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

In the Matter of	)	
	)	
Expanding Consumers' Video Navigation Choices	)	MB Docket No. 16-42
	)	
	)	
Commercial Availability of Navigation Devices	)	CS Docket No. 97-80

REPLY COMMENTS
OF
NTCA–THE RURAL BROADBAND ASSOCIATION

May 23, 2016

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I. INTRODUCTION & SUMMARY

NTCA–The Rural Broadband Association (NTCA)[1] hereby submits reply comments in response to comments filed on the Notice of Proposed Rulemaking released on February 18, 2016 in the above-captioned proceedings.[2] The NPRM seeks comment on how to create a commercial market for devices manufactured by third parties that can access multichannel video programming and other services offered over multichannel video programming (MVPD) networks.

The comments from a large and diverse collection of industry representatives, content creators, and other stakeholders reflect an overwhelming sentiment that the Commission should abandon the technology mandate proposed in the NPRM. As the record demonstrates, the

[1] NTCA represents nearly 900 rural rate-of-return regulated telecommunications providers (RLECs). All of NTCA's members are full service local exchange carriers and broadband providers, and many of its members provide wireless, cable, satellite, and long distance and other competitive services to their communities. More than 80% of NTCA's members offer video services in their rural service territory.

[2] *Expanding Consumers' Video Navigation Choices*, MB Docket No. 16-42, *Commercial Availability of Navigation Devices*, CS Docket No. 97-80, Notice of Proposed Rulemaking and Memorandum Opinion and Order, FCC 16-18 (rel. Feb. 18, 2016) (NPRM).

standards body process proposed by the Commission will inevitably lead to a technology mandate that will impose unnecessary costs on MVPDs, freeze-in-place technology for a set-top box that is already on a rapid descent into antiquity and irrelevance, and ultimately harm the very innovation that the Commission repeatedly promotes as its end goal. In the end, the wholesale reengineering of MVPD networks that will be necessary should this proposal go forward will, at the very least, place a two-to-three-year "pause" on innovation in the MVPD and consumer device marketplaces while parties await the centrally-managed emergence of new technology standards. After that standard is (or standards are) finally released, the costs of compliance will be significant and will divert resources that could be better spent on improving the quality of networks and delivering new and innovative services to subscribers.

In addition, as a number of content creators state, the NPRM's proposals are flatly inconsistent with copyright law and threaten to undermine their incentive and ability to create the vast array of content consumers enjoy today. Although a number of proponents of the NPRM's proposals have characterized the copyright issues as a "red herring," content creators—parties that have no real "skin in the game" when it comes to what party (MVPD or a third-party) is the conduit to the consumer—have themselves have raised this issue. Their concern is not about who makes the device but whether their content is secure from copyright violation, and the Commission should not and cannot breeze past these very real concerns.

Moreover, MVPDs, content creators, and even one prominent supporter of the NPRM's proposals agree that it is severely lacking in terms of protecting consumers' privacy. Given that the Commission is conducting a concurrent proceeding to examine additional privacy protections for consumers with respect to similar types of personal data, it is curious—and concerning—why the NPRM fails to pay any respect to such concerns here as well.

Beyond the flawed policy underpinning the NPRM's proposals, a large and diverse group of parties concur that requiring MVPDs to create three "Information Flows" and make them available to third-party manufacturers of navigation devices would exceed the scope of the Commission's authority under Section 629 of the Communications Act. In an attempt to escape the limited bounds of its statutory authority, the Commission attempts to creatively redefine the "services" provided by MVPDs as well as suddenly declare that Congress somehow intended the term "equipment" to include software. Such action by the Commission is inconsistent with Section 629's plain language and represents an attempt to rewrite the statute in a manner that the Commission wishes Congress had in the first place.

Finally, even as a small MVPD exemption from the NPRM's proposals would be critical to ensure that a number of small MVPDs are not forced to exit the market due to the compliance costs, any mandate ostensibly made applicable *only* to large and mid-size MVPDs will almost certainly "trickle down" to smaller providers as well. This is especially true considering the fundamental reengineering of MVPD networks and set-top devices and the technology necessary to connect the two that will result from adoption of the proposal. As manufacturers respond to the new technical mandate in service of their larger MVPD customers, the network and device technology used by small MVPDs will become outdated, thus forcing such providers to incur the costs of adherence too. One possible alternative approach, in addition to an exemption of some duration, could be a follow-on small company-specific implementation schedule. Under such a process, small MVPDs should be given no less than three years *after* a determination has been made that competitive set-top box devices have reached a requisite market penetration threshold. Such a delayed implementation schedule would ensure that small MVPDs can move towards implementation once the standards body process has been completed and the market that results

is close to maturity, saving them from the consequences of choosing a standard ultimately rejected by the market.

