closed captioning requirements or find that compliance is not technically feasible, the Commission should at the very least account for the unique challenges raised in the mobile arena when adopting its rules. Mobile devices, as assembled pieces of equipment, cannot be expected to receive and display closed captioning if they do not have, and the manufacturer did not intend them to have, the capability to receive and play back video programming when sold. Mobile device manufacturers must have the flexibility to determine the range of closed captioning features or user-controlled capabilities that should be incorporated into mobile device. Further, the Commission should not subject mobile devices, which may be utilized in many different manners, to any duplicative or potentially conflicting regulations.

By allowing the nascent market for mobile video to develop free of the burden and uncertainty of the proposed regulations, the Commission can create the best environment for ensuring that these products and services are accessible to all consumers, including the deaf and hard of hearing communities, as quickly and efficiently as possible. CTIA and its member companies are committed to achieving this goal.

**I. MOBILE DEVICES AND SERVICES SHOULD BE EXEMPTED FROM APPLICATION OF THE FCC'S PROPOSED CLOSED CAPTIONING RULES UNDER SECTIONS 202 AND 203 OF THE CVAA UNTIL A STABLE MARKET FOR VIDEO OVER MOBILE CAN BE ACHIEVED.**

Wireless devices and services are beginning to offer consumers the ability to view the video content of their choice, and the Commission's rules must strive to encourage this developing competition and avoid hindering innovation in this arena.

**A. The Potential Consumer Benefits For Video Over Mobile Are Just Beginning.**

Wireless communications device manufacturers and service providers have made tremendous strides in creating and developing innovative technologies to enable consumers to view video programming over their mobile devices. Several wireless carriers currently offer their subscribers the opportunity to view and download live and on-demand video programming over certain mobile devices and platforms. For instance, AT&T, Inc. offers U-Verse Live TV to its wireless subscribers, which enables consumers to view live breaking news, sports programming, and hundreds of full-episode on-demand shows from networks like MTV, Disney Channel, FOX News, Comedy Central, and ABC Mobile.<sup>6/</sup> Verizon Wireless offers Verizon Video, which allows subscribers to enjoy unlimited, on-demand access to numerous full-episodes of television shows, local and national news programming, and live and recorded sports and entertainment programming.<sup>7/</sup> Sprint Nextel Corp. and T-Mobile USA, Inc. both provide similar offerings to their consumers as well.<sup>8/</sup> Video content is also increasingly available from an innumerable variety of third party application providers.

As subscribers are just beginning to consider these offerings, the full potential of video over mobile has not been realized. Video content over mobile devices is an entirely new method of distribution and is fundamentally different than distributing video programming over

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<sup>6/</sup> See AT&T U-Verse Live TV for iPhone and iPod touch, Android and Blackberry® Torch, available at <http://attuniverselivetv.att.com/> (last visited October 17, 2011).

<sup>7/</sup> See Verizon Video: Overview, available at [http://products.verizonwireless.com/index.aspx?id=fnd\\_video](http://products.verizonwireless.com/index.aspx?id=fnd_video) (last visited October 17, 2011).

<sup>8/</sup> See, e.g., T-Mobile TV, available at <http://apps.t-mobile.com/mobile-tv/> (last visited October 17, 2011) (describing T-Mobile TV Prime, which permits subscribers to view news, comedy and full-episodes of kids' programming); Sprint TV, available at <http://www1.sprintpcs.com/explore/ueContent.jsp?scTopic=multimedia192> (last visited October 17, 2011) (offering programming to mobile device consumers through its standard Sprint TV and premium packages).

traditional broadcast, cable or satellite services because of the diversity of wireless network and device capabilities. At this time, the market is still changing and providers are experimenting with many different business models and approaches. Indeed, many of the video over mobile efforts that the Commission has noted in past video competition reports have failed to come to fruition and have since been replaced by new concepts and approaches.<sup>9/</sup>

