

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

In the Matter of)	
)	
Implementation of Section 304 of the)	CS Docket No. 97-80
Telecommunications Act of 1996)	
)	
Commercial Availability of Navigation Devices)	
)	
Compatibility Between Cable Systems and)	PP Docket No. 00-67
Consumer Electronics Equipment)	
)	

THIRD FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: June 27, 2007

Released: June 29, 2007

Comment Date: 30 days after publication in the Federal Register

Reply Comment Date: 45 days after publication in the Federal Register

By the Commission: Commissioner Copps issuing a statement.

I. INTRODUCTION

1. CableCARD-ready devices available at retail today are unable to access the two-way features available on cable systems, including electronic programming guides (“EPGs”), video-on-demand (“VOD”), pay-per-view (“PPV”), and other interactive television (“ITV”) capabilities. In this Third Further Notice of Proposed Rulemaking, we solicit comment on proposed standards to ensure bidirectional compatibility of cable television systems and consumer electronics equipment. We also seek comment on whether any rules we adopt in this proceeding should apply to non-cable Multichannel Video Programming Distributor (“MVPDs”) and whether there are technological solutions that are network agnostic and deployable across all MVPD platforms (e.g., cable, Direct Broadcast Satellite (“DBS”), Internet Protocol (“IP”) or hybrid Quadrature Amplitude Modulation/IP (“QAM/IP”).

II. BACKGROUND

2. Section 629 of the Act directs the Commission to:

adopt regulations to assure the commercial availability, to consumers of multichannel video programming and other services offered over multichannel video programming systems, of converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, from manufacturers, retailers, and other vendors not affiliated with any multichannel video programming distributor.¹

¹ 47 U.S.C. § 549(a).

Through Section 629, Congress sought to provide consumers with the opportunity to purchase competitive navigation devices from sources other than their MVPD.² Congress emphasized the importance of such competition, stating that “[c]ompetition in the manufacturing and distribution of consumer devices has always led to innovation, lower prices and higher quality.”³ At the same time, Congress recognized that MVPDs have “a valid interest, which the Commission should continue to protect, in system or signal security and in preventing theft of service.”⁴

3. To carry out the directives of Section 629, the Commission in 1998 required cable operators to make available by July 1, 2000 a security element separate from the basic navigation device (the “host device”).⁵ Cable operators were permitted to continue providing equipment with integrated security until January 1, 2005, so long as modular security components, known as point-of-deployment modules (“PODs” or “CableCARDS”), were also made available for use with host devices obtained through retail outlets.⁶ This requirement is generally referred to as “common reliance,” or the “integration ban,” is designed to enable unaffiliated manufacturers, retailers, and other vendors to commercially market host devices while allowing cable operators to retain control over their system security.

4. In April 2003, in response to a request from cable operators, the Commission extended the effective date of the integration ban until July 1, 2006.⁷ Then, in 2005, again at the urging of cable operators, the Commission further extended that date until July 1, 2007.⁸ As of late 2003, “non-integrated navigation devices [had] yet to gain adoption in the marketplace, thereby directly affecting subscriber demand for” separated security elements.⁹ This was due to the lack of a technical standard for how the POD and host device would interface. The Commission adopted an interface standard in the *Plug and Play Order*,¹⁰ and consumer electronics manufacturers brought CableCARD-compatible devices to market less than a year later.¹¹ Devices made pursuant to this standard have the ability to receive encrypted digital cable programming, but do not have any upstream, or bidirectional, capabilities (*i.e.*, consumer electronics manufacturers can only make unidirectional devices under the technical standard

² See S. REP. 104-230, at 181 (1996) (Conf. Rep.).

³ H.R. REP. NO. 104-204, at 112 (1995).

⁴ *Id.*

⁵ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775, 14808, ¶ 80 (1998) (“*First Report and Order*”); 47 C.F.R. § 76.1204(a)(1).

⁶ *First Report and Order*, 13 FCC Rcd at 14793-14794, ¶ 49.

⁷ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 18 FCC Rcd 7924, 7926, ¶ 4 (2003) (“*Extension Order*”).

⁸ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6802-03, 6814 ¶¶ 13, 31 (2005) (“*2005 Deferral Order*”).

⁹ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, 18 FCC Rcd 20885, 20894, ¶ 19 (2003) (“*Plug and Play Order*”). The term “plug and play” refers to a device’s ability to plug into a cable system and receive digital cable programming without a cable-operator provided set-top box.

¹⁰ The Commission adopted standards that the National Cable and Telecommunications Association and the Consumer Electronics Association had agreed upon in a Memorandum of Understanding (“MOU”), with certain modifications. See *Plug and Play Order*, 18 FCC Rcd at 20926-20944, Appendix B. See also *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, 18 FCC Rcd 518, 531-609, Appendix B (2003).

¹¹ See, e.g., Letter from Neal M. Goldberg, General Counsel, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, *attaching* Memorandum from Neal Goldberg to Tom Horan re: CableCARD Information Request at 1 (September 30, 2004).

adopted in the *Plug and Play Order*). For example, such devices cannot support two-way services such as EPGs, VOD, PPV, and other ITV capabilities.

