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

In the Matter of

Media Bureau Seeks Comment on DSTAC Report
MB Docket No. 15-64

COMMENTS OF THE CONSUMER VIDEO CHOICE COALITION

The Consumer Video Choice Coalition (the “Coalition” or “CVCC”) responds to the request for comment on the report of the Downloadable Security Technical Advisory Committee (“DSTAC”). The Coalition urges the Commission to use the DSTAC report as the basis for initiating a rulemaking proceeding to establish an updated standard that allows consumers to use the navigation devices of their choice in accordance with the goals of Section 629. The Coalition believes that with the right standard and related policies, the Commission can foster the competition and consumer benefits seen in other, vibrantly competitive consumer electronics markets.

1 CVCC is a coalition of leading technology organizations, consumer advocacy organizations, and innovative video device companies that represents the broad support for a more robust marketplace for set-top boxes and other video navigation devices to ensure that consumers, device manufacturers and content providers receive maximum benefits from the rapid changes occurring in how consumers are viewing content. Members of the Coalition include CCIA; COMPTEL; Public Knowledge; Writers Guild of America, West; New America’s Open Technology Institute; Consumer Action; Common Cause; Ceton; Google; Hauppauge; SiliconDust; and VIZIO.

TABLE OF CONTENTS

SUMMARY ....................................................................................................................................................... 1

I. THE FCC SHOULD ESTABLISH AN UPDATED STANDARD THAT ALLOWS CONSUMERS TO USE THE NAVIGATION DEVICES OF THEIR CHOICE .......... 3
   A. The FCC Should Build on the DSTAC Report By Proposing an Updated Standard that Establishes a Competitive Market for Retail Navigation Devices in Fulfillment of Section 629’s Goals ................................................................. 3
   B. Retail Competition in the Video Navigation Device Market as Envisioned by Section 629 will Result in Significant Consumer Benefits......................... 6

II. THE DSTAC REPORT PROVIDES THE BASIS FOR AN UPDATED STANDARD THAT PROMOTES VIDEO DEVICE COMPETITION AND GIVES CONSUMERS THE RANGE OF CHOICES AVAILABLE IN OTHER CONSUMER ELECTRONICS MARKETS .............................................................................................................. 11
   A. The “Competitive Navigation” Solution Enables Meaningful Consumer Choice 11
   B. The “App-based” Solution Favored by MVPDs Would Entrench Incumbent Control of the Device Market ........................................................................ 12

CONCLUSION .................................................................................................................................................. 14
SUMMARY

In the STELA Reauthorization Act of 2014 the Congress instructed the Commission to empanel a Technical Advisory Committee of experts to recommend a successor solution to CableCARDs that will “promote the competitive availability of navigation devices in furtherance of Section 629.” Such a solution has now been reported to the Commission and awaits further action. The Commission should take such action in the form of a rulemaking, to accomplish the objectives of the STELAR legislation, and of Section 629.

The need for an interoperable, competitive solution has long been recognized by the Commission, and was recently underscored by a study by Senators Markey and Blumenthal, which found that MVPD subscribers pay almost $20 billion per year ($231 per household) in leasing fees. Such a competitive anachronism has long been avoided in other areas of consumer electronics and telecommunications, in which consumers have robust competitive choices among devices and media. Section 629 was modeled explicitly on the Carterfone model of allowing device competition to flourish on operator-controlled networks. Without such competitive freedom to innovate in devices, the competitive broadband world we enjoy today would not exist. Even in the video MVPD world, under the limited competitive opportunities enjoyed to date, the major innovations have originated in competitive devices.

Only competitive devices have afforded consumers a unified search menu, in which a subscriber can compare the MVPD program offerings with OTT offerings and others to which she has rights. MVPD systems could also offer this choice, but do not. Moreover, the MVPD-backed elements of the DSTAC report would preclude any such choice, by offering only MVPD content, only in the MVPD’s own user guide, whether presented on a leased set-top box or over an approved “app” that they propose as an adequate “competitive” solution.
The DSTAC Report puts forward a solution modeled on a competitive environment, in which users may choose a device that will work interoperably on the range of MVPD systems and offer consumers their own guide to all programming and services to which they have rights; and, alternatively, an “app” solution that offers no such consumer choice. The competitive solution would establish a standards-based “Virtual Headend” in which network security and conditional access are performed in the “cloud,” based on Internet Protocol technology. Security between the “cloud” (which may be headend or local) and the retail navigation device is established by a widely used link protection technology. This approach enables the device to support competitive “navigation” solutions for the consumer – a custom guide and search capability, modeled on the consumer’s own bundle of rights, rather than the MVPD’s mandated look, feel, and search capability. It would also allow competitive devices to operate on different and competing MVPD systems.

