

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

In the Matter of)	
)	
Accessibility of User Interfaces, and Video Programming Guides and Menus)	MB Docket No. 12-108
)	
Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010)	MB Docket No. 12-107
)	

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

The National Cable & Telecommunications Association (“NCTA”)¹ hereby responds to the comments filed regarding the Further Notice of Proposed Rulemaking in the above-captioned proceeding.²

INTRODUCTION

The Federal Communications Commission (“Commission”) adopted carefully balanced rules to implement Section 205 of the Twenty-First Century Communications and Video Accessibility Act of 2010 (“CVAA”) and it should reject the efforts of certain commenters to expand these obligations. The initial comments in this proceeding show that the Commission lacks authority to require cable operators to include information on public, educational, and

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 \$210 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 27 million customers.

² See *In re Accessibility of User Interfaces, and Video Programming Guides and Menus, Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, Report & Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd 17330 (2013) (“*Report & Order*” and “*Further Notice*” or “*FNPRM*”).

governmental (PEG) access programming in program guides, and that any such requirement would impose significant burdens on the industry. Furthermore, Section 205 of the CVAA was intended to require operators to provide an easy mechanism for activating closed captioning capability, and any requirements for additional mechanisms beyond this limited mandate would run afoul of the flexibility otherwise provided to cable operators.

I. THE COMMISSION SHOULD REFRAIN FROM REGULATING THE CONTENT OF MVPD PROGRAM GUIDES.

NCTA and several other commenters agreed³ with the Commission’s conclusion in the *Report & Order* that Section 205 “does not govern the underlying content in the menus and guides;” it “requires that if there is text in a menu or program guide on the screen, then that text must be audibly accessible, *but it does not impose requirements with regard to what substantive information must appear in the on-screen text.*”⁴ The Alliance for Communications Democracy (“ACD”), however, disagrees with the Commission’s determination that Section 205 does not provide the right to dictate the content of program guides. ACD argues that the Commission can “impose minimum programming description” requirements stemming from its authority to “construe and elaborate on the meaning of every term in Section 205(a)” and, in particular, its purported “authority to determine what constitutes an *adequate* on-screen guide.”⁵ But the plain

³ See NCTA Comments at 3; Verizon and Verizon Wireless (“Verizon”) Comments at 8; DISH Network and EchoStar Technologies (“DISH/EchoStar”) Comments at 7. Unless otherwise indicated, all comments cited herein were filed in MB Dkt. Nos. 12-108 & 12-107 on Feb. 18, 2014.

⁴ *Report & Order* ¶ 75 (emphasis added).

⁵ Alliance for Communications Democracy (“ACD”) Comments at 4-5 (internal citations omitted) (emphasis added). We note that there are alternative ways to obtain information about these programs, other than an on-screen guide. See, e.g., Verizon Comments at 12.

language of Section 205 fails to give the Commission authority to determine the “adequacy” of the content of an on-screen guide.⁶

Contrary to ACD’s claims, there is nothing ambiguous about Section 205’s statutory requirement. Section 205 contains a limited mandate and specifically protects MVPDs against undue governmental interference in the methods of satisfying the “talking guide” requirement. As DISH/EchoStar notes, “[d]ictating the contents of video programming guides and menus” would contravene “Congress’s intent to preserve industry flexibility.”⁷ Verizon explains such a requirement “would impose technical design requirements on the network and on the audible programming guide, contrary to the express language of Section 205.”⁸ And, as we noted in our comments, even if the language of Section 205 could be considered to be ambiguous (which it is not), “defining [the particular terms] in such an expansive way would conflict with the statute’s more modest purpose that the Commission require, if achievable, that on-screen text menus and guides be audibly accessible.”⁹ ACD’s proposal would further conflict with the purpose and structure of Section 205 by forcing changes to *all* program guides – even those not requested by blind or visually impaired customers.¹⁰

ACD claims that it is not asking the Commission to dictate the “specific, detailed program content of VPGs,”¹¹ but rather to require MVPDs to accept whatever program guide

⁶ See Twenty-First Century Communications and Video Accessibility Act of 2010, Pub. L. No. 111-260 § 205(a) (as codified at 47 U.S.C. § 303(bb)(1)) (“CVAA”).

⁷ DISH/EchoStar Comments at 7-8 & n.28 (referencing CVAA § 205(b)(4)).

