

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

In the Matter of)	
)	
TiVo Inc.)	
Petition for Clarification or Waiver)	
of 47 C.F.R. § 76.640(b)(4)(iii))	MB Docket No. 14-146
)	
Implementation of Section 304 of the)	CS Docket No. 97-80
Telecommunications Act of 1996;)	
Commercial Availability of Navigation)	
Devices)	

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

The National Cable & Telecommunications Association (“NCTA”)¹ hereby submits these comments in response to the Petition for Clarification or Waiver filed by TiVo, Inc. regarding 47 C.F.R. § 76.640(b)(4)(iii) (“HD set-top box output rule”).² The HD set-top box output rule requires that cable operators that are subject to the requirements of Section 76.640 of the Commission’s rules must include in high definition set-top boxes a specific home networking output that meets an “open industry standard.” TiVo has requested a waiver so that the home networking solution used by TiVo devices provided by cable operators may operate outside of an “open industry standard.” It acknowledges that the Commission could instead clarify that the rule is no longer in effect since the U.S. Court of Appeals for the D.C. Circuit vacated the 2003

¹ NCTA is the principal trade association for the U.S. cable industry, representing cable operators serving more than 90 percent of the nation’s cable television households and more than 200 cable program networks. The cable industry is the nation’s largest provider of broadband service after investing over \$210 billion since 1996 to build two-way interactive networks with fiber optic technology. Cable companies also provide state-of-the-art competitive voice service to more than 27 million customers.

² Petition for Clarification or Waiver of 47 C.F.R. § 76.640(b)(4), MB Docket No. 14-146, CS Docket No. 97-80, (filed Aug. 29, 2014) (“Petition”); *Media Bureau Seeks Comment on TiVo Petition for Rulemaking Petition for Waiver or Clarification of 47 C.F.R. § 76.640(b)(4)(iii)*, Public Notice, MB Docket No. 14-146, DA 14-1290 (rel. Sept. 5, 2014).

*Plug-and-Play Order*³ in *EchoStar Satellite L.L.C. v. FCC*,⁴ in which case its request for waiver would be moot.⁵ Nevertheless, the TiVo Petition contemplates that the rule should remain in effect for all market participants other than TiVo.

As we explain below, the Commission should confirm that Section 76.640(b)(4) of the Commission's rules no longer applies in light of the court's order vacating the original plug-and-play rules that defined unidirectional digital cable-ready products, the support required for UDCPs, and the parties to whom the subsequent "CableCARD Fix" rules applied. Despite the *EchoStar* decision, the market has been providing far more investment, innovation and consumer choice in technological approaches to sharing programming than a government technology mandate can, and no party has presented any evidence of harm. If the Commission nonetheless decides that the HD set-top box output rule does apply, NCTA agrees with Verizon⁶ that it should grant a waiver or any extension of the compliance deadline to the entire industry and not exclusively to TiVo.

I. ECHOSTAR HAS VACATED THE HD SET-TOP BOX OUTPUT RULE

Rather than consider yet another TiVo waiver request, the Commission should acknowledge that *EchoStar* has vacated the HD set-top box output rule in question. *EchoStar* vacated the encoding rules and all the complementary rules adopted in the 2003 *Plug-and-Play Order* which the court considered non-severable. The order vacated the original plug-and-play

³ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Second Report and Order and Second Further Notice of Proposed Rulemaking, CS Docket No. 97-80, PP Docket No. 00-67, FCC 03-225, 18 FCC Rcd 20885 (2003) ("2003 *Plug-and-Play Order*" or "2003 *Order*").

⁴ *EchoStar Satellite L.L.C. v. FCC*, 704 F.3d 992 (D.C. Cir. 2013) ("*EchoStar*").

⁵ Petition at 14.

⁶ Comments of Verizon, MB Docket No. 14-146 (Oct. 6, 2014).

rules, including Section 15.123 of the Commission’s rules, which defined unidirectional digital cable-ready products (“UDCPs”) and Section 76.640 which defined support for UDCPs.

The 2010 “CableCARD Fix” rules – which included the HD set-top box output rule – are expressly applicable only to MVPDs “subject to the requirements of Section 76.640.”⁷ The HD set-top box output rule, which is the subject of TiVo’s Petition, is contained in the vacated Section 76.640 and is premised on the 2003 *Order* and plug-and-play rules that were vacated by the Court. The Commission opted not to appeal that court decision. Thus, Section 76.640(b)(4)(iii) is no longer in effect.