The alternative, MVPD-backed “app” approach would, instead, lock consumers, for the foreseeable future, into the environment in which they pay almost $20 billion every year to lease set-top boxes. Rather than offer an alternative to the leased set-top, these limited-function “apps” would simply extend the proprietary presentations of a single MVPD to ancillary portable and mobile devices. While this is a worthy objective, there is no need to require that this Internet Protocol technology be applied so as to limit, rather than empower, competition and choice.

The DSTAC process revealed a consensus that Internet Protocol tools and standards exist to promote and enable competition. Having established this so clearly, the Commission should follow through with a rulemaking to achieve the objectives of Section 629.
I. THE FCC SHOULD ESTABLISH AN UPDATED STANDARD THAT ALLOWS CONSUMERS TO USE THE NAVIGATION DEVICES OF THEIR CHOICE

A. The FCC Should Build on the DSTAC Report By Proposing an Updated Standard that Establishes a Competitive Market for Retail Navigation Devices in Fulfillment of Section 629’s Goals

During the DSTAC’s pendency from January through August of 2015, many parties representing a range of interests devoted extensive time and attention to study the technical issues related to designing a common solution to promote the retail competitive availability of navigation devices in accordance with Section 629. The FCC should follow through and ensure that this effort is not wasted by initiating a rulemaking proceeding to establish a long overdue successor solution to the CableCARD standard that embraces interactive, two-way, and IP-based technologies characteristic of the current and future MVPD marketplaces.

Simply embracing the status quo by doing nothing would be a missed opportunity for competition and consumer choice — and a failure to fulfill the Commission’s legal mandate. Congress established DSTAC to ensure that industry representatives work together to address salient technical issues related to the competitive availability of video navigation devices. Now that DSTAC has completed its work, the FCC should adopt a successor solution that “promote[s] the competitive availability of navigation devices in furtherance of Section 629.”

For more than a decade, the Commission has recognized the need for a successor solution to CableCARD that better reflects current and future technology while giving consumers the range of choices envisioned by Congress when it enacted Section 629. Unfortunately, existing

---


4 See 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, at 2, ¶ 4 (rel. Apr. 25, 2003) (expressing hope that negotiations between the cable and consumer electronics industries would lead to a specification that would permit bidirectional navigation devices); Implementation of Section 304 of the
solutions have not created a competitive retail market. A recent study by Senators Markey and Blumenthal found that approximately 99 percent of MVPD subscribers use set-top boxes provided by the MVPD, and these subscribers pay almost $20 billion per year ($231 per household) in leasing fees.⁵ Though some MVPD interests claim that there is no consumer

---

⁵ Press Release, Markey, Blumenthal Decry Lack of Choice, Competition in Pay-TV Video Box Marketplace (July 30, 2015), available at http://www.markey.senate.gov/news/press-releases/markey-blumenthal-decry-lack-of-choice-competition-in-pay-tv-video-box-marketplace. As Senator Blumenthal remarked: “The average household is forced into fees of more than $200 a year on set-top boxes — an expense that is unjust and unjustifiable. As the world becomes increasingly connected and technology advances, new innovations must be able to break into the cable marketplace and provide the vigorous competition that drives down prices for consumers. Consumers deserve competitive options in accessing technology and television — not exorbitant prices dictated by monopoly cable companies.” Id.
demand for retail navigation devices, that claim belies the experience in the markets for every other consumer electronics device, where consumers benefit from a wide array of choices with respect to features as well as cost. The problems with installation and support of CableCARD devices have been well-documented, and it is absurd to argue that consumers do not want more options and greater choice in this one consumer electronics market. The reality is that we cannot predict what consumers will do when they have choices, and policymakers have rightly favored policies that give consumers choices rather than simply accept a market in which 99 percent of consumers pay close to $20 billion to lease devices that are widely criticized.

History has shown time and again that when devices are untethered from the network operator’s control, consumers benefit from more choices, greater innovation, lower prices, and higher quality. The seminal Carterfone decision established 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. In enacting Section 629, Congress was clear that it

---

6 See, e.g., Reply Comments of the National Cable & Telecommunications Association, MB Docket 15-158, at 6-7 (filed Sep. 21, 2015).