5. It is apparent that consumers have not shown significant interest in one-way devices, which cannot access features such as EPGs, VOD, PPV, and other ITV capabilities provided by cable operators.¹² The cable and consumer electronics industries have attempted to negotiate an agreement on how to achieve bidirectional compatibility, and since 2003 the Commission has required National Cable and Telecommunications Association (“NCTA”) and Consumer Electronics Association (“CEA”) to file status reports regarding the status of those negotiations.¹³ In March 2005, the Commission described the progress of these negotiations as “disappointing.”¹⁴ Shortly before the Commission made that statement, senior executives from Microsoft, Time Warner, and Comcast committed to “personally” work together “to supervise the efforts to reach an agreement amongst the cable, CE, IT, and other industries to ensure the availability of two-way cable products during calendar year 2006.”¹⁵ Despite this commitment, the industries appear to have made little progress and it does not appear that an agreement is imminent.¹⁶

6. On November 30, 2005, the cable industry filed a report that supported the OpenCable Application Platform (“OCAP”) as the foundation for two-way plug and play products.¹⁷ OCAP is a middleware software layer (based on the Java Execution Engine), which allows software developers to write applications and programs that would run on any OCAP-enabled device. While the cable and consumer electronics industries agree that OCAP should be part of the solution for two-way plug and play

¹² Indeed, while over five million digital cable ready devices have been sold, cable operators have deployed fewer than 300,000 CableCARDs. See Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission at 1 (March 26, 2007) (reporting that the ten largest cable operators have deployed over 259,000 CableCARDs); Press Release, National Cable and Telecommunications Association, *Exploding CEA's Myths About The "Integration Ban"* at 2 (Dec. 7, 2006), available at <http://www.ncta.com/DocumentBinary.aspx?id=522> (referencing CEA's claim that five million digital cable ready devices have been sold). This indicates that consumers are interested in more than the limited one-way services that their unidirectional digital cable products can offer. See also Comcast Application for Review at 4-7 (stating that it has never deployed a one-way set-top box); Letter from Jonathan A. Friedman, Counsel, Comcast Corporation, to Marlene H. Dortch, Secretary, Federal Communications Commission at 1-2 (July 21, 2006) (stating that consumers have shown little interest in one-way devices); Pace Micro Comments in CSR-7012, at 3 (filed Feb. 14, 2007) (stating that Pace Micro abandoned plans to manufacture a one-way set-top box because there was no marketplace interest in such a device).

¹³ See *Extension Order*, 18 FCC Rcd at 7926, ¶ 5; *2005 Deferral Order*, 20 FCC Rcd at 6811-6812, ¶ 34.

¹⁴ *2005 Deferral Order*, 20 FCC Rcd at 6795, ¶ 4.

¹⁵ Letter from Paula Boyd, Regulatory Counsel, Microsoft Corporation, James R. Coltharp, Chief Policy Advisor, FCC & Regulatory Policy, Comcast Corporation, and Stephen N. Teplitz, Vice President and Associate General Counsel, Time Warner Inc., to Marlene Dortch, Secretary, Federal Communications Commission (filed Feb. 24, 2005).

¹⁶ See, e.g., Letter from Neal Goldberg, General Counsel, National Cable and Telecommunications Association and Julie Kearney, Senior Director and Regulatory Counsel, Consumer Electronics Association, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed April 2, 2007) (no cited progress in negotiating a bidirectional agreement); Letter from Neal Goldberg, General Counsel, National Cable and Telecommunications Association and Julie Kearney, Senior Director and Regulatory Counsel, Consumer Electronics Association, to Marlene H. Dortch, Secretary, Federal Communications Commission (filed June 1, 2007) (same).

¹⁷ See Letter from Daniel L. Brenner, Senior Vice President, Law & Regulatory Policy, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission (Nov 30, 2005).

compatibility, the industries appear to disagree on how an OCAP solution should be implemented.¹⁸

7. When the Commission last addressed these issues in *2005 Deferral Order*, the scheduled conclusion of the Digital Television (“DTV”) transition (*i.e.*, December 31, 2006) could be extended in any given market if certain conditions were not met. Most relevant to this discussion, Section 309(j)(14)(B)(iii) at the time stated that if more than 15 percent of the television households in a given market did not (1) subscribe to an MVPD carrying the digital signals of the local television stations in that market, and (2) have at least one television capable of viewing the digital signals of broadcasters in that market (either directly or through the use of a digital-to-analog converter), then the Commission was to grant an extension of that deadline upon request.¹⁹ Since the *2005 Deferral Order* was adopted, however, the 85-percent test has been repealed, and the December 31, 2006 soft deadline for the end of the DTV transition has been replaced with a hard deadline of February 17, 2009.²⁰ We believe that the lack of two-way functionality on digital cable ready devices is deterring consumers from purchasing digital televisions, which are an essential part of an effective digital transition.²¹ Therefore, we believe that the impending hard deadline increases the urgency of examining proposed bidirectional standards at this time.

