

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

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

**COMMENTS OF PUBLIC KNOWLEDGE, MEDIA ACCESS PROJECT, AND NEW  
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## SUMMARY AND INTRODUCTION

The Commission has admitted that its attempt to implement Section 629 of the Communications Act has failed.<sup>1</sup> That attempt has not satisfactorily fulfilled the promise of CableCARD. This small, cable-supplied piece of electronics can easily slot in to any compatible video recorder, television, PC, or other device, and is designed to give them access to the full range of cable content. But the Commission allowed the cable industry to construct formidable barriers to adoption and use of such technology by device manufactures and consumers, which suppressed the supply of and the demand for CableCARD devices. It does not matter whether the cable industry intended to create barriers to entry or if these barriers arose from a genuine effort to protect consumers. The FCC's approach permitted these barriers and thus did not satisfy the Commission's statutory obligation to foster a competitive market in video devices.

Consumers deserve better than today's half-functioning CableCARD system. The current regime does not implement the will of Congress, prevents effective competition, stifles innovation, and saddles consumers with unnecessarily high device rental fees. The Commission too often has been persuaded by cable operators' arguments about short-term cost savings, while ignoring the bigger picture. As in all truly competitive and contestable markets, a competitive market for video devices would drive costs down, and would provide products at every

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<sup>1</sup> Implementation of Section 304 of the Telecommunications Act of 1996, *Fourth Further Notice of Proposed Rulemaking*, FCC 10-61, CS Docket No. 97-80, Apr. 21, 2010 ¶ 1 (hereafter "FNPRM").

price point. Instead of taking the necessary steps to create market conditions that would allow competition to thrive, the Commission instead repeatedly waived its requirement that all navigation devices be CableCARD-based, thus ensuring that compliant devices would be relegated to niche status and unable to achieve economies of scale. The Commission has allowed the cable industry to withhold support for two-way services on CableCARD devices. It has allowed the cable industry to obstruct competitors with an unnecessarily time-consuming and expensive device certification. Because of all of this, the cable industry's "predictions" that consumers were not interested in buying video devices at retail, and that competitively provided video devices would always be more expensive than cable-supplied devices without CableCARDS, became self-fulfilling prophecies. The cable industry now points to the lack of a market due to the presence of these barriers to entry as a reason for the Commission to give up and ignore the law,.

The market power of the largest MVPDs (both over customers, and as purchasers and producers of programming) means that tailored, proactive rules are needed to promote competition. Competition has brought lower prices and innovation in all other markets for "consumer premises equipment." After all, the telephones and PCs we use to communicate are not rented from telecommunications carriers, but purchased at retail. At times, the Commission has had to step in to promote this competition. Before the Commission issued the *Carterfone* decision, and followed it up with the Part 68 rules, AT&T claimed that a competitive market for telephones would harm the network, harm consumers, and drive up prices. Its arguments were false then; cable's are false now. The evidence

shows that competition works. The burden should be on cable to demonstrate why its industry is different from the other ones in the Commission’s jurisdiction.

As the National Broadband Plan found, the more limited innovation and success on the “third screen” of the television set – when contrasted with PCs and mobile devices – has limited broadband adoption.<sup>2</sup> Bringing next-generation services to *all* homes means that there must be competition among devices that can easily communicate both with MVPD services and broadband. Competition in the market for video devices will increase the value of broadband to many consumers and ensure that the needs of all consumers—not just the young tech-savvy crowd with lots of disposable income—are met.

