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

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FCC Mail Room

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

FOURTH FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: April 21, 2010 **Released: April 21, 2010**

Comment Date: [30 days after date of publication in the Federal Register]
Reply Comment Date: [45 days after date of publication in the Federal Register]

By the Commission: Chairman Genachowski and Commissioners Copps, McDowell, Clyburn and Baker issuing separate statements.

I. INTRODUCTION

1. As discussed in the companion Notice of Inquiry released today,[1] the Commission has not been fully successful in implementing the command of Section 629 of the Communications Act to ensure the commercial availability of navigation devices used by consumers to access the services of multichannel video programming distributors ("MVPDs"). The Notice of Inquiry begins the process of instituting a successor to the CableCARD regime that has been the centerpiece of the Commission's efforts to implement Section 629 to date. In this Fourth Further Notice of Proposed Rulemaking, we propose new rules designed to improve the operation of the CableCARD regime in the interim until the successor solution becomes effective.

2. To implement the mandate of Section 629, the FCC adopted rules in its First Report and Order[2] that required MVPDs to make available a conditional access element[3] separate from the basic navigation or "host" device, to enable unaffiliated entities to manufacture and market host devices while allowing MVPDs to protect their networks from harm or theft of service. The Commission later adopted standards in its Second Report and Order that largely reflected the terms of a Memorandum of

[1] *Video Device Competition; Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Notice of Inquiry, MB Docket No. 10-91, CS Docket No. 97-80, PP Docket No. 00-67 (rel. April 21, 2010).

[2] *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775 (1998) ("*First Report and Order*").

[3] The term "conditional access element" refers to a piece of equipment that handles the security functions that allow a set-top box or television set to access subscription video services (*e.g.*, decryption of scrambled content).

Understanding between cable operators and the consumer electronics industry to establish the technical details of the conditional access element, resulting in the creation of the CableCARD.[4] The CableCARD is a security device provided by the cable provider and inserted into a retail navigation device (including digital cable ready televisions) bought by a consumer in the retail market or a set-top box leased from the cable provider.

3. Unfortunately, in practice, cable customers who purchase retail navigation devices and connect these devices to their cable service using CableCARDs for conditional access typically experience additional installation and support costs and pay higher prices than those who lease set-top boxes from their cable company.[5] Accordingly, in this Fourth Further Notice of Proposed Rulemaking, we seek comment on proposed rules designed to remove this disparity in the subscriber experience for those customers who choose to utilize a navigation device purchased at retail as opposed to leasing the cable providers' set-top box.

4. Additionally, the *Second Report and Order* included rules requiring a specific interface on leased set-top boxes to allow recording on digital recording devices. Multiple parties have raised concerns about whether the rule is specific enough to be effective and whether other interfaces could equally achieve this purpose. Therefore, we seek comment on proposed rules to more fully specify the functionality of this interface and to enable other interfaces as well.

5. Finally, we seek comment on proposed changes to our rules that are intended to encourage cable operators to use their capacity more efficiently by transitioning the systems to all-digital. All of these proposed rules are intended to further the goals of Section 629.[6]

II. BACKGROUND

6. In the Telecommunications Act of 1996, Congress added Section 629 to the Communications Act.[7] That section directs the Commission to adopt regulations to ensure the commercial availability of navigation devices used by consumers to access services from MVPDs. Section 629 covers "equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems."[8] Congress, in enacting the section, pointed to the vigorous retail market for customer premises equipment ("CPE") used with the telephone network and sought to create a similarly vigorous market for devices used with MVPD services.[9]

7. In 1998, the Commission adopted the *First Report and Order* to implement Section 629.[10] The order required MVPDs to make available a conditional access element separate from the basic navigation or host device, in order to permit unaffiliated manufacturers and retailers to manufacture and market host

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[4] *See 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, at 20926-20944, Appendix B (2003) ("*Second Report and Order*").

[5] Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 3-13 (March 31, 2010); Baja Broadband Reply Comments, CSR-7111-Z, at 4-5 (filed Aug 31, 2009) ("retail one-way TiVo HDs are much more expensive . . . than two way Motorola CableCARD HD/DVRs.").

[6] *See* 47 U.S.C. § 549(c).

[7] *See* Telecommunications Act of 1996, Pub. L. No. 104-104, § 304, 110 Stat. 56, 125-126 (1996); 47 U.S.C. § 549.

[8] 47 U.S.C. § 549(a).

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

[10] *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 13 FCC Rcd 14775 (1998) ("*First Report and Order*").

devices while allowing MVPDs to retain control over their system security.[11] The technical details of this conditional access element were to be worked out in industry negotiations. In 2003, the Commission adopted, with certain modifications, standards on which the National Cable and Telecommunications Association and the Consumer Electronics Association had agreed in a Memorandum of Understanding ("MOU").[12] The MOU prescribed the technical standards for one-way (from cable system to customer device) CableCARD compatibility. The CableCARD is a security device provided by an MVPD, which can be inserted into a retail navigation device bought by a consumer in the retail market to allow the consumer's television to display MVPD-encrypted video programming. To ensure adequate support by MVPDs for CableCARDs, the Commission prohibited MVPDs from integrating the security function into set-top boxes they lease to consumers, thus forcing MVPDs to rely on CableCARDs as well.[13] This "integration ban" was initially set to go into effect on January 1, 2005,[14] but that date was later extended to July 1, 2007.[15]

8. Unfortunately, the Commission's efforts to date have not developed a competitive retail market for retail navigation devices that connect to subscription video services.[16] Most cable subscribers continue to use the traditional set-top boxes leased from their cable operator.[17] Although following adoption of the CableCARD rules some television manufacturers sold unidirectional digital cable-ready products ("UDPCs"), most manufactures have abandoned the technology.[18] Indeed, since July 1, 2007, cable operators have deployed more than 18.5 million leased devices pre-equipped with CableCARDs, compared to only 489,000 CableCARDs installed in retail devices connected to their networks.[19] Furthermore, while 605 UDCP models have been certified or verified for use with CableCARDs, only 37 of those certifications have occurred since the integration ban took effect in July 2007.[20] This indicates

[11] *Id.* at 14808, ¶ 80; 47 C.F.R. § 76.1204(a)(1).

[12] *See 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, at 20926-20944, Appendix B (2003). *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).

[13] *First Report and Order*, 13 FCC Rcd at 14803, ¶ 69.

[14] *Id.*

[15] In April 2003, the Commission extended the effective date of the integration ban until July 1, 2006. *See Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 18 FCC Rcd 7924, 7926, ¶ 4 (2003). Then, in 2005, the Commission further extended that date until July 1, 2007. *See Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6810, ¶ 31.

[16] Rob Pegoraro, *As Cable TV Goes Digital, It's Still Stuck Inside the Box*, THE WASHINGTON POST, Oct. 4, 2009, at G1.

[17] *See* FEDERAL COMMUNICATIONS COMMISSION, BROADBAND GAPS 18 (November 18, 2009), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-294708A1.pdf.

[18] Rob Pegoraro, *As Cable TV Goes Digital, It's Still Stuck Inside the Box*, THE WASHINGTON POST, Oct. 4, 2009, at G1. Some manufacturers are offering tru2way television sets with CableCARD slots in test markets. David Chartier, *Panasonic ships first tru2way HDTVs to Chicago, Denver*, ARS TECHNICA, October 16, 2008, *available at* http://arstechnica.com/old/content/2008/10/panasonic-ships-first-tru2way-hdtvs-to-chicago-denver.ars.

[19] Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 1 (March 31, 2010).

[20] *Compare* Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 1 (December 22, 2009) *with* Letter from Neal M. Goldberg, Vice President and General

that many retail device manufacturers abandoned CableCARD as a solution to develop a retail market before any substantial benefits of the integration ban could be realized.

9. Not only were there very few retail devices manufactured and subsequently purchased in the retail market, but there was an additional complication with the installation process that depressed the retail market. The cable-operator-leased devices come pre-equipped with a CableCARD, so that no subscriber premises installation of the card is required.[21] But this is not the case with devices purchased at retail. CableCARDs must be professionally installed in those devices by the cable operator. Unfortunately, the record reflects poor performance with regard to subscriber premise installations of CableCARDs in retail devices.[22] This could be a consequence of the fact that only 1% of the total navigation devices deployed are purchased at retail and require an actual CableCARD installation,[23] which may have made it difficult properly to train the cable installers. It could also reflect either an indifference or a reluctance by cable operators to support navigation devices purchased at retail in competition with their own set-top boxes. Regardless of the cause, these serious installation problems further undermined the development of a retail market.