III. DISCUSSION

8. On November 7, 2006, the CEA, along with twelve consumer electronics and information technology companies, proposed a two-way plug and play solution.²² That proposal, attached to this item as Appendix B, recommends that the Commission take the following steps:

- (1) Adopt an enhanced CableCARD approach for basic interactive services, based largely on existing standards;²³
- (2) Provide oversight with respect to OCAP development, or allow consumer electronics companies and information technology companies to participate fully in the OCAP development process;²⁴
- (3) Direct CableLabs to approve all output technologies that the Digital Living Network Alliance (“DLNA”) approves, and require cable providers to provide digital set-

¹⁸ Compare *id.* at 13-16 with CEA Proposal at 8-10. See also *2005 Deferral Order*, 20 FCC Rcd at 6801-6803, ¶¶ 17-20.

¹⁹ See 47 U.S.C. § 309(j)(14)(B)(iii) (2005). This commonly was referred to as the “85-percent test.”

²⁰ See Digital Television and Public Safety Act of 2005 (“DTV Act”). The DTV Act amends Section 309(j)(14) of the Communications Act to establish February 17, 2009 as a new hard deadline for the end of analog transmissions by full-power stations. See Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 (2006) (“DRA”). Title III of the DRA is the DTV Act.

²¹ See *Review of the Commission’s Rules and Policies Affecting the Conversion to Digital Television*, 17 FCC Rcd 15978, 15995, ¶ 37 (2002) (“[W]e agree that development of “plug and play” cable compatibility is one of the key remaining goals for the DTV transition for those consumers who do not have set top boxes available or who do not want to use a set top box.”). See also Mavis Scanlon, *Are You Ready for ‘Plug & Explain’?*, CABLE WORLD, May 3, 2004, available at <http://www.cable360.net/cableworld/technology/standards/16049.html> (“Consumers who research their new TV purchases may be better off waiting until the two-way plug-and-play deal is sealed.”).

²² Letter from Brian Markwalter, Vice President, Technology and Standards, Consumer Electronics Association, et al., to Kevin J. Martin, Chairman, Federal Communications Commission, attaching Letter from Brian Markwalter, Vice President, Technology and Standards, Consumer Electronics Association, et al., to Marlene H. Dortch, Secretary, Federal Communications Commission (filed Nov. 7, 2006) (“CEA Proposal”).

²³ See *id.* at 5-7.

²⁴ See *id.* at 8.

top boxes that are fully compatible with DLNA networks;²⁵

(4) Adopt testing requirements for two-way devices that are similar to the existing testing requirements for one-way devices (*i.e.*, initial device testing and certification with subsequent self-certification), and require that the cable industry provide consumer electronics manufacturers any new OCAP applications for testing at least sixty days before widespread deployment; and

(5) Permit consumer electronics devices to use a cable path for software upgrades equal to the path that cable operators use for their software upgrades.

9. We hereby seek comment on the CEA proposal. We seek comment on the impact that the proposed solution would have on consumers, content providers, consumer electronics manufacturers, large and small cable operators, other MPVDs, and on the transition to digital television. We seek comment on whether the CEA proposal offers a reasonable and quickly implementable approach, and what specific rule changes would be necessary.

10. As noted above, in November 2005, NCTA proposed a two-way solution based on the use of OCAP as a standardized middleware layer.²⁶ The proposal, attached to this item as Appendix C, recommends that the Commission adopt a regulatory regime that includes:

- (1) Technical requirements for cable systems;
- (2) “Limited but necessary” content protection requirements for navigation devices;
- (3) Testing and certification/verification procedures to prevent harm to the cable network and services; and
- (4) Consumer education mandates.

NCTA asserts that if combined with voluntary commitments and marketplace agreements, its proposal would bring consumers the benefits of two-way digital cable-ready products as quickly as possible.

11. We hereby seek comment on NCTA’s proposal. We seek comment on the impact that the proposed solution would have on consumers, content providers, consumer electronics manufacturers, large and small cable operators, other MPVDs, and on the transition to digital television. We seek comment on whether the NCTA proposal offers a reasonable and quickly implementable approach, and what specific rule changes would be necessary.

12. We also seek comment on any other proposals or rule changes that we should consider in order to permit the development of two-way digital cable-ready devices.

13. In addition, we seek comment on whether all MVPDs – including DBS and wireline video providers – should be subject to any rules that we adopt to promote bidirectional compatibility between cable television systems and consumer electronics equipment. Could non-traditional cable operators and other MVPDs conform to the proposed solutions above, or would technical limitations preclude

²⁵ See *id.* at 8-9.

²⁶ In November 2005, NCTA submitted a proposal based on the CableCARD-Host Interface License Agreement and OCAP. See Letter from Daniel L. Brenner, Senior Vice President, Law and Regulatory Policy, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission (Nov. 30, 2005).

compliance?²⁷ If technical limitations would preclude compliance, we seek comment on other approaches by which non-traditional cable operators and other MVPDs could achieve bidirectional compatibility between their systems and consumer electronics equipment. For example, NCTA notes that there has been exploration of an enhanced security device for all MVPDs that would permit a retail device to interoperate with all MVPD networks, whether traditional cable, satellite or telephone.²⁸ We seek comment on such a solution, including whether such a device should be required to comply with specific attachment principles such as outputting the signal in conformance with certain open standards in order to permit home networking.