⁸ Verizon Comments at 9-10 (quoting CVAA § 205(a) (codified at 47 U.S.C. § 303(bb)(1))).

⁹ NCTA Comments at 3, n.9.

¹⁰ Section 205(a) applies only “upon request by individuals who are blind or visually impaired.” CVAA § 205(a)(codified at 47 U.S.C. § 303(bb)(1)). ACD’s proposal would require PEG programming information to be included in guides contained in *all* navigation devices – providing further evidence that this type of obligation is not contemplated by Section 205.

¹¹ ACD Comments at 7.

information a PEG organization supplies.¹² It suggests that this type of rule would merely put PEG program providers on the same footing as other programmers carried on this system.¹³ But no other programmer carried on a cable system benefits from any government mandate to include programming information about that programmer in an operator's on-screen guide. Thus, ACD's proposal would provide preferential treatment for PEG providers, not mandated in Section 205 or elsewhere in the Act.¹⁴

ACD is equally mistaken in its view of the burdens its proposed rule would impose. ACD tries to downplay the significant and costly changes to the typical cable system operations that its PEG proposal would necessitate, focusing instead on a handful of isolated instances – from among thousands of local franchising authorities nationwide – where this information is already provided.¹⁵ But these instances are the exception to the rule, and are based on local circumstances best considered in that context. The fact that a local cable operator and a local franchising authority reached agreement on inclusion of this information in a particular case based on circumstances unique to that particular system and franchise area hardly supports the notion that it makes sense to adopt a rule mandating such arrangements across the board.

Rather, such a broad requirement would impose significant burdens on the industry. As Verizon and NCTA explained in initial comments (and as is more fully explained in the attached

¹² *Id.*

¹³ *Id.* at 5.

¹⁴ As commenters noted, provisions of the Communications Act preclude the imposition of “requirements regarding the provision or content of cable service.” Verizon Comments at 9 (citing 47 U.S.C. § 531 & § 544(f)(1)); *see also* NCTA Comments at 3 & n.10 (citing 47 U.S.C. § 544(f)(1)). And forcing MVPDs to include whatever PEG information a local franchising authority (“LFA”) wants in their guides would raise serious speech concerns, as commenters show. *See* Verizon Comments at 9 (“Underlying First Amendment considerations also should lead the Commission to reject the proposals of the LFAs.”).

¹⁵ *See* ACD Comments at 7-9 (citing to arrangements in Montgomery County, MD and San Jose, CA and arguing that it is “technically and economically feasible” for cable operators to include PEG programming listings in on-screen guides “because some cable operators already do just that”).

NCTA Technical Appendix) “advanced MVPD networks are not built to correspond to the boundaries of individual communities or local franchise areas, and providing community-specific information for PEG channels delivered over such systems is not practical.”¹⁶

The Report attached to the ACD Comments titled *Technical Considerations Related to Implementing the Requirements of the [CVAA]* (“*ACD Technical Report*”) fails to even acknowledge these real costs and operational challenges.¹⁷ Instead, it paints a picture of an oversimplified cable system operation and in so doing significantly underestimates the consequences of its proposal. For example, Figure 1 of the *ACD Technical Report* shows only a single franchise area being served by the cable plant – a situation unlikely to occur in the real world.¹⁸ As NCTA’s comments explained and as the attached *NCTA Technical Appendix* illustrates, the problem with inserting franchise-specific PEG information arises precisely because a *single* cable system typically serves *multiple* franchise areas.¹⁹

Specifically, unlike program guide information about a local broadcaster or national programming network carried throughout a cable system, information on PEG channel programming line-ups would need to be targeted to households within the relevant franchise area on a hyper-local basis.²⁰ The *NCTA Technical Appendix* shows this would necessitate significant and costly changes in the manner in which program guide data is made available today.²¹ As

¹⁶ Verizon Comments at 10; NCTA Comments at 4-5.

¹⁷ See generally ACD Comments, Ex. 2, *Technical Considerations Related to Implementing the Requirements of the [CVAA]* (“*ACD Technical Report*”).

¹⁸ See *ACD Technical Report* at 2. As explained in the *NCTA Technical Appendix*, the “diagram only shows a *single* franchise area being served by a cable system [, but] the typical cable system serves multiple franchises with multiple PEG channels across multiple counties.” *NCTA Technical Appendix* at 1.

