

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

In the Matter of)	
)	
TiVo Inc.'s Request for Clarification and Waiver of the Audiovisual Output Requirement of Section 76.640(b)(4)(iii))	MB Docket No. 12-230
)	
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
)	

MEMORANDUM OPINION AND ORDER

Adopted: November 28, 2012

Released: November 28, 2012

By the Chief, Media Bureau:

I. INTRODUCTION

1. In this Order, we clarify the meaning of the phrase “open industry standard” as it appears in the Commission’s regulation that requires cable set-top boxes to include a recordable, Internet Protocol (“IP”)-based output.¹ We also grant a limited waiver of that rule, pursuant to Section 629(c) of the Communications Act, permitting cable operators until June 2, 2014 to comply.² Finally, we grant small cable operators, as defined below, until September 2, 2014 to comply because of the difficulty they may have obtaining compliant equipment to meet the June 2, 2014 deadline.

II. BACKGROUND

2. On October 14, 2010, the Commission modified Section 76.640(b)(4)(iii) of our rules to require cable operators to “ensure that the cable-operator-provided high definition set-top boxes, except unidirectional set-top boxes without recording functionality, shall comply with an open industry standard that provides for audiovisual communications including service discovery,³ video transport,⁴ and remote

¹ 47 C.F.R. § 76.640(b)(4)(iii). *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, Third Report and Order and Order on Reconsideration, 25 FCC Rcd 14657, 14677-9, ¶¶ 39-44 (2010) (“2010 CableCARD Order”).

² 47 U.S.C. § 549(c).

³ Service discovery refers to the protocols that a retail device would use to seamlessly recognize a leased set-top box and the services (e.g., video programming) available on a home network. *See 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*, 25 FCC Rcd 4275, 4285-6, ¶ 30, n.53 (2010).

control command pass-through⁵ standards for home networking” by December 1, 2012.⁶ This rule is designed to “enable[e] connectivity with the multitude of IP devices in consumers’ homes.”⁷ For example, consumers would be able to use one leased set-top box as a gateway to send video to multiple devices, including IP-enabled “smart televisions” and retail set-top devices. It would also allow consumers to connect a computer to a set-top box and use the computer’s hard-drive storage to record cable content in lieu of or in addition to leasing an operator-supplied digital video recorder. Requiring the use of an open industry standard and IP-based interface was intended “to accomplish the equipment compatibility purposes of Section 624A”⁸ and to “fulfill our statutory mandate under Section 629.”⁹

3. On July 25, 2012, TiVo Inc. (“TiVo”) filed a Petition for Clarification or Waiver of Section 76.640(b)(4)(iii) of the Commission’s rules.¹⁰ TiVo, which is a manufacturer of set-top boxes that are sold at retail to consumers as well as at wholesale to cable operators, makes two requests with respect to the rule. TiVo requests that the Bureau explain what “an open industry standard” means in the context of Section 76.640(b)(4)(iii). TiVo also seeks a waiver of Section 76.640(b)(4)(iii) until 12 months after cable operators have deployed at least 100,000 Cisco set-top boxes and 100,000 Motorola set-top boxes that include an output that complies with Section 76.640(b)(4)(iii).

4. With regard to clarifying the phrase “open industry standard,”¹¹ TiVo states that “While Internet Protocol, WiFi and Ethernet have clearly become established with respect to the *physical* networking standards for consumer devices there still remain multiple options, many of which are proprietary, for the *protocols* used over those networking standards,”¹² from which the industry could

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⁴ Video transport refers to the protocols that a leased set-top and a retail device would use to transfer digitally encoded video from the leased set-top box to the retail device. See Internet Engineering Task Force, Audio/Video Transport, <http://datatracker.ietf.org/wg/avt/charter/> (last visited Nov. 5, 2012).

⁵ Remote control command pass-through refers to the ability of a television to pass remote control commands entered with the television remote control through to the set-top box (rather than having to use the set-top box remote control). *2010 CableCARD Order*, 25 FCC Rcd at 14677-9, ¶¶ 40, 44.

⁶ 47 C.F.R. § 76.640(b)(4)(iii); *2010 CableCARD Order*, 25 FCC Rcd at 14677-9, ¶¶ 39-44. Pursuant to section 76.640(b)(4)(ii), this output must also be “capable of delivering recordable high definition video and closed captioning data in an industry standard format.” 47 C.F.R. § 76.640(b)(4)(ii).

⁷ *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 Proposed Rulemaking, 25 FCC Rcd 4303, 4311, ¶ 20 (2010). See also *2010 CableCARD Order*, 25 FCC Rcd at 14679, ¶ 44 (stating that the rule was “necessary to provide a foundation for a retail market of navigation devices that are connected to leased set-top boxes with limited capabilities.”).

⁸ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, 18 FCC Rcd 20885, 20902, ¶ 37; See also *2010 CableCARD Order*, 25 FCC Rcd at 14677, ¶ 39 (updating Section 76.640(b)(4)(iii) to require leased set-top boxes to include an IP-based output rather than a IEEE-1394 based output).

⁹ *2010 CableCARD Order*, 25 FCC Rcd at 14678, ¶¶ 43.