14. As the digital television transition approaches, we do not want to lose the potential opportunity for consumers to purchase competitive devices before the last major holiday season prior to the transition. We seek comment on whether a competitive market would offer further incentive for consumers to transition from analog to digital devices. Ideally, we would like consumers to be able to purchase two-way digital cable ready devices at retail by Q4 2008, in time for the final holiday season before the February 17, 2009 over-the-air digital television transition. We seek comment on whether that goal is feasible and the steps we must adopt in order to achieve that goal. We also solicit comment on any specific rules we should adopt to ensure that we achieve a practical bidirectional solution that furthers the goals of Section 629 of the Act.

IV. PROCEDURAL MATTERS

A. Initial Regulatory Flexibility Analysis

15. With respect to the *Third Further Notice of Proposed Rulemaking*, an Initial Regulatory Flexibility Analysis ("IRFA"), *see generally* 5 U.S.C. § 603, is contained in Appendix A. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the *Third Further Notice of Proposed Rulemaking* specified *infra*. The Commission will send a copy of the *Third Further Notice of Proposed Rulemaking*, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.²⁹

B. Initial Paperwork Reduction Act of 1995 Analysis

16. This document does not contain proposed information collection(s) subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified "information collection burden for small business concerns with fewer than 25 employees," pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

C. Ex Parte Rules

17. *Permit-But-Disclose*. This proceeding will be treated as a "permit-but-disclose" proceeding subject to the "permit-but-disclose" requirements under section 1.1206(b) of the Commission's rules.³⁰

²⁷ *See, e.g.*, Letter from Paul Brigner, Executive Director, Federal Regulatory, Verizon, to Marlene Dortch, Secretary, Federal Communications Commission (October 20, 2005) (discussing potential technical barriers to cross-MVPD two-way solution).

²⁸ *See* Letter from Neal M. Goldberg, Vice President and General Counsel, NCTA, to Marlene Dortch, Secretary, Federal Communications Commission (June 5, 2007).

²⁹ *See* 5 U.S.C. § 603(a). In addition, the *Third Further Notice of Proposed Rulemaking* and the IRFA (or summaries thereof) will be published in the Federal Register.

³⁰ *See* 47 C.F.R. § 1.1206(b); *see also* 47 C.F.R. §§ 1.1202, 1.1203.

Ex parte presentations are permissible if disclosed in accordance with Commission rules, except during the Sunshine Agenda period when presentations, *ex parte* or otherwise, are generally prohibited. Persons making oral *ex parte* presentations are reminded that a memorandum summarizing a presentation must contain a summary of the substance of the presentation and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented is generally required.³¹ Additional rules pertaining to oral and written presentations are set forth in section 1.1206(b).

D. Filing Requirements

18. *Comments and Replies.* Pursuant to Sections 1.415 and 1.419 of the Commission's rules,³² interested parties may file comments on or before the dates indicated on the first page of this document. Comments may be filed using: (1) the Commission's Electronic Comment Filing System ("ECFS"), (2) the Federal Government's eRulemaking Portal, or (3) by filing paper copies.³³

19. *Electronic Filers:* Comments may be filed electronically using the Internet by accessing the ECFS: <http://www.fcc.gov/cgb/ecfs/> or the Federal eRulemaking Portal: <http://www.regulations.gov>. Filers should follow the instructions provided on the website for submitting comments. For ECFS filers, if multiple docket or rulemaking numbers appear in the caption of this proceeding, filers must transmit one electronic copy of the comments for each docket or rulemaking number referenced in the caption. In completing the transmittal screen, filers should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions, filers should send an e-mail to ecfs@fcc.gov, and include the following words in the body of the message, "get form." A sample form and directions will be sent in response.

20. *Paper Filers:* Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, NE., Suite 110, Washington, DC 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail should be addressed to 445 12th Street, SW, Washington DC 20554.

21. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12th Street, S.W., CY-A257, Washington, D.C., 20554. These

³¹ See 47 C.F.R. § 1.1206(b)(2).

³² See 47 C.F.R. §§ 1.415, 1.1419.

³³ See *Electronic Filing of Documents in Rulemaking Proceedings*, 13 FCC Rcd 11322 (1998).

documents will also be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

22. *Accessibility Information.* To request information in accessible formats (computer diskettes, large print, audio recording, and Braille), send an e-mail to fcc504@fcc.gov or call the FCC's Consumer and Governmental Affairs Bureau at (202) 418-0530 (voice), (202) 418-0432 (TTY). This document can also be downloaded in Word and Portable Document Format (PDF) at: <http://www.fcc.gov>.

23. *Additional Information.* For additional information on this proceeding, contact Steven Broeckaert, Steven.Broeckaert@fcc.gov, or Brendan Murray, Brendan.Murray@fcc.gov, of the Media Bureau, Policy Division, (202) 418-2120.

