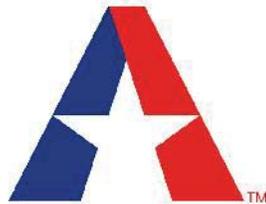


**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554**

In the Matter of)	
)	
Public Notice on Final Report of the)	
Downloadable Security Technical Advisory)	MB Docket No. 15-64
Committee)	
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COMMENTS



**AMERICAN CABLE
ASSOCIATION**

Matthew M. Polka
President and Chief Executive Officer
American Cable Association
Seven Parkway Center
Suite 755
Pittsburgh, Pennsylvania 15220
(412) 922-8300

Mary C. Lovejoy
Vice President of Regulatory Affairs
American Cable Association
2415 39th Place, NW
Washington, DC 20007
(202) 603-1735

Ross J. Lieberman
Senior Vice President of Government Affairs
American Cable Association
2415 39th Place, NW
Washington, DC 20007
(202) 494-5661

Barbara S. Esbin
Cinnamon Mueller
1875 Eye Street, NW
Suite 700
Washington, DC 20006
(202) 872-6811

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TABLE OF CONTENTS

I.	INTRODUCTION AND BACKGROUND.....	1
II.	CONGRESS DID NOT INTEND FOR THE COMMISSION TO INITIATE A RULEMAKING BASED ON THE DEVICE PROPOSAL	4
	A. DSTAC’s Consideration of the Device Proposal Exceeded Congress’s Directive in Enacting Section 106 of STELAR.....	4
	B. There Is No Demonstrable Need for the Commission to Take Further Action to Satisfy the Goal of Section 629.....	6
III.	THE DEVICE PROPOSAL IS DEEPLY FLAWED AND WOULD BE UNDULY BURDENSOME, PARTICULARLY FOR SMALLER MVPDS	10
	A. The Device Proposal Calls for the Use of Standards and Protocols That Do Not Yet Exist.	10
	B. The Device Proposal Requires MVPDs to Re-Architect Their Networks.	13
	C. The Device Proposal Imposes Significant Legal and Regulatory Burdens.	15
	D. The Device Proposal Would Disproportionately Harm Smaller Operators.....	16
IV.	THE DEVICE PROPOSAL WILL RAISE CONSUMER COSTS	20
V.	THE APP PROPOSAL FURTHERS THE GOALS OF SECTION 629 BY SUPPORTING THE EXISTING CONSUMER DRIVEN MARKET FOR RETAIL DEVICES	22
VI.	CONCLUSION.....	24

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REPLY COMMENTS



I. INTRODUCTION AND BACKGROUND

The American Cable Association (“ACA”)¹ hereby submits this reply to comments submitted in response to the Media Bureau’s Public Notice concerning the Final Report submitted to the Federal Communication Commission (“Commission” or “FCC”) by the Downloadable Security Technical Advisory Committee (“DSTAC” or “the Committee”).² The

¹ ACA represents over 800 small and medium-sized cable operators, incumbent telephone companies, municipal utilities, and other local providers of multichannel video programming services, as well as voice and broadband Internet access services. These providers offer service in smaller communities and rural areas, as well as by competing head-to-head with other providers in urban and suburban markets. In aggregate, ACA members pass nearly 19 million homes and serve nearly 7 million homes with one or more services. Half of ACA members have fewer than 1,000 subscribers in total.

² *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64 (rel. Aug. 31, 2015).

Commission must reject the calls by some of commenters to initiate a rulemaking proceeding based on the deeply flawed “Competitive Navigation” System proposal (“Device Proposal” or “AllVid”) included in the final report of DSTAC Working Group 4 (“WG4”).³ The record in this proceeding, including the DSTAC Final Report itself,⁴ overwhelmingly demonstrates that such action would be ill-advised, unnecessary, and particularly harmful to smaller MVPDs.

Both the statutory text and legislative history of Satellite Television Extension and Localism Act Reauthorization Act of 2014 (“STELAR”)⁵ counsel against further Commission action with respect to the Device Proposal. The language of Section 106(d) limited DSTAC’s mandate to the examination and recommendation of downloadable security solutions that would not be unduly burdensome to implement. Yet the Device Proposal is more than a downloadable security solution, and would impose enormous and unwarranted burdens on multichannel video programming distributors (“MVPDs”). Notably, the Senate effectively rejected a legislative proposal that would have directed the Commission to take exactly the action that advocates of the Device Proposal are calling for in this proceeding, strongly suggesting that if the Commission were to proceed in this direction that it would be contravening Congress’s intent. And while the AllVid proponents argue that a rulemaking based on their approach is necessary to further the aims of Section 629 of the Communications Act, commenters on both sides of this

³ See, e.g., *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of the Consumer Video Choice Coalition at 2,3 (filed Oct. 8, 2015) (“CVCC Comments”); Comments of the Computer & Communications Industry Association at 5 (filed Oct. 8, 2015) (“CCIA Comments”); Comments of Public Knowledge at 3 (filed Oct. 8, 2015) (“Public Knowledge Comments”); Comments of the Writer’s Guild of America, West at 2 (filed Oct. 8, 2015) (“WGAW Comments”); Comments of Google, Inc. at 1,4 (filed Oct. 8, 2015); Comments of COMPTTEL at 7 (filed Oct. 8, 2015) (“COMPTTEL Comments”) at 7; Comments of TiVo Inc. at 1 (filed Oct. 8, 2015) (“TiVo Comments”).

⁴ Among the Committee’s consensus view is that “it is unreasonable to expect that MVPDs will modify access networks to converge on a single common security solution,” and that “it is not reasonable to expect that all MVPDs will re-architect their networks to converge on a common solution.” DSTAC Summary Report at 3 (Aug. 28, 2015), available at https://apps.fcc.gov/edocs_public/attachmatch/DA-15-982A2.pdf.

