

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

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

**REPLY COMMENTS OF THE
NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION**

Jill M. Lockett
Senior Vice President
Program Network Policy

William A. Check, Ph.D.
Senior Vice President, Science & Technology
Chief Technology Officer

Andy Scott
Vice President, Engineering
Science & Technology

November 1, 2011

Rick Chessen
Diane B. Burstein
Stephanie L. Poday
National Cable & Telecommunications
Association
25 Massachusetts Avenue, N.W. – Suite 100
Washington, D.C. 20001-1431
(202) 222-2445

TABLE OF CONTENTS

INTRODUCTION	1
I. THE RULES SHOULD APPLY PROSPECTIVELY ONLY TO FULL LENGTH U.S. TELEVISION PROGRAMMING.....	2
A. The Rules Must Apply Prospectively and Should Not Require Program-by-Program Certifications.....	2
B. Congress Exempted Clips From Coverage	4
C. Foreign TV Online is Not Covered by the CVAA	5
II. THE COMMISSION SHOULD NOT ADOPT AN OVERLY RIGID APPROACH TO ENFORCING THE NEW RULES	6
A. The Commission’s Immediate Focus Should Be on Education, Rather than Complaint Procedures and Sanctions	6
B. The Commission Should Not Assess Fines and Forfeitures and Should Flexibly Interpret the <i>De Minimis</i> Standard	9
III. REGULATING ONLINE CAPTIONING QUALITY WOULD BE UNNECESSARY AND COUNTERPRODUCTIVE.....	10
IV. THE COMMISSION SHOULD PERMIT APPROPRIATE EXEMPTIONS FROM THE ONLINE CAPTIONING RULES	11
CONCLUSION.....	13

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

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

**REPLY COMMENTS OF THE
NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION**

The National Cable & Telecommunications Association (NCTA)¹ hereby submits reply comments in response to the comments filed in the above-referenced proceeding.²

INTRODUCTION

The record shows that making captioned television programming available online will require the efforts of numerous entities. The Commission should facilitate this new endeavor by emphasizing cooperation and problem-solving rather than encouraging complaint filing and disputes.

To ease the roll-out of captioned material online and to minimize operational challenges, the Commission should provide a safe harbor for compliance. Most commenters proposed that the Commission follow the VPAAC's recommendation and designate SMPTE TT for those

¹ NCTA is the principal trade association for the U.S. cable industry, representing cable operators serving more than 90 percent of the nation's cable television households and more than 200 cable program networks. The cable industry is the nation's largest provider of broadband service after investing over \$170 billion since 1996 to build two-way interactive networks with fiber optic technology. Cable companies also provide state-of-the-art competitive voice service to more than 23 million customers.

² *In re 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, 26 FCC Rcd 13734 (2011) ("Notice").

purposes.³ Further, the record demonstrates that burdensome rules and onerous reporting and recordkeeping requirements potentially will act as a barrier to the provision of online captioned programming. Congress' goal in enacting the CVAA therefore will be best served by adopting a light regulatory touch. The Commission can revisit these issues and refine its approach if necessary after it has had the opportunity to observe the initial implementation of its captioning rules for Internet video.

I. THE RULES SHOULD APPLY PROSPECTIVELY ONLY TO FULL LENGTH U.S. TELEVISION PROGRAMMING

A. The Rules Must Apply Prospectively and Should Not Require Program-by-Program Certifications

In its initial comments, NCTA showed that Congress intended its online captioning rules to apply prospectively only. If, as NCTA suggested, those rules apply only to programs shown on television with captions after the effective date if placed online *simultaneously or subsequent to* the program's television airing, many of the burdensome measures that some of the commenters endorse would be unnecessary. In particular, the Commission should not require Video Programming Owners ("VPOs") to provide program-by-program certifications to Video Programming Distributors ("VPDs"), nor should the Commission force them to search for and replace programming online without captions.

The record evidences significant practical barriers to marrying up information regarding which programming has been licensed for distribution online with information regarding which programming has been aired on television with captions. Different entities may be responsible for licensing content for online and television distribution.⁴ As Rovi explains, "VPOs'

³ NCTA Comments at 11-12; WGBH/NCAM Comments at 3; NAB Comments at 30-31; CEA Comments at 6-7; DiMA Comments at 7; Rovi Comments at 6-8.