Given the nascent nature of video over mobile – and the still-changing nature of its format and means of delivery – service providers and manufacturers currently offer only the most basic video content features. While progress has been made, the ability for closed captioning to be rendered along with video programming across a diverse range of mobile devices and platforms is unclear. For example, several of the major Internet video streaming services, including Netflix and Hulu, have also struggled to develop closed captioning capabilities for not only their mobile device software but for their PC software as well.<sup>10/</sup>

Moreover, any requirements imposed on the nascent video over mobile market will impact the

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<sup>9/</sup> For instance, in its 2009 *Thirteenth Annual Report*, the Commission observed that Crown Castle, through its subsidiary Modeo, was running trials of its mobile television service using Digital Video Broadcast–Handset (“DVB-H”) mobile video technology. *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Annual Report, 24 FCC Rcd 542, ¶ 147 (2009). Similarly, Aloha Partners, through its subsidiary Hiwire, was planning on offering its own mobile television service using DVB-H technology. *See id.* ¶ 148. None of these service offerings, however, is available today. Both companies have since abandoned their mobile television plans and sold or leased their spectrum. *See Om Malik, Crown Castle Switches Off its Mobile TV*, GIGAOM (July 24, 2007), available at <http://gigaom.com/2007/07/24/crown-castle-turns-off-mobile-tv/> (noting that Crown Castle has decided to rent its spectrum “to a joint venture between Telcom Ventures and Columbia Capital for about \$13 million.”); Dan Frommer, *As AT&T Bulks Up On Spectrum, Another Mobile TV Plan Fizzles*, BUSINESS INSIDER (October 9, 2007), available at [http://articles.businessinsider.com/2007-10-09/tech/30099770\\_1\\_mobile-tv-service-modeo-t-mobile#ixzz1afvtxV1H](http://articles.businessinsider.com/2007-10-09/tech/30099770_1_mobile-tv-service-modeo-t-mobile#ixzz1afvtxV1H) (reporting that Hiwire “had expressed plans to launch a nationwide mobile TV service”, but instead sold its spectrum to AT&T).

<sup>10/</sup> *See Ryan Lawler, Netflix Adds Subtitles to iPad, iPhone App*, GIGAOM, (May 13, 2011), available at <http://gigaom.com/video/netflix-subtitles-ipad-iphone/> (noting the difficulty of adding subtitles to consumer electronic devices, particularly since it must “update applications across multiple devices and app platforms individually.”); *Closed Captioning on Hulu Plus Devices*, available at <http://www.hulu.com/support/article/354280> (explaining that closed captioning is available only on certain devices, none of which is a mobile device) (last visited October 17, 2011).

cost at which such services may be offered to consumers. At this early stage, it is unclear what costs consumers are willing to accept for the convenience of video over mobile.

Although some mobile devices are currently capable of displaying closed captioning, such capabilities have only been made available recently and typically involve situations where technical standards have been prearranged between the device manufacturer and video content provider pursuant to a private agreement. It is unclear whether mobile devices can be manufactured to receive and render closed captioning from every IP-delivered video programming provider if, for example, a subscriber sought to access a programming provider's website over their mobile phone. Such technologies are still under development and will likely take time to be adapted for the mobile market.

**B. The Commission Can Best Protect And Promote The Emerging Market For Video Over Mobile By Judiciously Applying Any Regulatory Requirements.**

The Commission has routinely sought to increase competition in the video distribution market, and the Commission should strive to implement the CVAA in a manner that does not overlook or interfere with this important policy goal.<sup>11/</sup> Indeed, when the Commission first implemented closed captioning rules on television, it emphasized the need to design rules that would also “promote competition among sources of video programming, . . . maintain competition among video programming distributors regardless of the technologies used, continue to foster diversity of video programming and encourage new types of video programming to

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<sup>11/</sup> See *Implementation of Section 19 of the 1992 Cable Act (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming)*, First Report, 9 FCC Rcd 7442, ¶¶ 1-10 (1994) (describing the Commission's congressional mandate to report “on the status of competition in the market for the delivery of video programming” to encourage the growth of diverse sources of information); 47 U.S.C. §§ 628(g), 548(g). The Commission has repeatedly emphasized this goal in all subsequent video competition reports.

become available to all viewers.”<sup>12/</sup> This same goal holds true today.