¹⁰ Petition of TiVo Inc. for Clarification or Waiver of 47 C.F.R. § 76.640(b)(4)(iii), Docket No. 97-80 (filed July 25, 2012) (“TiVo Petition”).

¹¹ *Id.* at 7-8.

¹² *Id.* at 5. Wi-Fi is the brand name for the IEEE 802.11 standard for wireless local area networking, and which is a widely used standard for in-home wireless networking. See generally Wi-Fi Alliance Home Page, <http://www.wi-fi.org/about/organization> (last visited Nov. 4, 2012). Ethernet is another name for the IEEE 802.3 local area networking standard that uses twisted copper or fiber optic cable, and is a wire-based alternative to Wi-Fi networking. See <http://standards.ieee.org/about/get/802/802.3.html>. “A communication protocol is the set of

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choose to comply with Section 76.640(b)(4)(iii).¹³ TiVo argues that if each cable operator deploys set-top boxes with its own understanding of an open industry standard, the result may be an outcome that is neither standard nor open.¹⁴ TiVo further explains that it cannot assure cable operators that its devices have an “open industry standard” audiovisual connection as Section 76.640(b)(4)(iii) requires until the Bureau clarifies the term.¹⁵

5. With regard to its waiver request, TiVo explains that “unless and until the Bureau clarifies the references and expectations pertinent to ‘an open industry standard,’” it cannot sell devices to cable operators with confidence that the devices comply with Section 76.640(b)(4)(iii).¹⁶ And TiVo notes that once the Bureau clarifies the phrase, “TiVo needs to be able to understand and test any solution adopted by the cable industry before it can be implemented in any of its products.”¹⁷ Consequently, TiVo seeks a time-limited waiver of Section 76.640(b)(4)(iii) to allow it to put a compliant output on its set-top boxes.

6. The Bureau sought comment on TiVo’s petition via a Public Notice released on August 16, 2012¹⁸ and published in the Federal Register on September 6, 2012.¹⁹ We received five comments²⁰ and seven reply comments²¹ in response to the Public Notice. No commenter opposed an extension of time to comply with Section 76.640(b)(4)(iii), and several suggested that the Bureau grant the entire industry a waiver for 18 months to comply with the rule.²²

III. DISCUSSION

7. In this Order, we clarify the phrase “open industry standard” and grant a waiver for a limited time to comply with the rule. Specifically, we clarify that we will analyze whether a set of specifications is an open industry standard based on the elements recommended by the Office of Management and Budget (“OMB”). We also conclude, based on the record before us, that waiver is

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standard rules for data representation, signaling, authentication and error detection required to send information over a communications channel.” Jared Kagan, *Bricks, Mortar, And Google: Defining The Relevant Antitrust Market For Internet-Based Companies*, 55 N.Y.L. Sch. L. Rev. 271, 274, n.9 (2010) (quoting *Communications Protocol Definition*, WEBSTER’S ONLINE DICTIONARY).

¹³ TiVo Petition at 5.

¹⁴ *Id.* at 7.

¹⁵ *Id.* at 7-8.

¹⁶ *Id.* at 8-10

¹⁷ *Id.* at 9. TiVo explains that it “needs sufficient time to *follow* the cable industry, not lead.” *Id.*

¹⁸ *Media Bureau Seeks Comment on TiVo's Request for Clarification and Waiver of the Commission's Audiovisual Output Requirement*, 27 FCC Rcd 9614 (2012).

¹⁹ *Media Bureau Seeks Comment on TiVo's Request for Clarification and Waiver of the Commission's Audiovisual Output Requirement*, 77 Fed. Reg. 54910 (Sept. 6, 2012).

²⁰ The AllVid Tech Company Alliance (“ATCA”), the Consumer Electronics Association (“CEA”), Mediacom Communications Corporation, the National Cable and Telecommunications Association (“NCTA”), and Verizon each filed comments.

²¹ ATCA, CEA, DIRECTV, the Motion Picture Association of America (“MPAA”), NCTA, RVU Alliance, and Verizon each filed reply comments.

²² Verizon Comments at 4-8; Letter from Neal M. Goldberg, Vice President and General Counsel, National Cable and Telecommunications Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 12-230 (October 15, 2012) (“NCTA October 15 Ex Parte”).

necessary to assist the development of a new home networking technology. Therefore, pursuant to Section 629(c) of the Communications Act, we grant a waiver of Section 76.640(b)(4)(iii) for all cable operators until June 2, 2014.

A. Clarification

8. As discussed below, we clarify the elements of an “open industry standard” for purposes of Section 76.640(b)(4)(iii). We conclude that the processes that the Digital Living Network Alliance (“DLNA”)²³ uses to develop and adopt its home networking specifications satisfy the elements of an “open industry standard.” We thus believe that the home networking solution that DLNA is working on now — a successor to the current “DLNA Premium Video profile”²⁴ — will meet the output requirements in Section 76.640(b)(4)(iii) as long as it supports the required features of recordable high-definition video, closed captioning data, service discovery, video transport, and remote control command pass-through. Although other standards may also meet these elements, we do not express a view on those here.