⁴ Rovi Comments at 2-3.

complicated businesses frequently distance IP-delivered content licensing at arm’s length from broadcast-delivered content licensing, and there are significant structural obstacles to one business having complete knowledge of the other’s.”⁵ MPAA comments that: “Given the thousands of programs that air on television these days, there is no practical way for distributors of online content to track shows that are re-aired on TV and negotiate with program suppliers to add captions retroactively.”⁶ Burdensome program tracking and information updating are not necessary if the Commission abides by Congressional intent and applies the online captioning rules prospectively only. Contracts between VPOs and VPDs/VPPs can address this issue going forward and can be relied on as the appropriate mechanism for handling captioned programming shown on television after the effective date that is later available online.

TDI proposes that program-by-program information be provided for an entirely different reason – so that consumers can determine whether to file a complaint against an uncaptioned program.⁷ But Congress did not have this purpose in mind in asking the Commission to establish a “mechanism” to make information available. Rather, the CVAA directed the Commission to make information on video programming subject to the Act “available to *video programming providers and distributors*” so they could rely on this mechanism to fulfill their obligations under the statute.⁸

Nor is there any reason to adopt burdensome new requirements⁹ that go well beyond anything required of programmers or MVPDs by the television captioning rules.¹⁰ Those rules

⁵ *Id.* at 3.

⁶ MPAA Comments at 8.

⁷ TDI Comments at 29.

⁸ CVAA, § 202(2)(v) and (vi) (emphasis supplied).

⁹ TDI asserts, without support, that “[d]isplaying information about captioning is not substantially burdensome to VPDs/VPPs; whether a video is captioned and if not, why not, are simply pieces of metadata about the video, no different in kind than the video’s title, date, length, or other information.” TDI Comments at 30. We are not

do not require programmers to explain why certain programs might be compliant even if not captioned, do not mandate that programmers provide program-by-program certifications, and do not require cable operators or other MVPDs to independently investigate the captioning status of each program they retransmit to customers. The record provides no reason to impose more burdensome rules here.

B. Congress Exempted Clips From Coverage

NCTA's comments agreed with the *Notice* that Congress intended to exempt "clips" from coverage of the rules and proposed that the Commission define a "video clip" as "an excerpt of a full-length program."¹¹ NAB similarly explained that

Individual segments or clips of a full-length program . . . are not full-length programming. Any attempt to define the percentage or duration of programming constituting a clip is both impractical and inconsistent with the statute. Congress thus did not intend for anything less than 100 percent of a full-length program to be covered as full-length programming.¹²

Some commenters, however, seek to further modify the "video clip" definition by tying it to promotional material.¹³ There is no indication that Congress intended such a limitation, and the Commission should not interpret "clips" so narrowly.

aware of any such method that exists today. Devising such a system that provides metadata about captioning would be extremely complex and would hardly be the "little burden" that TDI supposes.

¹⁰ The Commission previously declined to adopt burdensome record-keeping requirements in the face of similar arguments, even though it recognized that "the availability of such records could facilitate some consumer complaints and perhaps avoid others." *In re Closed Captioning and Video Description of Video Programming; Implementation of Section 305 of the Telecommunications Act of 1996; Video Programming Accessibility*, Report & Order, 13 FCC Rcd 3272 ¶ 244; *see also In re Closed Captioning and Video Description of Video Programming; Implementation of Section 305 of the Telecommunications Act of 1996; Video Programming Accessibility*, Order on Reconsideration, 13 FCC Rcd 19973 ¶ 11 (1998) ("*Captioning Recon Order*") (rejecting a proposal to require MVPDs to file explanations with the Commission when they fail to caption programming due to unforeseen or emergency circumstances, finding "such a reporting requirement would simply impose an administrative burden on video programming distributors and the Commission without serving to increase captioning . . .").

¹¹ NCTA Comments at 20; *see also* MPAA Comments at 10; NAB Comments at 12-13.

¹² NAB Comments at 12.