V. ORDERING CLAUSE

24. **IT IS ORDERED** that, pursuant to Sections 1, 4(i) and (j), 303, 403, 601, and 629 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 403, 521, 549, COMMENT IS HEREBY SOUGHT on the proposals in this *Third Further Notice Of Proposed Rulemaking*.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

APPENDIX A

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (“RFA”)³⁴ the Commission has prepared this Initial Regulatory Flexibility Analysis (“IRFA”) of the possible significant economic impact on small entities by the policies and rules proposed in this Third Further Notice of Proposed Rulemaking and Order on Review (“Further Notice”). Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments on the Further Notice provided above in paragraph 8. The Commission will send a copy of the Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.³⁵ In addition, the Further Notice and IRFA (or summaries thereof) will be published in the Federal Register.³⁶

A. Need for, and Objectives of, the Proposed Rules.

2. The need for FCC regulation in this area derives from the lack of a two-way plug and play standard for cable television systems and consumer electronics equipment. The absence of such a standard has been identified as a possible impediment to the approaching deadline for the transition to digital television (“DTV”) and to the realization of Congressional goals set out in Section 629 of the Communications Act of 1934. Such a standard would allow consumer electronics manufacturers to develop navigation devices (such as televisions and set-top boxes) that could be connected directly to cable systems and make use of bidirectional cable services without the need for a cable-operator provided navigation device. Since almost 86 percent of television households subscribe to a multichannel video programming distributor (“MVPD”) service,³⁷ the availability of such bidirectional compatibility would encourage more consumers to purchase DTV compatible devices, thereby furthering the transition. Private industry negotiations between the Consumer Electronics Association (“CEA”) and twelve consumer electronics and information technology companies have resulted in a proposal for a two-way plug and play standard. The proposal requires adherence to certain technical standards outlined in Appendix B. The objectives any rules adopted will be to create a competitive market for navigation devices and to facilitate the DTV transition.

B. Legal Basis.

3. The authority for the action proposed in this rulemaking is contained in Sections 1, 4(i) and (j), 303, 403, 601, and 629 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 403, 521, and 549.

³⁴ See 5 U.S.C. § 603. The RFA, *see* 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

³⁵ See 5 U.S.C. § 603(a).

³⁶ See *id.*

³⁷ *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 21 FCC Rcd 2503, 2506 (2006).

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply.

4. The RFA directs the Commission to provide a description of and, where feasible, an estimate of the number of small entities that will be affected by the proposed rules.³⁸ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental entity” under Section 3 of the Small Business Act.³⁹ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁴⁰ A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (“SBA”).⁴¹

5. *Television Broadcasting.* The proposed rules and policies could affect television broadcasting licensees, and potential licensees of television service. The Small Business Administration defines a television broadcasting station that has no more than \$13 million in annual receipts as a small business.⁴² Television broadcasting consists of establishments primarily engaged in broadcasting images together with sound, including the production or transmission of visual programming which is broadcast to the public on a predetermined schedule.⁴³ Included in this industry are commercial, religious, educational, and other television stations.⁴⁴ Also included are establishments that are primarily engaged in television

³⁸ 5 U.S.C. § 603(b)(3).

³⁹ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in 15 U.S.C. § 632). Pursuant to the RFA, the statutory definition of a small business applies, “unless an agency, after consultation with the Office of Advocacy of the SBA and after opportunity for public comment, establishes one or more definitions of such the term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.

⁴⁰ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁴¹ 15 U.S.C. § 632. Application of the statutory criteria of dominance in its field of operation, and independence are sometime difficult to apply in the context of broadcast television. Accordingly, the Commission’s statistical account of television stations may be over-inclusive.

⁴² 13 C.F.R. § 121.201, North American Industry Classification System (“NAICS”) code 515120.

⁴³ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Source of Receipts, Information Sector 51, Appendix B at B-7-8 (2000).

⁴⁴ *Id.* See Executive Office of the President, Office of Management and Budget, Standard Industrial Classification Manual (1987), at 283, which describes “Television Broadcasting Stations (SIC code 4833)” as:

Establishments primarily engaged in broadcasting visual programs by television to the public, except cable and other pay television services. Included in this industry are commercial, religious, educational and other television stations. Also included here are establishments primarily engaged in television broadcasting and which produce taped television program materials.

NAICS code 513120, by its terms, supercedes the former SIC code 4833, but incorporates the foregoing inclusive definitions of different types of television stations. See Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Source of Receipts, Information Sector 51, Appendix B at B-7-8 (2000).

broadcasting and produce programming in their own studios.⁴⁵ Separate establishments primarily engaged in producing programming are classified under other NAICS numbers.⁴⁶

6. There were 1,509 television stations operating in the nation in 1992.⁴⁷ That number has remained fairly constant as indicated by the approximately 1,747 operating television broadcasting stations in the nation as of June 2005.⁴⁸ For 1992, the number of television stations that produced less than \$10.0 million in revenue was 1,155 establishments.⁴⁹ Thus, the new rules could affect approximately 1,747 television stations; approximately 77%, or 1,345 of those stations are considered small businesses.⁵⁰ These estimates may overstate the number of small entities since the revenue figures on which they are based do not include or aggregate revenues from non-television affiliated companies.