10. The Commission anticipated that the parties to the one-way MOU would negotiate a further MOU to achieve bidirectional compatibility, using either a software-based or hardware-based solution.[24] When the Commission realized in June 2007 that negotiations were not leading to an agreement for bidirectional compatibility between consumer electronics devices and cable systems, it released a Third Further Notice of Proposed Rulemaking, seeking comment on competing proposals for bidirectional compatibility and other related issues.[25] In the wake of the *Two-way FNPRM*, the six largest cable operators and numerous consumer electronics manufacturers negotiated an agreement for bidirectional compatibility that continues to rely and builds on CableCARDs by using a middleware-based solution called "tru2way."[26]

Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 1 (June 25, 2007).

[21] *See, e.g.*, MOTOROLA DCX700 SPEC SHEET, *available at* http://www.motorola.com/staticfiles/Business/Products/TV%20Video%20Distribution/Customer%20Premises%20Equipment/All%20Digital%20QAM%20Set-tops/DCX700/_Document/static_files/DCX700%20spec%20sheet.pdf?localeId=33 (featuring a "Pre-installed M-Card"); SCIENTIFIC ATLANTA, IMPLEMENTING SEPARABLE SECURITY in a DBDS at 13, *available at* http://www.scientificatlanta.com/products/customers/images_training/752705-c%20implementing%20separable%20security%20in%20a%20dbds.pdf (explaining that set-top boxes with factory-installed CableCARDs are called "Separable Security Combination" boxes).

[22] *See, e.g.*, Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 3-13 (March 31, 2010).

[23] *See* FEDERAL COMMUNICATIONS COMMISSION, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 51 (2010).

[24] *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 18 FCC Rcd 7924, 7925-6, ¶ 4-5 (2003); *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6811-2, ¶ 34 (2005).

[25] *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 22 FCC Rcd 12024 (2007) ("*Two-way FNPRM*").

[26] Bidirectional Digital Cable Televisions incorporating tru2way are now available from Panasonic in test markets. As of October 6, 2009, the tru2way MOU has been signed by ADB, Alticast, AMD, Broadcom, Cisco, Digeo, EchoStar, Funai, Intel, LG Electronics, Motorola, Pace, Panasonic, Samsung, Sony, Texas Instruments, Thomson, Tivo, and Toshiba, as well as the cable operators Comcast, Cox, Time Warner, Charter, Cablevision, and Bright House.

III. DISCUSSION

11. In this *Fourth FNPRM*, we seek comment on proposed rules designed to improve the CableCARD regime during the time in which it will remain in effect. Specifically, we seek comment on whether market-based solutions serve consumers adequately with respect to switched-digital video and we propose rules that would (i) require that equivalent prices be charged for CableCARDs for use in cable-operator-provided set-top boxes and in retail devices, and require billing of the CableCARD to be more transparent; (ii) simplify the CableCARD installation process; (iii) require cable operators to offer their subscribers CableCARDs that can tune multiple streams; and (iv) streamline the CableCARD device certification process. As noted, we also propose a change to our existing output requirement rules to ensure set-top box compatibility with retail consumer devices, and we propose changes to our rules that are intended to encourage cable operators to use their capacity more efficiently by transitioning the systems to all-digital.

A. Reforming the CableCARD System

12. NCTA suggests that the Commission seek comment on whether the CableCARD has become outdated.[27] NCTA explains that physical dimensions and components of the CableCARD are based on a standard that is more than a decade old and that new technologies, such as IPTV, are moving away from the CableCARD's traditional hardware-based security model.[28] Accordingly, we seek comment on whether technical developments over the last decade have overtaken the CableCARD model. While we recognize that CableCARD is an aging technology with certain limitations,[29] we also understand that the cable and consumer electronics industries have invested heavily in the technology as both a unidirectional and bidirectional solution, and we do not believe that it needs to be abandoned in the near-term. To the contrary, we hope to build on this technology with relatively minor adjustments to our existing CableCARD rules to extend the viability of the CableCARD while the Commission works to establish a successor solution for retail navigation device compatibility with MVPD services. We seek comment on the Commission's tentative conclusion that CableCARD is not a viable long-term solution for the current lack of compatibility between MVPD services and retail navigation devices, and on the Commission's proposal to reform the CableCARD system as an interim solution as we work toward a new model that will provide for that compatibility.[30] Given the Commission's predietive judgment regarding the CableCARD regime, we also seek comment on a reporting requirement that we imposed in 2005, directing NCTA and the Consumer Electronics Association to file quarterly status reports on the status of their two-way negotiations.[31] Should we continue that requirement? If so, should we make any changes to it? In a similar vein, we encourage commenters to update the record on petitions seeking reconsideration of the Commission's *Second Report and Order* in this proceeding.[32] Have there been

[27] NCTA Comments on National Broadband Plan Public Notice #27 ("NBP PN #27") at 30.

[28] *Id.*

[29] *Video Device Competition; Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Notice of Inquiry, MB Docket No. 10-91, CS Docket No. 97-80, PP Docket No. 00-67 at ¶¶ 12-13 (rel. April 21, 2010).

[30] *Id.* at ¶¶ 15-36.

[31] *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd 6794, 6795, ¶ 3 (2005).

[32] Joint Petition for Reconsideration of Broadcast Music, Inc. and the American Society of Composers, Authors and Publishers, CS Docket No. 97-80, PP Docket No. 00-67 (filed Dec. 24, 2003); Petition for Reconsideration of DIRECTV, Inc., CS Docket No. 97-80, PP Docket No. 00-67 (filed Dec. 29, 2003); Joint Petition for Reconsideration of the National Music Publishers' Association, the American Society of Composers, Authors and Publishers, the Songwriters Guild of America and Broadcast Music, Inc., CS Docket No. 97-80, PP Docket No. 00-67 (filed Dec. 29, 2003); Petition for Reconsideration or Clarification of the National Cable & Telecommunications

technological or marketplace developments since 2004 that the Commission should consider or developments that render any of the issues in those petitions for reconsideration moot?

13. The Commission's National Broadband Plan made certain recommendations designed to provide benefits to consumers who use retail CableCARD devices without imposing unfair regulatory burdens on the cable industry. The plan suggested that these changes could serve as an interim solution that will benefit consumers while the Commission considers broader changes to develop a retail market for navigation devices. We view these interim steps as an important bridge to the implementation of a successor technology, and we believe that these reforms will address problems immediately with relatively little cost. Specifically, the Plan recommended that the Commission take five steps to solve problems associated with the Commission's current CableCARD rules: (i) ensure equal access to linear channels for retail and operator-leased CableCARD devices; (ii) mandate equivalent and transparent prices for CableCARDs; (iii) ensure that CableCARD installations provide a substantially similar consumer experience to operator-leased set-top box installations; (iv) require operators to offer multi-stream CableCARDs to their subscribers; and (v) streamline and accelerate the certification process for retail CableCARD devices.[33] We seek comment on proposed rules to implement these recommendations as discussed below.

14. *Switched Digital Video*. UDCPs with a CableCARD today cannot access linear channels[34] delivered by cable operators using switched-digital technology.[35] Private industry negotiations have led to a market-based solution to allow certain types of UDCPs to access switched-digital programming through operator-provided tuning adapters.[36] We seek comment on whether this market-based solution is working and whether UDCP manufacturers and cable operators are meeting their obligations under that agreement. We seek comment on the cost of the tuning adapters to consumers and cable operators, and any provisioning challenges with the tuning adapters. We also seek comment on whether any Commission action is necessary to ensure consumers with UDCPs have access to linear channels delivered through switched-digital technology. TiVo has suggested that an alternative solution would be to require cable operators to allow retail CableCARD devices to receive out-of-band communications from the cable head-end and transmit out-of-band communications to the headend over IP. TiVo states that this would allow subscribers with compatible UDCPs to access all linear content without the need for any equipment beyond a CableCARD.[37] We seek comment on this alternative proposal, including the

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Association, CS Docket No. 97-80, PP Docket No. 00-67 (filed Dec. 29, 2003); Petition for Reconsideration of the Motion Picture Association of America, Inc., CS Docket No. 97-80, PP Docket No. 00-67 (filed Dec. 29, 2003).

[33] *See* FEDERAL COMMUNICATIONS COMMISSION, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 52 (2010).

[34] The term "linear programming" is generally understood to refer to video programming that is prescheduled by the programming provider. *Cf.* 47 U.S.C. § 522(12) (defining "interactive on-demand services" to exclude "services providing video programming prescheduled by the programming provider").

