

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

In the Matter of)
)
Annual Assessment of the Status of)
Competition in the Market for the Delivery) MB Docket No. 14-16
of Video Programming)

COMMENTS OF TIVO INC.

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Dated: March 21, 2014

SUMMARY

In assessing the state of competition in the market for retail set-top boxes, the Commission must consider the impact of the uncertainty surrounding its CableCARD and other rules implementing Section 629 of the Communications Act. Despite the recent introduction of new retail CableCARD devices, the reality is that the future of competition in the market for retail set-top boxes is seriously threatened by a lack of clear standards that enable retail devices to be marketed and sold nationally. The outlook for the retail set-top box market is more precarious than it has been in years, given the NCTA's positions on the continued applicability of CableCARD support rules and its efforts to dismantle common reliance.

The CableCARD standard – or a successor interface that fulfils the requirements of Section 629 – remains necessary today. The central purpose of Section 629 – to ensure that consumers have retail choices from unaffiliated set-top box manufacturers – remains an essential, pro-consumer policy. The principle of requiring standards to enable competition in the market for communications equipment – leading in turn to consumer benefits in the form of greater innovation, lower prices, and higher quality – is one of the most settled and successful principles in telecommunications policy. Moreover, Section 629 remains as relevant today as ever because the incentives for cable operators to favor their own leased equipment and discriminate against retail products are as strong as ever.

Opponents of CableCARD and a successor solution implementing Section 629 argue that such solutions are not necessary because of changes in the video

programming marketplace, including the ability of consumers to watch a variety of content on a variety of devices via cable “apps” and other IP-based delivery mechanisms. However, none of these cable apps *guarantees* that a consumer can purchase a retail device to (a) receive all of the cable programming they are paying for; (b) record that programming for later viewing; (c) incorporate Internet-delivered content; (d) frame the experience in a user interface better and more innovative than the basic approach supplied by their cable provider; and (e) work with more than one provider.

In the year-plus since the D.C. Circuit vacated the rules setting out the technical standard for CableCARDS in *EchoStar Satellite L.L.C. v. FCC*, cable industry support for retail set-top boxes has gotten worse on several fronts. In order to safeguard competition in the market for retail set-top boxes and fulfil the requirements of Section 629, the Commission should reinstate the CableCARD rules vacated by *EchoStar* as they apply to non-DBS providers, and work with industry to develop a successor to the CableCARD interface that accommodates developments in technology. TiVo stands ready and willing to work with all interested parties to help develop a successor solution to CableCARD.

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TiVo Inc. (“TiVo”) hereby files these comments in the above-captioned proceeding seeking comment on the state of competition in the video marketplace, focusing on the market for retail set-top boxes.¹ As discussed below, despite the recent introduction of new retail CableCARD devices, the reality is that the future of competition in the market for retail set-top boxes is seriously threatened by a lack of clear standards that enable retail devices to be marketed and sold nationally. In the year-plus since the D.C. Circuit vacated the rules setting out the technical standard for CableCARDS in *EchoStar Satellite L.L.C. v. FCC*,² cable industry support for retail set-top boxes has gotten worse on several fronts. Moreover, the outlook for the retail set-top box market is more precarious than it has been in years, given the NCTA’s positions on the continued applicability of CableCARD support rules and its efforts to dismantle common reliance. In order to safeguard competition in the market for retail set-top boxes and fulfil the requirements of Section

¹ *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 14-16, Notice of Inquiry, FCC 14-8, at 21-22, Section IV.B (rel. Jan. 31, 2014) (“NOI”).

² 704 F.3d 992 (D.C. Cir. 2013).

629, the Commission should reinstate the CableCARD rules vacated by *EchoStar* as they apply to non-DBS providers, and work with industry to develop a successor to the CableCARD interface that accommodates developments in technology.

I. THE MARKET FOR RETAIL SET-TOP BOXES HAS BEEN HURT BY INCONSISTENT ENFORCEMENT OF THE PRINCIPLES OF SECTION 629

As the Commission notes in the *Notice of Inquiry* (“NOI”), “two new lines of retail CableCARD products have been released to the market.”³ TiVo’s new Roamio line of DVRs, released in the second half of 2013, represents the type of retail competition envisioned by Section 629. The TiVo Roamio features streaming to mobile devices such as tablets and mobile phones, the ability to record up to six programs at once, advanced search and discovery capabilities, and the ability to access TV, movies, music, and more from a variety of MVPD and online sources, all from a single menu in an award-winning user interface. It has been hailed as the “holy grail of set-top boxes,”⁴ “a big step up for cable TV subscribers,”⁵ and “the ultimate cable box.”⁶ TiVo users’

³ NOI at 21-22 (citing new product lines from Samsung and TiVo).