9. Open standards encourage interoperability by allowing industries to build devices and services that work together without consultation: a service or product that is offered according to a standard will work on any device built to the standard, even if the party responsible for the service or product has never had any contact with the party that made the device.²⁵ When the Commission revised Section 76.640(b)(4)(iii) in the *2010 CableCARD Order*, it had interoperability between video programming services and devices in mind. The Commission suggested that the “considerable work ongoing in industry standard bodies”²⁶ could result in standards that would allow consumers to connect leased set-top boxes to devices that they own (for example, standalone digital video recorders or smart TVs) by December 1, 2012.²⁷ As discussed above, the rule at issue requires cable operators to deploy set-top boxes with IP-based outputs that “comply with an open industry standard.” TiVo and certain commenters focus on the Commission’s use of the word “an” in Section 76.640(b)(4)(iii) and suggest that the Commission used the word “an” to signify its intent that one standard be chosen.²⁸ The AllVid Tech Company Alliance advocates designation of a single, nationally standard, IP-based connection that is available on a non-discriminatory basis.²⁹ CEA agrees and argues that, if the Bureau were to allow cable operators to use divergent standards, it would chill innovation and consumer utility because device manufacturers need to rely on a single standard.³⁰ Thus, these parties request that we clarify Section 76.640(b)(4)(iii) by specifying a single standard with which all cable operators must comply.³¹ NCTA counters that the Commission elected not to specify an interface and that the rule does not mandate a

²³ DLNA is an industry standards body made up of “manufacturers, software and application developers and service and content providers” that “encourag[es] development, interoperability and support of home network devices.” About DLNA, <http://www.dlna.org/dlna-for-industry/about-dlna> (last visited Oct. 24, 2012).

²⁴ See Mike Robuck, *@CES: DLNA bows Premium Video; Comcast, Intel demo it*, CED Magazine, January 11, 2012, available at <http://www.cedmagazine.com/news/2012/01/ces-dlna-bows-premium-video-comcast-intel-demo-it>.

²⁵ See generally *Implementation of Section 304 of the Telecommunications Act of 1996*, 13 FCC Rcd 14775, 14780, ¶ 12 (1998).

²⁶ *2010 CableCARD Order*, 25 FCC Rcd 14679, ¶ 44.

²⁷ *Id.* at 14677-9, ¶¶ 39-44.

²⁸ TiVo Petition at 7-8, ATCA Comments at 3-4, CEA Comments at 4-5.

²⁹ ATCA Comments at 2-3.

³⁰ CEA Comments at 4-5.

³¹ ATCA Comments at 4; CEA Comments at 4-5; TiVo Petition at 7-8.

particular means to achieve the functions that the rule specifies.³² Accordingly, NCTA argues that the Bureau cannot and should not mandate a particular means under the guise of clarification.³³

10. We conclude that the Commission did not intend to mandate a single standard that all cable set-top boxes must use. The Commission stated that, “as with the physical interface itself, we find that it is appropriate, at this time, to refrain from specifying the exact manner in which this baseline of functionality is to be implemented.”³⁴ We cannot reconcile this text with the position of some commenters that all cable operators must implement a single national standard to comply with this rule. Instead, we agree with NCTA that, by the plain language of the rule and the *2010 CableCARD Order*, the Commission intended to give each cable operator the flexibility to choose an interface standard³⁵ as long as that interface is based on an open industry standard. And, as Verizon suggests, “no party raised on reconsideration the argument that the IP output requirement might ‘fail[] in its intent’ unless and until the Commission limits the set of permitted options, and TiVo cannot properly raise it now.”³⁶ Accordingly, we reject TiVo’s reading of Section 76.640(b)(4)(iii) to require the entire cable industry to adopt and implement a single IP-based solution.

11. Although we reject TiVo’s reading of Section 76.640 to require all cable operators to use a single standard, we agree with TiVo that it would be useful to clarify the meaning of the phrase “open industry standard.”³⁷ To provide guidance to the industry on this point, we clarify that we will analyze whether a set of specifications is an open industry standard based on the elements established in OMB Circular A-119. These elements are: (i) Openness; (ii) Balance of interest; (iii) Due process; (iv) An appeals process; and (v) Consensus.³⁸ This clarification is consistent with the Commission’s intent in the *2010 CableCARD Order* to give the industry flexibility to use cutting-edge standards rather than lock a

³² NCTA Comments at 1-2, 4; Verizon Comments at 8-11; MPAA Reply at 2.

³³ *Id.*

³⁴ *2010 CableCARD Order*, 25 FCC Rcd at 14679, ¶ 44. ATCA argues that the Commission intended to delegate authority to the Bureau to specify the exact manner in which to implement the baseline functionality. ATCA Reply at 3-4. We reject this argument, finding no support for this contention in the rulemaking order.

³⁵ *Id.*; 47 C.F.R. § 76.640(b)(4)(iii).

³⁶ Verizon Comments at 11.

³⁷ TiVo Petition at 7-8.