[35] *See, e.g., Oceanic Time Warner Cable, a subsidiary of Time Warner Cable, Inc. et al*, 24 FCC Rcd 8716 (2009) (vacating Notices of Apparent Liability for Forfeiture and Forfeiture Orders relating to Time Warner Cable and Cox's implementation of switched digital video, which is a method of delivering linear channels that requires bidirectional communication).

[36] *See* Letter from Neal Goldberg, Vice President and General Counsel, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission (Nov. 30, 2007) *attaching* Letter from Henry Goldberg, Attorney for TiVo Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission (Nov. 27, 2007); Press Release, CableLabs, CableLabs® Announces Innovative Switched Digital Solution for One-Way Digital Cable Ready Devices (Nov. 26, 2007); and Press Release, National Cable and Telecommunications Association and Tivo Inc., NCTA and TiVo Announce Switched Digital Solution for HD DVRs (Nov. 26, 2007).

[37] *See* Letter from Matt Zinn, Senior Vice President, General Counsel, Secretary, and Chief Privacy Officer, TiVo Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission at 3 (February 17, 2010).

cost and feasibility of this solution for cable operators, and whether such a network solution would discourage investment by cable operators in switched digital technology.

15. *CableCARD Pricing and Billing.* We propose rules requiring cable operators to charge equivalent and transparent prices for CableCARDs both for customers who purchase a navigation device at retail and those who lease a set-top box from their cable operator. This proposal is intended to ensure that subscribers are aware of the retail options that are available and associated costs, and to ensure that cable operators are allocating equipment costs fairly. We seek comment on how cable operators should determine charges for a CableCARD.[38] Regardless of the method cable operators use to determine the lease fee, under our proposed rule, cable operators would be required to list the fee for their CableCARDs as a line item on subscribers' bills separate from their host devices. We believe that this would better inform customers about their options and enable them to compare retail options to leasing a set-top box from their cable operator. This proposed rule also will ensure that subscribers who choose to use CableCARDs in retail devices will be leasing their CableCARDs at a rate equivalent to those who use CableCARDs in leased devices.[39] We seek comment on this proposal. We also seek comment on the Commission's legal authority to impose such a requirement.

16. *CableCARD Installations.* In a similar vein, we are concerned that CableCARD installation costs for retail devices and installation costs for leased boxes may be disparate.[40] To address this situation, we propose requiring cable operators to allow subscribers to install CableCARDs in retail devices if the cable operator allows its subscribers to self-install leased set-top boxes. CableCARD installation fees are significant, and we seek specific comment on why many operators require professional CableCARD installation.[41] Furthermore, for professional installations, our proposed rule would require that technicians arrive with at least the number of CableCARDs requested by the customer. We seek comment on whether and how the Commission could enforce this rule. We believe that these simple rule changes will bolster CableCARD support significantly and remove obstacles that discourage customers from purchasing navigation devices at retail.

17. *Multi-stream CableCARDs.* According to the National Cable and Telecommunications Association ("NCTA"), major cable operators have offered multi-stream CableCARDs since 2007, and at least one UDCP manufacturer offers devices that are compatible only with multi-stream CableCARDs.[42]

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[38] For example, do cable operators use the equipment rate formula prescribed in Section 76.923, or is there a different method for determining the lease fee for a CableCARD?

[39] *See* 47 U.S.C. § 549(a) (Regulations adopted pursuant to Section 629 "shall not prohibit any multichannel video programming distributor from also offering 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, to consumers, *if the system operator's charges to consumers for such devices and equipment are separately stated and not subsidized by charges for any such service.*") (emphasis added).

[40] *See, e.g,* Rebecca Taylor Comments on NBP PN #27 at 1 (asserting that her cable provider charges an $80 CableCARD installation fee, but installs leased devices for free); Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 3-12 (March 31, 2010) (reporting average CableCARD installation costs ranging from $24 to $35, although Comcast's average is $9.50 if the technician installs other services concurrent with the CableCARD install).

[41] Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 3-12 (March 31, 2010) (of the five cable operators required to file a periodic CableCARD report, only Comcast allows subscribers to perform self installation).

[42] *See CableCARD Frequently Asked Questions (FAQ) for the Moxi DVR, available at* http://www.moxi.com/us/support/MC4R/CableCARD_FAQ.pdf at 2.

Multi-stream CableCARDs benefit consumers because they allow devices to tune multiple channels, thereby allowing consumers to record one channel while watching another, with a single card. With the monthly lease rate for a CableCARD exceeding $2.00 per CableCARD in some instances,[43] multi-stream CableCARDs can reduce the equipment fees paid by subscribers by enabling them to use only one CableCARD per device rather than two or more. Accordingly, our proposed rule would require operators to offer multi-stream CableCARDs to their subscribers. Multi-stream CableCARDs are readily available,[44] and we tentatively conclude that providing cable subscribers with the option to use them will save those subscribers lease fees and serve the public interest. We seek comment on this tentative conclusion.

18. *CableCARD Device Certification.* Our final proposed rule with respect to CableCARD is intended to streamline the process of CableCARD device certification. Commenters have criticized the cost and complexity of the CableCARD certification process.[45] In reply comments filed in response to NBP PN #27, SageTV described the CableCARD certification process as having limited the capabilities of the SiliconDust HDHomeRun CableCARD tuner, a device that can send cable content throughout the home using Ethernet:

> The major issue with this device is its requirement of CableLabs certification for anything it communicates with; which limits it exclusively to Microsoft's Windows Media Center PC software use. Removal of the CableLabs certification for allowing communication with this device is another short-term solution which the Commission could adopt in order to immediately begin to open up the market for retail navigation devices.[46]

We intend to clarify that CableLabs or other qualified testing facilities may refuse to certify digital cable ready products only based on a failure to comply with the procedures we adopted for unidirectional digital cable products.[47] Accordingly, we propose to modify our rules to clarify that the certification process may require only such testing; conformance tests outside of our adopted procedures would be at the UDCP manufacturer's discretion. We believe that adoption of this rule will streamline the device certification process while allowing the cable industry to continue to control its system security and prevent theft of service. We seek comment on this proposed rule and will consider any other proposed solution to streamline the CableCARD certification process to facilitate the introduction of retail navigation devices.

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[43] Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 12 (March 31, 2010); Rob Pegoraro, *Fios and CableCards*, THE WASHINGTON POST, Nov. 14, 2007, *available at* http://voices.washingtonpost.com/fasterforward/2007/11/fios_and_cablecards.html.

[44] Indeed, many devices that cable operators lease to their subscribers use multi-stream CableCARDs, and have for years. *See All-Digital QAM Set-Tops*, MOTOROLA, *available at* http://www.motorola.com/Business/US-EN/Business+Product+and+Services/TV+Video+Distribution/Customer+Premises+Equipment+%28Set-tops%29/All-Digital+QAM+Set-tops; *Analog/Digital QAM Set-Tops*, MOTOROLA, *available at* http://www.motorola.com/Business/US-EN/Business+Product+and+Services/TV+Video+Distribution/Customer+Premises+Equipment+%28Set-tops%29/Analog-Digital+QAM+Set-tops.

[45] *See* Vijayasekar Rajsekar Comments on NBP PN #27 at 9, SageTV Reply Comments on NBP PN #27 at 9, TiVo Comments on NBP PN #27 at 3, Transparent Video Systems Comments on NBP PN #27 at 12, NetMagic Solutions Comments on NBP PN #27 at 8.

[46] SagcTV Reply Comments on NBP PN #27 at 9.

[47] *See* 47 C.F.R. § 15.123(c)(1) (citing Uni-Dir-PICS-101-030903 PICS: "Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma").

B. Interface Requirements.

19. In recent months, the Commission has received three requests for waiver of the requirement that cable operators include IEEE 1394 interfaces on all high-definition set-top boxes that they deploy.[48] Comments we received in response to those requests made compelling cases that IP connectivity will provide consumers with the functionality that the IEEE 1394 interface requirement was intended to provide, such as home networking. We also received comments that suggested that the Commission should require cable operators to activate the bi-directional capabilities of these interfaces to allow devices equipped with these interfaces to send basic command functions to the leased set-top box.