⁵ Satellite Television Extension and Localism Act Reauthorization Act of 2014, Pub. L. No. 113-200, 128 Stat 2059, § 106(d) (2014) (“STELAR”).

debate have illustrated that there is already a vibrant market for retail navigation devices that goes well beyond anything that Congress could have conceived at the time that legislation was adopted.

The record also demonstrates that the Device Proposal itself, which cannot be implemented with existing technology, would place undue burdens on MVPDs. It would impose onerous mandates that would not only require significant effort to implement technically, but would also wreak havoc on MVPDs' ability to meet their existing legal and regulatory obligations. Small operators that face substantially greater technical and financial challenges than their larger counterparts are especially ill-equipped to deal with these costly challenges, particularly in an era when rising programming costs are already forcing the closure of small cable systems throughout the country. Further, the proposal would harm the very consumers that Section 629 is intended to benefit by raising the cost of MVPD service.

In contrast to the Device Proposal, the "Application-Based Service with Operator Provided User-Interface" System proposal ("App Proposal") included in the WG4 report furthers the aims of Section 629 without harming MVPDs and consumers. It allows MVPDs to evolve and innovate at their own pace and in response to consumer demand, rather than requiring the rapid re-architecture of networks that would be devastating for smaller, less-sophisticated MVPDs.

Bearing in mind these realities, the Commission cannot reasonably take action that would entrench the burdensome obligations imposed by the Device Proposal, and should instead take the approach outlined in the App Proposal, which better reflects the needs of consumers.

II. CONGRESS DID NOT INTEND FOR THE COMMISSION TO INITIATE A RULEMAKING BASED ON THE DEVICE PROPOSAL

Section 106(d) of STELAR directed the FCC Chairman to “establish a working group of technical experts representing a wide range of stakeholders, to identify, report and recommend performance objectives, technical capabilities, and technical standards of a not unduly burdensome, uniform and technology- and platform- neutral software-based downloadable security system designed to promote the competitive availability of navigation devices.”⁶

Congress’s direction to the FCC was limited specifically to the examination and recommendation of unduly burdensome solutions for downloadable security. Notably, as many commenters have pointed out, DSTAC itself did not recommend that the Commission adopt technical mandates of any kind, security-related or otherwise.⁷ It did, however, describe the vibrant marketplace for competitive navigation devices that currently exists, demonstrating that there is no need for further action on the part of the Commission.

A. DSTAC’s Consideration of the Device Proposal Exceeded Congress’s Directive in Enacting Section 106 of STELAR.

As the ARRIS Group, Inc. (“ARRIS”) explained in its initial comments, “[t]he AllVid approach fails [STELAR’s] directive in at least two respects – first, it does not relate to the downloadable security mandate set by Congress, and second, it contemplates a solution that would clearly impose significant burdens on MVPDs, particularly smaller MVPDs.”⁸

⁶ STELAR, § 106(d).

⁷ *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of Free State at 1 (filed Oct. 8, 2015) (“Free State Comments”); see also Comments of ARRIS Group, Inc. at 6 (filed Oct. 8, 2015) (“ARRIS Comments”); Comments of AT&T Services Inc. at 2 (filed Oct. 8, 2015) (“AT&T Comments”) (“[T]he DSTAC Report contains no collective recommendation for any further Commission action regarding either security or non-security issues, much less for any new Commission technology mandate.”); Comments of the National Cable and Telecommunications Association at 5,11 (filed Oct. 8, 2015) (“NCTA Comments”).

⁸ ARRIS Comments at 7, n. 14.

DSTAC's statutory mandate was intentionally limited to "those performance objectives, technical capabilities, and technical standards related to designing a downloadable security that further the goals of section 629."⁹ As the Motion Picture Association of America noted, "Congress did not empower the advisory to do anything beyond that."¹⁰ In fact, a legislative proposal that would have required the Commission to initiate a rulemaking on methodologies "for access to a system's programming, features, functions, and services," found insufficient support to move through the Senate Commerce Committee.¹¹

What was included in the statute was a directive that any standards identified by DSTAC not be "unduly burdensome." The Device Proposal fails in this regard because, while it is perhaps not burdensome for retail manufacturers, it is unduly so for MVPDs. As explained by multiple parties and discussed in greater length below, the Device Proposal places enormous burdens on MVPDs to develop, test, and implement all new standards and protocols, requiring the re-architecture of existing networks in order to incorporate as-yet uninvented technologies. In addition to these substantial technical challenges, the functions envisioned by the Device

⁹ *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of the Motion Picture Association of American at 8 (filed Oct. 8, 2015) ("MPAA Comments").

¹⁰ *Id.* See also Free State Comments at 7 ("Methods for disaggregating bundled video programming and menu contents are outside the scope of STELAR's mandate."); see also NCTA Comments at 39 ("Congress did not authorize the FCC to require MVPDs either to change the nature of their services or to facilitate the reassembly of their content into different services 'provided by' third parties rather than MVPDs."); *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of Comcast Corporation at 14 (filed Oct. 8, 2015) ("Comcast Comments") ("[T]he Report goes beyond its congressionally-directed mission by including the AllVid proposal, which would require MVPDs to break apart the programming, features, and functions that make up their distinctive services so any CE manufacturer could then selectively reassemble the parts into a new service using a manufacturer's own interface.").

¹¹ *Id.*; see also Comcast Comments at 14, *citing* John Eggerton, *STAVRA Bill Passes Senate Commerce*, MULTICHANNEL NEWS (Sept. 17, 2014), *available at* <http://www.multichannel.com/news/policy/stavra-bill-passes-senate-commerce/383940>; John Hendel, *Senate Commerce Clears STELA Reauthorization Bill with Little Fanfare*, COMMUNICATIONS DAILY (Sept. 18, 2014); see also John Eggerton, *Amendments for Satellite Bill Teed Up*, BROADCASTING & CABLE (Sept. 15, 2014), *available at* <http://www.broadcastingcable.com/news/washington/amendments-satellite-bill-teed/134062>.