³⁸ OMB Circular A-119, § 4, http://www.whitehouse.gov/omb/circulars_a119. OMB Circular A-119 distinguishes industry standards from voluntary consensus standards by explaining that industry standards “are developed in the private sector but not in the full consensus process.” *Id.* The Office of Management and Budget sought comment on private sector standards development earlier this year. Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities, 77 Fed. Reg. 19357, 19359 (March 30, 2012). When OMB modified Circular A-119 in 1998, OMB referred to the American National Standards Institute (“ANSI”) as the organization responsible for accrediting standards developing organizations (“SDO”) in accordance with the principles of openness, balance of interests, due process, and consensus requirements. *See* Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities, 63 Fed. Reg. 8546, 8548, 8553. (Feb. 19, 1998). *See also* Memorandum of Understanding Between the American National Standards Institute (ANSI) and the National Institute of Standards and technology (NIST), available at <http://gsi.nist.gov/global/docs/ANSINISTMOU2000.pdf>. We do not require that an open industry standard be adopted by an SDO accredited by ANSI, but we are informed by ANSI definitions of the relevant terms in our analysis of how DLNA meets the factors below. *See* ANSI, Essential Requirements: Key Implementation and Compliance Considerations at 1-2, January 15, 2012, available at <http://publicaa.ansi.org/sites/apdl/Documents/Standards%20Activities/American%20National%20Standards/ANSI%20Accredited%20Standards%20Developers/ANS%20Guidance%20Documents/Key%20Implementation%20and%20Compliance%20considerations%2001152010.doc> (“ANSI Essential Requirements Key Considerations”).

specific standard in place,³⁹ while ensuring that cable operators do not rely on proprietary specifications that reject input from interested industries.⁴⁰

12. According to the comments filed in this proceeding, interested parties are working together to establish industry standards using an open process the rule contemplates.⁴¹ The record indicates that most cable operators plan to use a future version of the DLNA Premium Video profile⁴² as a home-networking solution to comply with Section 76.640(b)(4)(iii). We conclude that the process DLNA uses to develop and adopt standards satisfies the elements of an “open industry standard,” as identified above, for the purposes of compliance with this rule. First, DLNA meets the openness element because, pursuant to its bylaws, membership is open to any “for-profit corporation, nonprofit corporation, or other enterprise.”⁴³ In addition, its membership is comprised of a wide range of industries.⁴⁴ DLNA also requires its members to license intellectual property rights on “reasonable terms and conditions that are free of any discrimination,” which helps ensure that there are no undue financial barriers to participation.⁴⁵ Second, DLNA meets the balance of interest element because it allows participation from companies with diverse interests and is not dominated by a single interest group. Voting membership is “based on fair and

³⁹ *2010 CableCARD Order*, 25 FCC Rcd at 14679, ¶ 44 (“[W]e find that it is appropriate, at this time, to refrain from specifying the exact manner in which this baseline of functionality is to be implemented. . . . [W]e wish to ensure that consumers benefit from these additional functionalities in a timely manner . . . but do not mandate a particular means by which these functionalities are to be provided.”). ATCA, TiVo, and CEA suggest that we mandate these particular means now, and move toward a rulemaking on device compatibility for all MVPDs. *See* ATCA Comments at 7; CEA Comments at 4-5; TiVo Petition at 7-8; ATCA Reply at 6-7; CEA Reply at 3. We agree with DIRECTV, MPAA, and NCTA that this is not the appropriate proceeding in which to address a device-compatibility standard for all MVPDs because TiVo’s petition focused on Section 76.640, which applies solely to cable operators. *See* DIRECTV Reply at 2-4, MPAA Reply at 2, NCTA Reply at 2-4.

⁴⁰ *2010 CableCARD Order*, 25 FCC Rcd at 14679, ¶ 44 (“[W]e believe that it is important to define a baseline of functionality to ensure that consumers who network their devices and device manufacturers can rely on networked devices’ ability to communicate with leased set-top boxes.”).

⁴¹ *See, e.g.*, NCTA Comments at 3-4, Verizon Comments at 4-8; TiVo Petition at 7-8; Letter from Donna Moore, Executive Director, Digital Living Network Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 10-91; CS Docket No. 97-80; PP Docket No. 00-67, at 1 (April 3, 2012).

⁴² *See* Digital Living Network Alliance, *DLNA Premium Video Enable Delivery of Television Programs and Movies to DLNA Certified Products* (press release), Jan. 10, 2012, available at <http://www.dlna.org/docs/press-releases/dlna-premium-video-enables-delivery-of-television-programs-and-movies-to-dlna-certified-products.pdf>. The DLNA Premium Video profile is a set of standards that “can allow consumers to stream their favorite television programs and movies to DLNA Certified® products such as digital televisions, tablets, mobile phones, Blu-ray disc players and video game consoles.” Press Release, Digital Living Network Alliance, DLNA® Premium Video Enables Delivery of Television Programs and Movies to DLNA Certified® Products (Jan. 10, 2012), available at <http://www.dlna.org/docs/press-releases/dlna-premium-video-enables-delivery-of-television-programs-and-movies-to-dlna-certified-products.pdf>.