Mobile devices and services have the potential to develop as true sources of competition to traditional video distributors, but not if manufacturers and service providers must surmount substantial technical and financial difficulties to enter the market. The Commission has frequently recognized that burdensome regulation can stifle a newly developing service offering in a manner that makes it less likely that consumers will see the competitive benefits of such new offerings. For this reason, the Commission has appropriately struck a balance in its regulations so that new sources of video competition have the best chances of succeeding by limiting their exposure to burdensome requirements. Once these new competitors have a firm footing in the market, the Commission can easily adapt its rules to require them to meet the full complement of regulations it deems necessary.

In 1998, for example, the Commission declined to impose certain public interest programming requirements on Direct Broadcast Satellite (“DBS”) providers, including rules governing commercials in children’s programming, to allow such providers the opportunity to become viable competitors to traditional video distributors.<sup>13/</sup> The Commission explained that “DBS is still a relatively young industry and we decline to impose any additional obligations on the DBS industry before we see how DBS serves the public. . . . Any further obligations imposed on it would be burdensome at this time and could prevent it from realizing its potential as a robust multichannel competitor to cable.”<sup>14/</sup> The Commission noted that it would reexamine

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<sup>12/</sup> *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, 3278-79 ¶ 14 (1997) (“1997 Captioning Order”), *recon. granted in part, Order on Reconsideration*, 13 FCC Rcd 19973 (1998).

<sup>13/</sup> See *DBS Order* at ¶¶ 62-64.

<sup>14/</sup> *Id.* ¶ 64.

the issue if it became evident that regulatory intervention was needed.<sup>15/</sup> In 2004, the FCC revisited the issue and found that commercial limits on children’s programming should be applied to DBS providers based on the growth, penetration level, and technological advances that DBS had made since 1998.<sup>16/</sup>

Similarly, when Voice over Internet protocol (“VoIP”) service first emerged in the market, the Commission refrained from immediately imposing regulations on it, even those that served an important public benefit. While the Commission recognized regulation of VoIP services as an issue as early as 1998,<sup>17/</sup> it took no action at that time. In 2004, in an order preempting state regulation of VoIP services, the Commission, while acknowledging that “important social policy issues” surrounding the service “should be considered and resolved,” said that “unnecessary economic regulation of [VoIP]” should be avoided and that its action prohibiting regulation would “clear the way for increased investment and innovation in [VoIP] services . . . to the benefit of American consumers.”<sup>18/</sup> It was not until the next year that the Commission applied its first regulatory obligation on interconnected VoIP services – the requirement to provide 9-1-1 emergency calling capabilities.<sup>19/</sup> Since then, a limited number of additional regulatory requirements have been applied by the Commission over intervening years, but overall the Commission’s approach to regulating VoIP services remains consistent with its

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<sup>15/</sup> See *id.*

<sup>16/</sup> See *Implementation of Section 25 of the Cable Television and Consumer Protection Act of 1992; Direct Broadcast Satellite Public Interest Obligations; Sua Sponte Reconsideration*, Second Order on Reconsideration of First Report and Order, 19 FCC Rcd 5647, ¶ 48 (2004).

<sup>17/</sup> See *IP-Enabled Services*, Notice of Proposed Rulemaking, 19 FCC Rcd 4863, ¶ 29 (2004).

<sup>18/</sup> *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404, §§ 2, 43 (2004), *aff’d sub nom, Minn. Pub. Util. Comm’n v. FCC*, 483 F.3d 570 (8th Cir. 2007).