Proposal would interfere with the legal obligations contained in MVPDs' carriage agreements with video programmers, and would significantly impede their ability to comply with existing regulatory obligations.

Because consideration of the Device Proposal exceeded the DSTAC's mandate under STELAR, the Commission should not take any further action to enshrine the inadvisable AllVid approach into its rules.

B. There Is No Demonstrable Need for the Commission to Take Further Action to Satisfy the Goal of Section 629.

Numerous commenters pointed out that the DSTAC Report did not conclude that a rulemaking of any kind is needed to promote the competitive availability of navigation devices.¹² Nor does the record show a marketplace in need of further regulatory intervention. As Comcast explained, “[t]he apps-based approach detailed in the DSTAC Report has already been extraordinarily successful in expanding device options for accessing MVPD services, and those options are only growing.”¹³ WGAW, despite advocating in favor of a rulemaking, also described the “vibrant and competitive market of Internet-connected set-top devices [that] has emerged,” stating: “In only a few years, this market has seen the rise of numerous choices and falling prices, which are hallmarks of competition.”¹⁴ Free State accurately noted that “[m]arket

¹² See, e.g., NCTA Comments at 11 (“The DSTAC Report offers no consensus recommendations that the Commission adopt a technology mandate in a market that today offers unprecedented and growing choices among diverse and rapidly-changing multichannel and online video networks and multiple apps-based approaches for bringing MVPD service to retail devices.”); Free State Comments at 4 (“The critical takeaway from the report by the DSTAC working group is that it did not recommend software and hardware technical mandates for video devices.”); AT&T Comments at 5 (“Not surprisingly, the DSTAC could not and did not report a consensus recommendation regarding either a security solution or a non-security solution to promote the commercial availability of competitive navigation devices.”).

¹³ Comcast Comments at 5.

¹⁴ WGAW Comments at 3. WGAW further observed that “Apple announced in 2014 that it had sold 20 million Apple TVs in the U.S., while Roku has sold 10 million of its devices. Overall one in five U.S. broadband households now owns a video streaming device.”

innovation – not FCC regulation – is responsible for consumers’ enjoyment of [MVPD] and other viewing options, such as Wi-Fi or wireless, mobile devices, tablets, and video game consoles,”¹⁵ proving that “no government proceeding or technology mandate is now needed to foster device competition.”¹⁶

Moving forward with the App proposal would in no way be, as Consumer Video Choice Coalition (“CVCC”) claims, “a failure to fulfill the Commission’s legal mandate.”¹⁷ AT&T is correct that “the present degree of navigation device competition far exceeds what the drafters of Section 629 could have possibly imagined, and without any need for market intervention by the Commission.” Given this environment, TiVo’s claim that the vibrant marketplace for apps does “not measure up to the type of retail competition mandated by Section 629,”¹⁸ simply does not hold water. TiVo takes an unnecessarily narrow view of Section 629’s requirements – one that does not account for the evolution of technology and consumer demand. Commission Clyburn has said that “[a]s the media landscape evolves to reflect consumer demands and innovation, so too must our policies and regulatory regime. This has been a constant refrain for the FCC, as we seek to keep pace with the invariable changes in the global communications market.”¹⁹ An interpretation of Section 629 that favors an approach centered around the traditional set-top box over an approach based on exciting innovations that consumers have

¹⁵ Free State Comments at 2.

¹⁶ AT&T Comments at 11-12.

¹⁷ CVCC Comments at 3

¹⁸ TiVo at 6.

¹⁹ *Promoting Innovation and Competition in the Provision of Multichannel Video Programming Distribution Services*, Notice of Proposed Rulemaking, 29 FCC Rcd 15995, 16047 (2014) (Statement of Commissioner Mignon Clyburn).

already wholeheartedly embraced would unnecessarily constrain further evolution technology and consumer demand.

In contrast, adopting the functional obligations associated with AllVid would lead to the imposition of the kind of stultifying technical mandates that commenters on both sides of the debate have decried. DLNA, for example, warned that any mandates imposed on MVPDs are “likely to be rigid and not evolve over time to incorporate new technologies and approaches,”²⁰ while the Computer & Communications Industry Association (“CCIA”) acknowledged that “technical mandates come with significant costs,” urging the Commission to “adopt an approach that allows technology to evolve and meet consumer demands.”²¹ Comcast pointed out that “the Commission itself has previously acknowledged that imposing technology mandates ‘is perilous because regulations have the potential to stifle growth, innovation, and technical developments at a time when consumer demands, business plans, and technologies remain unknown, unformed, or incomplete,’ and warned of the dangers of ‘fixing into the law the current state of technology.’”²²

Several commenters pointed to the Commission’s disastrous experience with CableCARD, which “forced all competition and innovation to stay within the bounds of what

²⁰ *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of the Digital Living Network Alliance at 4 (filed Oct. 8, 2015) (“DLNA Comments”).

²¹ CCIA Comments at 6, *quoting Video Device Competition; Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Notice of Inquiry, 25 FCC Rcd 4275, 4301 (2010) (Statement of Commissioner Meredith Baker).

²² Comcast Comments at 13; *see also* ARRIS Comments at 8 (“The Commission also needs to be mindful of the costs and risks associated with government-imposed technology mandates.”); NCTA Comments at 11.