⁴³ Bylaws of the Digital Living Network Alliance at §§ 12, 6.2.2, available at http://www.dlna.org/docs/dlna-contributor-membership-documents/march_2011_amended_bylaws_with_new_election_procedures_certified-6-7-11.pdf (“DLNA Bylaws”) (establishing that any legally qualified corporation or enterprise is qualified for membership in DLNA, and that any member in good standing may join any DLNA workgroup). *See* Letter from Donna Moore, Executive Director, Digital Living Network Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80; PP Docket No. 00-67, MB Docket No. 12-230 (filed Nov. 2, 2012); *See also* ANSI Essential Requirements Key Considerations at 1-2.

⁴⁴ DLNA Nov. 2 Ex Parte (“DLNA’s Promoter Members include: ACCESS, AT&T, AwoX, Broadcom, CableLabs, Cisco, Comcast, DIRECTV, DTS, Dolby Laboratories, Ericsson, Google, HP, HTC, Huawei, Intel, LG, Microsoft, Nokia, Panasonic, Qualcomm, Samsung, Sony, Technicolor and Verizon.”)..

⁴⁵ DLNA Intellectual Property Rights Policy at § 3, available at http://www.dlna.org/docs/dlna-contributor-membership-documents/dlna_organization_ipr_policy.pdf; ANSI Essential Requirements Key Considerations at 1-2.

objective criteria,⁴⁶ and the variety of interests represented is apparent from the list of current voting members.⁴⁷ Third, DLNA meets the due process element because, among other things, its work group procedures give members the right to be heard and notified about the work group's meetings and votes.⁴⁸ Fourth, DLNA meets the appeals process element because it gives members the right to appeal decisions that the entity makes through an established process.⁴⁹ And finally, DLNA meets the consensus element because it strives to achieve general agreement, though not necessarily unanimity, tries to resolve objections by interested parties, considers all comments, explains why each objection is sustained or rejected, and gives members an opportunity to change their votes after reviewing the comments.⁵⁰ Therefore, to the extent the successor version of the DLNA Premium Video profile, when finalized, supports the required features of recordable high-definition video, closed captioning data, service discovery, video transport, and remote control command pass-through, we find that it will satisfy the requirements for a Section 76.640(b)(4)(iii) output.⁵¹ Accordingly, any cable operator that includes a DLNA output on its set-top boxes that supports those features will comply with our rule.⁵²

13. In its comments, CEA requests that we clarify that the standard “must include the availability of data describing available programs and services, to support the ability of a device’s own integrated program guide to be interactive with the network.”⁵³ Further, in its reply comments, CEA requests that we clarify that Section 76.640(b)(4)(iii) prohibits “proprietary overlays, requirements, or limitations imposed by cable operators or content providers.”⁵⁴ We do not believe that it is necessary to

⁴⁶ DLNA Member Companies, <http://www.dlna.org/dlna-for-industry/about-dlna/member-companies> (last visited November 5, 2012); DLNA Bylaws at § 12.5; ANSI Essential Requirements Key Considerations at 2-4.

⁴⁷ DLNA Nov. 2 Ex Parte

⁴⁸ DLNA Bylaws at § 6.3 (establishing the procedures for approval of design guidelines); DLNA Work Group and Task Force Procedures at § 8, *available at* http://www.dlna.org/docs/dlna-contributor-membership-documents/2010917_dlna_work_group_procedures_version_2-2.pdf (“DLNA Work Group Procedures”) (setting the procedures for the work group that drafts the guidelines to, among other things, (i) allow all members to send as many representatives as it wants to meetings, (ii) establish reasonable meeting scheduling, (iii) provide timely notice of meetings, (iv) follow a pre-set agenda, (v) ensure that members have the materials necessary for the meeting, and (vi) establish voting eligibility and procedures); ANSI Essential Requirements Key Considerations at 5-9.

⁴⁹ DLNA Work Group Procedures at § 8.5; ANSI Essential Requirements Key Considerations at 12-14.

⁵⁰ DLNA Bylaws at § 6.3(c); DLNA Work Group Procedures at §§ 7.3.2, 8.4.3; OMB Circular A-119 § 4 (a)(1)(v).

⁵¹ *See* Letter from Donna Moore, Executive Director, Digital Living Network Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 10-91; CS Docket No. 97-80; PP Docket No. 00-67 (April 3, 2012) (attaching December 2011 DLNA Guidelines). This conclusion applies to future successor versions of the DLNA Premium Video profile as well, as long as they support the required features and as long as DLNA’s bylaws and practices do not change in any way that would call into question our conclusion that DLNA’s processes are consistent with the OMB elements of an open industry standard.

⁵² We acknowledge that other home networking solutions may exist or be developed that could also satisfy our rule; we address DLNA at this time because a range of companies in different industries support it, and is the only standards group for which we have sufficient information to evaluate with respect to its compliance with the elements of an open industry standard. *See* ATCA Comments at 4; Verizon Comments at 5-6; NCTA Comments at 4-5. Cable operators that select another home networking solution have the option, but are not required, to seek a declaratory ruling from the Media Bureau about whether that solution satisfies Section 76.640(b)(4)(iii). We remind cable operators that the home networking solution must be IP-based, so, while an IP-based home networking standard could use the IEEE-1394 physical plug, it must use IP as its network layer. *2010 CableCARD Order*, 25 FCC Rcd 14677-9, n.139, ¶¶ 39-44.