II. THE TECH MANDATE IN THE HD SET-TOP BOX OUTPUT RULE IS NOT SUITED TO TODAY’S DYNAMIC AND DIVERSE MARKET

TiVo’s petition is a good illustration of how ill-suited the constraints of the HD set-top box output rule are to today’s market. Despite the vacatur of the HD set-top box output rule, the market is delivering a wide variety of networking and video delivery approaches that do not depend on the set-top box output as the sole source of programming. As NCTA detailed earlier this year, cable and other MVPDs provide customers with multichannel services on millions of tablets, smartphones, gaming consoles, PCs, smart TVs and other IP-enabled devices that also

⁷ *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices et al.*, Order on Reconsideration, CS Docket No. 97-80, PP Docket No. 00-67, CSR-7902-Z, FCC 11-7, 26 FCC Rcd 791, Appendix (2011).

access online video.⁸ MoCA provides one home networking solution.⁹ DLNA provides another.¹⁰ Sling provides one more.¹¹ TiVo provides another.

The HD set-top box output rule has its origin in the 2003 FCC plug-and-play tech mandate that all HD set-top boxes include an IEEE 1394 digital connector.¹² It took years for FCC rules to recognize that the market had rejected the IEEE 1394 digital connector and moved to Ethernet and HDMI.¹³ The current HD set-top box output rule permits more diversity in approach,¹⁴ but the rule is still premised on the outdated plug-and-play assumption that a “cable-only,” “box only” rule can define the video marketplace.

⁸ Comments of NCTA on TiVo Inc.’s Petition for Rulemaking, CS Docket No. 97-80 (Feb. 14, 2014); Letter of Michael Powell, NCTA, to Chairman Wheeler, FCC, CS Docket No. 97-80 (Feb. 5, 2014); Comments of NCTA in Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, MB Docket No. 14-16 (Mar. 21, 2014).

⁹ The Multimedia over Coax Alliance (MoCA), which includes consumer electronics manufacturers, cable, telephone, and satellite distributors, and retailers, develops specifications for the transport of digital entertainment and information content over in-home coaxial cable, which turns the in-home coaxial cable into a home networking architecture that may be shared by service providers, gaming platforms, and other connected devices. See MoCA Home Page, <http://www.mocalliance.org/> (last visited Oct. 15, 2014).

¹⁰ The DLNA CVP-2 specifications have been finalized and its VidiPath Certification program has been launched. See Letter from Donna Moore, DLNA, to Marlene H. Dortch, FCC, CS Docket No. 97-80 (May 30, 2014) (announcing release of DLNA’s CVP-2 Guidelines); *DLNA Launches VidiPath Certification Program for Retail Products Supporting Subscription TV*, Business Wire (Sept. 11, 2014), available at http://www.businesswire.com/news/home/20140910006139/en/DLNA-Launches-VidiPath-Certification-Program-Retail-Products#.VD6EnJ3D_L9. DLNA was never the exclusive networking approach called for in the now vacated HD set-top out rule. To our knowledge, TiVo did not participate in DLNA.

¹¹ See Jeff Baumgartner, *Arris, Sling Media Cut Exclusive Distribution and Tech Licensing Pact*, Multichannel News (Oct. 16, 2013), available at <http://www.multichannel.com/news/content/arris-sling-media-cut-exclusive-distribution-and-tech-licensing-pact/357236#sthash.SpyH8ENJ.dpuf> (discussing Arris making Sling’s place-shifting technology available in cable and telco gateways and standalone devices).

¹² 2003 *Plug-and-Play Order* at ¶ 24.

¹³ See *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices et al*, Third Report and Order and Order on Reconsideration, CS Docket No. 97-80, PP Docket No. 00-67, FCC 10-181, 25 FCC Rcd 14657 (2010) (“2010 CableCARD Order”).

¹⁴ See *TiVo Inc.’s Request for Clarification and Waiver of the Audiovisual Output Requirement of Section 76.640(b)(4)(iii)*, Memorandum Opinion and Order, MB Docket No. 12-230, DA 12-1910, 27 FCC Rcd 14875 ¶ 10 (2012) (“2012 Order”) (“[W]e 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 standard [for a high-definition set-top box output] as long as that interface is based on an open industry standard.”).