⁴ See Walter S. Mossberg, *New Roamio: TiVo On The Go*, Aug. 20, 2013, at <http://online.wsj.com/news/articles/SB10001424127887324108204579024853407128012> (“While streaming is the big news here, it’s worth pointing out that, even without it, the TiVo could be considered the holy grail of set-top boxes. That’s because it combines the functions of a cable box, a DVR and a device for receiving Internet-video services like Netflix, Amazon, Hulu Plus and YouTube.”).

⁵ Jason Snell, *TiVo Introduces New Roamio DVR with Built-in iOS Streaming*, Aug. 19, 2013, at <http://www.techhive.com/article/2047007/tivo-introduces-new-roamio-dvr-with-built-in-ios-streaming.html>.

⁶ Nilay Patel, *TiVo Roamio Review: This is the Ultimate Cable Box*, *The Verge*, Aug. 20, 2013, at <http://www.theverge.com/2013/8/20/4638390/tivo-roamio-pro-review> (“The TiVo Roamio Pro is very much the ultimate DVR . . . there isn’t another product on the market that can do as much with as much flexibility as the Roamio.”).

satisfaction and positive reviews are in stark contrast with the typical cable-supplied equipment.⁷ This is the good news about retail set-top box competition.

The bad news is that the retail set-top box market faces a serious threat from the lack of an enforceable national standard that guarantees that a retail device will work with all operators nationwide. As noted in the *NOI*, in January 2013 the D.C. Circuit in *EchoStar* vacated the Order adopting the CableCARD standard, leaving in doubt the continuing responsibilities of cable operators to support retail set-top boxes by providing and supporting CableCARD devices. NCTA, Charter, and Verizon have taken the position that the rules regarding CableCARD support, including those

⁷ The TiVo Roamio line of DVRs has received consistently excellent reviews. See, e.g., Josh Goldman, *TiVo's Latest DVR Goes Whole Home and Mobile*, Aug. 20, 2013, at http://cnettv.cnet.com/tivo-latest-dvr-goes-whole-home-mobile/9742-1_53-50153282.html ("For those fed up with their cable provider's DVR, the Roamio is a convincing argument for dumping them once and for all."); *TiVo Roamio Pro Review: TV and Online Video Nirvana in One Box*, Sep. 13, 2013, at http://reviews.cnet.com/digital-video-recorders-dvrs/tivo-roamio-pro/4505-6474_7-35826606.html ("[T]he Roamio is a one-box solution offering a superior user experience and more features than any other cable DVR."); Ben Drawbaugh, *TiVo Roamio Pro Review*, Aug. 20, 2013, at <http://www.engadget.com/2013/08/20/tivo-roamio-plus-review/> ("Is it the best DVR ever released that works with ATSC and/or CableCARD? Absolutely."); Jason Snell, *TiVo Roamio Review: A Pretty Good DVR With a Silly Name*, Aug. 26, 2013, at <http://www.techhive.com/article/2047346/tivo-roamio-review-a-pretty-good-dvr-with-a-silly-name.html> ("[T]he TiVo interface seems much more attractive and thoughtful than the bog-standard cable boxes out there. . . . [I]f you're a digital cable subscriber who wants a better interface, the ability to stream and download shows to iOS devices, and single-box access to numerous online streaming services, TiVo Roamio offers a premium TV viewing experience."); Christina Warren, *TiVo Roamio Reinvents the Cable Box for the Digital Streaming Age*, Aug. 27, 2013, at <http://mashable.com/2013/08/27/tivo-roamio-plus-review/> ("[H]ands-down the best all-in-one solution for cable subscribers who also love digital content. . . . I've spent the last two weeks using a TiVo for the first time in years and I genuinely do not want to go back to the cable box DVR."); Mari Sibley, *New TiVo DVRs Top Cable Efforts*, Aug. 21, 2013, at http://www.lightreading.com/document.asp?doc_id=705313 ("the high end of the product line puts cable's notion of TV Everywhere to shame. . . . Current cable DVRs can't compete with the new TiVo boxes . . ."). Cable operator-provided set-top boxes, on the other hand, are rarely viewed the same way. See, e.g., John Patrick Pullen, *America's Most Hated Device: The Cable Box*, Aug. 27, 2013, at <http://tech.fortune.cnn.com/2013/08/27/americas-most-hated-device-cable-box/>.

enacted in a separate Order in 2010, are not applicable post-*EchoStar*,⁸ while TiVo and others disagree.⁹ While the common reliance rule survived *EchoStar*, as noted in the *NOI*,¹⁰ the NCTA has been urging Congress to eliminate the common reliance requirement — a move that would make an already uneven playing field even more tilted against consumers and would make it far more difficult for retail set-top box makers to compete and offer consumers the choice required by Section 629.