¹⁹ See NCTA Comments at 4-5 (explaining that “a single integrated cable system often serves a dozen or more different franchise areas”); *NCTA Technical Appendix* at 1.

²⁰ See NCTA Comments at 4.

²¹ See *NCTA Technical Appendix* at 3; see also NCTA Comments at 4-5.

explained in the *NCTA Technical Appendix*, cable system architecture would typically have to be modified to support the provision of PEG program listings. In particular, doing so would require significant changes in channel maps used in the creation of electronic program guides in set-top boxes and could require physical modifications to the cable television plant to support these changes.²² As noted in the *NCTA Technical Appendix*:

[T]he impact to the subject market would be significant and costly. The operator would need to make significant changes to its cable plant, including, among other things, investment in more modulators, RF plant changes, installation of new RF hardware, and expansion of the interface between the controller and billing system. Collectively, these changes would be exceedingly burdensome to implement, but also operationally difficult to manage on an on-going basis.²³

Although cable operators have provided PEG programming data in their guides in situations where it may make sense based on the number of franchise areas served and the architecture of the system involved, doing so on a larger scale “would impose significant costs on MVPDs that may ultimately redound to the detriment of subscribers.”²⁴ The Commission should reject ACD’s call for mandates.

II. ADDITIONAL REQUIREMENTS GOVERNING ACTIVATION OF CAPTIONING DISPLAY FEATURES SHOULD NOT BE ADOPTED.

The Commission should refrain from adopting any additional requirements governing the activation of captioning display features. Despite arguments to the contrary submitted by the National Association of the Deaf *et al.* (“NAD”),²⁵ the record demonstrates that the CVAA does

²² See *NCTA Technical Appendix* at 3.

²³ *Id.* at 3-4.

²⁴ Verizon Comments at 10; *see also* NCTA Comments at 4-5.

²⁵ See Nat’l Ass’n of the Deaf *et al.* (“NAD”) Comments at 4-7.

“not allow the Commission to impose requirements on the means for users to access closed caption display settings.”²⁶ As CEA explains:

[T]he phrase “or accessibility features” merely describes an activation mechanism — i.e., a mechanism for activating multiple accessibility features — to which the mandated user control mechanism for closed captioning . . . may be reasonably comparable to satisfy the requirements of the statute. Given its knowledge of Commission efforts to provide viewers with the tools to control the appearance of closed captioning, if Congress had intended the Commission to require a mechanism for “activating” caption display settings that is reasonably comparable to a button, key, or icon, it would have said so in the CVAA.²⁷

Moreover, as Verizon, CEA, and TIA pointed out, the statutory language “simply does not contemplate multiple mechanisms for activating multiple capabilities.”²⁸ This makes sense, because, as TIA adds, “the various alteration settings that may be changed after activation (*e.g.* font, color, size, etc.) allow for numerous choices and possibilities which cannot be reasonably managed using a dedicated ‘button, key, or icon.’”²⁹ Even NAD recognizes that “users generally set the closed captioning display settings . . . to the type of access they need” and as a result there is not the same need for a “single action” mechanism comparable to a button, key or icon used for ready on or off access to captioning generally.³⁰

Verizon points out that Congress granted covered entities “maximum flexibility” under Section 205 to “determine the means of compliance with requirement on navigation devices” and that “Congress clearly did not want the Commission to micromanage the technical solutions

²⁶ DISH/EchoStar Comments at 4.

²⁷ CEA Comments at 7; *see also* DISH/EchoStar Comments at 4 (explaining that the plain language of Section 205 “requires a ‘reasonably comparable’ means for activating closed captioning [] on covered devices — *i.e.*, turning [it] on and off”).

²⁸ Verizon Comments at 7; CEA Comments at 7 (“Unlike activation activities that have binary settings (on/off) that readily can be managed using a mechanism reasonably comparable to a dedicated ‘button, key, or icon,’ settings related to, for example, font, color, and size, have multiple options that are not so readily managed.”); TIA Comments at 4 (explaining that the statutory requirement for an activation mechanism does “not apply to settings with multiple options, such as user display selections for closed captioning”).

²⁹ TIA Comments at 5.