20. We tentatively conclude that allowing manufacturers greater choice in the specific interface they include in their set-top boxes will serve the public interest by enabling connectivity with the multitude of IP devices in consumers' homes.[49] Accordingly, we propose to modify our interface requirement to require cable operators to include any of (i) an IEEE 1394 interface, (ii) an Ethernet interface, (iii) Wi-Fi connectivity, or (iv) USB 3.0 on all high-definition set-top boxes acquired for distribution to customers. We seek comment on this proposal and encourage commenters to propose other interfaces that could further home networking goals.[50]

21. We also tentatively conclude that we should require cable operators to enable bi-directional communication over these interfaces. We propose that, at a minimum, these interfaces should be able to receive remote-control commands from a connected device. We also propose to require that these outputs deliver video in any industry standard format to ensure that video made available over these interfaces can be received and displayed by devices manufactured by unaffiliated manufacturers.[51] We believe that these proposals will improve the functionality of retail consumer electronics devices significantly. We seek comment on this proposed rule and tentative conclusions. We also seek specific comment on whether cable operators could implement these changes inexpensively with firmware upgrades, and if so, whether January 1, 2011 would be a reasonable effective date for such a rule change. If not, we encourage commenters to propose an effective date for this proposed rule change based on how complex it would be to execute.

C. Promote Cable Digital Transition

22. The integration ban went into effect on July 1, 2007, and since that time the Commission's Media Bureau has acted on hundreds of requests for waiver of the integration ban rule.[52] The Media Bureau's basis for many of those waivers was to provide cable operators with economic incentives to transition their systems to all-digital, which is a more effective use of system capacity. We propose to

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[48] *Media Bureau Seeks Comment on Intel's Request for Waiver of the IEEE 1394 Output Requirement*, 24 FCC Rcd 13682 (2009); *Media Bureau Seeks Comment on TiVo's Request for Waiver of the IEEE 1394 Output Requirement*, 25 FCC Rcd 1235 (2010); *Media Bureau Seeks Comment on Motorola's Request for Waiver of the IEEE 1394 Output Requirement*, 25 FCC Rcd 1232 (2010).

[49] *See* Intel Waiver Request, CSR-8229-Z, CS Docket No. 97-80 at 13-15 (filed Oct. 7, 2009).

[50] Intel, TiVo, Motorola, Nagravision, and Advanced Digital Broadcast, Inc. each filed requests for waiver of our existing IEEE-1394 output requirement. The Bureau should act on these requests for waiver of the existing rule as part of its normal course of business.

[51] We seek to ensure that cable operators provide video over these interfaces in a useable format through a widely accepted industry standard, such as MPEG-2 or MPEG-4. This is separate and apart from the single nationally supported standard interface common across MPVD platforms contemplated in the NOI.

[52] *See, e.g.*, *Consolidated Requests for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, DA 07-2921, 22 FCC Rcd 11780 (2007); *Guam Cablevision, LLC Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, 22 FCC Rcd 11747 (2007); *Cablevision Systems Corporation's Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules*, 22 FCC Rcd 220 (2007).

further encourage digital transitions, which will make it easier for operators to increase broadband speeds and introduce other new services. Specifically, we propose that operators be allowed to place into service new, one-way navigation devices (including devices capable of processing a high-definition signal) that perform both conditional access and other functions in a single integrated device but do not perform recording functions. Operators would still be required to offer CableCARDs to any subscribers that request them and to commonly rely on CableCARDs in any digital video recorder and bidirectional devices that they offer for lease or sale. This limited modification to our rules will allow operators to offer increased broadband speeds and more high definition programming without substantially affecting the retail market for CableCARD devices. We seek comment on this proposed rule, including whether this limited modification would affect the retail market for retail CableCARD devices substantially,[53] and whether the potential effect on the retail market supports limiting any relief to smaller cable systems with activated capacity of 552 MHz or less.[54]

IV. CONCLUSION

23. The rules we propose are designed to build on and bolster the existing CableCARD regime to remove the disparity in the customer experience for those customers who choose to utilize a navigation device purchased at retail as opposed to leasing the cable providers' set-top box. We believe that these new rules will improve the CableCARD regime and will further the goals of Section 629 by providing potential consumers of retail cable navigation devices with more information about those options and eliminating barriers that companies face in developing such devices while the Commission takes action to establish a new solution to ensure the commercial availability of video navigation devices as proposed in the accompanying Notice of Inquiry.

V. PROCEDURAL MATTERS

A. Initial Regulatory Flexibility Analysis

24. With respect to the *Fourth 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 *Fourth Further Notice of Proposed Rulemaking* specified *infra*. The Commission will send a copy of the

[53] On May 28, 2009, the Commission adopted an order granting waiver of the integration ban to a set-top box manufacturer for standard-definition, one-way set-top boxes with integrated security that do not perform recording functions. *Evolution Broadband, LLC's Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules; Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 24 FCC Rcd 7890 (2009). Public Knowledge et al. filed a petition for reconsideration of that decision, alleging that waiver of the integration ban for one-way digital-to-analog converter boxes contravenes the intent of Section 624a and 629 of the Communications Act and will impede the development of a retail market for digital cable ready devices. Petition for Reconsideration of Public Knowledge, Free Press, Media Access Project, New America Foundation, Open Technology Institute, and U.S. PIRG, CS Docket No. 97-80, CSR-7902-Z (filed June 29, 2009).

[54] *See*, Letter from John Bergmayer, Staff Attorney, Public Knowledge, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, CSR-7902-Z (April 5, 2010) (asserting that integration ban exemptions "prevent creators of compliant devices from achieving the economies of scale needed to bring costs down"); Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, NBP Public Notice #27; GN Docket Nos. 09-47, 09-51, 09-137 (April 8, 2010) (asserting that a rule change to allow all cable operators to deploy high-definition, limited-capability devices with integrated security would serve the public interest).

Fourth Further Notice of Proposed Rulemaking, including the IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[55]

B. Initial Paperwork Reduction Act of 1995 Analysis

25. This document contains proposed new information collection requirements. The Commission, as part of its continuing effort to reduce paperwork burdens, invites the general public and the Office of Management and Budget (OMB) to comment on the information collection requirements contained in this document, as required by the Paperwork Reduction Act of 1995. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, we seek specific comment on how we might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

C. Ex Parte Rules

26. *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.[56] *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.[57] Additional rules pertaining to oral and written presentations are set forth in section 1.1206(b).

D. Filing Requirements

27. Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply 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. *See Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: http://fjallfoss.fcc.gov/ecfs2/ or the Federal eRulemaking Portal: http://www.regulations.gov.

- 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. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

  - Effective December 28, 2009, all hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. All hand deliveries must be held together

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

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

[57] *See* 47 C.F.R. § 1.1206(b)(2).

with rubber bands or fasteners. Any envelopes must be disposed of before entering the building. The filing hours are 8:00 a.m. to 7:00 p.m.

- 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 must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

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

29. *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.

30. *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, or Alison Neplokh, Alison.Neplokh@fcc.gov, of the Engineering Division, (202) 418-1083.

VI. ORDERING CLAUSE

31. **IT IS ORDERED** that, pursuant to Sections 1, 4(i) and (j), 303, 403, 601, 624A, and 629 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 403, 521, 544a, 549, **COMMENT IS HEREBY SOUGHT** on the rules set forth in this *Fourth Further Notice Of Proposed Rulemaking.*

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch

Marlene H. Dortch
Secretary

APPENDIX A

Proposed Rules

Part 15 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

I. SUBPART B: Unintentional Radiators

1. Amend § 15.123 to read as follows:

§ 15.123 Labeling of Digital Cable Ready Products

***

(c) Before a manufacturer's or importer's first unidirectional digital cable product may be labeled or marketed as digital cable ready or with other terminology as described in paragraph (b) of this section, the manufacturer or importer shall verify the device as follows:

(1) The manufacturer or importer shall have a sample of its first model of a unidirectional digital cable product tested to show compliance with the procedures set forth in Uni-Dir-PICS-I01-030903: Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma (incorporated by reference, see 15.38) at a qualified test facility. The manufacturer or importer shall have any modifications to the product to correct failures of the procedures in Uni-Dir-PICS-I01-030903: Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma (incorporated by reference, see 15.38) retested at a qualified test facility. **A qualified test facility may only require compliance with the procedures set forth in Uni-Dir-PICS-I01-030903: Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma (incorporated by reference, see 15.38). Compliance testing beyond those procedures shall be at the discretion of the manufacturer or importer.**

Part 76 of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

I. SUBPART K – TECHNICAL STANDARDS

1. Amend § 76.640 to read as follows:

§ 76.640 Support for unidirectional digital cable products on digital cable systems.

All digital cable systems shall comply with

***

(b)(4)(ii) Include both: (A) a DVI or HDMI interface and (B) an IEEE 1394, **Ethernet, or USB 3.0 interface, or WiFi connectivity** on all high definition set-top boxes acquired by a cable operator for distribution to customers. Effective [Date], this interface must, at a minimum: (1) allow another device to transmit remote control commands via the same interface and (2) deliver video in an industry standard format.