The costs to consumers do not come only in the form of rental fees, nor in being stuck with expensive, boring devices. There are also the opportunity costs that affect the economy as a whole, as the companies and innovators who would have entered the market for cable-connected video devices have been discouraged by the barriers to entry, and by limited opportunities for success in the face of cable intransigence and FCC insouciance. Some companies (most notably TiVo, but there are others) have slogged through the procedural and economic barriers to entry and developed successful products that depend on CableCARD regardless. But there should be more companies like TiVo. The technologists who would have founded the next TiVo saw the barriers to using CableCARD and moved on. Steve Jobs specifically cited cable industry technology barriers as a reason that the Apple TV

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<sup>2</sup> CONNECTING AMERICA: THE NATIONAL BROADBAND PLAN (2010) 49-50 (hereafter “Plan”).

did not support TV tuning and recording.<sup>3</sup> Instead of lobbying the FCC to change the rules, Apple worked on other things. Almost all Internet video and over-the-top services—companies like Roku, Boxee, and Vuze—are designed to bypass cable-supplied video. Attempting to interoperate with the most popular source of programming is just not worth the legal, financial, and customer service hassle for even the brightest of engineers. Customers lease more devices than they purchase, and manufacturers do not produce more devices, because the rules are rigged against device competition. CableCARD's limited success should not be taken as evidence that, uniquely among communications services, cable device competition is undesirable. If that were true, innovators would not spend so much time and effort trying to circumvent the current barriers to integrating devices with programming. The lesson of CableCARD is that the Commission should not delegate to an industry the obligation to create a level playing field that said industry perceives as fundamentally opposed to its own economic interests.

This proceeding is a vital first step to the eventual realization of the AllVid system, which will bring the benefits of choice and innovation to the customers of *all* MVPDs. It has been clear for many years that the primary obstacles to CableCARD's success have not been technological, but related to billing, support, and certification.<sup>4</sup> The work the Commission does in this proceeding will be directly

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<sup>3</sup> Ryan Block, *Steve Jobs Live from D 2007*, ENGADGET, May 30, 2007, <http://www.engadget.com/2007/05/30/steve-jobs-live-from-d-2007> (“The minute you have an STB you have gnarly issues, CableCARD, OCAP... that just isn't something we would choose to do ourselves.”).

<sup>4</sup> The Broadband Plan indentified four primary factors holding back CableCARD: access to two-way content, pricing, support, and certification. *Plan* at 52. While the first of these is partly a technological issue, as discussed below, choosing an

applicable to AllVid. Even so, the fact that something better is coming down the road is no excuse for neglecting to fix what we have today. Commenters look forward to participating in the AllVid proceeding. AllVid will do things that CableCARD can never do, such as support all MVPDs, and not just cable. It is a better solution for a converged IP environment. But it may take time for manufacturers and MVPDs to deploy AllVid devices, and at least some CableCARD-equipped devices are in the stores and in consumers' homes today. The Commission can and should adopt a number of targeted fixes to make the CableCARD regime work as initially intended, even as the Commission advances on AllVid.

While a good first step, the FNPRM's proposed rule changes do not go far enough. The new rules should demonstrate the Commission's commitment to making CableCARD work. Surgery is needed, not just a bandage. The Commission cannot allow the next several years to become a waiting game as cable continues to delay effective implementation of Congressional policy, this time using the coming of AllVid as an excuse. To help the Commission achieve this goal, these comments address some of the issues raised in the FNPRM and then suggest draft rules that would better achieve the FNPRM's stated goal of improving the CableCARD regime.

The Commission must bear in mind that CableCARD is essential to increasing device competition today. Despite the failures and delays of the past decade, there are CableCARD devices in the field. The Commission can achieve quick results with focused rules providing for greater transparency, which will enable customers to make informed choices about the value proposition of renting versus buying, and

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approach to allow CableCARD devices to communicate upstream is a policy question.

which will discourage unlawful cross-subsidization. The Commission must remove the logistical barriers that obstruct the use of retail devices, such as the requirements for professional CableCARD installation, or the provisioning of single stream rather than multistream cards. While still recognizing that standard interconnection interfaces can promote a competitive market by allowing devices from different sources to work together, the Commission can add flexibility by allowing other modern, IP-capable interfaces to be used instead of just IEEE 1394. Finally, it can make sure that retail devices compete on a level playing field, by requiring cable operators to support a broadband return path to enable upstream communication, and by rethinking its proposal to severely hamper the principle of common reliance.