<sup>19/</sup> See *E911 Requirements for IP-Enabled Service Providers*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245 (2005).

expressed commitment “to allowing these services to evolve without undue regulation” to allow them to become true competitors in the voice market.<sup>20/</sup>

The Commission should utilize the same approach here by creating an exemption for mobile service providers and manufacturers from complying with Sections 202 and 203. Once it is clear that there is a stable market for video over mobile, such that it is technologically feasible and achievable for mobile service providers and manufacturers to offer it on a more substantial basis, the Commission can consider whether and how to apply the closed captioning regulations designed for traditional video programming environments. Such an exemption would not deter the wireless industry from continuing to work on developing mobile captioning capabilities in the meantime, and CTIA supports a process whereby the Commission periodically reviews the market to assist with this determination.

**C. The Commission Has Full Authority To Waive Section 202 And 203’s Requirements For Mobile Devices.**

The CVAA gives the Commission full authority to grant a waiver of both Section 202 and 203 for mobile service providers and device manufacturers. Under Section 202, the Commission may grant a waiver from its requirements whenever it determines that application of those provisions would be economically burdensome.<sup>21/</sup> The Commission notes that in 1997, pursuant to that same standard, it adopted a number of categorical exemptions from closed captioning requirements on television.<sup>22/</sup> Such exemptions under the “economically burdensome” standard included “specific classes of situations where captioning would be difficult or technically infeasible, . . . would create severe logistical problems, or the economic

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<sup>20/</sup> *Id.* ¶ 4.

<sup>21/</sup> *See* 47 U.S.C. § 713(c)(2)(C).

<sup>22/</sup> *See NPRM* ¶ 32.

support for the programming is inherently fragile.”<sup>23/</sup> The Commission found that “[i]n such cases . . . the benefits of captioning will not offset the economic burden that would be imposed by a captioning requirement.”<sup>24/</sup> Thus, it found that the “economically burdensome” standard should not focus solely on a provider’s ability to assume the expense of closed captioning, but rather on a cost-benefit analysis of whether imposing those costs on the provider at that time was a sound decision.<sup>25/</sup>

Applying this same standard, the Commission should create an exemption for mobile service providers. Just as the Commission in 1997 exempted new programming networks because it “d[id] not intend [its] closed captioning requirements to inhibit new sources of video programming due to [its] interest in fostering diversity in video programming,”<sup>26/</sup> exempting mobile video from captioning requirements would promote video competition now.

For purposes of Section 203, the CVAA explicitly authorizes the Commission to grant waivers for mobile devices that do not derive their “essential utility” from receiving or playing back video programming.<sup>27/</sup> Mobile devices should be exempt under this standard. They are increasingly designed for multiple uses including voice, text, and multi-media functions such as gaming, music and video. A recent study, however, shows that most Americans are just beginning to adopt video programming over their mobile devices. Among the 15 uses of mobile devices tracked by the study, “watching a video” ranks behind other mobile device uses,

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<sup>23/</sup> *1997 Captioning Order* ¶ 145.

<sup>24/</sup> *Id.*

<sup>25/</sup> The Commission made clear that these situations for which it granted an exemption under the economically burdensome standard were different from the situation in which “the economic underpinnings of the video programming provider in question cannot support the additional expense involved with captioning.” *Id.*

<sup>26/</sup> *1997 Captioning Order* ¶ 154.

<sup>27/</sup> *See NPRM* ¶ 49 (citing 47 U.S.C. § 303(u)(2)(C)).

including texting, playing music, and playing games.<sup>28/</sup> Given the range of uses that mobile devices support, the Commission should not find that mobile devices derive their “essential utility” from video capabilities.