7 See National Broadband Plan at 52, Section 4.2 (discussing four major problems with CableCARD support); 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, Fourth Further Notice of Proposed Rulemaking, FCC 10-61, at 5-8, ¶¶ 11-18 (rel. Apr. 21, 2010) (proposing rules to attempt to address problems with support for CableCARD-enabled retail devices); 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, FCC 10-181, at 6-20, ¶¶ 8-38 (rel. Oct. 14, 2010) (adopting measures to attempt to address problems with support for CableCARD-enabled retail devices).


wanted similar benefits for the navigation devices market, stressing that “[c]ompetition in the manufacturing and distribution of consumer devices has always led to innovation, lower prices and higher quality.”\textsuperscript{10} The FCC should act now to finally fulfill this Congressional goal.

\textbf{B. Retail Competition in the Video Navigation Device Market as Envisioned by Section 629 will Result in Significant Consumer Benefits}

As the Coalition has previously explained in more detail,\textsuperscript{11} consumers derive significant benefits from having options of which devices to attach to a network. A competitive retail market for navigation devices will benefit consumers by increasing competition among device manufacturers, content providers, and network operators.

\textbf{Devices:} In most consumer electronics markets, consumers have enjoyed the benefits of competition, with the ability to choose from a wide array of innovative devices and falling prices. For example, \textit{Carterfone} led to an explosion of choice in telephones available to consumers and to innovations such as cordless phones, fax machines, and modems — which, of course, played a vital role in the early growth of the Internet. Today, the smartphone market exemplifies the range of choices available to consumers in a competitive retail market, with consumers enjoying a wide variety of choices with respect to features, user interfaces, price, etc. Consumers can buy the device of their choice and use it with their wireless carrier, and in many cases can keep the same device — with its features, user interface, and stored information — when they switch carriers.

In the navigation device market, however, almost 99 percent of MVPD subscribers lease set-top boxes, denying them the fruits of competition. Lack of competition from retail navigation devices in turn has led to diminished innovation in set-top boxes compared to other


\textsuperscript{11} Comments of the Consumer Video Choice Coalition, MB Docket 15-158, at 4-8 (filed Aug. 21, 2015).
consumer electronics products. Even in these stifled competitive conditions, innovations such as the DVR and streaming and side-loading video content to tablets and smartphones have emerged from retail navigation devices and were only introduced in operator-leased set-top boxes after substantial delay.

A hallmark of competition is different manufacturers producing devices that do more than simply perform the same basic functions. Consumers benefit from product and user interface differentiation, giving them more choices in how they access, view, interact with, and organize content. With the appropriate rules and standards in place, retail navigation device manufacturers will be able to provide innovative and distinctive features, including unique user interfaces, enhanced search functionality, and improved means for recording and viewing content consistent with copyright law.

Content: The growing abundance of online video has shifted consumer viewing habits, with many consumers today viewing content from a mix of MVPD (including Video On Demand), broadcast, and over-the-top providers. The growth of OTT video options has given consumers greater choice in programming and subscription packages, and has also given content producers more options to distribute their content. However, as long as incumbent MVPDs control the development and distribution of navigation devices, they can steer consumers toward their own content offerings at the expense of alternative offerings that viewers may prefer. MVPD-supplied set-top boxes generally do not allow users to view third-party OTT content, meaning that such users would only be able to watch OTT video content on their TVs if they purchase and use a separate device and switch video source inputs. Finally, MVPD control over set-top boxes ultimately influences what many consumers watch.

12 Consumers would prefer to use a single device to access all forms of video content that they view. Indeed, according to a recent survey, a majority of cord cutters and those seeking to
Unaffiliated retail navigation devices, on the other hand, do not have the same incentive to favor MVPD content offerings, and would allow users to watch content from both MVPD and OTT sources, as well as to search for and navigate content across all sources — OTT, linear, and VOD. Thus, retail device competition enables competition from online video content providers by allowing consumers to use neutral user interfaces to search for content across different sources.

