

**VIA ECFS**

**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 )

**REPLY COMMENTS OF SAMUEL J. BILLER**

This letter is filed in response to comments on the Notice of Inquiry in the above-captioned proceeding, primarily focusing on the market for retail set-top boxes.<sup>1</sup> As discussed herein, the future of competition in the market for retail set-top boxes is seriously threatened by the continued inaction of the Commission on important policy matters and the misleading filings and testimony put forth by NCTA, the trade association of the cable industry. The path forward outlined by the NCTA limits consumer choice by advocating proprietary and limiting technology that will ultimately lead to less choice for the consumer. As a consumer who currently relies on the retail availability of commercial navigation devices, I fully support the reinstatement of rules, in concordance with the requirements of Section 629, mandating the continued availability of CableCARDS until such time as a viable, nationally portable, software-based successor to CableCARD is available to retail navigation devices.

Common reliance on the same security standard is a principle that the Commission has

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<sup>1</sup> *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 No. 14-8, at 21-22, Section IV.B (rel. Jan. 31, 2014) (“NOI”).

repeatedly found is a necessary component for a retail market for Set-Top Boxes to emerge. The Commission can easily look to other markets inside (e.g., satellite, IPTV) and outside the Continental US and see that a retail Set-Top Box market does not exist. William Lake, Media Bureau Chief, during recent US Senate hearings, testified about the virtues of common reliance in response to a question from one of the senators.<sup>2</sup> It can be easily surmised that common reliance is the only reason that my retail TiVo boxes in Tampa, FL and Gainesville, FL can receive the majority of linear cable programming on the MVPD networks of Bright House Networks in Tampa and Cox Communications in Gainesville. Imagine buying an iPhone and later learning if you move to another community it no longer works because your local service provider won't support it. Retail choice requires national portability. CableCARD does this today and any successor standard must likewise be nationally portable. In addition to the smartphone example, the Commission can easily look to other markets where innovation is driven by consumer retail choice driven by nationally portable standards.

The Commission should act on TiVo's petition for reconsideration and CEA's application for review request of the waiver granted to Charter Communications almost one-year ago.<sup>3</sup> Further, the Commission's 47 CFR Section 76.640 CableCARD technical support rules stand vacated by the Court of Appeals. The Commission has pending a TiVo petition that would reinstate these rules.<sup>4</sup> The

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<sup>2</sup> Before the Senate Subcommittee on Communications, Technology, and the Internet, Hearing On: "Reauthorization of the Satellite Television Extension and Localism Act", [http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord\\_id=23352a01-e1a7-47b0-9a56-27e88e76e378&ContentType\\_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group\\_id=b06c39af-e033-4cba-9221-de668ca1978a](http://www.commerce.senate.gov/public/index.cfm?p=Hearings&ContentRecord_id=23352a01-e1a7-47b0-9a56-27e88e76e378&ContentType_id=14f995b9-dfa5-407a-9d35-56cc7152a7ed&Group_id=b06c39af-e033-4cba-9221-de668ca1978a)

<sup>3</sup> See Charter Communications, Inc.'s Request for Waiver of Section 76.1204(a)(1) of the Commission's Rules, MB Docket No. 12-328, CSR-8740-Z, Memorandum Opinion and Order, DA 13-788, 28 FCC Rcd 5212 (Apr. 18, 2013) ("Waiver Order").

<sup>4</sup> Opposition of Charter Communications, Inc. To Petition For Reconsideration, CSR-8740-Z, MB Docket No. 12-328 (June 3, 2013) at 3 n.6 ("EchoStar does not address downloadable security; what it changes is that CableCARD support is no longer required, and thus cable operators are free to rely solely on other compliant technologies..."); Comments of the National Cable & Telecommunications Association on TiVo Inc.'s Petition for Clarification or Waiver, CS Docket No. 97-80 (February 14, 2014); Comments of the National Cable & Telecommunications Association on TiVo Inc.'s Petition for Rulemaking, CS Docket No. 97-80, PP Docket No. 00-67 (September 16, 2013).

Commission has an obligation to clarify its CableCARD expectations.