¹³ DIRECTV Comments at 9 ("[V]ideo clips should be defined to include promotional materials composed of one or more sections of a larger work, but should not exceed one quarter of the overall length of the video

The television captioning rules already categorically exempt “[i]nterstitial material, promotional announcements, and public service announcements.”¹⁴ Had Congress meant to only exclude promotional and interstitial material when posted online, the legislative history’s specific reference to “video clips” as excluded from the captioning requirements of Section 202(b)¹⁵ would have been unnecessary since that material *already* would have been exempt under the rules. In any event, many clips are not related to program promotions since they often are posted online *after* a program has aired on television. Such excerpts exist to reach a separate viewing platform and do not necessarily promote full-length programming. Accordingly, consistent with Congressional intent, the Commission should broadly interpret “video clips” and should not tie the definition to promotional or interstitial material or restrict it by time limitations.

C. Foreign TV Online is Not Covered by the CVAA

As noted in our comments, we agree with the Commission that “the best reading of the statute requires closed captioning on IP-delivered video programming that was published or exhibited on television *in this country* with captions after the effective date of the regulations.”¹⁶ The only plausible meaning for the statutory phrase “programming delivered using Internet protocol that was published or exhibited *on television with captions*”¹⁷ is programming aired *on television with captions* as required by Section 713 of the Communications Act and Part 79 of the rules. The closed captioning rules, by their own terms, only apply to entities subject to the

program.”); TDI Comments at 18 (recommending that the definition of video clips “be limited to videos no longer than thirty seconds in duration that contain only promotional materials and advertisements for other programming”).

¹⁴ See 47 C.F.R. § 79.1(d)(6).

¹⁵ H.R. Rep. No. 111-563 at 18 (2010); S. Rep. No. 111-386, at 6 (2010).

¹⁶ See NCTA Comments at 20-21 (citing *Notice* ¶ 22 (emphasis supplied)); see also NAB Comments at 13 (“IP-delivered content that has aired on television only in another country, and not in the United States, should be exempt from the captioning requirements.”).

¹⁷ 47 U.S.C. § 613(c)(2)(A) (emphasis supplied).

Commission’s jurisdiction.¹⁸ Thus, the Commission must adopt its tentative determination that only programs aired on television in the United States must be captioned when distributed over the Internet.¹⁹

II. THE COMMISSION SHOULD NOT ADOPT AN OVERLY RIGID APPROACH TO ENFORCING THE NEW RULES

A. The Commission’s Immediate Focus Should Be on Education, Rather than Complaint Procedures and Sanctions

The record shows that the provision of captions online is a complex undertaking. NCAM observes that “[t]here will be many entities responsible for assuring the proper delivery of captions in media covered by the CVAA and eventual Commission rules. There in fact will be many more links in the chain of video from the program creator to the caption-viewing end user than in the world of analog and digital television.”²⁰ TDI’s comments show that the delivery of captioned material may involve many entities in the chain in addition to the VPO and the VPD through which the content may be streamed or downloaded.²¹ And while VPOs and VPDs might

¹⁸ 47 C.F.R. § 79.1(a)(2), (b) (requiring that video programming distributors provide closed captioning on certain programming and defining video programming distributors as “[a]ny television broadcast station licensed by the Commission and any multichannel video programming distributor as defined in Sec. 76.1000(e) of this chapter, and any other distributor of video programming for residential reception that delivers such programming directly to the home and is subject to the jurisdiction of the Commission”).

¹⁹ TDI suggests that the Commission define “consumer-generated media” to mean “videos that are not ‘published or exhibited on television.’” TDI Comments at 18. NAB correctly points out that certain television programming available online may be reposted without the consent or knowledge of the VPO. *See* NAB Comments at 13-14. Such content should also be considered “consumer-generated media” not subject to the rules.

²⁰ WGBH/NCAM Comments at 2.

²¹ As TDI explains, “many IP video providers do not deliver video to end users *directly* from their own computer servers, but rather contract with third-party delivery network (CDNs) who ‘cache,’ or store video on multiple servers in geographically diverse locations and deliver them to end users via the least-congested Internet routes.” TDI Comments at 3 (emphasis in original). Moreover, “[s]ome providers also permit their videos to be embedded on other entities’ websites, such as blogs; consumers then view the videos in an embedded frame on the other entities’ websites, rather than *directly* on the providers’ website.” *Id.* at 4 (emphasis in original).