CableCARD allowed and disallowed,”²³ as a “cautionary tale” about the dangers of mandates.²⁴ As ACA and others explained, “[t]he integration ban added more than \$1 billion in costs to the price of set-top boxes leased to subscribers by cable operators and slowed the migration of services from analog to digital, but still failed to create a competitive market for retail navigation devices.”²⁵ Smaller cable operators, which typically pay higher prices for set top boxes than larger cable operators and that compete against satellite TV providers who were not subject to the integration ban, were particularly harmed by the integration ban.

Given the current success of a marketplace for retail devices that has evolved at an extraordinary pace, it is unnecessary and inadvisable to enshrine into the Commission’s rules exactly the type of regulatory mandate that is widely recognized to stifle innovation and impose heavy costs.

²³ *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of Verimatrix Inc, at 6 (filed Oct. 7, 2015).

²⁴ ARRIS Comments at 8 (“The Commission’s experience with CableCARD provides a cautionary tale in this regard. CableCARD technology works, but consumer interest in retail CableCARD has been very limited.”).

²⁵ *Media Bureau Seeks Comment on DSTAC Report*, MB Docket No. 15-64, Comments of the American Cable Association at 12 (filed Oct. 8, 2015) (“ACA Comments”); CCIA Comments at 6 (“Referring to lessons learned from CableCARD, former FCC Commissioner Meredith Baker stated: ‘First, our technological mandates come with significant costs. By one estimate, the cost of CableCARD compliance for the cable industry alone – costs passed on to cable consumers – has totaled nearly one billion dollars. Second, we should be careful not to mandate particular technological solutions that would freeze into place the current state of technology.”); Arris Comments at 8: “Given the current marketplace dynamics, new technology mandates would almost certainly miss the mark (much as CableCARD did) at substantial cost to MVPDs and their customers.”); NCTA Comments at 11 (requiring CableCARDS in operator-provided boxes “cost consumers more than a billion dollars, wasted energy, and delayed innovation before it was finally repealed by Congress as an unnecessary failure.”); Free State Comments at 7 (“[T]he Commission should []learn from its experience with CableCARD – a \$1 billion set-top box regulatory regime that few consumers adopted[.]”).

III. THE DEVICE PROPOSAL IS DEEPLY FLAWED AND WOULD BE UNDULY BURDENSOME, PARTICULARLY FOR SMALLER MVPDS

The Device Proposal suffers from serious flaws that should give the Commission extreme pause before using it as the basis of any rulemaking. The proposal is incomplete, relying on standards and protocols that presently do not exist, and that would be obsolete in the marketplace before they are ever fully developed. Further, as ACA explained in its initial comments, the analysis of the proposal put forth in the WG4 report by its advocates, “does not adequately acknowledge the difficulties that MVPDs in general would face in meeting [the necessary] standards and protocols, but in particular does not address the additional challenges that would be faced by smaller operators.”²⁶ Unfortunately, that trend has continued, as comments filed by AllVid proponents once again “failed to examine in any depth the disparate challenges that less technically advanced and financially challenged operators would face in implementing the proposal’s requirements.”²⁷ In short, as AT&T explained the Device Proposal would be hugely expensive, incredibly slow, massively complicated (verging on technically and financially infeasible), and wholly unnecessary.”²⁸

A. The Device Proposal Calls for the Use of Standards and Protocols That Do Not Yet Exist.

The Commission cannot reasonably adopt any rules that would require the implementation of standards and protocols that do not exist, because it has no assurance that such an approach is technically feasible or that its benefits will outweigh the costs. AllVid proponents claim that their approach “would provide MVPDs with flexibility in implementation,”²⁹

²⁶ ACA Comments at 3.

²⁷ *Id.* at 10.

²⁸ AT&T Comments at 22.

²⁹ *Media Bureau Seeks Comment on DSTAC Report*, Letter from John Bergmayer, Senior Staff Attorney, Public Knowledge, to Marlene Dortch, Secretary at 1 (filed Oct. 20, 2015).

and that this “light-touch” regulation “merely creates a standard that MVPDs must support, but does not determine how they must support it.”³⁰ What they fail to mention, however, is that their approach cannot presently rely on specific technical mandates because the standards and protocols necessary to implement their proposal will take years – if not decades – to fully develop and test. It is not surprising, therefore, that the Final Report offered no consensus recommendation for specific mandates to promote the commercial availability of competitive navigation devices. In fact, it did not even make a definitive finding that the AllVid approach is technically feasible at all.³¹

As NCTA explained, the Device Proposal “calls for major inventions for all of the system components outlined in [the] proposal,”³² and for the “creation of dozens of new standards that are not yet developed or implemented.”³³ While the proposal’s advocates assert that the virtual head-end system “can be specified quickly and simply, using mostly off-the-shelf technologies,”³⁴ in reality this approach is “just a theoretical concept” that “has never been deployed in the marketplace, and would require significant development and engineering work to implement.”³⁵ NCTA observed in its comments that AllVid proponents actually conceded as much on several occasions during the DSTAC meetings, making statements such as: “for a lot of the operations that are described by [the proposed] provider interfaces, there might not be a

³⁰ Public Knowledge Comments at 17-18.

³¹ AT&T Comments at 5; see *also* NCTA Comments at 11.

³² NCTA Comments at 21.

³³ *Id.* at 24.

³⁴ Public Knowledge Comments at 18.