II. A LARGE AND DIVERSE GROUP OF PARTIES RECOGNIZE THAT THE NPRM'S PROPOSALS WILL INEVITABLY CREATE A TECHNOLOGY MANDATE, ARE UNNECESSARY IN LIGHT OF TODAY'S VIDEO MARKET, AND WILL BE DETRIMENTAL TO THE INNOVATION THAT THE FCC CLAIMS TO SEEK

As NTCA discussed in its initial comments, the standards body process proposed in the NPRM will result in a technology mandate for MVPDs of all sizes, imposing unreasonable burdens on small providers in particular.[3] To recap briefly, this process will lead to either (1) a single technology standard that would apply to MVPDs of all sizes and utilizing any technology or (2) multiple standards from which equipment vendors and MVPDs would need to choose in reengineering their networks to make them available to third-party device manufacturers. Either outcome is problematic. The "single-standard" approach, even if positioned as a "technology-neutral" method of compliance, would run counter to the assertion that this proceeding will not result in a technological mandate because it will require MVPDs to either modify existing technologies or acquire new ones at substantial expense.

The other possible outcome (a "multiple-standards mandate") is fraught with problems as well. While on its face such a choice among a menu of standards might be perceived as offering "flexibility" or "choice" to MVPDs, such an approach poses a particular danger to smaller MVPDs. The creation of the Blu-ray versus HD DVD standards or the emergence of the competing VHS versus Betamax technology standards serve as useful examples here. In both instances, the emergence of competing standards for consumer-owned devices for viewing video in the home led to a multi-year process the culmination of which was an eventual

[3] Comments of NTCA, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), pp. 3-7.

"winner."[4] In the end, some parties "chose wrong" and invested in one technology only to watch the other emerge as the market's preference. If small MVPDs were required to come into compliance with the NPRM's proposals by adopting one of several standards while the market is still "settling on" which of the various standards is most effective, the results could be disastrous for some providers. These providers could invest in complying with one standard only to find that the market settles on another, thereby requiring these small carriers to once again make substantial, costly modifications to their MVPD networks.

Comments filed in response to the NPRM confirm that, despite any protestations to the contrary, the Commission is clearly adopting a technology mandate in this proceeding. NCTA perhaps sums it up best, stating that "[d]espite its claim that it is avoiding technical mandates and deferring to an open standards body, the NPRM rejects the apps-based approach that has been the choice of TV standards groups, Internet standards groups, CE device manufacturers, content providers, and technologists worldwide."[5] This "apps approach" is already providing consumers with a dizzying and rapidly expanding number of options for accessing the video content of their choice, *on the device of their choice*, and at the time and place of their choosing. And it promises to produce much more. Yet, the Commission's rejection of this technological evolution in favor of a mandated standard will "put the brakes" on this apps revolution and compel continued focus on a set-top box platform that consumers are increasingly rejecting.

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[4] *Format Wars: Blu-ray vs. HD DVD*, Endgadget.com (Jun. 7, 2014), available at: http://www.engadget.com/2014/06/07/format-wars-blu-ray-vs-hd-dvd/.; Betamax vs. VHS: How Sony Lost the Original Home Video Format War, Gizmodo (Jun. 17, 2014), available at: http://gizmodo.com/betamax-vs-vhs-how-sony-lost-the-original-home-video-1591900374

[5] Comments of the National Cable & Telecommunications Association (NCTA), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), pp. 8-9.

There is perhaps no better testament to the unnecessary nature of the NPRM's proposals in light of consumer demands than the April 20, 2016 announcement that Comcast is making its *full* MVPD lineup available via both Roku boxes and certain smart televisions.[6] Of course, as is clear from the record in this proceeding, this announcement is merely the latest in an evolving device market that has increased consumer choice consistent with the goals of Section 629.[7] At the very least, the Commission should consider whether these developments, all of which are part of a growing trend away from the set-top box, are evidence that the market is already realizing the promise of Section 629, thereby rendering unnecessary further regulatory intrusion or technical mandates.