Microsoft proposes to define VPD in such a way that inadvertently could broadly sweep within it entities, such as ISPs, that have no obligations under these provisions. *See* Microsoft Comments at 6 (recommending that the Commission define VPD as “any entity that makes available an IP distribution method for use by a VPP to distribute video programming and in doing so the VPD is not acting as a VPP or VPO for these purposes”). As NCTA showed in its initial comments, ISPs are exempt from responsibility under the CVAA. *See* NCTA

do their parts in ensuring the pass through of captions for online programming, the programming still might not be displayed with captions on a particular device.²²

In light of these complex issues related to Internet delivery of captioned programming, we agree with NAB that, “[a]s the Commission has done in the past when implementing a completely novel set of mandates, the agency should use its early enforcement efforts here as a means of educating regulated entities about their new obligations and guiding them through the practical issues involved in satisfying the mandates.”²³ Along these lines, NCTA’s comments proposed that the Commission monitor developments in this area and not establish a complaint procedure at this time.²⁴ NCTA urged the Commission to provide sufficient time for the new regime to take hold before entertaining complaints, tied to the deadline for devices to comply with their captioning responsibilities under Section 203. Only then will an end-to-end process be in place so that investigating where any problems with captioning might lie would be feasible.

If the Commission nonetheless were to adopt complaint rules at this time, its focus should be on helping to ensure the cooperative and expeditious resolution of problems, rather than on rooting out and punishing mistakes. In that regard, TDI proposes an unwieldy approach that would make the online captioning complaint process significantly more burdensome than the

Comments at 10, n.21 (citing CVAA § 2 (limitation on liability)); *see also* ITTA Comments at 2 (“[A]ny definition of VPD in the online captioning context should not include Internet service providers (“ISPs”) from whom end users receive Internet access pursuant to which they are able to view online video programming.”); ACA Comments at 8, n.22 (“Additional clarification may be required to avoid imposing the IP captioning requirements on broadband Internet access service providers (“ISPs”) who provide access to rather than distribute, the content, services and applications, such as streaming video, available over the Internet.”). Thus, any definition should make clear that ISPs have no responsibility under this provision.

²² TDI uses Netflix as an example: “Netflix streams videos both on its own website, Netflix.com, and on various Netflix-capable devices, such as gaming consoles, Blu-ray players, high-definition televisions, and tablet computing devices. On its own website, Netflix is entirely in charge of the software stack responsible for displaying videos and captions. But on other devices, the display of captions may depend on whether the user has appropriate software installed.” *Id.* at 4 (internal citations omitted).

²³ NAB Comments at 34 & n.76 (citing to the Commission’s implementation of the Children’s Television Act of 1990).

²⁴ NCTA Comments at 21-22.

current captioning regime. Rather than adopting onerous requirements, the Commission should approach this area with a light regulatory touch tailored to the novel issues that online captioning raises.

In that respect, to best remedy any problems with captioning, complaints should be timely filed and as specific as possible. Thus, the Commission should reject the notion of removing any time limit on the filing of complaints, as TDI proposes, and in fact should ensure that complaints are filed as soon as possible after a problem is discovered.²⁵ Online program offerings may change rapidly,²⁶ and determining why something is not captioned after the fact will be difficult under the best of circumstances.

Obtaining accurate and timely information will be critical to determining quickly the source of any problem. Therefore, it would disserve the interest in identifying and fixing any problems if the Commission were to gather only the minimal amount of information in a captioning complaint, as TDI proposes. Under the current television captioning rules, “a complaint must be in writing, must state with specificity the alleged Commission rule violated and must include some evidence of the alleged rule violation.”²⁷ At a minimum, online captioning complainants should provide this information *in addition to* specific information relating to online viewing, such as the website on which the programming was viewed, the name of the program, the date and time on which it was viewed, the device on which it was viewed (including user settings, if possible), and a brief description of the problem with the captioning.²⁸

²⁵ TDI Comments at 33.

²⁶ See Starz Comments at 5 n. 6 (noting that “many content providers refresh/replace approximately 10% to 25% of their IP-delivered content on a monthly basis”).

²⁷ 47 C.F.R. § 79.1(g)(1).