³⁰ NAD Comments at 10.

implementing the accessibility features.”³¹ Congress included a narrow and targeted provision for inclusion of a mechanism for “activating” (i.e., turning on) the built-in closed captioning capability in a navigation device. Congress also granted MVPDs “maximum flexibility in the selection of means for compliance.”³² Any additional requirements beyond a captioning activation mechanism – such as to include access to captioning features on the “first level of a menu,” as NAD proposes – would interfere with that flexibility and should not be granted.³³

III. THE RECORD SHOWS THAT “USABILITY” RULES AND NEW MVPD NOTICE REQUIREMENTS SHOULD NOT BE ADOPTED.

Additional documentation, training, or MVPD notice requirements are not supported by the record. First, as several commenters explained, the Commission has no authority to import “usability” requirements into the rules implementing Section 205 because that provision lacks the “accessible to and usable by” language.³⁴ Moreover, given existing rules implementing the “upon request” statutory language and requiring consumer notification, CEA points out that any additional information, documentation, and training requirements would be redundant.³⁵ No commenter supported the application of a broader “usability” standard to Section 205 and the Commission should not do so.

The Commission should likewise refrain from adopting additional rules governing MVPD notice. As DISH/EchoStar and other commenters explain, there is no reason to believe

³¹ Verizon Comments at 7.

³² CVAA § 205(b)(5).

³³ Moreover, as we noted in our initial comments, mandating that operators design mechanisms for activating enhanced captioning display features would undermine Section 205’s intent to provide an easy captioning on/off mechanism. *See* NCTA Comments at 6 & n.19. Expansion of the requirement would make it less likely that an operator could use buttons on the limited space available on a remote control to activate captioning, if it would also be required to add an additional button dedicated to activating captioning display features.

³⁴ CEA Comments at 5; *see also* Verizon Comments at 3-4; NCTA Comments at 7.

³⁵ *See* CEA Comments at 5.

that the existing MVPD notice requirements will not be sufficient to inform consumers.³⁶

Furthermore, as Verizon notes, the Commission generally allows time to judge the effectiveness of its new rules before it considers alterations or additions;³⁷ at this point, it would be “sheer speculation” to guess whether additional notices “would be necessary or useful after these products are deployed in 2017 and beyond.”³⁸ As the MVPD notice rules are implemented, Verizon points out that competitive market forces will ensure that consumers are made aware of the features available.³⁹ No additional rules are warranted.

CONCLUSION

For the foregoing reasons, the Commission should not impose additional requirements beyond those already taken to implement Section 205.

Respectfully submitted,

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³⁶ See DISH/EchoStar Comments at 2-3; Verizon Comments at 4-6; NCTA Comments at 8.

³⁷ See Verizon Comments at 1-2.

³⁸ *Id.* at 4-5.

³⁹ See *id.* at 5.