## **DISCUSSION**

### **I. CableCARD is Vital to Increasing Video Device Competition Today**

CableCARD exists today, and simple fixes to the Commission's rules can knock down some of the barriers that have limited this technology's success. The Commission must remember this when it gathers data about whether "technical developments over the last decade have overtaken the CableCARD model."<sup>5</sup> A gateway approach is more appropriate for the heterogonous networks that make up the entire MVPD marketplace, which is one reason the limited-function gateway approach proposed by the AllVid NOI is a more appropriate solution for the future. But, as the Commission points out, "the cable and consumer electronics industries

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<sup>5</sup> FNPRM ¶ 12.

have invested heavily in the [CableCARD] technology....”<sup>6</sup> The Commission should take these investments and reliance interests into account when determining a path forward.<sup>7</sup> Furthermore, if the Commission is to achieve the goals of Section 629 in the near term, it must fix, and not abandon, the CableCARD system.

Most of the flaws with the CableCARD system are not technological, but economic, procedural, and support-related. These can be addressed with a few targeted fixes, followed up by proper enforcement. Many of the same issues that face the Commission in AllVid context face the Commission in this proceeding, and can be addressed now. Here, the Commission has the opportunity to craft rules about customer support, that prevent cross-subsidization between cable-operator supplied devices and cable service, and that ensure that any necessary device certification is quick and painless. For example, under AllVid, if MVPDs are permitted to supply their own CPE beyond the gateway, they must not subsidize device costs with service fees. The same is true of CableCARD. Commenters therefore urge the Commission to make the most of this opportunity and craft ambitious but workable rules to promote at last a competitive retail market for navigation devices.

The Commission also asks whether it should continue the requirement that NCTA and CEA file quarterly reports on the status of their two-way negotiations. This requirement is symptomatic of the failings of the previous CableCARD approach, which relied too much on inter-industry negotiations, and the

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<sup>6</sup> *Id.*

<sup>7</sup> *FCC v. Fox Television Stations*, 129 S. Ct. 1800, 1811 (2009) (agencies must take facts such as reliance interests into account when determining whether to change their policies).

Commission should drop it. While voluntary and industry-led standards-setting procedures sometimes may be preferable to FCC involvement, these are not workable when the negotiating parties believe they have opposing interests and cannot achieve consensus. Rather than requiring such industries to continue their fruitless “negotiations,” the Commission must prepare to step in and make decisions as to how it will carry out the Congressional mandate of Section 629. The Commission cannot delegate its responsibilities to industry and then do nothing when this approach fails.

## **II. The Commission Should Require Greater Transparency In CableCARD Billing Than Its Current Rules Propose**

The proposed rules do not go nearly far enough in addressing the long-standing cross-subsidization<sup>8</sup> and pricing issues that have kept CableCARD devices from achieving a fuller measure of success in the marketplace. These practices erect barriers to entry, harm consumers,<sup>9</sup> and violate the clear directives of the statute. Indeed, as commenters observed in November:

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<sup>8</sup> For example, RCN Cable’s price list includes a “digital converter” as part of the \$44.99 “Signature Digital Cable” package. *See* RCN, <http://www.rcn.com/dc-metro/digital-cable-tv/services-and-pricing> (visited June 11, 2010). The package comes with “45 HD channels.” Elsewhere, the RCN website lists the monthly rental fee for an HD converter box as \$9.95 per month. RCN, <http://www.rcn.com/dc-metro/digital-cable-tv/equipment> (visited June 11, 2010). RCN’s site does not indicate whether a customer who does not rent an HD converter box from the MVPD can get “Signature Digital Cable” for \$35.04 per month—i.e., the cost of the video service minus the converter box fee. Savvy consumers who use CableCARD-enabled equipment rather than MVPD-supplied set-top boxes may be able to negotiate lower monthly rates. *See, e.g.*, Meg Marco, “Asking Comcast to Lower Your Monthly Bill Results in Comcast Lowering Your Monthly Bill,” *THE CONSUMERIST*, June 22, 2009, <http://consumerist.com/2009/06/asking-comcast-to-lower-your-bill-results-in-comcast-lowering-your-bill.html>. However, this information is usually not public.