⁵³ CEA Comments at 5-6.

⁵⁴ CEA Reply at 3-5. *See also* Letter from Monica S. Desai et al, Counsel to AllVid Tech Company Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission, at 3 (Oct. 5, 2012) (requesting that the Bureau “clarify that compliance requires enablement of a competitive guide and tuning,” and clarify that the following are

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address these issues at this time.⁵⁵ To the extent that operators comply with an open industry standard that supports recordable high-definition video, closed captioning data, service discovery, video transport, and remote control command pass-through, we believe that many of these concerns will be addressed.⁵⁶ We believe that, through the open standards process that we describe and clarify above, the industries will be able to work together to develop and rely on standards that are based on consensus and that will ultimately best serve consumers' interests.

B. Waiver

14. In the *2010 CableCARD Order*, the Commission predicted that standards would be finalized in time to meet Section 76.640(b)(4)(iii)'s December 1, 2012 effective date.⁵⁷ Based on the record before us, we find that the prediction about finalized standards has not materialized; DLNA has not finalized a specification that will provide all of the required features, but participants expect that work to be settled early next year.⁵⁸ As TiVo explains in its Petition, the standards and specifications available today are not sufficient for TiVo to build a box that complies with Section 76.640(b)(4)(iii).⁵⁹ The record shows that TiVo is not alone. Despite their efforts, cable operators need more time to develop and introduce new technology to comply with Section 76.640(b)(4)(iii), particularly given our clarification in this Order.⁶⁰ As discussed below, we believe a limited waiver until June 2, 2014 is appropriate under Section 629(c) of the Communications Act.

15. Section 629(c) directs the Commission to waive a regulation adopted under Section 629 upon an appropriate showing that waiver is "necessary to assist the development or introduction of a new or improved . . . technology, or product[]." ⁶¹ In this case, waiver is necessary to assist the introduction of

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prohibited: (i) limiting service to "favored devices," (ii) using a non-standard service discovery method or a remote user interface, (iii) mislabeling files or streams to seem non-standard, even though the files and streams are standard, and (iv) encrypting in a way that only "approved" devices can access content or in a way that requires proprietary hardware or licensing).

⁵⁵ Nor do we believe that it is appropriate to address Mediacom's request that we declare that programmers may not "contractually constrain the ability of cable subscribers to obtain or use certain lawful devices or applications in connection with their MVPD service, including equipment or applications used by subscribers for personal recording and home networking." Mediacom Comments at 1. We agree with MPAA that this is not the appropriate forum to address this issue in depth. MPAA Reply at 3. But we will take this opportunity to remind MPAA and MVPDs that the Commission's rules require cable service to be available through this output and that our existing rule on selectable output control prohibits cable operators from limiting the programming that goes out over this output (except for certain new release movies). 47 C.F.R. §§ 76.640, 76.1201-1205, 76.1901-1909; *Motion Picture Association of America Petition for Expedited Special Relief; Petition for Waiver of the Commission's Prohibition on the Use of Selectable Output Control* (47 C.F.R. § 76.1903), 25 FCC Rcd 4799 (2010). See also CEA Reply at 4-5.

⁵⁶ For example, DLNA provides for discovery of a "tuner object" and associated properties such as channel title and channel number, which allows a retail device to use the tuner on the leased device to access a channel on the cable system for recording or display. *DLNA Guidelines, December 2011 Part 1: Architectures and Protocols*, 7.4.1.4.18-20. See also, *Id.* Annex B (Informative): Basic Tuner Representation.

⁵⁷ *2010 CableCARD Order*, 25 FCC Rcd at 14679, ¶ 44, n.151.

⁵⁸ See, e.g., NCTA Comments at 3-4, Verizon Comments at 4-8, ATCA Reply at 1. But see RVU Alliance Reply at 1.

⁵⁹ TiVo Petition at 7-8.

⁶⁰ NCTA Comments at 3-4, Verizon Comments at 4-8, ATCA Reply at 1.

⁶¹ 47 U.S.C. § 549(c). Section 629(c) also directs that the Commission "grant any such waiver request within 90 days of any application filed under this subsection. Due to the complicated technological issues involved in this

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a new home networking technology. As Verizon explains in its comments, “the next DLNA standard is unlikely to be approved until sometime in 2013. Moreover, even after standards are established, manufacturers will have to implement those standards in their devices, and subsequently deploy those devices into the marketplace – a process that can often take a year or more.”⁶² Therefore, waiver is necessary to ensure the development of the new products contemplated under Section 76.640 of the Commission’s rules, which is precisely the situation that warrants waiver under Section 629(c).⁶³ The record suggests that 18 months is a reasonable time for waiver because it will “afford industry the necessary time required to complete, approve, and implement the standard.”⁶⁴ Accordingly, we believe that an 18-month waiver of Section 76.640(b)(4)(iii) will provide cable operators adequate time to introduce this new technology without unduly delaying consumer benefits.⁶⁵ Waivers that we grant under Section 629(c) are “effective for all service providers and products in that category and for all providers of services and products,”⁶⁶ and therefore the waiver that we grant to TiVo in this Order applies to all cable operators.⁶⁷