In determining a device’s essential utility, the Commission determination must focus on the manufacturer’s primary design purpose, not how it is used in the marketplace. Once a product is available in the market, a manufacturer cannot control the manner in which it is used and may not even know how it is being used. Indeed, the Commission has acknowledged that such an evaluation must include “an analysis of the facts available to the manufacturer or provider and *their intent* during the design phase.”<sup>29/</sup> It should not include “an examination of post-design uses that consumers may find for a product.”<sup>30/</sup>

Moreover, as CTIA has explained,<sup>31/</sup> it is extremely important that manufacturers have clear notice *well in advance* of introducing a product into the market of whether or not it will be subject to accessibility requirements. Covered entities need certainty and predictability about which products and services are covered. Accessibility considerations – and their associated needs and costs – must be evaluated and incorporated early in the design process, and certainly well before a product or service launch.<sup>32/</sup> Focusing on post-marketed uses to determine

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<sup>28/</sup> See Pew Study at 3.

<sup>29/</sup> *Implementation of Sections 716 and 717 of the Communications Act of 1934, as Enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010*, etc., CG Docket No. 10-213, Report and Order and Further Notice of Proposed Rulemaking, FCC 11-151, ¶ 183 (rel. Oct. 7, 2011) (“Advanced Communications Services Report and Order and FNPRM”)(emphasis added).

<sup>30/</sup> *Id.*

<sup>31/</sup> See Comments of CTIA-The Wireless Association, CG Docket No. 10-213, 16-17 (April 25, 2011).

<sup>32/</sup> See *Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, Policy Statement and Second Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 11167, ¶ 18 (2010) (stating “given that consideration of accessibility from the outset is more efficient than identifying and applying solutions retroactively, [the Commission] intend[s] for developers of new technologies to consider and plan for hearing aid compatibility at the earliest stages of the product

coverage would deprive industry of this needed certainty.

Importantly, the FCC’s ability to grant a waiver of Section 202 or 203 is not related to whether or not meeting those requirements is “achievable.” The Commission’s ability to grant waivers under the CVAA is addressed in provisions of the Act separate from the provisions directing that compliance be “achievable” and listing the specific factors that the Commission is directed to consider when evaluating achievability. The Commission must give each of those provisions separate effect, not collapse them into one inquiry.<sup>33/</sup>

## **II. WHETHER INCORPORATING CLOSED CAPTIONING CAPABILITY ACROSS A DIVERSE RANGE OF MOBILE DEVICES IS TECHNICALLY FEASIBLE REQUIRES FURTHER STUDY.**

Even if the Commission does not grant a waiver from Section 203’s requirements to all mobile device manufacturers on the grounds that mobile devices are intended for multiple uses, and do not derive their “essential utility” from receiving and displaying video programming, Section 203’s requirements apply only where incorporating built-in capability to display and render closed captions is “technically feasible.”<sup>34/</sup> There is scant evidence to suggest that such capabilities are technically feasible for all mobile devices capable of video playback across a diverse IP-delivered video programming ecosystem. As it would be impossible for the Commission to delineate clear rules only for the certain mobile devices that currently support closed captioning on specific video formats, the Commission should waive the application of these rules to all mobile devices until further study of closed captioning standards in the mobile environment has been completed.

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design process.”).

<sup>33/</sup> See, e.g., *Walters v. Metropolitan Educational Enterprises, Inc.*, 519 U.S. 202, 209 (1997) (“Statutes must be interpreted, if possible, to give each word some operative effect.”); *United States v. Menasche*, 348 U.S. 528, 538-39 (1955) (“It is our duty ‘to give effect, if possible, to every clause and word of a statute...rather than to emasculate an entire section.’”).

<sup>34/</sup> See *NPRM* ¶ 49 (citing 47 U.S.C. § 303(u)(1)(A)).

**A. “Technically Feasible” Means Demonstrably Capable Of Accomplishment Without Technical Or Operational Concerns.**

The Act establishes a requirement that devices must comply with Section 203 “if technically feasible,”<sup>35/</sup> separate and apart from any considerations of “achievable.” Although, as the Commission notes, the CVAA does not provide any guidance on what it means to be “technically feasible,” the only reasonable reading of the Act that gives effect to both provisions is that “technical feasibility” must mean something different from achievability. The Commission should examine any limitations to including closed captioning capability in devices solely on technical grounds.