<sup>9</sup> The average life of a TiVo DVR is five years. *See* TiVo Form 10-Q, filed December 9, 2009, *available at* <http://investor.tivo.com/phoenix.zhtml?c=106292&p=irol-sec>

The FCC's current rules allow cross-subsidization of video device costs through service charges, and thus limit the ability of third parties to compete.... Section 629 states that "equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems" may be offered to consumers by MVPDs, but that any charges for such equipment must be "separately stated and not subsidized by charges for any such service." However, contrary to the clear directive of Congress, the FCC has adopted rules that expressly allow such subsidization.<sup>10</sup>

The Commission has chosen to interpret a provision about accounting practices, Section 623(a)(7)(A), as negating Section 629's prohibition on cross-subsidization.<sup>11</sup>

The Commission has not proposed any rules to remedy these unlawful, unfair, and anticompetitive practices, and has neglected the National Broadband Plan's recommendation that the Commission ensure that there are equivalent and

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(showing that TiVo recognizes product lifetime subscriptions over 60 months). A normal price for a TiVo DVR is about \$300, which translates to \$5 per month. Cable operators offer set-top box rentals at prices in the \$4 to \$15 dollar range, with the lower-end boxes generally less capable than the consumer-owned devices with amortized costs in the same range. For example, RCN Cable offers a digital converter for \$3.95 a month (for one device, with additional devices \$6.95 per month). But their HD DVR costs \$14.95 per month to rent, which amounts to \$897 over 5 years. See RCN, <http://www.rcn.com/dc-metro/digital-cable-tv/equipment> (visited June 11, 2010). By contrast, on June 11, 2010, a TiVo HD DVR was available for purchase on BestBuy.com for \$299.99 – one-third the price of renting a similar box for five years.

<sup>10</sup> Petition for Rulemaking of Public Knowledge, Free Press, Media Access Project, Consumers Union, CCTV Center for Media & Democracy, and the Open Technology Initiative of New America Foundation, filed Dec. 18, 2009, at 26-27.

<sup>11</sup> The Commission has incorrectly interpreted Section 623(a)(7)(A) of the Cable Act, 47 U.S.C. § 543(a)(7)(A), as allowing some kinds of cross-subsidization and below-price marketing. See 47 C.F.R. § 76.923(j) ("A cable operator may offer equipment or installation at charges below [cost], as long as those offerings are reasonable in scope in relation to the operator's overall offerings in the Equipment Basket and not unreasonably discriminatory."). However, the legislative history of Section 623 indicates that this section was aimed explicitly at promoting a "broadband, two-way telecommunications infrastructure," H.R. Rep. No. 104-458, at 167 (1996) (Conf. Rep.), and thus should not be read in conflict with Section 629. However, one of the FCC's rule implementing Section 629, 47 C.F.R. § 76.1206, defers to 47 C.F.R. § 76.923, improperly allowing Section 623 to nullify Section 629.

transparent prices for CableCARD-equipped devices as for cable-supplied set-top boxes.