The HD set-top box output rule singles out only cable operators, and does not apply to satellite providers like DirecTV and DISH, telco providers like AT&T, or online video providers. When Section 629 of the Communications Act was drafted, almost everyone had to lease a specific, proprietary set-top box from the cable company to receive multichannel programming. Over the intervening two decades, cable operators' share of MVPD customers has dropped from 98% to 53%, and DBS and telephone companies are now the second, third, fifth and sixth largest MVPDs.¹⁵ Over 98% of consumers can choose from three or more MVPDs and many have access to four or more.¹⁶ Netflix has a larger audience than any MVPD.¹⁷ Whatever the assumptions of cable's market share two decades ago, no video technology solution mandated only for cable is going to define or shape today's diverse and competitive market.

The HD set-top box output rule also singles out only solutions based on set-top box outputs. While that was an understandable approach in the 1990s, video content is no longer distributed to customer-owned devices solely through set-top boxes. Content can also be delivered from the cloud; through applications for iOS, Android, and smart TVs; and via PCs and gaming stations. Only a few of these approaches use "open industry standards." Whatever the assumptions about video distribution may have been two decades ago, or even in 2010 during the "CableCARD Fix" proceeding, no "box only" solution is going to define or shape the market for sharing content with customer-owned devices.

TiVo's request demonstrates the fundamental problem with codifying technology mandates in FCC rules, even when they seem to offer some room for flexibility. Such mandates

¹⁵ See *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fifteenth Report, MB Docket No. 12-203, FCC 13-99, 28 FCC Rcd 10496 ¶¶ 27-28 and Table 1 ("Fifteenth Video Competition Report"); Industry Data, NCTA.com, <https://www.ncta.com/industry-data>.

¹⁶ *Fifteenth Video Competition Report* ¶ 36, Tbl. 2 (finding that 46.8 million U.S. homes (35.3%) have access to at least four MVPDs).

¹⁷ Top 10 Video Subscription Services, Industry Data, NCTA.com, <https://www.ncta.com/industry-data>.

lack the agility needed for innovative markets, and constrain the very innovation that FCC technology policy should be inviting. This specific mandate also leaves cable operators in the untenable position of being the only parties that need to seek government permission to follow innovative models, in contrast to DirecTV, DISH, AT&T U-Verse, over-the-top video providers, and consumer electronics manufacturers. TiVo itself, one of the most vocal of advocates for FCC tech mandates, has had to seek several FCC waivers of such mandates over the years.¹⁸ After extensive efforts to have the Commission re-impose and even remove flexibility from this specific HD set-top box output rule,¹⁹ TiVo is finding that FCC tech mandates are not particularly helpful to innovation, and it must now seek waiver of the rule.

Diversity in technological approaches spurs massive investment, rapid innovation, and a vibrant market in which consumers – not slow-moving government rules – select the most popular technologies. The government does not specify iOS or Android, PC or Mac, Flash or HTML5, CDMA or GSM, MPEG-2 or MPEG-4, CurrentC or Apple Pay. The result has been massive investment, consumer choice, rapid innovation and a vibrant market in smartphones, tablets, websites, wireless, video and mobile payment systems. Consumer electronics devices do not need an FCC mandate to succeed. They can be designed around a single new technology or to support multiple sources and interfaces using different kinds of connectors (coax, Ethernet,

¹⁸ See *TiVo Inc. Petition for Waiver of Sections 15.117(b), 15.118(b), 15.123(b)(1), 15.123(c), and 15.123(d) of the Commission's Rules*, Memorandum Opinion and Order, MB Docket No. 11-105, DA 13-1740, 28 FCC Rcd 12181 (2013) (waiving analog tuner requirement); *TiVo Inc. Request for Waiver of Section 15.118(b), 15.123(b)(1), and 15.123(c) of the Commission's Rules*, Memorandum Opinion and Order, MB Docket No. 11-105, DA 11-1516, 26 FCC Rcd 12743 (2011) (waiving analog tuner requirement); *Intel Corporation, Motorola, Inc., TiVo Inc. Requests for Waiver of Section 76.640(b)(4)(ii) of the Commission's Rules*, Memorandum Opinion and Order, CSR-8229-Z, CSR-8251-Z, CSR-8252-Z, DA 10-1094, 25 FCC Rcd 7539 (2010) (waiving 1394 output); *TiVo's Request for Clarification or Waiver of the Audiovisual Output Requirement of Section 76.640(b)(4)(iii)*, Memorandum Opinion and Order, CS Docket No. 97-80, DA 14-461, 29 FCC Rcd 3674 (2014) (waiving compliance date for HD Set-Top Box Output rule) (“2014 Order”).