II. SUBPART P – COMPETITIVE AVAILABILITY OF NAVIGATION DEVICES

1. Amend § 76.1204 to read as follows:

§ 76.1204 Availability of equipment performing conditional access or security functions.

***

(a)(2) The foregoing requirement shall not apply **(i) with respect to unidirectional set-top boxes without recording functionality; or (ii)** to a multichannel video programming distributor that supports the active use by subscribers of navigation devices that: **(A)** operate throughout the continental United States, and **(B)** are available from retail outlets and other vendors throughout the United States that are not affiliated with the owner or operator of the multichannel video programming system.

2. Amend § 76.1205 to read as follows:

§ 76.1205 CableCARD Support.

(a) Technical information concerning interface parameters that are needed to permit navigation devices to operate with multichannel video programming systems shall be provided by the system operator upon request in a timely manner.

(b) A multichannel video programming provider that is subject to the requirements of Section 76.1204(a)(1) must:

(1) include the charge for the CableCARD as a separate line item in the subscriber's bill;

(2) provide the means to allow subscribers to self-install the CableCARD if the MVPD allows its subscribers to self-install operator-leased set-top boxes;

(3) provide a multi-stream CableCARD to any subscriber who requests one; and

(4) with respect to professional installations, ensure that the technician arrives with no fewer than the number of CableCARDS requested by the customer.

APPENDIX B

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended ("RFA")[1] 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 Fourth 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. The Commission will send a copy of the Further Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration.[2] In addition, the Further Notice and IRFA (or summaries thereof) will be published in the Federal Register.[3]

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

2. The need for FCC regulation in this area derives from deficiencies in our rules that prevent consumer electronics manufacturers from developing video navigation devices (such as televisions and set-top boxes) that can be connected directly to cable systems and access cable services without the need for a cable-operator provided navigation device. The objectives of the rules we propose to adopt are to support a competitive market for navigation devices by increasing customer service and by improving audio-visual output functionality on cable operator leased devices.

3. Specifically, we propose rules that would (i) require that equivalent prices be charged for CableCARDs for use in cable-operator-provided set-top boxes and in retail devices, and require billing of the CableCARD to be more transparent; (ii) simplify the CableCARD installation process; (iii) require cable operators to offer their subscribers CableCARDs that can tune multiple streams; and (iv) streamline the CableCARD device certification process. The proposed billing rule would increase customer service by ensuring that cable subscribers are billed fairly for the equipment that they lease, regardless of whether it is a CableCARD for use in a retail device or for use in a device leased from the cable operator. The proposed installation rule would require cable technicians to arrive with the number of CableCARDs that a consumer requests, and allow for self-installation of CableCARDs if the operator allows for self-installation of leased set-top boxes. This is intended to reduce the difficulties that consumers face when having CableCARDs installed in retail devices and to reduce the number of service calls that cable operators and subscribers need to schedule. The proposed rule regarding multistream CableCARDs would require cable operators to offer subscribers multi-stream CableCARDs; this rule is intended to reduce the cost consumers face to use the picture-in-picture and "watch one, record one" functions of their video navigation devices. Finally, the proposed rule that would streamline the CableCARD device certification process is intended to reduce the cost of the certification process and limit the influence that testing facilities have in the development of consumer electronics equipment.

4. We also seek comment on whether market-based solutions serve consumers adequately with respect to switched-digital video. Private industry negotiations have led to a market-based solution to allow certain types of unidirectional digital cable products ("UDCPs") to access switched-digital programming through operator-provided tuning adapters. We seek comment on whether this market-based solution is sufficient, and seek comment on whether the Commission should consider a proposal

[1] *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).

[2] *See* 5 U.S.C. § 603(a).

[3] *See id.*

filed by TiVo that would require cable operators to use broadband signaling for upstream communication to ensure that certain UDCPs can access switched digital cable channels.

B. Legal Basis.

5. The authority for the action proposed in this rulemaking is contained in Sections 1, 4(i) and (j), 303, 403, 601, 624A, and 629 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 403, 521, 544a, and 549.

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

6. 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.[4] 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.[5] In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act.[6] 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").[7]

7. *Wired Telecommunications Carriers.* The 2007 North American Industry Classification System ("NAICS") defines "Wired Telecommunications Carriers" as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies. Establishments in this industry use the wired telecommunications network facilities that they operate to provide a variety of services, such as wired telephony services, including VoIP services; wired (cable) audio and video programming distribution; and wired broadband Internet services. By exception, establishments providing satellite television distribution services using facilities and infrastructure that they operate are included in this industry."[8] The SBA has developed a small business size standard for wireline firms within the broad economic census category, "Wired Telecommunications Carriers."[9] Under this category, the SBA deems a wireline business to be small if it has 1,500 or fewer employees. Census Bureau data for 2002 show that there were 2,432 firms in this

[4] 5 U.S.C. § 603(b)(3).

[5] 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.

[6] 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."

[7] 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.

[8] U.S. Census Bureau, 2007 NAICS Definitions, "517110 Wired Telecommunications Carriers"; http://www.census.gov/naics/2007/def/ND517110.HTM#N517110.

[9] 13 C.F.R. § 121.201, NAICS code 517110.

category that operated for the entire year.[10] Of this total, 2,395 firms had employment of 999 or fewer employees, and 37 firms had employment of 1,000 employees or more.[11] Thus, under this category and associated small business size standard, the majority of firms can be considered small.

8. *Wired Telecommunications Carriers -- Cable and Other Program Distribution.* 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"). The data we have available as a basis for estimating the number of such entities were gathered under a superseded SBA small business size standard formerly titled Cable and Other Program Distribution. The former Cable and Other Program Distribution category is now included in the category of Wired Telecommunications Carriers, the majority of which, as discussed above, can be considered small.[12] According to Census Bureau data for 2002, there were a total of 1,191 firms in this previous category that operated for the entire year.[13] Of this total, 1,087 firms had annual receipts of under $10 million, and 43 firms had receipts of $10 million or more but less than $25 million.[14] Thus, we believe that a substantial number of entities included in the former Cable and Other Program Distribution category may have been categorized as small entities under the now superseded SBA small business size standard for Cable and Other Program Distribution. With respect to OVS, the Commission has approved approximately 120 OVS certifications with some OVS operators now providing service.[15] Broadband service providers (BSPs) are currently the only significant holders of OVS certifications or local OVS franchises, even though OVS is one of four statutorily-recognized options for local exchange carriers (LECs) to offer video programming services. As of June 2006, BSPs served approximately 1.4 million subscribers, representing 1.46 percent of all MVPD households.[16] Among BSPs, however, those operating under the OVS framework are in the minority.[17] The Commission does not have financial information regarding the entities authorized to provide OVS, some of which may not yet be operational. We thus believe that at least some of the OVS operators may qualify as small entities.

9. *Cable System Operators (Rate Regulation Standard).* The Commission has also developed its own small business size standards for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers nationwide.[18] As of 2006,

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[10] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size: 2002 (Including Legal Form of Organization)," Table 5, NAICS code 517110 (issued November 2005).

[11] *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

[12] *See supra* ¶ 7. Under the superseded SBA size standard, which had the same NAICS code, 517110, a small entity was defined as one with $13.5 million or less in annual receipts.

[13] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002 (NAICS code 517510) (issued November 2005).

[14] *Id.* An additional 61 firms had annual receipts of $25 million or more.

[15] *See* Current Filings for Certification of Open Video Systems, http://www.fcc.gov/mb/ovs/csovscer.html (last visited July 25, 2007); Current Filings for Certification of Open Video Systems, http://www.fcc.gov/mb/ovs/csovsarc.html (last visited July 25, 2007).

[16] *See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Annual Report, 24 FCC Rcd 542, 684, Table B-1 (2009) ("*13th Annual Report*").

[17] OPASTCO reports that fewer than 3 percent of its members provide service under OVS certification. *See id.* at 607, ¶ 135 n.473.

[18] 47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of $100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation,* Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

7,916 cable operators qualify as small cable companies under this standard.[19] In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.[20] Industry data indicate that 6,139 systems have under 10,000 subscribers, and an additional 379 systems have 10,000-19,999 subscribers.[21] Thus, under this standard, most cable systems are small.

10. *Cable System Operators (Telecom Act Standard).* The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent 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."[22] There are approximately 65.3 million cable subscribers in the United States today.[23] Accordingly, an operator serving fewer than 654,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed $250 million in the aggregate.[24] Based on available data, we find that the number of cable operators serving 654,000 subscribers or less totals approximately 7,916.[25] We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed $250 million.[26] 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.