In addition to being unnecessary in light of today's evolving market, as a number of commenters also point out, previous Commission mandates in this space have not successfully produced the results intended.[8] As DISH correctly states, "it is no surprise that the

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[6] *Comcast Fires Back at FCC by Making TV Service Available Without a Set-Top Box***,** Wall Street Journal, April 20, 2016, available at: http://www.wsj.com/articles/comcast-fires-back-at-fcc-by-making-tv-service-available-without-a-set-top-box-1461188283.

[7] Comments of the American Cable Association (ACA), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 19 ("To offer their subscribers a more diverse range of options, many smaller MVPDs have deployed innovative new set-top boxes that provide customers with access to over-the-top services alongside their pay-TV offerings"); Comments of AT&T, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 6 ("DIRECTV, U-verse TV, and all other top 10 MVPDs have introduced device-specific TV Everywhere apps to enable subscribers to access their video content and services over the commercially available navigation devices of their choice (e.g., iOS, Android, Samsung, LG, Xbox, PlayStation, Roku)."); Comments of CenturyLink, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 17 ("One need look no further than the NPRM to find, by the Commission's own admission, that 'consumers have downloaded MVPD Android and iOS applications more than 56 million times, more than 460 million IP-enabled devices support one or more MVPD applications, and 66 percent of them support applications from all of the top-10 MVPDs.'"); Comments of Comcast Corp. and NBCUniversal Media (Comcast), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 26 ("Comcast customers used [the MVPD's] apps and Xfinity TV website and portal to watch nearly 500 million hours of video in 2015 alone (up 51% in just one year).").

[8] Comments of EchoStar Technologies L.L.C. and Dish Network, L.L.C. (DISH), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 5; Comments of Verizon, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2; AT&T, p. 32; CenturyLink, p. 24; ACA, p. 6.

Commission's CableCARD regime – based on static technology and an instantly out-of-date understanding of consumer desires – did not engender the explosion of third-party navigation devices hoped for by the Commission."[9] CableCard is of course not the only disastrous attempt to impose a technology mandate under the guide of Section 629. Cox points to the fifteen-year long "'trial-by-error' attempts to boost a retail set-top box market"[10] that led Cox (as well as MVPDs of all sizes) to expend substantial sums complying with technology standards ultimately found to be a failure by policymakers, MVPDs, and consumers alike.

Perhaps most importantly, as a number of parties point out, a Commission mandate in this proceeding will stifle the very innovation that has brought consumers the vast array of choices they enjoy today and that the Commission claims to want.[11] ROKU offers a telling analysis from the perspective of a device manufacturer when it states:

> The proposed rules carry a very real and significant risk of impeding the innovation that is occurring today by replacing today's market-driven advances that are expanding consumer choice with a lengthy rule making and standard-setting process. Furthermore, the proposed rules could force industry participants to conform to a single *de facto* standard that will squeeze out novel products and services that would otherwise emerge using alternative standards and technologies.[12]

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[9] DISH, p. 5, citing *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 30 FCC Rcd. 3253, ¶ 330 (2015) ("*2015 Video Competition Order*") ("Consumer adoption of retail CableCARD-compatible devices has not matched the Commission's expectations.").

[10] Comments of Cox Communications, Inc. (Cox) MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 3.

[11] Comments of the Free State Foundation, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 11 ("But the proposed regulations replace 'permissionless innovation' with a Commission permission approach that ignores the conditions of market freedom that lead to technological and consumer welfare-enhancing breakthroughs."). *See* also, Comments of the International Center for Law & Economics, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2; Comments of the Institute for Policy Innovation (IPI), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 3; CenturyLink, p. 22; ACA, p. 11.

[12] Comments of ROKU, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2.