Regardless of the continued validity of the CableCARD support rules or the NCTA's efforts to gut the Commission's policies implementing Section 629, the simple fact that there is no longer a single, nationwide technical standard that retail set-top box manufacturers can build to poses a severe threat to the retail set-top box market. As explained below in Section II, such a CableCARD (or successor) standard remains necessary if the market for retail set-top boxes is to survive, let alone thrive. TiVo has petitioned for the reinstatement of the CableCARD technical standard as applied to non-DBS MVPDs.¹¹ While TiVo urged the Commission to act expeditiously to provide consumers greater certainty that the retail device they purchase will work with their

⁸ Comments of National Cable & Telecommunications Association, CS Docket No. 97-80, at 4-5 (Feb. 14, 2014); Comments of Verizon, CS Docket No. 97-80, at 5 (Feb. 14, 2014); Opposition of Charter Communications, Inc. to Petition for Reconsideration, MB Docket No. 12-328, CSR-8470-Z, at 3 (June 3, 2013).

⁹ See TiVo Inc. Reply to Opposition, CSR-8740-Z, MB Docket No. 12-328, CS Docket No. 97-80, at 2-7 (June 10, 2013); Consumer Electronics Association Reply, CSR-8740-Z, MB Docket No. 12-328, CS Docket No. 97-80 (June 13, 2013); see also Reply Comments of the AllVid Tech Company Alliance, CS Docket No. 97-80 (Feb. 28, 2014).

¹⁰ *NOI* at 21.

¹¹ TiVo Inc. Petition for Rulemaking, CS Docket No. 97-80, PP Docket No. 00-67 (filed July 16, 2013); *Media Bureau Seeks Comment on TiVo Petition for Rulemaking To Reinstate the Commission's Second Report and Order Implementing Section 629 of the Act and Associated Rules*, Public Notice, CS Docket No. 97-80, PP Docket No. 00-67, DA 13-1626 (rel. July 24, 2013).

particular cable operator, no action has been taken since the TiVo petition was filed in July 2013 and the final comments were filed in October 2013.

Indeed, in assessing the current state of competition in the retail set-top box market, the Commission should keep in mind that the retail set-top box market has from the outset been hampered by weak and inconsistent CableCARD support. After being urged by the Commission to work with the consumer electronics industry to develop a standard interface for retail set-top boxes in accordance with the goals of Section 629, the cable industry developed the CableCARD technical standard. The Commission adopted the cable industry-developed solution *provided* that cable operators (1) make CableCARDS available by July 1, 2000, and (2) rely on the CableCARD interface in their own newly-deployed devices by January 1, 2005 – the so-called “common reliance” rule designed to ensure that they support the technology used by retail devices.

The first CableCARD-reliant products were introduced in 2003–04 but, without common reliance, received poor or nonexistent support from cable operators – as documented in court decisions, Commission Orders, and other filings with the Commission.¹² That lack of support finally led the Commission to implement the

¹² See, e.g., *Charter Communications v. FCC*, 440 F.3d 31, 40-44 & n.10 (D.C. Cir. 2006); *In the Matter of Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80, Second Report and Order ¶ 39 & n.162 (Mar. 17, 2005). See also Comments of the CEA on NCTA Downloadable Security Report, CS Docket No. 97-80 (Jan. 20, 2006); Letter from Julie M. Kearney, Sr. Dir. and Reg. Counsel, CEA, to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80 (Mar. 23, 2006); Letter from Robert S. Schwartz, Counsel to CEA, to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80 (Mar. 24, 2006); Letter from Julie M. Kearney, Sr. Dir. and Reg. Counsel, CEA, to Marlene H. Dortch, Secretary, FCC, CS Docket No. 97-80 (Aug. 7, 2006).

common reliance rule (also known as the “integration ban”) as of July 1, 2007 – seven years after CableCARDs were first introduced. By this time, CableCARD televisions were disappearing from the market due to lack of cable operator support. Rather than improve their support for CableCARD-reliant TVs, operators could and did offer to lease discounted set-top boxes to support these TVs in preference to CableCARD. But TiVo, whose HD DVRs require CableCARDs in order to function, persisted by helping its customers insist on proper support (often requiring several and prolonged visits by field technicians) until, with the aid of common reliance, its products finally started to receive support.