11. *Cable and Other Subscription Programming.* The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in operating studios and facilities for the broadcasting of programs on a subscription or fee basis . . . . These establishments produce programming in their own facilities or acquire programming from external sources. The programming material is usually delivered to a third party, such as cable systems or direct-to-home satellite systems, for transmission to viewers."[27] The SBA has developed a small business size standard for firms within this

[19] 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 September 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.

[20] 47 C.F.R. § 76.901(c).

[21] Warren Communications News, *Television & Cable Factbook 2006*, "U.S. Cable Systems by Subscriber Size," page F-2 (data current as of Oct. 2005). The data do not include 718 systems for which classifying data were not available.

[22] 47 U.S.C. § 543(m)(2); *see* 47 C.F.R. § 76.901(f) & nn. 1-3.

[23] *See 13th Annual Report*, 24 FCC Rcd at 684, Table B-1.

[24] 47 C.F.R. § 76.901(f); *see* Public Notice, *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, DA 01-158 (Cable Services Bureau, Jan. 24, 2001).

[25] 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 September 6, 2007). We arrived at 7,916 cable operators qualifying as small cable companies by subtracting the ten cable companies with over 654,000 subscribers found on the NCTA website from the 7,926 total number of cable operators found in the Television and Cable Factbook.

[26] The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission's rules. *See* 47 C.F.R. § 76.901(f).

[27] U.S. Census Bureau, 2007 NAICS Definitions, "515210 Cable and Other Subscription Programming"; http://www.census.gov/naics/2007/def/ND515210.HTM#N515210.

category, which is all firms with $15 million or less in annual receipts.[28] According to Census Bureau data for 2002, there were 270 firms in this category that operated for the entire year.[29] Of this total, 217 firms had annual receipts of under $10 million and 13 firms had annual receipts of $10 million to $24,999,999.[30] Thus, under this category and associated small business size standard, the majority of firms can be considered small.

12. *Small Incumbent Local Exchange Carriers.* We have included small incumbent local exchange carriers in this present RFA analysis. A "small business" under the RFA is one that, *inter alia*, meets the pertinent small business size standard (*e.g.*, a telephone communications business having 1,500 or fewer employees), and "is not dominant in its field of operation."[31] The SBA's Office of Advocacy contends that, for RFA purposes, small incumbent local exchange carriers are not dominant in their field of operation because any such dominance is not "national" in scope.[32] We have therefore included small incumbent local exchange carriers in this RFA, although we emphasize that this RFA action has no effect on Commission analyses and determinations in other, non-RFA contexts.

13. *Incumbent Local Exchange Carriers ("LECs").* Neither the Commission nor the SBA has developed a small business size standard specifically for incumbent local exchange services. The appropriate size standard under SBA rules is for the category Wired Telecommunications Carriers. Under that size standard, such a business is small if it has 1,500 or fewer employees.[33] According to Commission data,[34] 1,307 carriers have reported that they are engaged in the provision of incumbent local exchange services. Of these 1,307 carriers, an estimated 1,019 have 1,500 or fewer employees and 288 have more than 1,500 employees. Consequently, the Commission estimates that most providers of incumbent local exchange service are small businesses.

14. *Computer Terminal Manufacturing.* "Computer terminals are input/output devices that connect with a central computer for processing."[35] The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.[36] According to Census Bureau data, there were 71 establishments in this category that operated with payroll during 2002, and all

[28] 13 C.F.R. § 121.201 (NAICS code 515210).

[29] U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Establishment and Firm Size (Including Legal Form of Organization): 2002, Table 4 (NAICS code 515210) (issued November 2005).

[30] *Id.* An additional 40 firms had annual receipts of $25 million or more.

[31] 15 U.S.C. § 632.

[32] Letter from Jere W. Glover, Chief Counsel for Advocacy, SBA, to William E. Kennard, Chairman, FCC (May 27, 1999). The Small Business Act contains a definition of "small-business concern," which the RFA incorporates into its own definition of "small business." *See* 15 U.S.C. § 632(a) (Small Business Act); 5 U.S.C. § 601(3) (RFA). SBA regulations interpret "small business concern" to include the concept of dominance on a national basis. *See* 13 C.F.R. § 121.102(b).

[33] 13 C.F.R. § 121.201 (2007 NAICS code 517110).

[34] FCC, Wireline Competition Bureau, Industry Analysis and Technology Division, "Trends in Telephone Service" at Table 5.3, page 5-5 (February 2007) ("Trends in Telephone Service"). This source uses data that are current as of October 20, 2005.

[35] U.S. Census Bureau, 2002 NAICS Definitions, "334113 Computer Terminal Manufacturing," *available at* http://www.census.gov/epcd/naics02/def/ND334113.HTM#N334113.

[36] 13 C.F.R. § 121.201, NAICS code 334113.

of the establishments had employment of under 1,000.[37] Consequently, we estimate that all of these establishments are small entities.

15. *Other Computer Peripheral Equipment Manufacturing.* Examples of peripheral equipment in this category include keyboards, mouse devices, monitors, and scanners.[38] The SBA has developed a small business size standard for this category of manufacturing; that size standard is 1,000 or fewer employees.[39] According to Census Bureau data, there were 860 establishments in this category that operated with payroll during 2002.[40] Of these, 851 had employment of under 1,000, and an additional five establishments had employment of 1,000 to 2,499. Consequently, we estimate that the majority of these establishments are small entities.

16. *Audio and Video Equipment Manufacturing.* These establishments manufacture "electronic audio and video equipment for home entertainment, motor vehicle, public address and musical instrument amplifications."[41] The SBA has developed a small business size standard for this category of manufacturing; that size standard is 750 or fewer employees.[42] According to Census Bureau data, there were 571 establishments in this category that operated with payroll during 2002.[43] Of these, 560 had employment of under 500, and ten establishments had employment of 500 to 999. Consequently, we estimate that the majority of these establishments are small entities.

D. Description of Reporting, Recordkeeping and Other Compliance Requirements

17. The rules proposed in the Further Notice will impose additional reporting, recordkeeping, and compliance requirements on cable operators. The Further Notice proposes a rule that would require cable operators to charge equivalent and transparent prices for CableCARDs;. This rule change may require certain cable operators to change their billing practices.

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

18. 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.[44]

19. As indicated above, the Further Notice seeks comment on whether the Commission should

[37] U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, "Computer Terminal Manufacturing," Table 4, NAICS code 334113 (issued Dec. 2004). In fact, all had employment of under 500.

[38] U.S. Census Bureau, 2002 NAICS Definitions, "334119 Other Computer Peripheral Equipment Manufacturing," *available at* http://www.census.gov/epcd/naics02/def/ND334119.HTM#N334119.

[39] 13 C.F.R. § 121.201, NAICS code 334119.

[40] U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, "Other Computer Peripheral Equipment Manufacturing," Table 4, NAICS code 334119 (issued Dec. 2004).

[41] U.S. Census Bureau, 2002 NAICS Definitions, "334310 Audio and Video Equipment Manufacturing," *available at* http://www.census.gov/epcd/naics02/def/ND334310.HTM#N334310.

[42] 13 C.F.R. § 121.201, NAICS code 334310.

[43] U.S. Census Bureau, 2002 Economic Census, Industry Series: Manufacturing, "Audio and Video Equipment Manufacturing," Table 4, NAICS code 334310 (issued Dec. 2004).

[44] 5 U.S.C. § 603(b).

adopt or revise rules relating to compatibility between digital cable television systems and consumer electronics equipment. The proposed billing rule and the proposed multistream CableCARD requirement will present a burden on small entities. The countervailing public interest benefits will outweigh those burdens, however, as subscribers to small cable systems will see reduced costs and have a better understanding of the specific equipment for which their cable operators are charging them. We do not expect that the proposed rule regarding CableCARD device certification or CableCARD installation will have anything beyond a de minimis effect on small entities.

20. Due to the overwhelming consumer benefits that will derive from the proposed modifications to the Commission's rules, the Commission did not consider alternatives to those proposed rules. As described above, the proposed rule changes should reduce the number of service calls that consumers will need to schedule, reduce the costs associated with using a video navigation device purchased at retail, and encourage more competition in the retail video navigation device market.

21. With respect to the questions regarding whether marketplace solutions are providing adequate access to channels that are offered over switched-digital video, the Commission chose to seek comment on a proposal by TiVo, rather than proposing adoption of that proposal as recommended by the National Broadband Plan.[45] Our decision to allow such comment will allow the Commission to consider the effect the proposal could have on small entities.

22. We welcome comments that suggest modifications of any 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 improved customer support by cable operators for digital cable products purchased at retail.

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

23. None.

[45] *See* FEDERAL COMMUNICATIONS COMMISSION, CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN 52 (2010).