MVPDs will be uniquely affected in terms of a stifled ability to innovate. Specifically, as AT&T states, should the Commission move forward with its standards-setting process, providers would be able to "introduce *new* services only if they conform to a format that allows their delivery across the standardized interface."[13] As AT&T goes on to note, because the "standardized interface will be fixed in time, any new services will be required to conform to this interface, even if more efficient and advanced capabilities have subsequently been developed."[14] In other words, a frozen-in-time standard and the need to make certain that any new product or service conforms to it and can be delivered over any third-party device will replace the rapid innovation that exists today, under which MVPDs can introduce new products and services at a moment's notice and let the market determine their fate. AT&T goes on to state that, "[e]ven in the best-case scenario, innovative services from MVPDs and others will be delayed while they are adapted to the single standard."[15] Even as MVPDs will be bogged down by such a process, as Comcast correctly notes, "[m]eanwhile Netflix, Amazon, and all other video app developers would be free to automatically update their apps through seamless software updates or through a new version to be downloaded in order to make innovative services available to their customers."[16]

In the end, by demanding that business be done in a certain way pursuant to centrally-mandated standards on a device that only certain parties (and increasingly fewer consumers) want to use, the Commission will be picking winners and losers in the race to develop the most

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13 AT&T, p. 31. (Emphasis added).

14 *Id*.

15 *Id*.

16 Comcast, p. 69.

innovative new services between MVPDs and edge providers and other app developers. Put another way, the "virtuous cycle of innovation," in which "innovations at the edges of the network enhance consumer demand, leading to expanded investments in broadband infrastructure that, in turn, spark new innovations at the edge"[17] will turn into a one-way street in the video market, as only one Commission-preferred class of entities in that market will be able to actually innovate.

III. A LARGE AND DIVERSE GROUP OF PARTIES AGREE THAT THE NPRM'S PROPOSED TECHNOLOGY MANDATE WILL IMPOSE SIGNIFICANT COSTS ON MVPDS, DIVERTING CAPITAL THAT COULD BE BETTER SPENT ELSEWHERE

MVPDs of all sizes echo NTCA's concern that the NPRM's proposals will impose substantial costs in terms of providing the three designated "Information Flows" to competitive device manufacturers.[18] These compliance costs would be better spent on improving the quality of MVPDs' networks and introducing new services that respond to consumer demand.

As an initial matter, it must be repeated[19] that quantifying the exact nature of the network modifications (specific hardware, software, and/or middleware modifications, for example) and the financial cost thereof arising out of the NPRM's proposals is difficult because no standard has been adopted and no technology actually exists as a tested and available option for meeting the proposed mandate(s). The American Cable Association confirms this, stating that:

> despite extensive examination of the requirements and their impact, including by conducting a lengthy interview process with its members, ACA was unable to

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17 *Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling and Order, FCC 15-24 (rel. Mar. 12, 2015), ¶ 7.

18 Comments of ITTA, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), pp. 13-14; Comments of the United States Telecom Association (USTelecom), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 9; ACA, pp. 39-52; Comcast, pp. 61-64.

19 NTCA, pp. 7-14.

> develop a precise picture of the total costs smaller MVPDs would incur to disaggregate their networks to provide the required information flows and a compliant security system. [I]t became clear that *the Commission's proposal depends primarily on undefined requirements and technologies that are incomplete or have a track record of failure*. Thus, implementation of the proposal presents a highly uncertain development path that may drive unknown and potentially substantial costs for MVPDs.[20]

This highlights the very real danger in the Commission's approach, which is to adopt a mandate before a standard and the technology to comply with it exists: under these circumstances, even the expert regulatory body charged with implementing a congressional directive—in this case Section 629 of the Act—cannot claim to understand the implementation burden of its own proposal and cannot adequately judge whether the costs and the benefits of its proposals merit further action or a different approach. A more thoughtful public interest analysis that includes a comprehensive and *informed* balancing of all of the costs and benefits is needed to assess whether the NPRM's proposals will meet or undermine the goals of innovation and consumer choice. Yet, under the approach as laid out in the NPRM, the Commission may never know these impacts until it is too late and hundreds of millions of dollars are spent by MVPDs and equipment manufacturers attempting to make this process work.[21]

That said, commenters confirm that, under any scenario, a wholesale reengineering of MVPD networks will be necessary to make the three proposed "Information Flows" as defined by the NPRM available to third-party device manufacturers. ACA here too offers constructive feedback, detailing the many categories of costs that small MPVDs will likely incur, including

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[20] ACA, p. 39 (emphasis added).