**Network Competition:** Over the years, the goal of greater facilities-based broadband- and video-network competition has been limited because of the high costs faced by new entrants, including the high costs of procuring video navigation devices. A competitive retail market for navigation devices would help to lower costs for differentiated devices in the wholesale market. Today, large MVPDs benefit from economies of scale as set-top box manufacturers are incentivized to focus on orders from these larger MVPDs. Robust retail competition would allow manufacturers to take advantage of economies of scale over a larger base of retail.

---

reduce their spend on pay TV services would maintain their current spend if they were provided a single source to search, discover, and watch all of their content, including OTT content. *The Digital Consumer: Global Views on the Pay TV Experience, Cable Analytics and Cable Wi-Fi* at 7, available at [http://www.amdocs.com/Solutions/cable-satellite/Documents/Amdocs-IEMR-Consumer-Pay-TV-Survey-2015-Highlights.pdf](http://www.amdocs.com/Solutions/cable-satellite/Documents/Amdocs-IEMR-Consumer-Pay-TV-Survey-2015-Highlights.pdf) (citing a survey by Linx-IE Market Research Corp.).


navigation device users — ultimately lowering costs for new entrants and other small network operators to acquire innovative navigation devices. Where consumers can choose from several MVPDs, retail device competition would have the added benefit of lowering switching costs as consumers could change service providers without being forced to switch navigation devices.

The members of the Coalition are not alone in recognizing the benefits that will result from retail device competition. Many commentators have weighed in about the consumer benefits that would result from having competitive retail navigation devices options. The New York Times Editorial Board summed up the benefits as follows:

Connecting a set-top box to a cable line or satellite dish should be as easy as activating a new cellphone on a wireless network. Consumers should have a choice of devices, and they should be able to buy the boxes outright or pay for them through their monthly plan. And using a set-top box should not require an electronic card. Surely, cable and tech companies can come up with software that can verify that set-top boxes are being used by paying subscribers.

In addition to saving people money, reducing cable companies’ control over set-top boxes could improve TV watching. Some television makers might build set-top boxes into their machine so consumers would not have to buy two devices. Tech companies like Apple and Google could create set-top boxes with easier-to-use menus. Device makers might also offer consumers the ability to simultaneously search for entertainment on cable and Internet-based services like Netflix and Hulu.

---


16 Let Consumers Use Better, Cheaper Cable Boxes, supra note 15.
USA Today also described the benefits that would occur if retail navigation device competition were realized, and urged FCC action:

The FCC has an opportunity to open the way for better devices, and it should. The agency is considering competing recommendations from a working group.

Ideally, you should be able to buy a cutting-edge set-top box for a reasonable price that would run rings around what you can lease from your cable provider. It would give you not just the cable channels you pay for, but also any other services you subscribe to (Netflix, Amazon, Hulu, etc.), plus Internet content, all in the same box (or built into your TV), and in an easily searchable grid not controlled by the cable provider.

When you look for a movie, for example, you could find it in your cable on a demand list (for an extra fee), but also from another service you’ve already paid, for no more money. . . .

To make this possible, the FCC would have to require the cable industry to provide a feed that would work on all sorts of third-party boxes. Unsurprisingly, the industry says that’s too complicated and too onerous. The real reason seems to be that it would threaten cable providers’ gravy train of rental income and their control of how their customers watch TV — reasons the FCC would do well to look past as it seeks the best outcome for consumers.\(^\text{17}\)

The Coalition agrees. The FCC has an opportunity to spur innovation and unleash the benefits of consumer choice in accordance with the goals of Section 629. The FCC should not squander this opportunity. It should act now by commencing a rulemaking proceeding to establish an updated standard that enables retail competition in the video navigation devices market.

\(^{17}\) End the Cable-Box Rip-Off, supra note 15.
II. THE DSTAC REPORT PROVIDES THE BASIS FOR AN UPDATED STANDARD THAT PROMOTES VIDEO DEVICE COMPETITION AND GIVES CONSUMERS THE RANGE OF CHOICES AVAILABLE IN OTHER CONSUMER ELECTRONICS MARKETS

A. The “Competitive Navigation” Solution Enables Meaningful Consumer Choice

The DSTAC Report provides the basis for a solution that will fulfill the goals of Section 629 by enabling true retail competition in the navigation devices market. Specifically, the “Competitive Navigation” solution supported by the Coalition provides a detailed and practical approach that would facilitate retail competition in video devices that would (1) work across all MVPD networks; (2) allow equipment manufacturers to develop improved UIs to differentiate themselves from MVPDs; and (3) ensure the security of video signals consistent with copyright law. This approach promotes competition and consumer choice by providing a uniform way for a variety of devices to afford consumers access to any of the content they want, through an interface they choose.