STATEMENT OF
CHAIRMAN JULIUS GENACHOWSKI

Re: *Video Device Competition*, MB Docket No. 10-91; *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, MB Docket No. 97-80, *Compatibility Between Cable Systems and Consumer Electronics Equipment*, PP Docket No. 00-67.

Today the Commission acts to increase video choices for consumers, and unleash competition and innovation in the retail market for smart video devices. These are devices that consumers can use to select and enjoy video programming, not only from pay TV services but increasingly also from the Internet or over-the-air broadcasts. Consumers want devices that can navigate the universe of video programming from all of these sources and present the choices to them in a simple, integrated way. They also want to know that they can buy a device and not have to replace it if they change video providers.

Congress directed the Commission to foster a competitive retail market for such devices. We act today to fulfill that mandate. When Congress enacted Section 629, the Commission and the industry first tried to implement it through a technology called the CableCARD. That approach has not achieved its objective. Only a tiny fraction of all set top boxes in use in American homes include CableCARDs, and only two companies – TiVo and Moxi – today sell CableCARD-enabled video devices through retail outlets that integrate pay TV programming or Internet content.

The Notice of Inquiry we adopt today proposes a new approach designed to better serve consumers and promote competition and innovation. Under the proposed approach, a pay-TV service provider would deliver its signals to a small adapter on the customer's premises that would present a standard interface to all consumer devices. The adapter could be connected to the customer's TVs, computers, or other devices that can display multichannel video programming and Internet content.

The idea is to promote standards and simplicity that will have four outcomes. First, it will enable and empower consumer equipment makers, software developers, and other innovators and entrepreneurs to design new smart devices and applications that can work with any pay TV service, thus greatly expanding consumer choice. Second, it will allow pay TV providers to innovate in their networks and compete in offering improved subscription services without forcing consumers to replace home devices. Third, it will generate significantly greater competition and consumer choice. And fourth, it will promote greater broadband use and adoption as consumers enjoy the benefits of competition and of linking pay TV and Internet content. Just as a shopping mall presents customers with numerous retail outlets, smart video devices would offer viewers a single window into pay TV content and Internet content – as well as content that a viewer has already bought or archived.

We recognize that today's proposal is only one possible approach, and we seek comment on other ways to achieve the goals I've described. Unlocking innovation in and around smart video devices will drive broadband use and investment, and increasing consumer choice, promoting economic growth and job creation. Whatever approach we choose, prompt action will enable consumers to take full advantage of the expanded programming options offered by digital video services and the growing array of video available on the Internet.

The second item we are adopting is a Notice of Proposed Rulemaking to make the CableCARD regime work better in the interim before a successor approach is in place. We propose rule changes that would improve the transparency of CableCARD charges, streamline installation procedures, and increase the functionality of retail CableCARD devices. Consumers would be able to see that they are paying the same for a CableCARD used with a retail device as for one used with a device leased from the cable operator.

Installation and support for a CableCARD used in a retail device would cease to be more inconvenient than for one used in a leased device. And cable operators would be required to offer CableCARDs that enable a retail device to record one program while displaying another. These simple changes, which we aim to implement promptly, should have a direct and immediate impact on effectiveness of the CableCARD regime while we work on its replacement.

Taken together, these actions are essential and important steps to bringing greater competition and innovation to this critical part of our media landscape.

STATEMENT OF COMMISSIONER MICHAEL J. COPPS

Re: *Video Device Competition*, MB Docket No. 10-91; *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, CS Docket No. 97-80, *Compatibility Between Cable Systems and Consumer Electronics Equipment*, PP Docket No. 00-67.

Here we continue with more steps to implement the National Broadband Plan. One lesson we learned from the incredible research and analysis that went into the Plan is that video content will clearly be an important driver of broadband adoption. And the Plan also suggested some creative pathways--dare I say gateways?--to help get us there. One of these ideas is a dynamic "integrated user interface" so that consumers will have unlimited choice in content. That term--"integrated user interface"--is about as explanatory as "network neutrality," so not the least part of an ingenious plan is the much better terminology for a "gateway device" that can open up new worlds of content and services for consumers. We are moving to a world where consumers will be able to watch the content of their choice on the platform of their choice. A lot of folks have worked on this idea and I thank them all, and I want to take special note of the public interest groups in their comments for the National Broadband Plan that encouraged us down this path. They had a front row seat for the CableCARD saga and they appreciated that we truly needed something different.

The once-shining promise that Section 629 of the 1996 Communications Act held out for greater competition has gone largely unfulfilled. Thus far, the CableCARD endeavor has produced more consumer frustration--not to mention agency travail--than it has competition. The intent, we all recall, was to spur on a competitive retail market to provide consumers more choice. But it didn't happen. In many ways, the outcome of our pursuit has been the opposite of what was intended. The path to the retail market has been, for many reasons, obstructed at nearly every turn. Something is clearly not working as intended when consumers encounter such disparities between the cost, installation and support of CableCARD devices for those who purchase a retail device and for those leasing the cable provider's set-top box. The push for gateway devices has the potential to spur real competition to bring amazing new technology to the marketplace.

While the Commission is thinking creatively about this exciting new gateway and other ideas and gathering a record to encourage them, we are also looking toward correcting some of the shorter-term problems and disparities that our present set-top box and CableCARD worlds have brought us. The rules proposed in the Fourth Further Notice have the potential to mitigate some of these shortfalls until the next-generation solution--the goal of the NOI--becomes available. Part of this would be greater transparency and making sure that consumers understand the costs associated with both retail and leased devices. Under a proposed rule, cable companies would be required to list their fees for the CableCARDS on a line-item of the bill. Also, instead of processing interface waivers on an individual basis, we open the door to more innovation by allowing connectivity in varying interfaces. Manufacturers would have more options in terms of specific interfaces, thereby enabling consumers to connect to the Internet on a host of devices in their homes. We also raise the issues associated with cable companies transitioning their systems to all-digital, which would help make better use of the spectrum and encourage higher broadband speeds and more high-definition channels for consumers.

Whether we are talking new gateway technologies or short-term fixes for short-term issues, we want at all costs to avoid yet another cycle of delay and dead-ends that result only in less competition, higher prices and fewer choices for consumers. Too much is at stake here to countenance more delays and obstructions. In order for the gateway device or the interim fixes to work and work quickly, the Commission and the private sector are going to need to roll up their sleeves, work together and reach consensus on what will spur innovation and competition and what will improve the consumer experience.

I look forward to this process. It is, all will note, a particularly ambitious one. To meet our timeline will require some true private sector-public sector coordination and partnering. But this is exactly what these digital times call for--aspirational objectives, expeditious actions, and everyone pulling together for the common good. That's the "gateway" that will bring us a truly gateway device!

STATEMENT OF
COMMISSIONER ROBERT M. MCDOWELL

Re: *Video Device Competition*, MB Docket No. 10-91; *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices,* CS Docket No. 97-80, *Compatibility Between Cable Systems and Consumer Electronics Equipment*, PP Docket No. 00-67.

Fourteen years ago, Congress directed the Commission to adopt regulations to "assure the commercial availability" to multichannel video consumers of "navigation devices" – a term that includes set-top boxes, "interactive communications equipment," and other types of devices that subscribers use to access video programming and other services offered over the multichannel provider's transmission system. In plain English, when Congress included Section 629 in the Telecommunications Act of 1996, it sought to create a competitive market for navigation devices that would give consumers the option of going to their electronics retailer to choose a set-top box or similar devices that offer the features they want, rather than having to use the boxes supplied by their cable operator or other multichannel video programming distributor ("MVPD"). The Commission responded by crafting rules that required cable operators to separate the security and conditional access functions of their service from the actual delivery of video and other programming. This "integration ban" is embodied in the Commission's existing CableCARD rules.

To be blunt, the CableCARD approach to implementing Section 629 has been disappointing. Although the Commission has made some progress in trying to bring Congress' vision to reality, the fact remains that a very large majority of consumers continue to rely on equipment supplied by their pay TV providers. It is another example of an unintended consequence of regulation. I support the two initiatives before us now – a Further Notice of Proposed Rulemaking ("FNPRM") to examine the CableCARD rules and a new Notice of Inquiry ("NOI") to explore possible alternatives to our current approach. Each asks a number of good questions about what has, or has not, worked in the marketplace to date while probing into the reasons behind those developments. For example, would consumers be more inclined to seek out CableCARD-compliant devices if monthly bills separately broke out the cost of the operator-provided box from the charge for the CableCARD pre-installed in that box? Is a truck roll really necessary to install a CableCARD in a box acquired at retail? And, perhaps most important of all, what do consumers consider in weighing whether to lease a box from their MVPD as opposed to buying a box from a third-party provider? How much are technical challenges and fear of being "stuck" with soon-to-be-outmoded hardware or software affecting consumers' decisions? For me, another question is whatever happened to downloadable security? Answers to these queries will help us decide what we can do to modify today's CableCARD regulations effectively – and to address the challenges going forward under Section 629, as technological innovation continues to outpace the government's ability to keep up.