²⁸ See DIRECTV Comments at 15; see also *In re Closed Captioning of Video Programming; Closed Captioning Requirements for Digital Television Receivers*, Declaratory Ruling, Order, and Notice of Proposed Rulemaking, 23 FCC Rcd 16674 ¶ 26 (2008) (recommending that consumers include certain information in complaints).

Finally, with respect to complaints filed with the Commission, respondents should be afforded the same rights as allowed under the existing TV captioning complaint procedures. Respondents should have sufficient time to investigate and respond to complaints – at a minimum, the thirty days the television caption rules currently provide.²⁹ The record contains no justification for shortening the response time or denying extensions, and more time rather than less may be needed in light of the complicated chain of entities that could be involved in determining why any particular program might appear online without captions.

B. The Commission Should Not Assess Fines and Forfeitures and Should Flexibly Interpret the *De Minimis* Standard

When it developed the television closed captioning rules, the Commission acknowledged that there are numerous situations that could arise that would make providing captions problematic:

Such situations could include, but are not limited to, equipment failures, the inability to obtain captioning resources on short notice or the receipt of programming without the expected captions. We also are aware that local programming distributors, such as television stations, may need to show an occasional program without captions to satisfy communities' demands or may be unable to reformat the captions of captioned programming they edit consistent with community standards.³⁰

The potential issues envisioned by the Commission in 1998 are exponentially more complicated for captioning television programming provided over the Internet today, in light of, among other things, the delivery of programming over numerous platforms, technical issues that must be identified and resolved, and the likelihood that multiple entities are involved in the process of delivering a particular program.

²⁹ 47 C.F.R. § 79.1(g)(4).

³⁰ *Captioning Recon Order* ¶ 10.

Given these complexities, the Commission should reject TDI's request to specify and unduly limit what constitutes a *de minimis* failure to comply.³¹ Precedent supports a broad and flexible approach that takes into consideration the particular circumstances under which certain material was not captioned. As the Commission previously explained:

We intend to enforce this requirement in a manner that ensures that we do not penalize video programming distributors that are generally in compliance with the rules except for a *de minimis* amount of uncaptioned programming. In considering whether an alleged violation has occurred, we will consider any evidence provided by the video programming distributor in response to a complaint that demonstrates that the lack of captioning was *de minimis* and reasonable under the circumstances.³²

The Commission adopted a similar approach in its recent video description order.³³ The Commission should adhere to that flexible approach here.

Similarly, the Commission should not establish a base forfeiture amount for violations of the new captioning rules.³⁴ The Commission has established base forfeiture guidelines “for frequently recurring violations,”³⁵ – a situation inapplicable to the initial adoption of the online captioning rules.

III. REGULATING ONLINE CAPTIONING QUALITY WOULD BE UNNECESSARY AND COUNTERPRODUCTIVE

NCTA shares the *Notice*'s goal of providing high quality captions online. As a general matter, the SMPTE process was designed to ensure that quality is unaffected when captions on

³¹ See TDI Comments at 31 (urging the Commission to limit the *de minimis* standard to “truly extraordinary, unavoidable circumstances of technical malfunction”).

³² *Captioning Recon Order* ¶ 10.

³³ See generally *In re Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Report & Order, 26 FCC Rcd 11847 (2011).

³⁴ See TDI Comments at 35-36 (proposing a \$10,000 minimum forfeiture per complaint).

³⁵ *In re The Commission's Forfeiture Policy Statement and Amendment of Section 1.80 of the Rules to Incorporate the Forfeiture Guidelines*, Report & Order, 12 FCC Rcd 17087 ¶ 53 (1997).

television programming are repurposed for online viewing.³⁶ However, that does not mean that all viewing of online captioning will be identical to viewing captioning on television. The record shows that certain devices limit the quality of captions included in programming online. As AT&T explained, “[u]ltimately, the Commission should recognize that every feature and user control contained in CEA-708 DTV Closed Captioning standard will not be feasible in every IP-delivered video apparatus.”³⁷ Microsoft similarly observed that “[r]equiring exact conformity in quality features between the television and the IP-delivered video experience may not be possible, for instance, with respect to character size due to differences in resolution capability or the user-chosen size of the video display window.”³⁸ In the face of these inherent limitations, mandating “completeness, accuracy, timing, and whenever possible, user control of caption features”³⁹ would be counterproductive to the goal of ensuring more captioned online programming. Adopting a rule that requires such functionality would invite widespread requests for waivers or would impose significant burdens on entities that would need to respond to complaints. Therefore, no rule is warranted.