¹⁹ See *TiVo Petition for Rulemaking To Reinstate the Commission's Second Report and Order Implementing Section 629 of the Act and Associated Rules*, CS Docket No. 97-80, PP Docket No. 00-67 (filed July 16, 2013); *TiVo Petition for Clarification or Waiver of 47 C.F.R. § 76.640(b)(4)*, CS Docket No. 97-80 (filed Jan. 3, 2014).

HDMI, component, and USB), different applications from different sources (Netflix, Hulu, Amazon, satellite, cable, and telco), and multiple decoding technologies. Consumers – not the government – select the most popular technologies in the market.

Despite the *EchoStar* decision, the market continues to provide investment, rapid innovation and consumer choice in technological approaches to sharing programming, and no party has presented any evidence of harm. The court decision should be welcomed as a helpful reset, allowing the Commission to allow market forces to continue their success in providing diverse solutions and consumer choice without the attendant harms of FCC tech mandates.

By contrast, TiVo’s Petition invites adoption of an outdated approach: treating the HD set-top box output rule as still in effect, notwithstanding *EchoStar*; applying the rule in a manner that would only apply its tech mandate to cable providers; seeking a waiver only for TiVo and its customers; and leaving all other cable solutions to face the delays of the waiver process, even as TiVo and all non-cable providers are permitted to innovate freely.²⁰ This is not the pathway to innovation or competition. The better approach is for the Commission to confirm that Section 76.640(b)(4) no longer applies and allow the market to deliver diverse solutions.

²⁰ It took two years to grant a waiver for early-release theatrical content; four years to change the rules to reflect the introduction of M-Cards; almost seven years to reflect that broadcast content had become available on cable on-demand menus; and nearly a decade to close out all the reconsideration petitions and move the rules to judicial review. See *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)*, Memorandum Opinion and Order, CSR-7947-Z, MB Docket No. 08-82, DA 10-795, 25 FCC Rcd 4799 (2010) (granting the waiver for selectable output control requested May 9, 2008); *2010 CableCARD Order* at ¶¶ 32-33 (incorporating M-Cards into the rules after Nov. 13, 2006 Letter from CableLabs, TiVo, Motorola, Solekai, Digeo, Digital Keystone, ViXs including suggested rule updates); *id.* at ¶ 57 (amending definition of “Unencrypted Broadcast Television” in 2010 in response to 2004 NCTA reconsideration petition); *id.* at ¶¶ 53-69 (disposing of reconsideration requests).

III. ANY WAIVER OF THE HD SET-TOP BOX OUTPUT RULE – OR EXTENSION OF THE COMPLIANCE DEADLINE – GRANTED TO TIVO SHOULD BE EXTENDED TO THE ENTIRE INDUSTRY

If the Commission nonetheless decides that the HD set-top box output rule should apply, it should grant a waiver – or extension of the compliance deadline – to the entire industry, and not exclusively to TiVo. TiVo’s Petition reflects pride in its own innovations, but TiVo is not unique in offering innovative approaches to share programming with other devices, with and without an “open industry standard.” NCTA agrees with Verizon that, if TiVo is granted a waiver of the rule and the open industry standard requirement, the waiver – or any extension of the compliance deadline – should apply to all cable operators, as the Commission provided in prior orders.²¹ To limit a waiver to one of many approaches to sharing content would discriminate among technologies, cable providers, and equipment suppliers, leaving all other market participants to waiver processes that lack the agility needed for today’s market.

CONCLUSION

For the foregoing reasons, NCTA respectfully requests that the Commission confirm that Section 76.640(b)(4) has been vacated and no longer applies. If the Commission decides that the HD set-top box output rule does apply, it should grant a waiver or any extension of the compliance deadline to the entire industry and not exclusively to TiVo.

Respectfully submitted,

/s/ **Rick Chessen**

Rick Chessen
Neal M. Goldberg
National Cable & Telecommunications
Association
25 Massachusetts Avenue, N.W. – Suite 100
Washington, D.C. 20001-1431

October 20, 2014

²¹ See 2014 Order at ¶ 4; 2012 Order at ¶ 15.