The Commission must ensure that no economic barriers, whether explicit or implicit, stand in the way of the success of CableCARD. Such barriers inhibit the development of a competitive marketplace, and keep the Commission from fulfilling its statutory duty. The National Broadband Plan recommended that the Commission “[e]stablish transparent pricing for CableCARDS and operator-leased set-top boxes.”<sup>12</sup> To carry out the advice of the Broadband Plan and fulfill Section 629, in addition to requiring that cable operators separate out CableCARD rental-fees from set-top box rental fees for customers who lease a non-integrated set-top box, the Commission must require that cable operators (1) disclose the price of the leased box alongside the monthly rental fee,<sup>13</sup> (2) disclose to customers on each bill how much they have paid in rental fees for that box to date, and (3) expressly inform customers that they have the option of purchasing a competitive device at retail. Additionally, the FCC must ensure that no portion of an MVPD’s service fees goes to cover equipment costs—for example, by requiring that device rental fees cover all first-party device equipment and support costs incurred by the MVPD.

These simple rules could have broad implications. Consumers cannot make rational economic choices if they do not have the data necessary to do so before

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<sup>12</sup> *Plan* at 52.

<sup>13</sup> Cable operators should have the option of disclosing either the MSRP of the exact SKU the customer is renting, or the wholesale price the cable operator paid for the device.

them. To the extent that, according to some MVPDs,<sup>14</sup> consumers “prefer” to lease rather than purchase video devices, it is likely that this preference would change with such information in hand. The story of Ester Strogon, who paid thousands of dollars over the years to rent her black rotary telephone, is well-known.<sup>15</sup> Her story is outrageous because it came to light in a time when a competitive retail market in telephone equipment was well-established. Had Mrs. Strogon been presented with a running tally of her rental fees over the years, she may have realized it was in her best interests to simply purchase a phone. Similarly, if customers are presented data on how much they spend to rent devices from the cable company, they may choose to purchase devices instead—or cable companies may start offering lower fees or rent-to-own options.

### **III. CableCARDS Should Not Require Professional Installation**

One of the biggest barriers preventing CableCARD devices from taking hold in the market is the requirement imposed by many cable operators that a cable technician visit the customer’s house to install each CableCARD device. Not only does the customer have to arrange a visit and wait at home for the technician. She often must *pay* the cable operator to carry out its legal obligation of supporting non-integrated devices.

This is unfair, and thwarts the development of a competitive market by making retail devices more difficult to set up. It also makes no sense technologically.

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<sup>14</sup> *E.g.*, Comments of Time Warner Cable – NBP Public Notice #27, GN Docket No. 09-51, filed Dec. 21, 2009, at 5 (“While the significant majority of TWC’s subscribers lease set-top boxes today, that results from the many advantages of the lease model rather than any preference for that model on TWC’s part.”).

<sup>15</sup> *Woman Paid Thousands to Rent Rotary Phone*, USA TODAY, Sep. 14, 2006, [http://www.usatoday.com/news/offbeat/2006-09-14-phone\\_x.htm](http://www.usatoday.com/news/offbeat/2006-09-14-phone_x.htm).

Anyone who can use an ATM, or plug a USB drive into a laptop computer, should be able to install a CableCARD. CableCARDS are nothing more than a small piece of electronics that slides into a slot. Indeed, many of the same cable operators who require a professional installation allow customers to install and set up their own cable broadband modems—a more sophisticated and expensive piece of technology. For example, a Comcast customer support webpage currently says that “At this time, professional installation [of a CableCARD] by a Comcast technician is required.”<sup>16</sup> But Comcast (along with most other cable broadband providers) allows a customer to install her own cable modem purchased at retail.<sup>17</sup> No cable operator who has complied with the Commission’s existing rules and is committed to supporting CableCARDS, as the law requires, is justified in requiring a professional installation for a CableCARD. Such a requirement flies in the face of the very reason CableCARD exists: to allow a customer to purchase a device at retail and then use it when she gets home. Customers should not have to pay for cable operator’s failure to follow the law. Therefore, the Commission should at minimum enact a rule stating that a cable operator who continues to require a professional installation for a CableCARD may not charge either for the installation or the visit.<sup>18</sup>

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<sup>16</sup> Comcast CustomerCentral, [http://customer.comcast.com/\(S\(jpyel145o0gn5555bbdhwajx\)\)/Pages/FAQViewer.aspx?Guid=cb9a7fbf-e86a-45ef-b630-2f747075d847](http://customer.comcast.com/(S(jpyel145o0gn5555bbdhwajx))/Pages/FAQViewer.aspx?Guid=cb9a7fbf-e86a-45ef-b630-2f747075d847) (visited June 7, 2010).