While CableCARD success has been hobbled by poor support from cable providers<sup>5</sup> and a refusal to allow retail devices to have access to two-way services like Video On Demand, CableCARD is a fully realized solution that provides consumers today with a choice of using a better alternative to an operator supplied box. In fact, TiVo has acknowledged multiple times during earnings conference calls the improved customer metrics and retail adoption associated with Comcast areas that support XFINITY On Demand VOD services on TiVo retail boxes. This is an excellent example of the impact of leveling the playing field (i.e., access to Video On Demand) for retail devices. It is also worth noting that Comcast doesn't employ switched digital video ("SDV") technology that further complicates retail adoption.

Even with CableCARD, certain cable operators like Bright House Networks and Cox Communications have treated their own leased boxes differently and implemented SDV technology that denied retail devices direct access to numerous cable channels. SDV uses the two-way cable infrastructure for upstream signaling to request a channel be sent to the set-top box similar to video-on-demand. However, retail boxes have been prohibited from using the upstream capability of the cable network and are thus unable to receive SDV signals directly. Users of retail devices in SDV signals have thus been forced to use operator provided equipment (so-called "tuning adapters") to enable their retail box to receive SDV signals, an approach antithetical to the goal of providing consumers with the choice to not use operator-provided equipment and still receive their cable channels. These Tuning Adapter boxes are notoriously unreliable and troublesome.<sup>6</sup> Fortunately, my provider, Bright House Networks, has recently worked with Cisco, the supplier of the Tuning Adapter, and TiVo

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<sup>5</sup> <http://www.bloomberg.com/news/2014-04-10/tivo-tries-to-keep-remote-interest-over-cable-lobbying.html>

<sup>6</sup> <http://www.zatnotfunny.com/2012-02/the-best-worst-cable-companies-for-tivo-owners/>

to implement a firmware update, years after introduction, to the Tuning Adapter to improve reliability. The SDV Tuning Adapter is another box that complicates the retail adoption equation. In the future, the Commission should strongly promote and consider software-based technology solutions, easily realizable within today's technology spectrum, that does not require a consumer to receive hardware (e.g., CableCARDS, Tuning Adapters) from their MVPD to receive video programming.

The history of implementation of Section 629 shows that if Congress wants to promote choice and innovation, retail devices must have the same access to signals as operator-supplied devices. Allowing cable operators to treat the boxes they lease to subscribers differently than retail devices undermines retail choice and competition.

There is an existing policy objective of ensuring that retail devices have access to cable signals so that competitive retail products can be created with innovative features and functionality. Without a uniform standard for accessing signals, a retail market cannot exist. I would be ecstatic if my retail boxes moved to a new software-based security standard by which I could access ALL cable programming. What is needed is for a handful of companies to work cooperatively on a next generation standard under the supervision of the FCC.

The NCTA has been characterizing waiver requests of the Commission's "integration ban" as minor changes and claiming that they still have to support retail CableCARD products. Allowing operator-supplied boxes to use a different security standard than retail boxes results in a tilted playing field that undermines retail choice and competition. Moreover, the NCTA and some of its members are simultaneously taking the position at the FCC that there are no rules requiring them to provide or support CableCARDS to retail devices (and the FCC should not reinstate any rules unintentionally

vacated by the DC Circuit Court of Appeals in a decision, *EchoStar v. FCC*, that did not even address the CableCARD rules.) Further, there is already evidence submitted to the Commission by TiVo that CableCARD compliance is already dropping since the rules were unintentionally vacated.<sup>7</sup>

If the integration ban is eliminated by waiver or decree, and the Commission agrees with NCTA's position, there will be no requirement for cable operators to use CableCARDS themselves and no requirement to supply CableCARDS to new retail devices. Indeed, no requirement for cable operators to even support existing retail CableCARD devices. Cable operators, like Comcast, Charter, Bright House Networks, and Cox Communications, would be free to use new security technology but leave retail devices using legacy technology that they will have little incentive to support, keep current with new technology developments, or control costs. Would anyone reasonably expect any consumer to purchase a retail set top box for the express purpose of replacing their cable-supplied Set-Top Box if there was no assurance that their cable operator would actually support that retail box? Retail devices have to be treated the same, in terms of access to programming and support, as operator-supplied devices for consumers to have a real choice and for the effects of competition to take hold.