Even after common reliance was in place, retail CableCARD devices continued to be disadvantaged by cable operators in various ways.¹³ In 2010, the Commission adopted rules to strengthen its CableCARD regulations to deal directly with certain cable operators’ evasion of CableCARD requirements. These regulations require operators to offer self-installation of CableCARDs and access to “switched digital” channels, and they finally ended the ability of operators to discriminate in price against subscribers who choose competitive products.¹⁴ While CableCARD-reliant access is still

¹³ See, e.g., Federal Communications Commission, *Connecting America: The National Broadband Plan* (“National Broadband Plan”) § 4.2 at 52 (“[C]onsumers who buy retail set-top boxes can encounter more installation and support costs and hassles than those who lease set-top boxes from their cable operators.”); Letter from Todd G. Hartman, Vice President, Associate General Counsel and Chief Compliance Officer, Best Buy Co., Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket Nos. 09-47, 09-51, 09-137, and CS Docket No. 97-80 (Jan. 27, 2010); Comments of TiVo Inc., CS Docket No. 97-80, PP Dkt No. 00-67 (June 14, 2010).

¹⁴ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, CS Docket No. 97-80, PP Docket No. 00-67, Third Report and Order and Order on Reconsideration, FCC 10-181, at 2 (rel. Oct. 14, 2010) (“*CableCARD Support Order*”).

not equivalent as it should be, CableCARD is a fully-realized solution that provides consumers today with a choice of using a better alternative to an operator-provided box. However, as discussed in Section III below, any improvement in CableCARD support was short-lived, and the situation has gotten much worse in recent months following the court decision in *EchoStar*.

Given the poor record of CableCARD support, the current lack of CableCARD technical standard and the uncertainty surrounding the continuing legal effect of the CableCARD support rules post-*EchoStar*, and the NCTA's continuing lobbying efforts to gut the regulations implementing Section 629, it is a testament to the demand for retail set-top boxes that a market for such devices exists at all. Over the years, TiVo customers have endured poor technical support during installation and lack of access to two-way services like Video on Demand – because most cable operators have refused to allow access to two-way signals, not because such access is not technically feasible – but they still continue to purchase TiVo's DVRs because of their superior quality, features, and ease of use. However, true retail competition will occur only when consumers no longer face the obstacles mentioned above, and when consumers and manufacturers can be confident that retail devices will have access to the signals that the consumer has subscribed to and paid for. In order to provide such confidence, and to assure the continued availability of retail set-top boxes in accordance with Section 629, the Commission should reinstate the CableCARD rules vacated by *EchoStar* as they apply to non-DBS providers, and work with industry to develop a successor to the CableCARD interface that accommodates developments in technology.

II. RULES REQUIRING AN INTERFACE STANDARD FOR RETAIL DEVICES CONSISTENT WITH SECTION 629 REMAIN NECESSARY TODAY

The primary argument made by opponents of various rules implementing Section 629 is that the market has changed with the advent of online video distributors (OVDs) and other IP-delivered content, cable network apps, tablets and other similar devices, etc. While there is no doubt that the market for the delivery of video content has changed in the last decade-plus since the CableCARD rules were adopted, what has not changed is the consumer-benefit imperative of Section 629 and the need for rules that assure the retail availability of set-top boxes.

The central purpose of Section 629 – to ensure that consumers have retail choices from unaffiliated set-top box manufacturers – remains an essential, pro-consumer policy. History has shown time and again that when devices are untethered from the control of the network operator and consumers have greater choice, innovation is unleashed. Indeed, examples of such innovation can be found in almost every other segment of the communications market – smartphones, laptops, smart televisions, and others. In enacting Section 629, Congress was clear that it wanted similar benefits for the set-top box market, and stressed the importance of competition in the set-top box market by saying that “[c]ompetition in the manufacturing and distribution of consumer devices has always led to innovation, lower prices and higher quality.”¹⁵

¹⁵ H.R. Rep. No. 104-204, at 112 (1995).

Section 629's principle of requiring standards to enable competition in the market for communications equipment – leading in turn to consumer benefits in the form of greater innovation, lower prices, and higher quality – is one of the most settled and successful principles in telecommunications policy. The principle dates back to the seminal *Carterfone* decision,¹⁶ and demonstrates that the public interest is best served when consumers have a wide array of equipment choices and are not limited to equipment supplied by a bottleneck network operator. Outside of the cable arena, this principle was followed in the wireline telephone market, the enhanced services market in the Commission's *Second Computer Inquiry* proceeding,¹⁷ and in the Commission's 2007 700 MHz Auction Order.¹⁸ More recently, policymakers across the aisle both at the Commission and on Capitol Hill have supported this same basic principle for wireless networks – that consumers should be able to use the device of their choice on any wireless network.¹⁹ The same logic applies in the market for retail set-top boxes.