[21] CenturyLink, p. 24 ("The CableCARD mandate cost the cable industry over $1 billion dollars in unnecessary costs.").

gateway and security system costs as well as the costs of conducting the proper testing.[22] AT&T notes as well that MVPDs will be required to "upgrade or replace devices, as well as modify their networks – including back-office systems, headends, uplinks, central offices, delivery platforms, network equipment, content servers, and security components"[23] to comply with the "Information Flows" proposal. In addition, as ARRIS correctly notes "[g]iven the diversity and complexity of various providers' access network technologies and devices…MVPDs would have to alter their networks to support and serve third-party devices and apps using an entirely different format that conforms to the Commission's yet-to-be-determined standard."[24] Similarly, ARRIS goes on to state that "MVPDs may also need to develop additional in-home equipment in order to support any new standards and third-party devices and apps."[25] Comcast too, notes that an MVPD provided in-home device may in all likelihood be necessary to ensure the proper functioning of third-party devices.[26]

This discussion highlights the lack of technological foundation upon which the NPRM's proposals are based. As Comcast correctly notes, the "*Notice* – without any record support – says that no such [additional in-home] equipment will be required."[27] Reasoned decision-making should dictate that such an unsupported assertion—much like the vague assurances by certain parties that "virtual headends" will offer some sort of panacea—does not form the

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22 ACA, pp. 52-54.

23 AT&T, p. 55.

24 Comments of ARRIS Group, Inc (ARRIS), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 10.

25 *Id*., pp. 10-11.

26 Comcast, p. 64.

27 *Id*., citing NPRM, ¶ 46.

foundation of a Commission rulemaking. Yet, the NPRM blithely dismisses important considerations such as whether technological claims made by proponents of its proposals can be backed up and whether MVPDs' discussions as to the costs that they will incur are in fact legitimate. This, much like the "cart before the horse" nature of this proceeding in which a mandate would be adopted before the technology to implement it even exists, calls into question whether the Commission has fully considered the implementation burden and can properly weigh the costs and benefits of its proposal.[28]

IV. A LARGE AND DIVERSE GROUP OF PARTIES REJECT THE NPRM'S PROPOSALS AS CONTRARY TO COPYRIGHT LAW AND INADEQUATELY CONCERNED WITH EITHER CONTENT SECURITY OR THE IMPORTANCE OF THE ADVERTISING REVENUE THAT ENABLES VIDEO CONTENT TO BE CREATED IN THE FIRST PLACE

As a number of content creators demonstrate, the NPRM's proposals are flatly inconsistent with copyright law and threaten to undermine their incentive and ability to create the vast array of content consumers enjoy today.[29] Content creators commenting on the proposal also note the increased opportunity for piracy that the NPRM's proposals would create.

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[28] Comcast goes on to state, in reference to the MVPD provided in-home device it states will be necessary to enable third-party set-top boxes to work that, "s[]uch a gateway device does not exist today, so Comcast and other MVPDs would have to incur costs for developing a new device that could implement the standardized Information Flows contemplated under the Commission's proposal. Moreover, requiring customers to lease or buy such a device would be directly contrary to the Commission's goal of reducing reliance on leased devices and transitioning to "boxless" offerings, and would only increase consumer costs. It would also have the effect of significantly increasing consumer energy consumption and energy costs for consumers, undermining the progress the industry has made in this area. *It bears emphasis that the existing apps-based model already achieves this goal and can be supported without the need for new equipment or additional network capacity.*" Comcast, p. 67 (emphasis added).

[29] Comments of the Motion Picture Association of America and SAG-AFTRA (MPAA/SAG), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2; Comments of Tower of Babel, LLC, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2; Comments of the Creators of Color, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 1; Comments of the Directors Guild of America and the International Alliance of Theatrical Stage Employees (Directors Guild), MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 4; Comments of the Independent Film &

The Motion Picture Association of America and the Screen Actors' Guild perhaps sum up these specific concerns better than any party, stating that, "[e]ven if one believes that the marketplace for MVPD set-top boxes is not sufficiently competitive, the answer cannot be for the FCC to violate copyright policy, or to make it easier for pirates to build a business based on content theft."[30] Unfortunately, as a number of content creators state, the NPRM's proposals do not sufficiently protect their legitimate and legally protected interests in the content they create and provide to MVPDs through legally enforceable contractual agreements.[31] While the NPRM states that "unaffiliated vendors…must respect licensing terms regarding copyright, entitlement, and robustness,"[32] and that "nothing in our proposal will change or affect content creators' rights or remedies under copyright law,"[33] the NPRM fails to include "any legal mechanisms by which the terms of the license and production agreements underlying the content offered by MVPD's will be carried forward and become binding upon third-party set-top box manufacturers, with whom there is no contractual relationship."[34] In short, the Commission's repeated assertions that copyright law should allay content creators' concerns ring hollow, as the lack of contractual privity between contents creators and third-party device manufacturers leaves litigation and all of its attendant costs and uncertainties as their only recourse. As Comcast correctly states:

Television Alliance, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 3; Comments of Independent Content Creators, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2.