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proceeding, we exceeded this deadline by a few weeks. Nonetheless, we find it in the public interest that we act on the waiver request. It is well settled that an agency is not deprived of jurisdiction to act after the time period specified by statute. *Brock v. Pierce County*, 476 U.S. 253, 260, 266 (1986). See also *Barnhart v. Peabody Coal Co.*, 537 U.S. 149, 158 (2003) (“Nor, since *Brock* have we ever construed a provision that the Government ‘shall’ act within a specified time, without more, as a jurisdictional limit precluding action later”).

⁶² Verizon Comments at 8.

⁶³ 47 U.S.C. § 549(c). For the reasons stated above, we also find that “good cause” has been shown for a time-limited waiver for cable operators to deploy a compliant home networking solution, under the requirements of Sections 1.3 and 76.7 of the Commission’s rules. 47 C.F.R. §§ 1.3 (“The provisions of this chapter may be suspended, revoked, amended, or waived for good cause shown, in whole or in part, at any time by the Commission, subject to the provisions of the Administrative Procedure Act and the provisions of this chapter. Any provision of the rules may be waived by the Commission on its own motion or on petition if good cause therefor is shown”), 76.7.

⁶⁴ Verizon Reply at 3; see also ATCA Reply at 2 (“There Is No Opposition To Affording The Time Necessary To Refer To Open Industry Standards”); Verizon Comments at 4-8; NCTA October 15 Ex Parte (“[W]e did reiterate our support for the suggestion made by Verizon in that proceeding that the Bureau extend the HD set-top box compliance deadline by 18 months.”).

⁶⁵ We agree with Verizon that this waiver will “provide sufficient time for manufacturers (such as TiVo) who serve as set-top box vendors to obtain more information regarding how their video provider customers intend to comply with the rule, and to design and construct their devices accordingly.” Verizon Reply at 5-6.

⁶⁶ 47 U.S.C. § 549(c).

⁶⁷ We also note that grant of the waiver for all cable operators and set-top boxes that are subject to the rule is consistent with past actions in which the Commission issued industry-wide waivers of compliance deadlines. See e.g., *Telephone Number Portability, Order*, 23 FCC Rcd 2425 (2008). Courts have previously upheld agency decisions to institute new deadlines by adjudication, rather than in the context of an Administrative Procedure Act (“APA”) rulemaking, where the factors for the APA’s “good cause” exception were satisfied. See *Mobil Exploration and Producing North America, Inc. v. FERC*, 881 F.2d 193, 198-199 (5th Cir. 1989). Good cause may exist to extend the compliance date of a rule outside the context of an APA rulemaking where such a rulemaking would be “impracticable, unnecessary or contrary to public interest.” 5 U.S.C. § 553(b). We find that the extension of the deadline here would be in the public interest, as explained above, and that a notice and comment rulemaking would have been impractical given the need to provide industry with certainty as to their obligations prior to the December 1, 2012 deadline. We provided interested parties an opportunity to participate by publishing a notice in the Federal Register, seeking comment on TiVo’s petition, and fully considering comments from interested parties in deciding to grant a limited waiver of the deadline. Media Bureau Seeks Comment on TiVo’s Request for Clarification and Waiver of the Commission’s Audiovisual Output Requirement, 77 Fed. Reg. 54910 (Sept. 6, 2012). Significantly,

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16. The record further indicates that small cable operators may need additional time to obtain compliant boxes and related software.⁶⁸ The American Cable Association (ACA) argues that small companies are often unable to obtain equipment and related software as quickly as larger cable operators.⁶⁹ The Commission observed as much in its recent *Encryption Order*, recognizing that “large cable operators generally dictate equipment features to manufacturers and commonly get priority in the delivery of that equipment.”⁷⁰

17. We are persuaded that an additional brief extension of the compliance period for small cable operators is appropriate. As ACA notes small cable operators have, in the past, experienced difficulty obtaining compliant devices in the same time frame as larger operators and sought relief from the Commission as the compliance deadline neared.⁷¹ To alleviate any potential impact on small cable operators under these specialized circumstances, we find it prudent in this instance to set out a staggered compliance deadline at the outset. We are not persuaded that ACA’s proposed six-month extension is necessary, however, but find instead that an additional three months will provide small cable operators with adequate time to comply.⁷² An additional three-month time frame will best balance the needs of small cable operators while ensuring that their subscribers will not be unduly delayed in being able to enjoy the home-networking benefits of the rule. Therefore, we find good cause to provide small cable companies—as defined in our rules as one that services a total of 400,000 or fewer subscribers over one or more cable systems⁷³—with 21 months to comply with Section 76.640(b)(4)(iii) of the Commission’s rules.⁷⁴

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no party opposed the request for extension. ATCA Reply at 2 (“There Is No Opposition To Affording The Time Necessary To Refer To Open Industry Standards.”).