³⁵ ARRIS at 6; see *also* AT&T Comments at 20-21 (“[A]lthough the Device Proposal’s proponents purport to agree with the App Approach’s advocates that any solution should not require substantial work by MVPDs to implement, carrying out the Device Proposal would embroil MVPDs, CE manufacturers, standards-setting bodies, and the Commission in numerous, complicated, and lengthy endeavors.”).

current standard that exists that fits the bill absolutely, so a lot of, through this section of the report is just suggestions on technologies that come close to fitting the bill or that could be extended in one way or another to satisfy the requirements within them;” and “right now we have no testing and compliance regimes [called for the AllVid proposal], so these types of operations would have to be defined in the future.”³⁶ The development of new standards and protocols is no simple undertaking, and “[e]ven a single standard can take years to be finalized in standards bodies.”³⁷ The numerous standards required to implement all of the components required by the Device Proposal could easily take a decade or more. As an illustration, DLNA describes VidiPath, a standard that AllVid proponents point to as an example of technology that could hypothetically be adapted to suit their purposes, as “the culmination of a decade’s work, and tens of thousands of man-hours.”³⁸

It is inevitable that, by the time any useable standards are ready for implementation, the market for video programming will look entirely different than it does today, just as today’s marketplace has changed dramatically since the advent of the CableCARD. Given the rapid evolution of technology and consumer demand, it makes no sense to mandate the invention of

³⁶ NCTA at 22-23, *citing*, Transcript of Aug. 4, 2015 DSTAC meeting at 190 (Mr. Love: “Something might have to be extended or created to be able to convey the amounts of rights that’s – are to be reflected in today’s systems. So the rights language is not specified because that would need to take input from the various parties to see what is actually required of them.”); *id.* at 73-74 (Mr. Love: “So for the discovery itself, there’s various Zeroconf protocols ... it’s just one option that can be used to be able to discover a provider interface service on the local network. At that point, you know, whether it was standardized URLs that were as part of the interface or whether the service discovery or the service announcements contained more detailed manifest of the URL’s itself is to be determined.”); *id.* at 75-76 (Mr. Love: “the list of services to be delivered -- the video services themselves, we’re suggesting just delivery, possibly by SML formats. There are other formats that can be used ... So there’s various manifests that you can, or manifest formats, that you can use to describe the service, the video service information. And this is another part that still to be determined.”); *id.* at 80 (Mr. Love: “In some cases, such as unidirectional services like satellites and DBS systems, some sort of other secure authentication would have to be determined”).

³⁷ NCTA Comments at 24.

³⁸ DLNA Comments at 4.

new technologies for the sole purpose of bolstering a model that consumers are increasingly rejecting in favor of the types of innovative services enabled by the App Proposal. As Comcast explained, “[i]n today’s fast-changing video and device marketplaces, AllVid would be the very type of government-imposed, one-size-fits-all technology mandate that has, time and again, proven ineffective and costly to consumers.”³⁹

B. The Device Proposal Requires MVPDs to Re-Architect Their Networks.

Of the commenters that urged the Commission to initiate a rulemaking based on the Device Proposal, only two bothered to address at all the technical burdens that their preferred approach would impose on MVPDs, and both did so only in passing. Google simply claimed that “[t]he competitive navigation solution could be implemented without unduly burdensome changes to MVPD systems,” because “[c]ontent, channels, on-demand offerings, and sequencing could stay the same.”⁴⁰ Public Knowledge asserted that “[t]he virtual head-end system does not require any changes to the operation of the MVPD’s network, systems, or services. If it chooses to, an MVPD may simply deploy a device which acts on the MVPD network just like any of its existing devices[.]”⁴¹

Despite Google’s facile pronouncement, the proposal does in fact require unduly burdensome changes to MVPDs’ systems, and deploying any new device – much less the hypothetical “virtual head-end” contemplated by the proposal – is far from a simple matter. Instead, as AT&T and numerous others explained, “[t]he ‘virtual headends and standardized protocols envisioned by the Device Proposal would require each MVPD to mount a monumental

³⁹ Comcast Comments at 11.

⁴⁰ Google Comments at 5-6.

⁴¹ Public Knowledge Comments at 18.

effort to re-architect and duplicate its networks to expose [the Proposal's] as-yet-undefined interfaces."⁴²

ACA has previously explained that incorporating new navigation devices into an existing network is a complex undertaking.⁴³ To ensure that new devices are compatible with existing equipment, MVPDs must undertake software upgrades at every headend, including complex and expensive changes to their billing systems, and in many cases must upgrade hardware and firmware as well. Complicating matters further is that these components typically vary not only from operator to operator, but also from system to system within an operator's footprint. Incorporating the "virtual headend" device contemplated by the AllVid approach is likely to be substantially more difficult, since it will serve a function unlike any other equipment operated by most MVPDs. The burdens of implementing such an approach extend well beyond the initial expenditures, as operating this parallel network will require ongoing maintenance, permanently raising the costs of operating MVPD service.

⁴² AT&T Comments at 21; *see also* Comcast Comments at 11 ("Under this proposal, MVPDs would be forced to overhaul their networks (notwithstanding the consensus view in the Report that such a requirement is unnecessary) and to develop an undefined piece of equipment[.]"); NCTA Comments at 27 ("[A]lthough DSTAC reached consensus that it is unacceptably burdensome to rebuild all MVPD systems, the AllVid proposal nonetheless would require re-architecting much of the MVPDs infrastructure, from back-office systems, to headends, uplinks, and central offices, delivery platforms, network equipment, content servers, and security components, as well as creating new devices for the home."); ARRIS Comments at 7 ("MVPDs would have to develop a parallel network to support AllVid devices; develop an in-home service device to deliver content to AllVid-compatible devices; and develop a raft of protocols and standards to enable access to disaggregated elements of MVPD service."); MPAA Comments at 7 ("The Device Proposal "would ... impose significant costs, require restructuring of networks, and necessitate standards yet to be developed.").

⁴³ *See Accessible Emergency Information, and Apparatus Requirements for Emergency Information and Video Description: Implementation of the Twenty-First Century Communications and Video Accessibility Act of 2010*, MB Docket No. 12-107, Comments of the American Cable Association at 3-4 (filed Aug. 10, 2015); *Accessibility of User Interfaces, and Video Programming Guides and Menus*, MB Docket 12-107, Comments of the America Cable Association, at 7-8 (filed July 15, 2013).