<sup>17</sup> Comcast even maintains a list of compatible equipment. Comcast, Cable Devices, <http://mydeviceinfo.comcast.net>.

<sup>18</sup> If a customer *requests* a professional installation, the cable operator may charge for at most one visit, but nothing for the installation itself.

#### **IV. Multistream CableCARDS Should Be Standard**

Many standard cable operator-supplied set-top boxes today can tune multiple streams of programming on one device. Another barrier to CableCARD's success has been the difficulty in configuring many CableCARD-equipped devices to do this. Single stream CableCARDS do not offer this ability, and thus a device with only one single stream CableCARD can never be functionally equivalent to a cable-supplied multistream device. Unless the Commission requires that cable operators provide their CableCARD customers with multistream capabilities, it will be not be fulfilling its statutory responsibilities, and will fall short of the National Broadband Plan's recommendation that the Commission make sure that retail devices have "equal access to linear channels."<sup>19</sup> A competitive market requires that third-party devices have access to the complete range of features that cable-supplied devices have. Thus, the Commission must go further than merely requiring that cable operators "offer" multistream CableCARDS.<sup>20</sup> Multistream cards should be the default, and single stream cards should be provided only if necessary. In general, a cable operator should charge the same rental fee for a multistream CableCARD as for a single stream card. If the rental fee for a multistream CableCARD is more than that for a single stream card, this difference must be due to actual equipment costs—and in no case should it cost more to lease a single multistream card than multiple single stream cards.<sup>21</sup>

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<sup>19</sup> *Plan* at 52.

<sup>20</sup> FNPRM, ¶ 17.

<sup>21</sup> Additionally, some CableCARD devices can use multiple single stream cards to give them multistream capability. The lease fees for multiple single stream cards

**V. Any CableCARD Device That Does Not Harm the Network Should Be Certified**

Device certification is a significant barrier to companies who may wish to produce CableCARD devices. Thus, the Commission seeks comment on streamlining CableCARD device certification. It proposes to generally limit device certification to the standards of the CableLabs “Uni-Directional Receiving Device: Conformance Checklist: PICS Proforma.” This is a good idea, and will make sure that certification is a technical matter, and not a means for the certification body to exert influence over the entire home media ecosystem. To clarify this latter point, the Commission should state that certification should be guided by a simple principle: any functioning device that does not harm the network should be approved.

**VI. Two-Way Communication Between Devices Remains Important, But the Commission Should Allow Interfaces Other than IEEE 1394**

The Commission can lower the cost of non-integrated, common reliance set-top boxes if it lifts the requirement that these boxes support IEEE 1394.<sup>22</sup> While promoting interoperability between devices in the consumer’s home remains in the public interest, modern, IP-enabled interfaces are a better route to that goal.<sup>23</sup> By dropping the IEEE 1394 requirement, the Commission can have its cake and eat it too; lowering the cost of devices in the short term without sabotaging the emergence of a competitive retail marketplace for interoperable devices.

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installed in a single device should not exceed the lease fee for a single multistream card.

<sup>22</sup> FNPRM ¶ 19.

<sup>23</sup> In general, commenters prefer that the Commission pick a standard rather than provide a range of options that may lead to incompatibilities among devices. However, the non-1394 interfaces proposed by the Commission are widely-enough deployed that, in the circumstances, providing several choices is not inappropriate.