7. *Cable and Other Program Distribution.* The SBA has developed a small business size standard for cable and other program distribution services, which includes all such companies generating \$13.5 million or less in revenue annually.⁵¹ This category includes, among others, cable operators, direct broadcast satellite (“DBS”) services, home satellite dish (“HSD”) services, satellite master antenna television (“SMATV”) systems, and open video systems (“OVS”). According to the Census Bureau data, there are 1,191 total cable and other pay television service firms that operate throughout the year of which 1,087 have less than \$10 million in revenue.⁵² We address below each service individually to provide a more precise estimate of small entities.

8. *Cable Operators.* The Commission has developed, with SBA's approval, our own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a “small cable company” is one serving fewer than 400,000 subscribers nationwide.⁵³ As of 2006,

⁴⁵ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Source of Receipts, Information Sector 51, Appendix B at B-7 (2000).

⁴⁶ NAICS code 512110 (Motion Picture and Video Production); NAICS code 512120 (Motion Picture and Video Distribution); NAICS code 512191 (Teleproduction and Other Post-Production Services); NAICS code 512199 (Other Motion Picture and Video Industries). We note, however, that these entities are not FCC regulatees or licensees and are not subject to the RFA in this context.

⁴⁷ FCC News Release No. 31327, Jan. 13, 1993; Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, Appendix A-9.

⁴⁸ FCC News Release, Broadcast Station Totals as of September 30, 2001 (rel. Oct. 30, 2001).

⁴⁹ The amount of \$10 million was used to estimate the number of small business establishments because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$12 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁵⁰ We use the 77 percent figure of TV stations operating at less than \$10 million for 1992 and apply it to the 2005 total of 1,747 TV stations to arrive at 1,345 stations categorized as small businesses.

⁵¹ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220). This NAICS code applies to all services listed in this paragraph.

⁵² Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Subject Series – Establishment and Firm Size, Information Sector 51, Table 4 at 50 (2000). The amount of \$10 million was used to estimate the number of small business firms because the relevant Census categories stopped at \$9,999,999 and began at \$10,000,000. No category for \$13.5 million existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁵³ 47 C.F.R. § 76.901(e). The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of \$100 million or less. *Sixth Report and Order and Eleventh Order on Reconsideration*, 10 FCC Rcd. 7393 (1995).

7,916 cable operators qualify as small cable companies.⁵⁴

9. The Communications Act, as amended, also contains a size standard for a small cable system operator, which is “a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1% of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000.”⁵⁵ The Commission has determined that there are 65,600,000 subscribers in the United States.⁵⁶ Therefore, an operator serving fewer than 656,000 subscribers shall be deemed a small operator if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed \$250 million in the aggregate.⁵⁷ Based on available data, we find that the number of cable operators serving 656,000 subscribers or less totals approximately 7,917.⁵⁸ Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed \$250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators that would qualify as small cable operators under the definition in the Communications Act.

10. *Direct Broadcast Satellite (“DBS”) Service.* Because DBS provides subscription services, DBS falls within the SBA-recognized definition of cable and other program distribution services.⁵⁹ This definition provides that a small entity is one with \$13.5 million or less in annual receipts.⁶⁰ There are four licensees of DBS services under Part 100 of the Commission’s Rules. Three of those licensees are currently operational. Two of the licensees that are operational have annual revenues that may be in excess of the threshold for a small business.⁶¹ The Commission, however, does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these proposed rules. DBS service requires a great investment of capital for operation, and we acknowledge, despite the absence of specific data on this point, that there are entrants in this field that may not yet have generated \$13.5 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

11. *Home Satellite Dish (“HSD”) Service.* Because HSD provides subscription services, HSD falls within the SBA-recognized definition of cable and other program distribution services.⁶² This

⁵⁴ 74 TELEVISION AND CABLE FACTBOOK F-2 (Warren Comm. News eds., 2006); Top 25 MSOs – NCTA.com, available at <http://www.ncta.com/ContentView.aspx?contentId=73> (last visited June 6, 2007). We arrived at 7,916 cable operators qualifying as small cable companies by subtracting the ten cable companies with over 400,000 subscribers found on the NCTA website from the 7,926 total number of cable operators found in the Television and Cable Factbook.

⁵⁵ 47 U.S.C. § 543(m)(2).

⁵⁶ Statistics – NCTA.com, available at <http://www.ncta.com/ContentView.aspx?contentId=54> (last visited June 6, 2007).

⁵⁷ 47 C.F.R. § 76.901(f).

⁵⁸ 74 TELEVISION AND CABLE FACTBOOK F-2 (Warren Commc’ns News eds., 2006); Top 25 MSOs – NCTA.com, available at <http://www.ncta.com/ContentView.aspx?contentId=73> (last visited June 6, 2007). We arrived at 7,917 cable operators qualifying as small cable companies by subtracting the nine cable companies with over 656,000 subscribers found on the NCTA website from the 7,926 total number of cable operators found in the Television and Cable Factbook.