C. The Device Proposal Imposes Significant Legal and Regulatory Burdens.

The technical difficulties detailed above are far from the only burdens created by the Device Proposal. The legal and regulatory challenges of implementing this approach are very real, very costly, and absolutely must be part of the Commission's analysis of whether an AllVid mandate would be unduly burdensome and thus contrary to Congress's intent in enacting Section 106 of STELAR.

Delivering MVPD services to a subscriber involves a complex web of legal and regulatory obligations that must be factored in to every technical development. For example, "MVPDs and programmers negotiate licensing agreements that detail such terms as the particular channel position, tier placement, acceptable advertising, scope of distribution, security requirements, and presentation of content."⁴⁴ The AllVid proposal would significantly alter the relationship between programmers and MVPDs by "turn[ing] [MVPDs] into delivery vehicles for raw video programming from which AllVid proponents may build their own services, without responsibility to programmers or to the MVPDs to deliver the content as required by contract."⁴⁵ The proposal blatantly permits AllVid services to "ignore the carefully negotiated licensing agreements that establish the terms for the packaging, presentation, and protection of content and give TV content creators the certainty they need to negotiate with advertisers and fund production."⁴⁶

⁴⁴ Comcast Comments at 17.

⁴⁵ NCTA Comments at 31.

⁴⁶ *Id.* at 28-29; see also MPAA Comments at 2 ("[T]he 'Competitive Navigation' proposal makes no commitment to abide by content providers' licensing terms. Third-parties could potentially seek to disassemble the programming, features, and functions offered over distribution services and selectively reassemble some of them for their own commercial exploitation."); Free State Comments at 2 ("New technical mandates regarding downloadable security would displace or even destroy the intricate and interdependent technological systems and business arrangements that shape the video navigation device market.").

The Device Proposal also jeopardizes MVPDs' ability to comply with a variety of regulatory obligations. As Comcast explained, "[r]egulated MVPDs ... must abide by a number of consumer protection regulations when providing their MVPD services such as Emergency Alert System requirements and privacy protections."⁴⁷ AllVid proponents apparently see no need to ensure that these obligations pass through their own service in any enforceable way, so it is clear that the proposal "would undermine significant consumer protection and consumer benefits."⁴⁸

The Device Proposal offers no immediate solution to the problem of ensuring that AllVid services honor MVPDs' obligations, so fixing these problems would require "complex and market-intrusive Commission rulemakings to establish the many device regulatory requirements (e.g., EAS, children's programming, privacy, accessibility, parental controls) and extensive legal obligations (e.g., channel position, tier placement, acceptable advertising, scope of distribution permitted, security requirements, and consistent presentation of branded content."⁴⁹ Renegotiating contracts and navigating regulatory actions imposes significant legal and personnel costs that divert resources away from day-to-day operations and the development of innovative new services. The Commission must take these challenges into account in determining whether any rulemaking based on the Device Proposal is appropriate.

D. The Device Proposal Would Disproportionately Harm Smaller Operators.

As ARRIS observes, "[i]t is important to underscore that [the costs of implementing the Device Proposal] will be particularly burdensome for smaller operators, who can face significant

⁴⁷ Comcast Comments at 19; see also NCTA Comments at 30-32.

⁴⁸ NCTA Comments at 28-29.

⁴⁹ AT&T Comments at 20.

budget constraints in meeting new government mandates.”⁵⁰ The Commission itself has previously recognized that implementing new technical mandates is more difficult for smaller MVPDs than larger MVPDs, and has therefore exempted smaller operators from certain requirements, or given such operators additional time to comply.⁵¹

To the extent that their existing networks are less advanced than their larger counterparts, smaller operators will be particularly disadvantaged by the AllVid approach, as ACA has explained.⁵² While the major MVPDs and some smaller MVPDs have transitioned, or are in the process of transitioning, to IP-delivery, most ACA’s members are still operating analog or hybrid analog/digital networks. These operators may never have the resources to implement the complex standards and protocols that the Device Proposal demands.

Additionally, smaller operators generally do not have the personnel necessary to navigate the legal and regulatory issues created by the Device Proposal. Major MVPDs typically have entire teams devoted to legal and regulatory concerns, as well as the financial resources to work with outside law firms and consultants, but a substantial proportion of ACA’s members have only a handful of employees, each of whom must wear many hats just to maintain daily operations. Expecting these MVPDs, who generally have limited financial resources and who must spread their costs over a much smaller subscriber base, to meet the

⁵⁰ ARRIS Comments at 7.

⁵¹ See, e.g., *Basic Service Tier Encryption*, Report and Order, 27 FCC Rcd. 12786 ¶ 21 (2012); *Accessibility of User Interfaces, and Video Programming Guides and Menus*, Report and Order and Further Notice of Proposed Rulemaking, 28 FCC Rcd. 17330 ¶ 114 (2013).