¹⁶ *Use of the Carterfone Device in Message Toll Telephone Service*, 13 FCC 2d 420, 424-25 (1968).

¹⁷ *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Final Decision, 77 FCC 2d 384; *modified on recon.*, 84 FCC 2d 50 (1980); *further modified* 88 FCC 2d 512 (1981), *aff'd sub nom.*, *Computer and Communications Industry Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), cert. denied, 461 U.S. 938 (1983), *aff'd on second further recon.*, FCC 84-190 (rel. May 4, 1984).

¹⁸ *Service Rules for the 698-746, 747-762, and 777-792 MHz Bands*, WT Docket No. 06-150, at ¶¶ 189-230 (rel. Aug. 10, 2007) ("*700 MHz Auction Order*").

¹⁹ *See, e.g.*, Letter from Tom Wheeler, Chairman, FCC, to Steve Largent, President and CEO, CTIA – The Wireless Association, Nov. 14, 2013; Ajit V. Pai, *Don't Treat Consumers Like Criminals*, NY Times, June 6, 2013, at A23, available at <http://www.nytimes.com/2013/06/06/opinion/switching-wireless-carriers-shouldnt-be-a-crime.html>; T.C. Sottek, *Senator Announces Bill to Legalize Cell Phone Unlocking Following Support from White House*, Mar. 5, 2013, at <http://www.theverge.com/2013/3/5/4068602/senator-klobuchar-cell-phone-unlocking-bill> (discussing proposals from Democratic and Republican members of Congress in support of phone unlocking by consumers).

Section 629 remains as relevant today as ever because the incentives for cable operators to favor their own leased equipment and discriminate against retail products remain as strong as ever. On the whole, cable operators make an estimated \$7 billion each year from set-top box leasing fees.²⁰ At a time when cable operators are faced with rising programming costs, equipment leasing costs are one area where operators can raise revenue to boost earnings.²¹ Consumer electronics prices almost always drop over time, but monthly cable set-top rental prices are rising.²² Competition from retail devices leads to lower prices, but this has not happened in the set-top box market because consumers have limited choices. The fact that cable operators have the incentive to deny consumer choice to maintain and increase the revenue stream associated with leasing set-top boxes demonstrates the need for the Commission to act to ensure competition from retail devices in accordance with Section 629.

Recently, the NCTA has argued that a national standard in accordance with Section 629 is not necessary because consumers can watch a wider variety of content on a variety of devices, citing the presence of OVDs and cable apps viewable on tablets,

²⁰ See *Report on Cable Industry Prices*, MM Docket No. 92-266, DA 13-1319, at 12-13, ¶¶ 21-22 (rel. June 7, 2013) (finding average cost of leasing a cable set-top box to be \$7.29 per month; the \$7 billion figure assumes 54 million subscribers nationwide and an average of 1.5 set-top boxes per home).

²¹ See David Lazarus, *TWC is Offering Customers Little in Return for Its Latest Rate Hikes*, March 17, 2014, available at <http://touch.latimes.com/#section/-1/article/p2p-79650340/>.

²² See *id.*; Jessica DiNapoli, *Time Warner Cable Raises Cable, Internet Rates*, Times Herald-Record, Feb. 27, 2014, available at <http://www.recordonline.com/apps/pbcs.dll/article?AID=/20140227/BIZ/402270319>; Todd Spangler, *Verizon Raising FiOS TV DVR, Set-Top Rates*, Multichannel News, Mar. 23, 2012, available at <http://www.multichannel.com/content/verizon-raising-fios-tv-dvr-set-top-rates>.

smartphones, gaming devices, and so on.²³ The NCTA has also argued that CableCARD or a successor standard is not required because TiVo has entered into agreements with some cable operators to supply set-top boxes or cloud-based software.²⁴ While these developments are welcome, as explained below, none of them is a substitute for retail competition in navigation devices used for viewing MVPD programming as required by Section 629.

The NCTA has noted that a number of cable (and other MVPD) apps allow subscribers to watch some content on retail devices such as tablets, Xbox, Roku, etc.²⁵ The fact that some cable operators, other MVPDs, and cable networks allow subscribers to access a subset of cable content online on certain retail devices in limited geographies is a positive development for consumers but is not the sort of competition envisioned by Section 629. For retail competition to succeed, consumers need to be able to buy a device knowing it can be used nationwide to view all content to which they have subscribed, not navigate a chart to see which devices and apps work with which content provider – only to have things change if they decide to move. Moreover, devices such as an Xbox or Roku (or similar devices) are not substitutes for cable set-top boxes – they are not purchased principally to watch cable content but rather to play games or watch OTT content from OVDs such as Netflix. If consumers using these

²³ See Letter from Michael K. Powell, President, NCTA, to Tom Wheeler, Chairman, FCC, MB Docket Nos. 10-91 & 07-269, CS Docket No. 97-80, Feb. 5, 2014, at 1-4 (“Powell Letter”); Comments of the National Cable & Telecommunications Assoc., CS Docket No. 97-80, PP Docket No. 00-67, at 5-9 (Sep. 16, 2013) (“NCTA Comments to TiVo Rulemaking Petition”).