The Commission, in other contexts, has defined technical feasibility by reference to whether an action is “capable of accomplishment as evidenced by prior success under similar circumstances”<sup>36/</sup> and where there are no “technical or operational concerns that prevent the fulfillment of”<sup>37/</sup> the requirements. It has further found that the determination of technical feasibility does not consider economic or other issues beyond technical feasibility.<sup>38/</sup> The Commission should apply a similar test here, and find that “technically feasible” means demonstrably capable of accomplishment without technical or operational concerns. Under such an approach, the Commission would consider something technically feasible if both a technical solution already exists in the market that enables compliance, and use of that solution does not hinder or interfere with other technical needs of the device or operational needs of the manufacturer.

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<sup>35/</sup> 47 U.S.C. § 303(u)(1)(A).

<sup>36/</sup> 47 C.F.R. § 54.5.

<sup>37/</sup> *Id.* § 51.5.

<sup>38/</sup> *See, e.g.*, 47 C.F.R. §§ 51.5, 54.5.

**B. Further Study Is Needed To Determine Whether Closed Captioning Is “Technically Feasible” For All Mobile Devices Capable of Video Playback.**

Pursuant to the test set forth above, the Commission should determine that it is not yet clear that implementing closed captioning capability on all mobile devices capable of video playback is “technically feasible” on a widespread basis and it is certainly not “demonstrably capable of accomplishment.” Mobile devices may face numerous technical and operational barriers to rendering and passing through closed captioning – specifically, the lack of any operational experience with captioning, the lack of any standard format in the wireless industry for delivering captions, the fact that viewers may seek to access programming that uses numerous different standards, and the burden on industry if it is required to build in the capability to view captions without knowing in advance how those captions might be delivered. Requiring compliance would be unduly burdensome to manufacturers and, given the resources and capacity that compliance would require, restrict industry innovation because manufacturers might be unable to add different, more valuable features and options to their products.

As acknowledged in the NPRM, video content is delivered in the IP context in various formats using several different standards.<sup>39/</sup> The report issued by the Video Programming Accessibility Advisory Committee (“VPAAC”) confirms that no single standard has been adopted yet and demonstrates that what is even technically possible in the wireless context is highly uncertain.<sup>40/</sup> Compliance with Section 203 may require mobile devices to include the capability to support all conceivable delivery file formats utilized by video programming

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<sup>39/</sup> See NPRM ¶ 57.

<sup>40/</sup> See *First Report of the Video Programming Accessibility Advisory Committee on the Twenty-First Century Communications and Video Accessibility Act of 2010: Closed Captioning of Video Programming Delivered Using Internet Protocol*, at 27 (July 13, 2011), available at [http://transition.fcc.gov/cgb/dro/VPAAC/First\\_VPAAC\\_Report\\_to\\_the\\_FCC\\_7-11-11\\_FINAL.pdf](http://transition.fcc.gov/cgb/dro/VPAAC/First_VPAAC_Report_to_the_FCC_7-11-11_FINAL.pdf) (“VPAAC Report”).

distributors and providers. Mobile devices have a diverse range of power and processing capabilities. Including even a few delivery file formats could interfere with the intended function of the device and might prevent users from being able to add features or options that they desire.

Certain classes of devices, including feature phones and devices with small screen sizes, face even greater technical challenges. Because these devices have limited screen sizes and processing capability, images and text can be displayed only in very low resolution. On tiny screens, captions would have to be delivered in extremely small font. These limitations would make the captions virtually useless. Consequently, manufacturers cannot effectively “render” captions in any meaningful way on these devices as required.