However, the Commission has stated that one of the functions of the bi-directional interface might be to deliver video.<sup>24</sup> Commenters support that requirement. But with that in mind, the Commission should clarify that only interfaces that offer sufficient bandwidth to stream HD video may be used. While even older specifications like 802.11g under ideal conditions are suitable for streaming HD video, spectrum congestion and propagation issues can reduce WiFi throughput. Therefore, the Commission should specify that only a dual-band (2.4 GHz and 5 GHz) 802.11n (or later) WiFi interface meets its requirements. By requiring dual-band support, the Commission will ensure that legacy devices do not degrade the performance of streaming video.<sup>25</sup>

Additionally, the Commission should consider whether it should require that any interface be capable of IP communication. It has already determined that enabling IP connectivity among home media devices is in the public interest. The new interfaces the Commission specifies, Ethernet and WiFi, are IP technologies.<sup>26</sup> But use of USB 3.0 will not provide IP “out of the box,” without requiring additional software support. To promote standardization, the Commission should require that any interface be capable of two-way IP communication.

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<sup>24</sup> FNPRM ¶ 21.

<sup>25</sup> If an 802.11g device is operating on the same network and frequency as an 802.11n device, the 802.11n device falls back to 802.11g operation. Dual-band WiFi networks allow for 802.11n devices to operate on the relatively legacy-free 5 GHz band.

<sup>26</sup> IEEE 1394 supports IP, among other protocols, and for present purposes is an “IP interface.”

## **VII. The Commission Should Require Cable Operators To Accept a Broadband Return Path to Enable Two-Way Functionality on CableCARD Devices**

The Commission recognizes that third-party video devices using CableCARDS must be able to signal upstream as easily as MVPD-supplied equipment.<sup>27</sup> Without this capability, third-party devices have no access to on-demand and interactive content. But perhaps more critically, with the development of switched digital channels (which are only sent along the wire when a customer wants to watch them), whole channels of programming would be unavailable to CableCARD customers without two-way communication capability between devices and the cable headend. The lack of a standard method for upstream communication, therefore, is the largest technological barrier preventing CableCARD devices from achieving feature parity with cable-supplied devices.

As it stands, a consumer using a typical CableCARD device has no uniform way to tell the headend to begin sending a channel or an on-demand program. The Commission has asked for comment on two approaches to remedy this problem and carry out the National Broadband Plan's recommendation that third-party devices should have "equal access to linear channels": The "tuning adapter" approach, and the out-of-band-signaling approach. The tuning adapter approach has been tried, and it is not satisfactory. As deployed, the tuning adapter amounts to nothing less than a set-top box in and of itself.<sup>28</sup> The very purpose of Section 629 is to prevent

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<sup>27</sup> FNPRM ¶ 14.

<sup>28</sup> Letter from Matt Zinn, Senior Vice President, TiVo, to Marlene H. Dortch, Secretary, Federal Communications Commission at 2, CS Docket 97-80 (Feb. 17, 2010) (stating that the tuning adapter is a "modified cable-supplied set-top box"). If the Commission does choose a tuning adapter approach, it should ensure that it

consumers from having to rely on cable-supplied equipment in order to access cable programming. It would contravene the statute's intent if the Commission now *required* customers to use a cable-supplied box to access certain types of programming.

The tuning adapter approach would require that cable operators supply and support a new class of devices in consumers' homes, in addition to CableCARD. Deployment issues could hamper the success of tuning adapters. In addition to needing to have an adequate supply of these adapters on hand in addition to CableCARDS, the adapters are more complex than a CableCARD, and this added complexity might make self-installation more difficult. The Commission would need to establish rules governing the sale or lease of tuning adapters, and the cost of leasing a tuning adapter plus a CableCARD might reduce the attractiveness of retail third-party devices, which often compete with MVPD-supplied offerings by being cheaper in the long run than aggregate equipment fees. Additionally, this docket is already replete with reports from customers who have not been able to get their tuning adapters to function properly.<sup>29</sup> Therefore, commenters support TiVo's out-of-band communication approach.