²⁴ See Powell Letter at 5.

²⁵ Powell Letter at 1-4.

devices are able to get some content from some operators in some markets, it is an added benefit. Consumers, however, cannot rely on being able to access all cable content in all locations, which means that these devices cannot be marketed to consumers as substitutes for their cable set-top box. These devices also lack the ability to record cable content and hence cannot be viewed as substitutes for cable operator-supplied DVRs.

Another important way in which these developments do not measure up to the type of retail competition required by Section 629 is that these devices merely display cable “apps”; they cannot create user interfaces to present the cable content in more innovative, interesting, and user-friendly ways than the cable operator dictates in its app. The user experience is what differentiates consumer electronics products and is the reason that a consumer would purchase a device that provides a better experience than the consumer can get with an operator-supplied box. Devices such as tablets, the Xbox, and Roku simply are not competitive alternatives to the operator-supplied set-top box and, therefore, do not provide the type of retail competition that Section 629 was intended to ensure. In short, none of these cable apps *guarantees* that consumers can purchase a retail device to (a) receive all of the cable programming they are paying for; (b) record that programming for later viewing; (c) incorporate Internet-delivered content; (d) frame the experience in a user interface better and more innovative than the

basic approach supplied by their cable provider; and (e) work with more than one provider.²⁶

The NCTA also argues that consumers have a greater number of choices with respect to sources of video programming, thanks to the growth of OVDs.²⁷ However, while OVDs provide consumers with more options, there is still no substitute for the full range of content offered by MVPDs. Even if archived shows and a few original shows are thought to be equivalent to cable's far more extensive program offerings, there is simply no substitute for such key content as sports and live news and variety shows. Indeed, OVDs see themselves as complements to, rather than replacements for, MVPD services.²⁸ Leading OVD Netflix, for example, views itself as competing with

²⁶ The removal of the AT&T U-Verse app on X-Box last December confirms that apps do not provide enough certainty to consumers to amount to true retail set-top box competition as envisioned by Section 629. AT&T U-verse had advertised its app on X-Box as an inducement for customers to sign-up for its service. See *AT&T Extends TV Watching to More Devices With Launch of U-verse TV on Xbox 360*, Oct. 11, 2013, at <http://www.prnewswire.com/news-releases/att-extends-tv-watching-to-more-devices-with-launch-of-u-verse-tv-on-xbox-360-104699739.html>. Late last year, however, it abruptly announced that it would terminate support for its app on the Xbox 360 service. See Jeff Baumgartner, *AT&T U-verse TV To Drop Support For Xbox 360 on December 31*, Nov. 26, 2013, at <http://www.multichannel.com/distribution/att-u-verse-tv-drop-support-xbox-360-december-31/146904>. These apps and other solutions come and go, and are not a reliable alternative to what is available on a competitive set-top box where consumers are guaranteed access to all of their cable programming.

²⁷ NCTA Comments to TiVo Rulemaking Petition at 7; Powell Letter at 4.

²⁸ See Comments of Netflix, Inc., Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, MB Docket No. 12-203, at 6-7 (Sep. 10, 2012) (discussing Netflix's similarities to cable channels like HBO, and that it is a complement to rather than a replacement for MVPD subscriptions).

cable networks such as HBO, as evidenced by the former's increasing focus on original programming, rather than with MVPDs.²⁹

Finally, the NCTA argues that TiVo's "evolution" to an OEM supplier of set-top boxes or as a cloud-based software provider to some cable operators demonstrates that a retail conditional access solution such as CableCARD or a successor solution is not required.³⁰ But this argument misses the mark — the purpose of Section 629 is to promote retail availability of set-top boxes to consumers. What progress TiVo is able to make as a supplier to certain cable operators is irrelevant to Section 629. TiVo continues to find ways to make its award-winning technology and user-interface available to as many consumers as possible through commercial arrangements with MVPDs, just as cable operators such as Comcast and Time Warner Cable continue to provide new offerings in their own operator-supplied devices. None of these developments amounts to retail competition from unaffiliated set-top box manufacturers as required by Section 629. Irrespective of the success it has had in providing advanced functionality and services to small and mid-sized cable operators, TiVo continues to provide DVRs and other products to consumers at retail and continues to seek a standard by which consumers can be guaranteed access to MVPD channels — whether CableCARD or a successor interface.