The Commission has previously determined that technical complications and the need for further technological developments warrant a waiver of its regulations. For instance, in 2002, the FCC granted a waiver to WorldCom, Inc., an IP relay service provider, of certain mandatory minimum standards applicable Telecommunications Relay Service (“TRS”) rules, including emergency call handling, voice carry over, and speech-to-speech standards.<sup>41/</sup> The Commission explained that it would be unreasonable for it to require IP relay providers to perform functions that they could not yet handle and that “technology and the marketplace should drive the pace at which Internet-based relay providers resolve the problems involved with providing voice access to IP Relay.”<sup>42/</sup> The Commission added that it would require IP relay providers to meet the TRS minimum standards “once the technology is sufficiently mature to permit them to do so.”<sup>43/</sup> The

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<sup>41/</sup> See *In the Matter of Provision of Improved Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Declaratory Ruling and Second Further Notice of Rulemaking, 17 FCC Rcd 7779, ¶¶ 30-33 (2002).

<sup>42/</sup> *Id.* ¶ 32.

<sup>43/</sup> *Id.* ¶ 33.

Commission should likewise hold here that the technical barriers and lack of certainty in the mobile market warrant an exemption of Section 203's requirement for mobile devices until such time that those issues are resolved on the grounds that compliance is not "technically feasible."

**III. IF MOBILE DEVICES ARE NOT GRANTED A WAIVER OR EXEMPTED FROM THE SCOPE OF THE RULES, THEN ANY RULES MUST ACCOUNT FOR THE UNIQUE ISSUES RAISED BY THE MOBILE ENVIRONMENT.**

If the Commission declines to grant a waiver and decides to apply its closed captioning requirements to mobile devices, then at a minimum, the Commission should take into consideration the unique circumstances facing the mobile market when it adopts its final rules. Mobile devices cannot be expected to include duplicative built-in decoding capability or to meet the same sort of performance and display standards as devices that are designed to receive and play back video. Moreover, the Commission should not adopt rules that would subject mobile devices to potentially conflicting sets of regulations.

**A. The Commission Should Define "Apparatus" As The Finished Piece Of Equipment As Sold By The Manufacturer.**

For purposes of applying Section 203's requirements, the Commission seeks comment on the issue of what constitutes an "apparatus," and asks whether "apparatus" should mean a finished product or its individual components.<sup>44/</sup> The only reasonable response in the mobile context is that a mobile device with multiple components working together should be viewed as a single "apparatus." If every component (or even some subset of components) of a mobile device were viewed as a separate apparatus requiring built-in captioning decoder capability, the complete product would be required to have redundant capabilities at exorbitant cost to the consumer and to the substantial detriment of other functions and capability that might be offered. The intent was clearly that the assembled pieces of equipment offered to the end user have the

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<sup>44/</sup> See *NPRM* ¶ 49.

capability of decoding closed captions; it is up to manufacturers to determine how that requirement is met.

Moreover, an “apparatus” should mean only the product as sold by the manufacturer to the end user. If an apparatus does not have the capability to receive and play back video programming when it is sold, it should not be covered by Section 203. The Commission’s definition of “apparatus” cannot include devices if, after they are sold, applications or other functionality is downloaded by the end user to enable the user to watch video programming over the device, unless the manufacturer specifically makes those applications or functionality available for use with the product. Manufacturers cannot control the manner in which consumers utilize their devices, particularly if a consumer chooses to alter the device. It would be unreasonable to hold manufacturers accountable for the myriad ways in which their devices may be used under these circumstances.<sup>45/</sup>

**B. Certain Capabilities And Standards May Not Be Applicable To Mobile Devices.**

The NPRM seeks comment on the features and specifications that must be supported by Section 203 devices, and proposes to require various user-controlled capabilities, to be retained between viewing sessions, including means of presenting captions (roll-up, pop-on, or paint-on), different fonts, size, opacity, background, character edge attributes, caption window color,

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<sup>45/</sup> See *Advanced Communications Services Report and Order and FNPRM* ¶ 45 note 89 (“Section 2(a) of the CVAA provides that no person shall be liable for a violation of the requirements of the CVAA to the extent that person ‘transmits, routes, or stores in intermediate or transient storage the communications made available through the provision of advanced communications services by a third party’ or who ‘provides an information location tool, such as a directory, index, reference, pointer, menu, guide, user interface, or hypertext link, through which an end user obtains access to such video programming, online content, applications, services, advanced communications services, or equipment used to provide or access advanced communications services.’ Pub. L. No. 111-260, Section 2(a). These limitations on liability do not apply ‘to any person who relies on third-party applications, services, software, hardware, or equipment to comply with the requirements of the [CVAA].’ *Id.* at § 2(b).”)

language selection, and placement of captions on screen.<sup>46/</sup> It is unclear whether such capabilities would be workable or effective in the mobile environment.