The out-of-band approach is far better. This requires that a consumer attach a CableCARD device to a broadband connection, instead of allowing for upstream signaling on the cable television system itself. (It is essential that such a

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does not have these obvious flaws. For example, the adapter must be no larger than a typical USB dongle, and it must not require its own independent power supply.  
<sup>29</sup> See, e.g., Comment of Greg Friedman, CS Docket 97-80, filed Apr. 27, 2010 ("I have had many issues with cablecard and tuning adapters not performing as well as my setop box, including my set top box with cablecard.").

requirement would work on any broadband connection—i.e., not only on cable broadband.) It would only require minimal infrastructure changes by cable operators, to receive the broadband signals, and to allow communication between the broadband signaling equipment and the headend. Especially given that broadband-capable CableCARD devices are already available, the out-of-band communication approach is more likely to achieve the Commission’s goals than the tuning adapter approach. The out-of-band approach is simpler and would generate fewer deployment and support issues. However, in addition to establishing standards on how the out-of-band approach will function, the Commission should seek data as to how many buyers of third-party CableCARD devices are able to attach a television set-top box to broadband, if this is required to allow two-way communication.

#### **VIII. Common Reliance Remains an Essential Principle to Ensure Proper CableCARD Support**

The common reliance principle has received insufficient support in past Commission decisions, but that principle should not be abandoned. It is a key to removing a cable operator’s ability and incentive to discriminate against CableCARD users, by ensuring that cable operators use CableCARD for the set-top boxes they lease to customers. This makes sure that CableCARD is not a technology that only their competitors use, and allows CableCARD technology to receive first class support and operate with fewer technical glitches.

Common reliance never became a reality. The Commission’s “integration ban” was long delayed, and while cable operators followed it to some extent, it was weakened by the excessive grant of waivers to “low cost, noncompliant” devices that

did not use CableCARD technology.<sup>30</sup> While intended to save customers money, these waivers simply ensured that compliant devices could not achieve the economies of scale needed to bring their costs down. Furthermore, any short-term savings (assuming they even were passed along to customers) were more than offset by the effect these waivers had: stunting the market for navigation devices, thus ensuring that most consumers would continue to pay a rental fee for their set-top boxes, which they would not be able to take with them from one cable system to another.

If the goal of this proceeding is to “fix CableCARD,” the Commission should not drop the common reliance requirement by amending the rules to allow cable operators to deploy HD-capable, integrated set-top boxes. It is not enough for the Commission to merely say that cable operators must support CableCARD, when it could adopt rules that make it near certain that they would. Common reliance, if implemented and not waived away for all comers, could do that.

However, the Commission should not be blind to the realities of the cable marketplace. It is probable that compliant devices could achieve the necessary economies of scale to bring their costs down if they were deployed just by the largest MSOs.<sup>31</sup> For this reason, if the Commission does elect to eliminate common

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<sup>30</sup> Petition for Reconsideration of Public Knowledge, Free Press, Media Access Project, New America Foundation, Open Technology Institute, and U.S. PIRG, CSR-7902-Z, filed June 29, 2009, *available at* <http://www.publicknowledge.org/pdf/pk-et-al-evolution-recon-20090629.pdf> (asking the Commission to reconsider the order eliminating the principle of common reliance for “low cost limited capability” devices).

<sup>31</sup> Even considering that the second and third largest MVPDs are not cable, the top five cable operators control more than half of the entire MVPD marketplace. Annual

reliance requirements for some set-top boxes, it should limit the applicability of any waivers to smaller cable systems with an activated capacity of 522 MHz or less. If it does this, however, the Commission should establish a streamlined complaint and enforcement mechanism to ensure that these smaller cable operators properly support CableCARD. Such a complaint and enforcement mechanism would not be overly burdensome for the Commission to implement because of the relatively small customer base of the smaller cable operators.

## **CONCLUSION**

The Commission has moved the ball forward on video device competition significantly. If it crafts rules that ensure proper CableCARD support, it can achieve measurable results in the near term.

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