⁵² ACA Comments at 8 (“[f]or small and medium-sized MVPDs that have not yet reached the same level of sophistication as their larger counterparts, implementing [the Device Proposal] is essentially impossible”).

complex challenges raised by the Device Proposal at a time when rising programming costs have led to the closure of smaller cable systems throughout the country is simply bad policy.⁵³

Rather incredibly, Device Proposal advocates argue that the AllVid approach would actually benefit smaller operators because it would lower the costs of acquiring navigation devices.⁵⁴ TiVo goes so far as to claim that the burdensome and costly CableCARD standard lowered costs for smaller MVPDs by enabling “a variety of set-top box manufacturers ... to supply low-cost boxes to small and mid-sized cable operators thanks to the economies of scale that a nationwide standard allow.”⁵⁵ TiVo’s unsubstantiated claim of overall costs savings for smaller operators fails in two respects: First, TiVo cites the experience of only eight mid-sized cable operators, each of which serves more than 100,000 subscribers, ignoring the more than 800 smaller cable operators and their subscribers that have not seen any material benefits since the Commission adopted the integration ban. Second, TiVo ignores that despite whatever marginal price decreases that a few mid-sized operators may have seen in the last few years from the emergence of a greater variety of set-top box manufacturer selling directly to operators, the CableCARD-ready set-top-boxes that cable operators were required to purchase when the integration ban went into effect were, on the whole, more expensive than the devices that were available for purchase beforehand. In reality, the CableCARD regime, which ultimately resulted in higher costs across the board to operators that were required to purchase non-integrated set-

⁵³ See *generally* Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 15-158, Comments of American Cable Association (filed Aug. 21, 2015).

⁵⁴ See CVCC Comments at 9 (“Robust retail competition would allow manufacturers to take advantage of economies of scale over a larger base of retail navigation device users – ultimately lowering costs for new entrants and other small network operators to acquire innovative navigation devices.”); COMPTTEL at 4 (“The availability of competitive navigation devices is limited for new or small MVPDs. The lack of access at competitive prices to advanced, innovative video navigation devices remains an impediment to new entrants or competitors lacking scale in the MVPD marketplace.”).

⁵⁵ TiVo Comments at 5.

top boxes, “was particularly costly for smaller operators who were least able to absorb the higher costs of new set-top boxes.”⁵⁶

This fact underscores the fundamental failure of AllVid proponents to understand what their proposal would mean to smaller operators; namely, that any minor hypothetical benefits that the proposal might afford small operators are far outweighed by the significant costs associated with its mandates, which includes hastening the shutting down of smaller cable systems that are already under enormous pressures from rising video programming costs. Proposals that will substantially increase the cost of delivering MVPD service must consider the impact of those higher costs on cable operators who operate smaller cable systems. ACA has reported in numerous proceedings that cable operators have been shuttering smaller cable systems over the years. Since 2008, a total of 1,169 smaller cable systems have shut down. As ACA has noted, and the Commission has acknowledged in both its 15th and 16th Video Competition Reports, one of the primary causes of small and rural system closings continues to be increasing video programming costs.⁵⁷ In its latest research paper, “High and Increasing Video Programming Fees Threaten Broadband Deployment,” ACA documented how programming fees have risen rapidly in recent years, at a greater rate than video revenues, and the delta between the two is expected to grow in the future, putting increasing pressure on MVPDs margins, particularly those that are smaller-scale.⁵⁸ Assuming that current market

⁵⁶ ACA Comments at 11-12. In adopting the set-top box integration ban, the FCC adopted no exemptions for small cable systems.

⁵⁷ See Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming, MB Docket No. 14-16, Comments of the American Cable Association at 7-8 (filed Mar. 21, 2014); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 12-203, Sixteenth Report, 28 FCC Rcd 10496, ¶ 70 (2014); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Fifteenth Report, 28 FCC Rcd 10496, ¶ 78 (2013).

⁵⁸ Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN

trends for programming costs and multichannel video revenues continue, video margins for smaller-scale MVPDs will turn negative by 2020.⁵⁹ ACA expects that cable system closings will persist as the erosion of video margins continues.

It should go without saying that policies that hasten the closing of local cable systems do not benefit consumers, even if they do give consumers more options for purchasing set top boxes at retail. Had smaller operators been appropriately represented on the DSTAC, the current reality might have been acknowledged and addressed by the Committee's final report.

IV. THE DEVICE PROPOSAL WILL RAISE CONSUMER COSTS

AllVid proponents all point to the study released by Senators Markey and Blumenthal reporting that the average household pays \$231 per household per year on leased set-top-boxes, adding to a total of \$19 billion across all households.⁶⁰ The inference from this observation is that the Device Proposal would somehow lower consumer costs by allowing MVPD subscribers to purchase and use retail navigation devices that may or may not cost less than the devices leased from their MVPD. In reality, the significant cost increases that would result from implementing the Device Proposal's mandates would far outweigh any marginal savings that consumers might enjoy from owning a retail set-top box.

As described above, much of the cost increases created by the Device Proposal would stem from the research, development, installation and testing of the all new protocols and equipment envisioned by the proposal. The AllVid approach would force MVPDs "to overhaul

Docket No. 14-126, Reply Comments of the American Cable Association on the Notice of Inquiry on Immediate Action to Accelerate Deployment, Appendix at 5-8 (filed Apr. 6, 2015) ("ACA Video Study").

⁵⁹ ACA Video Study at 7.

⁶⁰ CVCC Comments at 1, 2, 4, 5, 12, 13; Public Knowledge Comments at 4; CCIA at 3; WGAW Comments at 1; COMPTTEL Comments at 8; TiVo at 7-8.

their networks ... and to develop an undefined piece of equipment – all, ultimately, at great costs to consumers.”⁶¹ These costs would be spread across all MVPD subscribers, who would be forced to pay higher service rates “whether or not they wanted to buy an AllVid device.”⁶²

Further, the in-home devices themselves are likely to be very costly, the leasing fees for in-home “virtual headends” are likely to equal or even exceed the current cost of leasing a set-top box. And while AllVid advocates argue that their proposal would lower switching costs, “as consumers could change service providers without being forced to switch navigation devices,”⁶³ in reality any existing switching costs would still apply, as the virtual headends necessary to convert a specific MVPDs’ service to a format that is useable by the retail set-top box would still need to be replaced whenever a subscriber changed providers. In addition, according to the Annual Report of the Voluntary Agreement for Ongoing Improvement to Energy Efficiency of Set-Top Boxes, “these additional devices would add more than \$1.6 billion to residential electric costs and nine million metric tons of additional greenhouse emissions each year.”⁶⁴

It is unreasonable to ask consumers to bear the Device Proposal’s substantial costs, particularly since there is no evidence of the “pent up demand” for retail set-top boxes that WGAW claims to exist.⁶⁵ While CVCC argued that “we cannot predict what consumers will do when they have choices,”⁶⁶ it is readily apparent that consumers will not appreciate the

⁶¹ Comcast Comments at 11.