IV. THE COMMISSION SHOULD PERMIT APPROPRIATE EXEMPTIONS FROM THE ONLINE CAPTIONING RULES

While the need for specific exemptions from online captioning for otherwise-captioned television programming may not be widespread, there still may be particular instances where

³⁶ CEA Comments at 7 (“[c]aptions authored in CEA-608 format may be machine-translated to the XML format used by SMPTE-TT”). That process is intended to be automatic. While the system is designed to maintain the same captions as shown on television when distributed online, it does not enable entities to improve the captions.

³⁷ AT&T Comments at 11; *see also id.* at 10 (“because IP, as used in the CVAA, refers to a best-efforts transmission system implemented in widely divergent environments it is not appropriate to expect IP-delivered video – and so by extension IP-delivered closed captions – to meet or exceed the quality of the same programming when provided over TV. In addition to the fact that IP transmissions over the World Wide Web are subject to dropped packets, which inevitably degrade video quality, bitstream management techniques and the inherent constraints of particular apparatus will affect the ability of IP-delivered closed captions to meet the proposed standards.”).

³⁸ Microsoft Comments at 14 (proposing “functional equivalence or better” standard).

³⁹ TDI Comments at 11; *see also* National Court Reporters Association Comments at 2.

exemptions from online captioning requirements are justified. This is why Congress expressly amended Section 713(d) to lower the burden that needs to be shown⁴⁰ to justify an exemption “from the requirements of this section...” Thus, TDI’s proposal that the Commission “should not grant any entity-based petitions”⁴¹ is not supported by the CVAA.⁴²

Further, the record shows the importance of establishing categorical exemptions from online captioning that mirror those for television captioning. As Eternal World Television Network (“EWTN”) explained, entity-specific exemptions under the existing captioning rules have worked well for a variety of reasons, including that “the programmer does not need to petition and can still elect to provide closed captioning without being subject to administrative and economic burdens. Thus, [under the revenue exemptions], voluntary closed captioning is promoted to more programmers.”⁴³ Extending this blanket exemption for these types of programmers when material is posted online will help provide more, not less, captioned material. Otherwise “EWTN and other programmers will likely be faced with decisions of removing programming from online distribution, or removing closed captioning from televised programming in order to provide the same online. That is not an outcome EWTN or anybody else wants, because there should be accessibility across all media, while at the same time preserving the self-implementing exemptions that have worked so well since the inception of the

⁴⁰ See Verizon Comments at 5-6.

⁴¹ TDI Comments at 25.

⁴² In addition, Congress expressly provided that “during the pendency of such petition, such provider or owner shall be exempt from the requirements of this section.” The Commission cannot ignore this statutory directive by adopting another procedural hurdle to filing a petition, as TDI proposes. The CVAA instructs the Commission to rule on these petitions expeditiously, thus ensuring that uncaptioned programming that does not qualify for special treatment will be captioned in relatively short order if shown online.

⁴³ EWTN Comments at 2.

closed captioning rules.”⁴⁴ The Commission should avoid this outcome by providing needed flexibility for those who cannot provide captioned material online.

CONCLUSION

For the foregoing reasons, and for the reasons stated in NCTA’s initial comments, the Commission should adopt balanced online captioning rules that do not impose undue and unnecessary burdens in this nascent area.

Respectfully submitted,

/s/ Rick Chessen

Jill M. Lockett
Senior Vice President
Program Network Policy

William A. Check, Ph.D.
Senior Vice President, Science & Technology
Chief Technology Officer

Andy Scott
Vice President, Engineering
Science & Technology

November 1, 2011

Rick Chessen
Diane B. Burstein
Stephanie L. Podey
National Cable & Telecommunications
Association
25 Massachusetts Avenue, N.W. – Suite 100
Washington, D.C. 20001-1431
(202) 222-2445

⁴⁴ *Id.* at 4.