In support of its position that no current rules and no next generation standard are needed to guarantee that retail devices have access to cable signals, the NCTA has tried to portray cable apps on Xbox or Roku as evidence of the emergence of an innovative retail set top box market. While there has been some experimentation with apps on third party devices in the last couple of years, these experiments only serve to confirm that a successor nationally-portable security standard is essential.

None of these apps guarantee that a consumer can purchase a retail device to (a) receive all of

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<sup>7</sup> <http://www.zatnotfunny.com/2014-03/cablecard-tivo-fights-good-fight/>

the cable programming they are paying for; (b) record that programming for later viewing; (c) incorporate Internet-delivered OVD content; (d) frame the experience in a unique user interface that may be better and more innovative than the user interface supplied by their cable provider; and (e) work with more than one provider. CableCARD does this for linear programming but it is clear that core MVPD services are moving on to IP technologies instead. Real device competition requires a successor solution in which consumers can have confidence that any retail devices they purchase for the purpose of receiving the cable programming to which they subscribe will be supported and will deliver their cable programming channels.

The removal of the AT&T U-Verse app on X-Box<sup>8</sup> last December confirms that apps provide no such assurance to consumers. AT&T U-verse had advertised its app on Xbox as an inducement for customers to sign-up for its service. Then it abruptly announced that it would terminate support for its app on the Xbox 360 service. The point is, 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.

Its clear that the MVPD industry is moving towards the CVP-2 standard to comply with the Commissions IP-Output mandate. I and other members of the TiVo Community fear that compliance with the IP-Output mandate may still result in poor support across retail devices in the home similar to the experience already encountered with CableCARD and Tuning Adapters.<sup>9</sup> In addition, the IP-Output mandate would still require the leasing of an MVPD-provided gateway box in the home that would feed CVP-2 compliant devices in the home. Further, the CVP-2 approach allows the MVPD to mandate the

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<sup>8</sup> <http://www.multichannel.com/news/content/att-u-verse-tv-drop-support-xbox-360-december-31/356856>

<sup>9</sup> <http://www.tivocommunity.com/tivo-vb/showthread.php?t=516091>

user experience<sup>10</sup> that is required to access the MVPD video services. A few comments from the community include:

*“It sounds from that description that the cable companies want to keep the DVR upstream of their outputs. So they will still retain total control of their UI and the DVR,”*

*“ this gives them the ability to control the user experience, which is what they tried and failed to do with tru2way.*

*“Hopefully the RUI will optional and componentized. That way companies like TiVo can ignore it for things they don't need, like the guide, but use it for things they do, like VOD.”*

*“For simple playback devices the RUI makes perfect sense and makes it a lot easier for 3rd party manufacturers to deploy devices quickly and easily. “*

*“On the topic of DLNA I think people are getting their hopes up a little too much that it might be a viable alternative to the Allvid proposal. I don't see anyone in the cable industry thinking of this as a "gateway". This is a recordable output from their cable box. So first you have to have their cable box. Then, unless the FCC requires strict compliance with specific DLNA specifications and actually enforces it, this interface will be half working on some boxes and half broken on the rest. TiVo may as well contemplate going back to IR blasters.”*

The video market is at a critical juncture with video about to undergo an IP transition. Now is the time for the Commission and Industry to seize the opportunity to foster a next generation standard for accessing television signals. Ensuring that consumers have retail choices from unaffiliated Set-Top

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<sup>10</sup> CVP-2 uses HTML5 RUI (Remote User Interface), which enables a service provider UI to be displayed on a remote device. A client device ‘discovers’ a server (like a DVR in the home) and then uses a URL to retrieve and render a user interface, which could be the Pay TV programme guide or an operator VOD portal, for example, on the secondary device. The UI is treated like a website, in effect, hosted on a server and displayed on the client.  
<http://www.v-net.tv/cvp-2-guidelines-hailed-as-game-changer-for-premium-content-sharing>

Box manufacturers, and that such retail devices are interoperable on networks nationwide, remains an essential, pro-consumer policy today. Indeed, 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, and has been extremely successful in the wireline and wireless broadband markets.

I urge the Commission to fulfill the mandate of Section 629 by acting quickly to reinstate the substantially non-controversial CableCARD rules and move-forward with a nationally-portable, software-based successor to CableCARD that supports two-way access to all MVPD video services.

Respectfully submitted,

**/s/ Samuel Biller**

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