⁶² NCTA Comments at 27.

⁶³ CVCC Comments at 9.

⁶⁴ NCTA Comments at 54.

⁶⁵ WGAW Comments at 3.

⁶⁶ CVCC at 5.

substantial rate raises that would be necessary to offset the cost of implement this ill-conceived approach.

V. THE APP PROPOSAL FURTHERS THE GOALS OF SECTION 629 BY SUPPORTING THE EXISTING CONSUMER DRIVEN MARKET FOR RETAIL DEVICES

The Commission can best fulfill the goals of Section 629 by allowing the market for retail devices to continue its organic evolution, as contemplated by the App Proposal. While the Device Proposal creates significant challenges for MVPDs and consumers alike, the App Proposal allows for the seamless integration of innovative new devices without requiring MVPDs to undertake the unplanned re-architecting of their networks, or interfering with their legal and regulatory obligations.

First, the App Proposal poses no immediate technical burdens, allowing MVPDs to evolve at their own pace according to their technical capabilities and their subscribers needs. The Device Proposal “ignores how networks ... operate and assemble service in non-uniform ways in order to optimize each network architecture,”⁶⁷ whereas the App Proposal “accommodates the wide variety in network architectures deployed by MVPDs today.”⁶⁸ Without the need to accommodate burdensome standards, MVPDs can continuously asses and adapt their network configurations in order to maximize bandwidth and provide cost-effective service. In contrast to the Device Proposal, which would force smaller MVPDs in particular to rapidly overhaul their networks before they are financially or technically prepared to do so, the App approach allows for the incremental changes need to effect a successful IP transition.

⁶⁷ NCTA Comments at 34.

⁶⁸ ARRIS Comments at 5.

The App Proposal allows MVPDs to ensure that services offered over a retail device comply with all necessary regulatory obligations, including requirements related to “privacy, accessibility, children’s programming, Emergency Alert Service (“EAS”), and parental controls.”⁶⁹ Unlike the Device Proposal, the App Proposal does not interfere with MVPDs’ agreements with programmers, ensuring that service delivered through a third party device is consistent “with the myriad copyright, content license, and retransmission consent requirements (such as channel position, tier placement, acceptable advertising, scope of distribution permitted, security requirements, and consistent presentation of branded content) under which [MVPDs] acquire distribution rights.”⁷⁰

By enabling “rapid innovation in business models, platforms and products,”⁷¹ the App Proposal can help lower consumer costs by allowing MVPDs to develop leaner offerings and make more efficient use of their networks. Because the App Proposal does not “require long timeframes for standardization of APIs” to enable new features,⁷² MVPDs can “quickly deploy new services and feature upgrades through automatic app updates as the service evolves, without the need to change out equipment or a tech visit.”⁷³

The superiority of the app approach is demonstrated by the enthusiasm with which it has been adopted by consumers. With consumers downloading millions of MVPD apps every month, it is clear that, as ARRIS put it, “the model whereby a consumer acquires all of their TV

⁶⁹ AT&T Comments at 14-15; see *also* Comcast at 10 (Apps can “fully implement all of the requirements set out in [MVPDs’] agreements with programmers, such as those regarding geographic restrictions, copy restrictions, and the display and branding of content.”); NCTA at 17-18, 40-41.

⁷⁰ *Id* at 14; see *also* Comcast Comments at 10; NCTA at 18.

⁷¹ NCTA Comments at 20.

⁷² AT&T Comments at 13.

⁷³ Comcast Comments at 9.

entertainment from an operator-provided set-top box has evolved to a new reality where video is widely available via downloadable apps on tablets, smartphones, smart TVs, game consoles, PCs, and other customer-owned devices.”⁷⁴ Given the success of this approach, there is no need for the Commission to take further action in furtherance of Section 629.

VI. CONCLUSION

The Commission must reject the premature calls to adopt a rulemaking based on the incomplete and deeply flawed Device Proposal. The limited mandate of Section 106 of STELAR, combined with the record in this proceeding, simply does not support further action by the Commission. The aim of Section 629 to encourage a competitive market for retail navigation devices has been fully realized, as consumers today have more choice in video products and services than ever before. Given the thriving market that exists today, it makes little sense to adopt new rules that would impose heavy burdens on all MVPDs, and smaller MVPDs in particular, while also raising consumer costs across the board. The DSTAC Final Report offers the Commission a simpler and less burdensome approach in the App Proposal, which consumers have embraced enthusiastically and which leaves the door open for future consumer- and technology-driven innovations.

⁷⁴ ARRIS Comments at 2.

Respectfully submitted,

AMERICAN CABLE ASSOCIATION

By:  _____

Matthew M. Polka
President and Chief Executive Officer
American Cable Association
Seven Parkway Center
Suite 755
Pittsburgh, Pennsylvania 15220
(412) 922-8300

Mary C. Lovejoy
Vice President of Regulatory Affairs
American Cable Association
2415 39th Place, NW
Washington, DC 20007
(202) 603-1735

Ross J. Lieberman
Senior Vice President of Government Affairs
American Cable Association
2415 39th Place, NW
Washington, DC 20007
(202) 494-5661

Barbara S. Esbin
Cinnamon Mueller
1875 Eye Street, NW
Suite 700
Washington, DC 20006
(202) 872-6811

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