NCTA Technical Appendix

MB Docket Nos. 12-107; 12-108

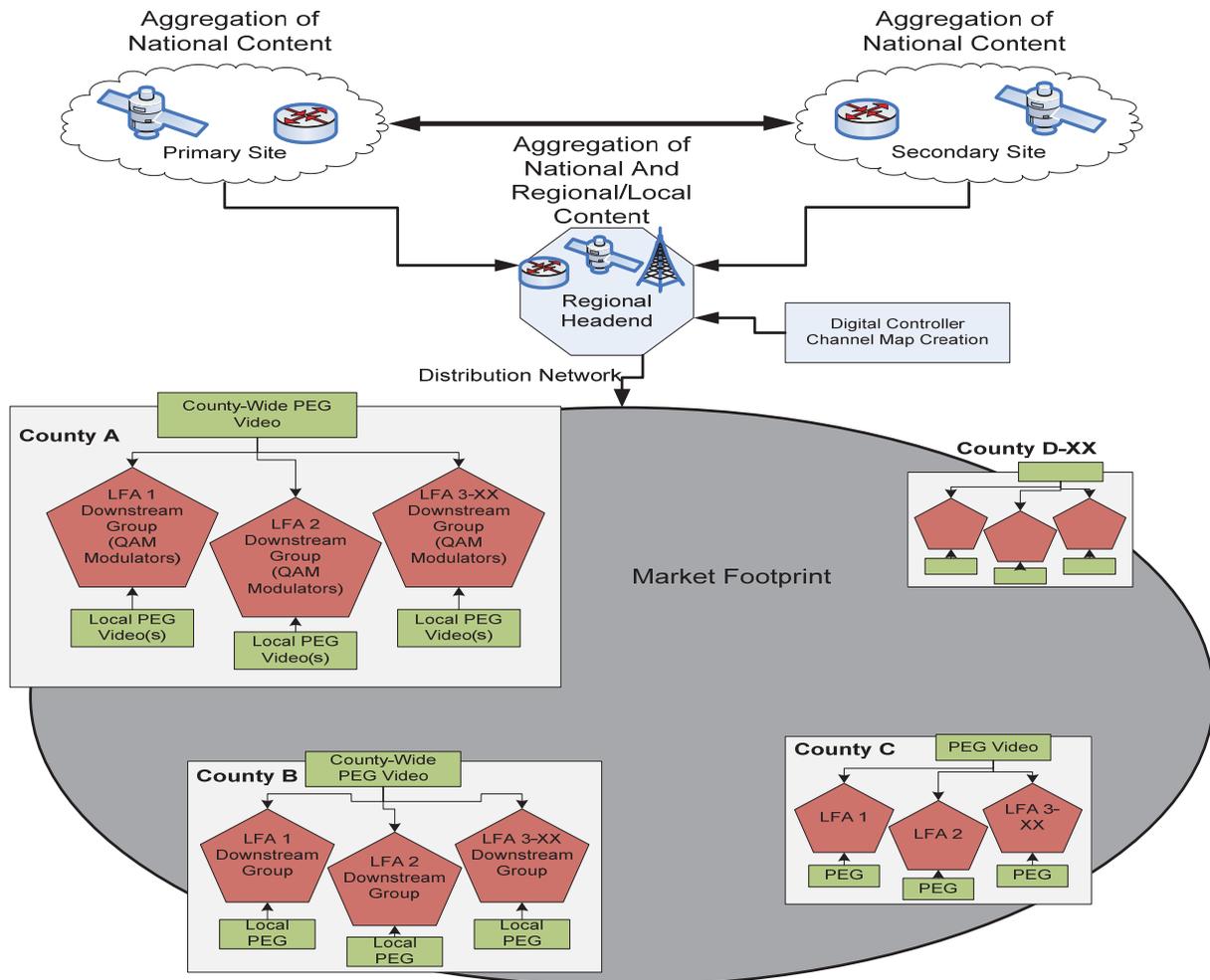
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NCTA Technical Appendix

I. The Alliance for Communications Democracy's Technical Report Fails to Show Representative Cable System Architecture.

Cable systems' distribution architecture can differ from market to market due to various circumstances. These include legacy issues (such as system acquisitions and technical consolidation into an existing system) as well as technical limitations related to either geographic or set-top control systems. The diagram submitted with the Alliance for Communications Democracy ("ACD") comments presents an overly simplified model and, consequently, only reflects a small portion of the typical cable system footprint. (See ACD Comments, Exhibit 2 at 2, Fig. 1.)

Most significantly, ACD does not accurately describe the element of scale for most markets. The ACD diagram only shows a *single* franchise area being served by a cable system. In fact, as the diagram below illustrates, the typical cable system serves multiple franchises with multiple PEG channels across multiple counties. In this diagram, the system covers a multi-county footprint, and four of those counties each encompass three different local franchise areas, each with its own PEG channels. In fact, many cable systems serve vastly more local franchise areas than the hypothetical system described below.



In terms of video distribution in this cable system, nationally-distributed cable channels are typically aggregated at a centralized facility and distributed to the cable system headend. At the regional level, local content (broadcast stations, regional sports networks, etc.) is inserted into the channel lineup for distribution to the entire market. However, since PEGs are highly localized, the specific PEG channels for a particular franchise area are typically inserted at the edge of the network to keep the service within the franchise's boundaries. As the graphic above shows, QAM modulators distributed throughout the network insert PEG channels into the channel lineup for the particular community served by a particular local franchise area. So, for example, the channel lineup that LFA 1 in County A gets will differ from the lineup that LFA 2 in County A gets, and those differences will occur for the 12 different LFAs shown in the graphic.

The discussion below details how program guides accommodate PEG channels today, and then describes the technical and operational challenges associated with the ACD proposal to include PEG program information in electronic program guides (EPGs).

II. Providing Unique PEG Programming Information in Program Guides Would Require Significant Changes to the Typical Cable System Architecture.