⁵⁹ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

definition provides that a small entity is one with \$13.5 million or less in annual receipts.⁶³ The market for HSD service is difficult to quantify. Indeed, the service itself bears little resemblance to other MVPDs. As of June 2005, there were 206,358 households authorized to receive HSD service, a decrease of 38.5 percent from the 335,766 we reported the previous year.⁶⁴ HSD owners have access to more than 265 channels of programming placed on C-band satellites by programmers for receipt and distribution by MVPDs, of which 115 channels are scrambled and approximately 150 are unscrambled.⁶⁵ HSD owners can watch unscrambled channels without paying a subscription fee. To receive scrambled channels, however, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and pay a subscription fee to an HSD programming package. Thus, HSD users include: (1) viewers who subscribe to a packaged programming service, which affords them access to most of the same programming provided to subscribers of other MVPDs; (2) viewers who receive only non-subscription programming; and (3) viewers who receive satellite programming services illegally without subscribing. Because scrambled packages of programming are most specifically intended for retail consumers, these are the services most relevant to this discussion.⁶⁶

12. *Satellite Master Antenna Television ("SMATV") Systems.* The SBA definition of small entities for cable and other program distribution services includes SMATV services and, thus, small entities are defined as all such companies generating \$13.5 million or less in annual receipts.⁶⁷ Industry sources estimate that approximately 5,200 SMATV operators were providing service as of December 1995.⁶⁸ Other estimates indicate that SMATV operators serve approximately 1.5 million residential subscribers as of July 2001.⁶⁹ The best available estimates indicate that the largest SMATV operators serve between 15,000 and 55,000 subscribers each. Most SMATV operators serve approximately 3,000-4,000 customers. Because these operators are not rate regulated, they are not required to file financial data with the Commission. Furthermore, we are not aware of any privately published financial information regarding these operators. Based on the estimated number of operators and the estimated number of units served by the largest ten SMATVs, we believe that a substantial number of SMATV operators qualify as small entities.

13. *Open Video Systems ("OVS").* Because OVS operators provide subscription services,⁷⁰ OVS falls within the SBA-recognized definition of cable and other program distribution services.⁷¹ This definition provides that a small entity is one with \$ 13.5 million or less in annual receipts.⁷² The Commission has certified 25 OVS operators with some now providing service. Affiliates of Residential Communications Network, Inc. ("RCN") received approval to operate OVS systems in New York City, Boston, Washington, D.C. and other areas. RCN has sufficient revenues to assure us that they do not

⁶³ *Id.*

⁶⁴ Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, 21 FCC Rcd 2503, 2507 (2006).

⁶⁵ Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, 12 FCC Rcd 4358, 4385 (1996) ("*Third Annual Report*").

⁶⁶ *Id.* at 4385.

⁶⁷ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

⁶⁸ See *Third Annual Report*, 12 FCC Rcd at 4403-4.

⁶⁹ See Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, 17 FCC Rcd 1244, 1281 (2001) ("*Eighth Annual Report*").

⁷⁰ See 47 U.S.C. § 573.

⁷¹ 13 C.F.R. § 121.201, NAICS code 517510 (formerly 513220).

⁷² *Id.*

qualify as small business entities. Little financial information is available for the other entities authorized to provide OVS that are not yet operational. Given that other entities have been authorized to provide OVS service but have not yet begun to generate revenues, we conclude that at least some of the OVS operators qualify as small entities.

14. *Electronics Equipment Manufacturers.* Rules adopted in this proceeding could apply to manufacturers of DTV receiving equipment and other types of consumer electronics equipment. The SBA has developed definitions of small entity for manufacturers of audio and video equipment,⁷³ as well as radio and television broadcasting and wireless communications equipment.⁷⁴ These categories both include all such companies employing 750 or fewer employees. The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment used by consumers, as compared to industrial use by television licensees and related businesses. Therefore, we will utilize the SBA definitions applicable to manufacturers of audio and visual equipment and radio and television broadcasting and wireless communications equipment, since these are the two closest NAICS Codes applicable to the consumer electronics equipment manufacturing industry. However, these NAICS categories are broad and specific figures are not available as to how many of these establishments manufacture consumer equipment. According to the SBA's regulations, an audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.⁷⁵ Census Bureau data indicates that there are 571 U.S. establishments that manufacture audio and visual equipment, and that 560 of these establishments have fewer than 500 employees and would be classified as small entities.⁷⁶ The remaining 11 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. Under the SBA's regulations, a radio and television broadcasting and wireless communications equipment manufacturer must also have 750 or fewer employees in order to qualify as a small business concern.⁷⁷ Census Bureau data indicates that there are 1,041 U.S. establishments that manufacture radio and television broadcasting and wireless communications equipment, and that 1,010 of these establishments have fewer than 500 employees and would be classified as small entities.⁷⁸ The remaining 31 establishments have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. We therefore conclude that there are no more than 560 small manufacturers of audio and visual electronics equipment and no more than 1,010 small manufacturers of radio and television broadcasting and wireless communications equipment for consumer/household use.

15. *Computer Manufacturers.* The Commission has not developed a definition of small entities

⁷³ 13 CFR § 121.201, NAICS code 334310.

⁷⁴ 13 CFR § 121.201, NAICS code 334220.

⁷⁵ 13 CFR § 121.201, NAICS code 334310.

⁷⁶ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 2002 Economic Census, Industry Series – Manufacturing, Audio and Video Equipment Manufacturing, Table 4 at 9 (2004). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

⁷⁷ 13 C.F.R. § 121.201, NAICS code 334220.