²⁹ *Id.* at 5-6; see also *Netflix: Subscribers Up, Original Content to Double*, Oct. 21, 2013, at <http://www.nbcnews.com/business/netflix-subscribers-original-content-investment-double-8C11434084>.

³⁰ Powell Letter at 5.

III. SUPPORT FOR THE FCC'S CABLECARD AND OTHER RULES INTENDED TO ASSURE THE COMPETITIVE AVAILABILITY OF SET-TOP BOXES HAS GOTTEN WORSE

The NCTA has argued that CableCARD or a successor standard is unnecessary because cable operators continue to support CableCARD even after *EchoStar* vacated the CableCARD technical standard.³¹ However, TiVo's internal surveys of MVPD compliance with CableCARD support requirements show that compliance is down in the year-plus following *EchoStar*, and is getting worse over time. TiVo conducts surveys of MVPD CableCARD support every few months, and the three surveys it has conducted since *EchoStar* was decided show a troubling trend of compliance that is getting worse on several fronts. Of course, the fact that compliance by certain operators has declined comes as no surprise given that the NCTA and certain operators have taken the position that the rules requiring support for retail devices that were adopted by the Commission in 2010 are no longer in effect.³²

The surveys show:

- A drop in the percentage of MSOs offering discounts off their bundled prices for customer-owned DVRs, in violation of 47 C.F.R. § 76.1205(b)(5)(ii)(B)(2). While the percentage of MSOs that offer such discounts has always been low, it has dropped from over 25 percent in February 2013 — soon after *EchoStar* was decided — to 11 percent in December 2013.

³¹ NCTA Comments to TiVo Rulemaking Petition at 11-12.

³² See footnote 8, *supra*.

- More MSOs requiring provider-only installations of CableCARDS, in violation of 47 C.F.R. § 76.1205(b)(1)'s requirement to permit self-installation of CableCARDS. 36 percent of MSO agents surveyed said that provider-installation of CableCARDS was required. This number grew about 10 percent from February 2013 to December 2013.
- For those retail customers that self-install their CableCARDS, 24 percent would be charged a fee for self-installation, with fees increasing since *EchoStar*, including a fee as high as \$39.95 imposed by two operators.
- 36 percent of MSO agents offer their own operator's DVR on an unsolicited basis to customers requesting CableCARDS for retail devices. This number has increased for all operators surveyed since *EchoStar*.

Indeed, TiVo users' experiences with CableCARD support over the years demonstrate the challenges that consumers must overcome to purchase retail devices even with CableCARD rules in place, and were the basis for several additional CableCARD support requirements adopted by the Commission in 2010.³³

This trend of worsening support for retail devices threatens competition in the market for retail set-top boxes, and points to the immediate need for the Commission to

³³ Based in large part on the record of CableCARD support by MSOs to that point, the Commission adopted reforms to the CableCARD rules, including requirements for transparency and nondiscrimination in CableCARD pricing and billing; a requirement that MVPDs allow self-installation of CableCARDS for devices where the manufacturer provides instructions; a requirement that MVPD technicians arrive with at least the number of CableCARDS requested by the customer; a requirement to provide M-CARDS; and a requirement to support Switched Digital Video for retail devices. *CableCARD Support Order*, FCC 10-181, ¶¶ 9-33.

reinstate the CableCARD technical standard and clarify that the CableCARD support rules continue to apply. Even apart from the worsening support, mere statements from cable operators that they plan to continue to provide and support CableCARDs do not rise anywhere near the level of certainty required for a retail market to exist.³⁴

Manufacturers need to have a high level of confidence that the standard they use to invest in and manufacture their products will continue to be supported, and consumers need to know that the product they are buying will work with any cable operator. Self-serving, non-binding promises are not enough.

IV. A SUCCESSOR SOLUTION IS NEEDED TO BETTER REFLECT TECHNOLOGICAL CHANGES, BUT THE CABLECARD RULES MUST BE REINSTATED UNTIL SUCH A SUCCESSOR SOLUTION IS IN PLACE

As discussed above, a successor to the CableCARD interface continues to be needed to sustain the retail set-top box market and further the goals of Section 629. As the *EchoStar* court noted, achieving the mandate of Section 629 – which requires the Commission to adopt regulations to assure the competitive availability of navigation devices from independent manufacturers, retailers, and other vendors – “demands technical standardization among MVPDs so that navigation devices can be marketed nationally”³⁵ There can be no retail market for set-top boxes if there is uncertainty among consumers that the devices they purchase at retail will be supported by all cable operators throughout the United States. TiVo urges the Commission to act immediately

³⁴ See AllVid Alliance Comments, CS Docket No. 97-80, PP Docket No. 00-67, at 4 (Sep. 16, 2013) (noting that explicit references to technical standards have proven essential to commercial entry of retail devices).