ACD's Technical Report mistakenly concludes that "a requirement to include full [program guide] functionality to PEG access channels would not require any modification of existing hardware/software, nor would it have any measurably adverse performance impact on the cable system." (ACD Comments, Exhibit 2 at 4.) This statement fails to take into account the significant changes that cable operators would be forced to undertake to accommodate unique local PEG programming information in their program guides, as described below.

A. Channel Maps Are Typically Created With A Generic PEG Channel Listing:

Channel maps, created by the controller, are used to associate a Source_ID to the actual MPEG services carried in the RF plant. (The Source_ID is a unique identifier for each channel, which is associated with the EPG information provided by data vendors.) A set-top will receive the channel map and will populate the set-top's internal EPG. When a user selects a channel on the set-top, the set-top will check its stored channel map, and will physically tune to the appropriate RF frequency and MPEG service number.

In the illustration above, a channel map (or maps) will be created that includes all common services available in the area (e.g., all broadcasters and cable networks). Each unique channel is associated with a unique Source_ID for the channel, and guide information that populates the set-tops' EPG is in turn associated with that Source_ID. Since PEG channels in the above example differ from franchise area to franchise area, the channel map will include generic entries for PEG channels (i.e., common Source_IDs) across the system to indicate how to tune to the PEG services. These generic entries typically are called "Public Access" or "Government Access" and reference specific RF frequencies and MPEG service numbers for PEG channels. At each local franchise level, the franchise's specific PEG channels are inserted locally (rather than upstream at the Regional Headend) in channel map using the appropriate RF frequency and MPEG channel number associated with the generic Source_IDs for PEG channels.

B. Mandating Inclusion of Specific PEG Programming Information in the Channel Guide Would Require Significant Changes to System Architecture:

A mandate that cable systems include specific programming information for each PEG channel would require significant changes to existing system architecture to support unique Source_IDs for PEG channels. Operators would need not only to make changes in the creation of channel maps, but also make physical changes to the RF plant in many cases.

Channel Maps and RF Plant Changes

In the above illustration, the entire market will typically be served by a small number of channel maps. To support unique PEG Source_IDs, however, a cable system would need to provide each franchise area within each county with its own dedicated channel map. So, in the case of the cable system depicted above, the operator would need to take its baseline set of channel maps and use them create new maps for all 12 of the local franchise areas served by the cable system. For example, if there are three different base channel maps for the cable system, the operator would need to create a total of 36 different channel maps to account for the different PEG channels associated with each of the 12 franchise areas. An operator would need to create substantially more channel maps in systems that have a larger number of base channel maps and a larger number of franchise areas.

There would also be subscriber impacts as a result of adding more channel maps. Increasing the number of channels maps also means increasing the amount of program information data used to populate the program guide. Since the communications path containing the program information for the program guide is bandwidth constrained, an operator would need to reduce the data for each channel map to keep within these bandwidth limits. Consequently, the amount of information that could be displayed in the EPG would be reduced significantly.

Digital Controller System

The ACD proposal also would have impacts on the digital controller system used by some cable operators. The digital controller system includes the modulators located throughout the distribution network that create the signaling for channel maps and other purposes. There are generally limits on the number of maps that can be supported by the digital controllers or simultaneously sent over this system. If there were a requirement to increase the number of channel maps for the cable system, there would be a ripple effect across the cable plant. The operator would need more modulators, which, in turn, would necessitate the need for changes to the RF combining network for both downstream and upstream paths. Depending on the equipment involved, the increase in channel maps and downstream equipment might exceed the overall signaling capacity of the cable system. If that were the case, the operator would need to make drastic changes to the integrated digital control system infrastructure to provide additional capacity.

The bottom line is that the impact to the subject market would be significant and costly. The operator would need to make significant changes to its cable plant, including, among other things, investment in more modulators, RF plant changes, installation of new RF hardware, and expansion of the interface between the

controller and billing system. Collectively, these changes would be exceedingly burdensome to implement, but also operationally difficult to manage on an on-going basis.

Summary

The ACD Technical Report vastly oversimplifies the architecture of the typical large-scale cable system. Most significantly, it fails to account for the fact that the typical system will serve many franchise areas. As a consequence of this basic shortcoming, the Report does not address the significant technical and operational impacts associated with implementing the ACD proposal.