Asking questions, however, should not be taken as a signal that we have prejudged the answers. In particular, I wonder about the assumptions underlying the so-called "All Video" or "AllVid" proceeding, so I am pleased that we are opening that docket with a wide-ranging inquiry. The concept was previewed in the National Broadband Plan as a lever to help spur greater broadband deployment – the notion being that the millions of televisions in American homes connected to cable, satellite or some other form of multichannel video service could provide a wider gateway for residential broadband demand, investment, innovation and deployment. The NOI tees up a specific proposal for comment: new rules requiring the development and deployment of a small device dubbed an "AllVid adapter" that would combine the MVPD's security and decryption functions with an open-standards interface to which a variety of devices from many different providers could connect. The vision is that these devices, in turn, could provide consumers with all manner of Internet-based content and applications from third-party sources as well as the video and other offerings from the MVPD.

The idea of accessing the Internet through the TV screen is certainly attractive – so attractive, in fact, that the marketplace already appears to be delivering on that vision without any help from the government. A quick Internet search revealed more than a dozen different devices available to consumers who wish to bring some or all of the Internet to their television screens, ranging from specialized web video products and software applications to elaborate home theater PCs and even online gaming consoles.

And yesterday, in an unscientific effort to learn more about the current state of this rapidly evolving marketplace, I took a little field trip to a local "big box" electronics store to see what kind of Internet TV products are on the shelves right now. I found options ranging from the latest flat-screen TVs preloaded with specific web-based offerings to simpler devices that can move content from the open Internet straight to the TV screen via "high definition multimedia interface" ("HDMI") cables or through simple wireless technologies. The most popular products cost $250 or less, and the store was having trouble keeping them in stock. The salespeople reported that in the year and a half since some of these products appeared on the market, they are among the top three video accessories the store sells. Consumers are using them to enjoy "over the top" web-based video on their wide-screen digital TV screens, thereby not only bypassing the video offerings of traditional MVPDs but favoring their new direct competitors as well. In fact, according to the latest comScore data, Americans downloaded more than 28 billion videos in February 2010, more than double the number of downloads during the same month a year ago. It's not difficult to see the implications of this trend for the future of broadband technologies and the MVPD marketplace.

The lesson from my field trip shows us that the marketplace can and does respond to consumer demand with an array of innovative options and price points that we cannot hope to replicate through regulation. As I review the comments submitted in response to these new Notices, I will bear in mind the need to remain humble about the government's ability to predict the pace and direction of technological developments. If nothing else, our experience in implementing Section 629 should remind us of the value of modesty in rulemaking.

I thank the staff of the Media Bureau for their hard work on the two Notices, and I look forward to reviewing the information and analyses that commenters will provide to us.

STATEMENT OF
COMMISSIONER MIGNON L. CLYBURN

Re: *Video Device Competition*, MB Docket No. 10-91; *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, CS Docket No. 97-80, *Compatibility Between Cable Systems and Consumer Electronics Equipment*, PP Docket No. 00-67.

By unveiling today's NPRM and NOI concerning navigation devices, the Commission is taking important steps towards retooling a set-top box regime that has long been broken. Just one measure of this failure is the fact that, since July 1, 2007, cable operators have deployed more than 18.5 million leased devices pre-equipped with CableCARDs, compared to only 489,000 CableCARDs installed in retail devices connected to their networks. The proof, as they say, is in the pudding.

I therefore applaud the Chairman and his staff for acting swiftly on the recommendations in the National Broadband Plan to find a new solution to a too-familiar problem. If we are to live up to the directive by Congress to the Commission in Section 629, we must engage with industry and listen to consumers in order to develop more effective preconditions to an environment in which navigation devices can flourish at the retail level.

The time has undoubtedly arrived for us to examine the potential for *any* electronics manufacturer to offer smart video devices at retail that can be used with the services of *any* MVPD. In addition, given that the current process for obtaining MVPD certification is so cumbersome and expensive, I am eager to explore ways in which such manufacturers can forego unnecessary coordination and negotiation with MVPDs. These elements of a new video device landscape – however designed – can help us achieve what is best for consumers: a competitive retail market where innovation is not only permitted but championed.

In the interim, the CableCARD NPRM seeks to address the most immediate flaws in the current system. The Media Bureau has devised what appears to be a comprehensive set of basic proposals that can help consumers while we attempt to revamp the entire system. Important suggested changes include reforms to the handling of switched-digital technology, the industry's pricing and billing practices for CableCARDs, CableCARDs installation, and the process of CableCARD device certification. I look forward to input from all parties to help guide us towards the most effective and creative interim solutions to this broken regime.

I encourage all industry players to follow the lead of those who have already signaled their constructive involvement in the process. I look forward to engaging on these issues, and will rely on industry and public interest experts alike as we take a second crack at fulfilling the mission given to us by Congress.

STATEMENT OF
COMMISSIONER MEREDITH A. BAKER

Re: *Video Device Competition*, MB Docket No. 10-91; *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, CS Docket No. 97-80, *Compatibility Between Cable Systems and Consumer Electronics Equipment*, PP Docket No. 00-67.

I support these two items to examine steps to improve how our existing CableCARD regime works and to begin an exploration of a long-term replacement for the CableCARD. The Commission's actions today signal something that consumers and consumer electronic manufacturers decided some time ago: the retail CableCARD market has not worked as we intended. There are, however, over 400,000 retail CableCARDs deployed, and consumers are still buying retail CableCARD devices. I, therefore, support the effort in the Notice to consider steps to streamline and improve the provisioning and installation of CableCARDs to benefit those consumers. Given our decision to ultimately replace the CableCARD regime, I hope we can avoid taking any steps that would significantly increase the implementation and operational costs on cable operators, consumer electronic manufacturers, or consumers to support CableCARD devices.

As we consider a long-term solution, I hope that we recall valuable lessons from the CableCARD regime. First, our technological mandates come with significant costs. By one estimate, the cost of CableCARD compliance for the cable industry alone – costs passed on to cable consumers – has totaled nearly one billion dollars.[1] Second, we should be careful not to mandate particular technological solutions that would freeze into place the current state of technology. We need to craft flexible rules that foster continued investment and innovation both on the network and device level. We should also not inhibit the ability of MVPDs to continue to invest in innovative devices and offerings. There are numerous promising collaborative efforts in home network and industry standard setting bodies to provide consumers with greater flexibility and options in how to view their video content. Hopefully, that spirit of collaboration between MVPD and consumer electronic companies will carry over to our consideration of a post-CableCARD regime.

Our long-term objective for these proceedings should be clear from the start. We have an obligation under section 629 of the Act to "assure the commercial availability" of retail navigation devices to access MVPD programming. Section 629's statutory mandate intended to provide consumers navigation device options at retail, not dictate how they view video programming at home. Nor did section 629 intend to compel consumers to purchase navigation devices. We should be mindful that not all consumers want the latest technology: over 100 million televisions in cable households today are not connected to a set-top box at all. Consumers may also prefer certain conveniences—lower upfront costs, ease of installation and upgrade—that come with leasing devices.

On the other end of the spectrum, we have also seen a great increase in interest and availability of Internet-delivered video programming from multiple vendors through dedicated devices, video game consoles, and Blu-ray players. Consumer electronic manufacturers are providing direct Internet connectivity to the television; cable, satellite and telco video providers are innovating and investing in home network solutions, over-the-top video, and greater interactivity and functionality in leased devices. Importantly, the bulk of this new investment and innovation is occurring in the competitive market without any Commission intervention, separate and apart from our CableCARD regime.

[1] Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable & Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 14 (December 22, 2009).

Lastly, the National Broadband Plan framed this issue as one of broadband adoption. I agree that our set-top box policy does relate to broadband, but I believe that it relates primarily to broadband deployment, not adoption. In order to provide higher speeds and more advanced broadband offerings, cable operators need to reclaim spectrum dedicated to video programming without eliminating the hundreds of video channels available to subscribers today. We should be vigilant that our set-top box policy does not unintentionally frustrate the efforts of cable operators investing in their next-generation broadband networks by putting up roadblocks to an affordable transition to all-digital operations or raising uncertainty about investment in more efficient technologies like switched digital video.