³⁵ *EchoStar*, 704 F.3d at 995.

on its pending Petition for Rulemaking and reinstate the CableCARD technical standard for non-DBS MVPDs.

This is not to suggest that TiVo urges the continued use of CableCARDS in perpetuity. TiVo has long supported, and continues to support, a successor solution to replace CableCARD.³⁶ Indeed, while CableCARD is indispensable for retail device manufacturers because it guarantees that such devices will have access to cable content, it is far from an ideal solution for independent set-top box manufacturers such as TiVo. As the Commission is well aware, CableCARDS used in retail devices are prohibited from using the upstream capabilities of the cable network, and thus do not enable retail devices to use two-way features such as video on demand (VOD) and impulse pay-per-view (PPV). The one-way retail CableCARD standard also does not allow retail devices to access Switched Digital Video (SDV) channels without using a tuning adapter – an inelegant solution that serves as another barrier for retail devices seeking to deliver a consumer experience equivalent to that provided by leased devices. Such shortcomings are of course the reason the Commission has for years sought to develop a successor solution that enables bidirectional features.³⁷ TiVo has long supported a successor to

³⁶ See Comments of TiVo Inc., CS Docket No. 97-80, PP Docket No. 00-67 (Aug. 24, 2007) (comments in response to Two-way FNPRM seeking comment on the development of a solution for bidirectional compatibility between cable systems and CE equipment) (“TiVo Two-Way Comments”); Comments of TiVo Inc., MB Docket No. 10-91, CS Docket No. 97-80, PP Docket No. 00-67 (July 13, 2010) (comments in response to “AllVid” NOI discussing characteristics needed for successor to CableCARD); Comments of TiVo Inc., MB Docket No. 07-269, at 13-15 (July 29, 2009) (discussing attributes of a potential successor conditional access solution).

³⁷ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, CS Docket No. 97-80, PP Docket No. 00-67, Third Further Notice of Proposed Rulemaking, FCC 07-120 (rel. June 29, 2007) (seeking comment on proposed standards to ensure bidirectional

the CableCARD interface so long as it actually enables retail competition and does not cripple innovation by retail manufacturers.³⁸ TiVo stands ready to work with all interested parties to help develop a successor solution.

It is vital, however, that the CableCARD standard be reinstated prior to the development of a successor to the CableCARD interface. Ensuring that the one viable standard that exists in the marketplace today remains in place gives all parties the incentives needed to work toward a successor solution. Conversely, allowing each cable operator to spend resources developing its own proprietary solution creates a fractured industry and moves the industry further away from a successor national standard. As the Commission noted in 2010 when it strengthened the CableCARD support rules, until a new solution that actually enables retail competition is available, the Commission should continue to ensure that the existing CableCARD standard works for consumers and retail manufacturers.³⁹

compatibility between cable TV systems and CE equipment); *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*, MB Docket No. 10-91, CS Docket No. 97-80, PP Docket No. 00-67, Notice of Inquiry, FCC 10-60 (rel. Apr. 21, 2010) (seeking comment on a possible successor solution to CableCARD, an “AllVid” gateway); *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, CS Docket No. 97-80, Order and Further Notice of Proposed Rulemaking, FCC 03-89, ¶ 5 (rel. Apr. 25, 2003) (requiring cable and consumer electronics industries to provide updates on bidirectional compatibility negotiations).

³⁸ See TiVo Two-Way Comments at 11-17.

³⁹ *CableCARD Support Order*, FCC 10-181,, ¶ 8 (“[W]e must keep in mind that CableCARD is a realized technology – consumer electronics manufacturers can build to and are building to the standard today. Until a successor technology is actually available, the Commission must strive to make the existing CableCARD standard work”); *cf. id.*, ¶ 51 (“[O]pponents of ending the integration ban assert that it would discourage cable operators from negotiating in good faith in developing a successor technology to CableCARD, as cable operators would have no economic incentive to work to develop such a technology in a timely fashion. We agree. The integration

* * *

Respectfully submitted,

_____/s/_____

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Dated: March 21, 2014

ban continues to serve several important purposes – better support for CableCARD devices, economies of scale for CableCARDs, and economic incentives to develop better solutions. Ending the integration ban before a successor standard is developed would undermine the market for retail navigation devices.”).