⁷⁸ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 2002 Economic Census, Industry Series – Manufacturing, Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, Table 4 at 9 (2004). The amount of 500 employees was used to estimate the number of small business firms because the relevant Census categories stopped at 499 employees and began at 500 employees. No category for 750 employees existed. Thus, the number is as accurate as it is possible to calculate with the available information.

applicable to computer manufacturers. Therefore, we will utilize the SBA definition of electronic computers manufacturing. According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.⁷⁹ Census Bureau data indicates that there are 485 firms that manufacture electronic computers and of those, 476 have fewer than 1,000 employees and qualify as small entities.⁸⁰ The remaining 9 firms have 1,000 or more employees. We conclude that there are approximately 476 small computer manufacturers.

D. Description of Projected Reporting, Recordkeeping and other Compliance Requirements.

16. At this time, we do not expect that the proposal would impose any additional reporting or recordkeeping requirements. In the past, however, compliance with plug and play rules required consumer electronics manufacturers to establish a voluntary labeling regime for unidirectional digital cable television receivers and related digital cable products that meet certain technical specifications.⁸¹ While these requirements could have an impact on consumer electronics manufacturers and multichannel video programming distributors, it remains unclear whether there would be a differential impact on small entities. We seek comment on whether the burden of these requirements would fall on large and small entities differently. We also seek comment on any aspect of the proposal or its impact that we may have overlooked.

E. Steps Taken to Minimize Significant Impact on Small Entities, and Significant Alternatives Considered.

17. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.⁸²

18. As indicated above, the Further Notice seeks comment on whether the Commission should adopt or revise rules relating to the proposed creation of a two-way plug and play standard for digital cable television systems and other digital cable television consumer electronics equipment in order to facilitate the DTV transition. Consumer electronics manufacturers may be required to establish a labeling regime for bidirectional digital cable television receivers and related digital cable products that meet certain technical specifications. However, we welcome comment on modifications of the proposal if based on evidence of potential differential impact on smaller entities. In addition, the Regulatory Flexibility Act requires agencies to seek comment on possible small entity-related alternatives, as noted above. We therefore seek comment on alternatives to the proposed rules that would assist small entities while ensuring bidirectional compatibility between cable operators and consumer electronics manufacturers.

⁷⁹ 13 C.F.R. § 121.201, NAICS code 334111.

⁸⁰ Economics and Statistics Administration, Bureau of Census, U.S. Department of Commerce, 1997 Economic Census, Industry Series – Manufacturing, Electronic Computer Manufacturing, Table 4 at 9 (1999).

⁸¹ See *Recommended Regulations to Ensure Compatibility Between Digital Cable Systems and Unidirectional Digital Cable Products and to Provide for Appropriate Labeling of Such Products* at 1-6 (“Proposed Technical Rules”).

⁸² 5 U.S.C. § 603(b).

F. Federal Rules Which Duplicate, Overlap, or Conflict with the Commission's Proposals.

19. None.

APPENDIX B

**Consumer Electronics Association's Proposal on Bidirectional
"Plug And Play" Cable Compatibility**

APPENDIX C

**National Cable and Telecommunications Association's Proposal on Bidirectional
"Plug and Play" Cable Compatibility**

**STATEMENT OF
COMMISSIONER MICHAEL J. COPPS**

Re: Commercial Availability of Navigation Devices, CS Docket 97-80 – Third Further Notice of Proposed Rulemaking

This is a rulemaking that can wait no longer. It has been 11 years since Congress directed the Commission to **assure** that equipment used to access video programming and other services offered by multi-channel video providers are available to consumers at retail. And yet today consumers cannot walk into their local retailer and purchase a television set that will receive two-way digital cable services like VOD, PPV, and EPGs – as well as other acronyms that haven't been invented yet – without renting a set-top box from their local cable operator.

Why is this important? First, many consumers in the analog world do not use a set-top box to receive cable programming and would not consider it “progress” to be told that they need one in order to transition to digital. Indeed, the absence of plug-and-play capability may discourage some consumers from investing in new digital equipment at precisely the time we are attempting to minimize the legacy analog equipment in the marketplace. Second, and equally important, a flourishing market for two-way devices would create tremendous and ongoing competitive benefits for consumers. Right now, two companies dominate the market for interactive cable equipment. Opening up that market to competition would bring in scores of new companies to compete and innovate, which ultimately would mean higher quality products at lower prices.

This is not to diminish the progress made to date. In 2003, for instance, the Commission adopted rules to permit the development of one-way plug-and-play devices, and many one-way products are on the market today. But while one-way equipment was a start, it's not where we need to be – as the marketplace seems to be telling us. The world is not only going digital, it's becoming increasingly interactive. More and more of the services that consumers are demanding require equipment that can talk back to their provider. We need a two-way solution.

When the one-way rules were adopted, the hope was that they would provide a springboard for a consensus two-way proposal. Unfortunately, though the parties have spent countless hours in discussions over the past four years, there is no indication that they are close to reaching an agreement. Given our statutory obligation to assure the retail availability of navigation devices, we must act, and act quickly. I support the item and thank the Chairman and my colleagues for making this issue a priority.