⁶⁸ See Letter from Barbara Esbin, Counsel to the American Cable Association, to Marlene H. Dortch, Secretary, Federal Communications Commission at 3 (Nov. 9, 2012) (“ACA Letter”).

⁶⁹ *Id.* at 3 (“[O]nce final standards for equipment designed to comply with Commission-imposed mandates are adopted, it is the larger cable operators that will arrange with manufacturers to have compliant equipment produced and related software written. As a consequence, it is their orders that will be filled first. Only after the needs of larger operators are satisfied will compliant equipment and software become available for purchase by small cable operators. Past experience indicates that prior to the compliance deadline, there is often a surge in demand for new compliant equipment and software, with the result that small operators, who are last in line, are unable to timely procure the devices and related software because the orders of the largest operators are being met first”).

⁷⁰ *Basic Service Tier Encryption; Compatibility Between Cable Systems and Consumer Electronics Equipment*, 27 FCC Rcd 12786, 12802, ¶ 21 (2012).

⁷¹ *Id.* at 3, 4 (citing *Baja Broadband Operating Company, LLC (f/k/a Orange Broadband Operating Company, LLC) and Carolina Broadband, LLC*, 22 FCC Rcd 17489, 179492, ¶ 7 (MB 2007) (granting deferral of the effective date of a set-top box-related rule because compliant set-top boxes would not be delivered to the small cable company by the effective date of the rule); *City of Crosslake, Minnesota d/b/a Crosslake Communications*, 22 FCC Rcd 11754, 11758, ¶ 9 (MB 2007) (same)).

⁷² For example, in another similar context, the Media Bureau found that small cable operators could obtain compliant set-top boxes within three months of the applicable regulatory deadline. See *Baja Broadband Operating Company, LLC (f/k/a Orange Broadband Operating Company, LLC) and Carolina Broadband, LLC*, 22 FCC Rcd 17489, 179492, ¶ 7 (MB 2007) (explaining that compliant set-top boxes would be delivered to a small cable company “90 to 120 days” from the effective date of the rule); *City of Crosslake, Minnesota d/b/a Crosslake Communications*, 22 FCC Rcd 11754, 11758, ¶ 9 (MB 2007) (explaining that compliant set-top boxes would be delivered to a small cable company within three months of the effective date of the rule).

⁷³ 47 C.F.R. § 76.901(e).

⁷⁴ ACA sought additional waiver relief for all cable operators “smaller than the six largest incumbent cable operators.” ACA Letter at 4-5. We believe ACA’s proposal would be over-inclusive of cable operators that do not

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18. Finally, we do not grant TiVo's request for a waiver that lasts until 12 months after cable operators have deployed at least 100,000 Cisco set-top boxes and 100,000 Motorola set-top boxes that include a compliant output. Now that we have clarified the meaning of "open industry standard" to mean any standard that meets the elements established in OMB Circular A-119 and given a limited, industry-wide waiver for compliance with our rule, all set-top box manufacturers will have sufficient time to build to such a standard so that cable operators may deploy compliant devices. Moreover, we see no legal or policy justification for granting TiVo an extended waiver. Accordingly, we find that it would not be in the public interest to grant TiVo a specialized waiver.

IV. ORDERING CLAUSES

19. Accordingly, **IT IS ORDERED**, pursuant to Sections 1, 4(i) and (j), 303, 601, 624A and 629 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 154(i) and (j), 303, 521, 544a, and 549, that this Clarification **IS ADOPTED**.

20. **IT IS FURTHER ORDERED**, pursuant to Section 629(c) of the Communications Act of 1934, as amended, 47 U.S.C. § 549(c), and Sections 1.3 and 76.7 of the Commission's rules, 47 C.F.R. §§ 1.3 and 76.7, that TiVo Inc.'s request for waiver of Section 76.640(b)(4)(iii) **IS GRANTED**, effective for all cable operators until June 2, 2014 to the extent described above and otherwise **IS DENIED**.

21. **IT IS FURTHER ORDERED**, pursuant to Section 629(c) of the Communications Act of 1934, as amended, 47 U.S.C. § 549(c), and Sections 1.3 and 76.7 of the Commission's rules, 47 C.F.R. §§ 1.3 and 76.7, that waiver of Section 76.640(b)(4)(iii) **IS GRANTED**, effective for all cable operators with 400,000 or fewer subscribers until September 2, 2014 as described above.

22. This action is taken by the Chief, Media Bureau, pursuant to authority delegated by Section 0.283 of the Commission's rules.⁷⁵

FEDERAL COMMUNICATIONS COMMISSION

William T. Lake
Chief, Media Bureau

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actually need more time than the 18-month waiver period we are granting herein and could unnecessarily delay the benefits of the rule for their subscribers. Instead, we find it more appropriate in this instance to grant three additional months to those operators that serve 400,000 or fewer subscribers nationwide. This definition is derived from the Commission's definition of "small cable company" in 47 C.F.R. § 76.901(e). *See Implementation of the Commercial Advertisement Loudness Mitigation (CALM) Act*, 26 FCC Rcd 17222, 17245, n.164 (2011).

⁷⁵47 C.F.R. § 0.283.