As recognized in the VPAAC Report, “[u]ser settings are new to players which support Internet-delivered video, and will require time and effort to implement,” and certain devices simply do not have the technical capabilities to include these features.<sup>47/</sup> Some mobile devices, such as those with limited screen sizes, low resolution, or limited processing capabilities, will be unable to support color choices for caption text or backgrounds, language settings, or placement of captions. For other devices, inclusion of that broad suite of captioning capabilities will come at the very real expense of other features or functions that may be more desired.

The Commission’s proposal to require that captioning of IP-delivered video programming be of at least the same quality as the television captions for that programming also raises concerns in the mobile context.<sup>48/</sup> Unlike traditional video distribution services, which can realistically be held to certain minimum quality of service standards, wireless communications are only beginning to offer services comparable to traditional video distribution. Users of these services accept that there may be limitations because they understand that they are counterbalanced by the tremendous convenience and freedom that users of wireless devices enjoy. Under these constraints, it would be unreasonable to require mobile service providers to guarantee the quality of closed captions transmitted with programming.

**C. Mobile Devices Should Not Be Subject To Multiple, and Potentially Conflicting, Sets Of Regulations.**

Mobile devices, unlike fixed devices over which video is viewed, have multiple capabilities and are used for various purposes, but they should not be subject to more than one

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<sup>46/</sup> See *NPRM* ¶ 56.

<sup>47/</sup> VPAAC Report at 14-15.

<sup>48/</sup> See *NPRM* ¶ 18.

set of closed captioning requirements. Compliance with multiple sets of regulation is confusing, -burdensome and inappropriate for emerging mobile video products.

The CVAA directs the Commission to regulate interconnection devices, requiring that “interconnection mechanisms and standards for digital video source devices [be] available to carry from the source device to the consumer equipment the information necessary to permit or render the display of closed captions,” and the Commission asks what devices should be covered by these requirements.<sup>49/</sup> Mobile devices should be excluded.

In some instances, mobile devices could conceivably be used by consumers to interconnect IP-delivered video to a television so that users could access video content over their mobile device and watch it on their television. However, imposing requirements that mobile devices must be able to recognize and work with standards for interconnection (separate and apart from any requirement to decode and render closed captioning from any IP-based video source) onto televisions or similar devices would be require these devices to function in ways beyond their intended use. “Interconnection mechanism,” therefore, should be defined to exclude mobile devices.

Similarly, the Act imposes separate requirements on devices that consumers use to record video.<sup>50/</sup> Many mobile devices are capable of displaying video programming as well as recording video. Nonetheless, these devices should not be subject to any regulation on this basis. For all the reasons discussed herein, layering additional technical and operational burdens on a nascent mobile video marketplace would interfere with other innovative uses for mobile devices.

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<sup>49/</sup> *Id.* ¶ 55 (citing 47 U.S.C. § 303(z)(2)).

<sup>50/</sup> *See id.* ¶ 54.

## CONCLUSION

For the reasons set forth above, CTIA respectfully requests that the Commission exempt mobile devices and services from the application of its proposed closed captioning rules under Sections 202 and 203 of the Act until a stable market for video over mobile is achieved. To the extent that the Commission determines not to exempt mobile devices from its proposed rules, CTIA asks the FCC to carefully consider the unique technical circumstances facing the mobile environment to ensure that its rules will allow the market for video over mobile to further develop and become a robust competitor to traditional video distributors, ultimately benefitting all American consumers, including the deaf and hard of hearing community.

Respectfully submitted,

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