The Competitive Navigation solution relies on a “Virtual Headend” in which network security and conditional access are performed in the “cloud.” The “cloud” may exist on the Internet in a traditional sense, or reside locally inside the customer premises and include termination of MVPD conditional access security similar to how a CableCARD device operates today. The security between the cloud and the retail navigation device, through a well-defined, widely-used link protection mechanism such as DTCP-IP allows for secure decryption without requiring that the consumer be tied to a single MVPD and a single user experience when choosing a device. This freedom is the norm today for all devices except those tied to cable and satellite video services.

The Virtual Headend will enable any competitor or retailer to offer new and innovative devices that will work across any MVPD’s video platform nationwide. Yet this approach would not require cable, satellite, or IPTV providers to adopt a single conditional access technology, and would thus allow for the differences in network technology among different MVPDs.

Unlike the “app” approaches urged by MVPDs, the Competitive Navigation solution supports a competitive market for both user interfaces and devices. It does not require any changes to the content, channel, on-demand offers, or sequencing of an MVPD system, but allows competition in users’ search, selection, and storage options with respect to all the content from all sources to which a user has rights. This solution also does not preclude the existence of apps, and would therefore not affect any apps that exist today or will exist in the future. Indeed, the Competitive Navigation solution would enable apps to be created by independent parties from a set of open standards and APIs.

**B. The “App-based” Solution Favored by MVPDs Would Entrench Incumbent Control of the Device Market**

The “Application-based Service with Operator-Provided User Interface” proposal\(^\text{19}\) put forward by some other members of the DSTAC would entrench the status quo in which consumers pay MVPDs almost $20 billion per year to lease set-top boxes. This approach would not foster the creation of innovative, competitive solutions to replace leased set-top boxes, leading consumers to continue having to remit these fees.

While the app-based approach allows consumers to watch programming on different devices, it would not result in the type of consumer choice envisioned by Section 629. Instead, this approach simply extends the MVPDs’ user interface and control to additional devices, foreclosing the type of competition that would produce better UIs, improved search functionality,

---

\(^{19}\) *Id.* at 126-42.
or additional features. The app-based approach also would not allow users to record programming for later viewing except on devices leased from the MVPD. As discussed above, true device competition includes product and user interface differentiation, giving consumers choices in how they access, view, interact with, and organize content — not simply allowing them to open different apps for each programming source. Such competition will breed innovation. Features like DVR recording, user-friendly remote controls, personal streaming, and access to programs on multiple devices were not pioneered by cable companies, but by other entities. The solution adopted by the FCC should ensure that retail navigation device manufacturers are able to provide innovative and distinctive features, including unique user interfaces, enhanced search functionality that allows for searching across all MVPD (including VOD) and OTT sources, and improved means for recording and viewing content. The MVPDs’ app-based solution does not permit such innovation, product differentiation, and consumer choice.

A further sign that the app-based approach would simply entrench the status quo is that MVPD apps exist today — indeed, NCTA estimates that consumers have downloaded more than 56 million apps. Still, consumers continue to pay almost $20 billion in set-top box lease fees. This fact illustrates the reality that consumers use app-based systems as companion devices, not a replacement for the MVPD-provided set-top box. Congress did not create the DSTAC for industry experts to convene and recommend a solution that already is available in the marketplace today and has not yielded the type of competition envisioned by Section 629.

Moreover, an app-based approach does not guarantee that consumers will be able to view all the content they have paid for on all devices. MVPDs have a history of withdrawing support
for apps\textsuperscript{20} or refusing to authenticate third-party apps,\textsuperscript{21} preventing consumers from viewing content they have paid for on the device of their choice.

**CONCLUSION**

The Coalition urges the FCC to use the DSTAC Report as the basis for adopting policies and rules that would unleash competition in the retail navigation device market. Then, the Commission finally can fulfill the Congressional objectives underlying Section 629.


Respectfully submitted,

/s/
CONSUMER VIDEO CHOICE COALITION

Ceton Corp.
Common Cause
Computer & Communications Industry Association
COMPTEL
Consumer Action
Google Inc.
Hauppauge
New America’s Open Technology Institute
Public Knowledge
Silicondust USA, Inc.
VIZIO
Writers Guild of America, West

October 8, 2015