30 MPAA/SAG, p. i.

31 Independent Content Creators, p. 1; MPAA/SAG, pp. 4-12; Independent Film & Television Alliance, pp. 4-5.

32 NPRM ¶ 29.

33 *Id*., ¶ 80.

34 Independent Film & Television Alliance, p. 5.

> Chairman Wheeler's initial response that program licensing arrangements should somehow remain "sacrosanct and untouched" simply because "copyright law remains in place" does little to allay these concerns and underscores how the Commission's proposal would introduce new risks of harm *while leaving the legal system to clean up the mess through litigation*.[35]

Content creators and MVPDs also rightly raise the content security flaws that the NPRM's proposals expose. For one, the proposed "compliant security system" requirement "potentially forecloses [Digital Rights Management] and other options that may do a superior job of securing video and meeting the demands of programmers, but are not licensed on [reasonable and non-discriminatory] terms."[36] In addition, while the NPRM seems to endorse Digital Transmission Content Protection (DTCP) as a viable option for ensuring content security, MPAA/SAG discuss at length its flaws,[37] and point out that the "new version of DTCP has not yet been subject to any public discussion or review, so no one can credibly make any assumptions about its capabilities."[38] Again, much like the ill-defined "virtual headend" scheme that has been touted as a salvation for the "non-security elements" of the NPRM's proposals, the Commission cannot "wish its way" past significant concerns about whether its proposals actually work as a practical, real-world matter to secure content.

Although a number of proponents of the NPRM's proposals have characterized the copyright issues as a "red herring,"[39] it is telling that such concerns are raised most vocally not

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35 Comcast, p. 49. (emphasis added).

36 *Id*., p. 87.

37 MPAA, pp. 24-25.

38 *Id*, p. 24.

39 *Cable Companies Are Hiding Behind Copyright to Keep You Paying Rental Fees*, Motherboard, May 13, 2016, available at: http://motherboard.vice.com/read/cable-box-rental-fees-fcc-copyright; *The FCC's Plan To Unlock Your Set-Top Box Is About Competition, Not Copyright*, Electronic Frontier Foundation, April 6, 2016, available at: https://www.eff.org/deeplinks/2016/04/new-rules-pay-tv-set-top-

by MVPDs, but rather by content creators themselves. These entities have no real "skin in the game" when it comes to what party (MVPD or a third-party) supplies the device by which to access content. Their sole concern is with the security of the content they create and whether their copyrights in such content are respected, and thus any costs imposed on MVPDs to comply with the NPRM's proposals would seem of little concern to such parties *if* the security elements of the proposal met their expectations. Thus the Commission should not and cannot breeze past the very real copyright and content security concerns raised by content creators.

In addition to pointing out specific flaws in the security proposals contained in the NPRM, as both the MPAA and Comcast note, the proposed "reasonable and nondiscriminatory" requirement is likely to stall innovation in the content security market. Comcast correctly points out that content security vendors will have less incentive to create new security technology that must be licensed on reasonable and nondiscriminatory terms rather than on terms dictated by the market.[40] Moreover, the proposed "parity" provisions will delay MVPDs in terms of upgrading their security technologies, as they will be required to wait until those changes can also be implemented by third party device manufacturers.[41] This will slow down innovation in this market as well.

Finally, as a number of parties state, the NPRM fails to sufficiently consider the potential for and implications of device manufacturers overlaying their own advertisements onto their

boxes-are-about-innovation-and-competition-not-copyright; Comments of Public Knowledge, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), pp. 10-12.

[40] Comcast, p. 88.

[41] NCTA, p. 99.

device specific user interfaces.[42] As NTCA noted in initial comments, the NPRM does not solicit comment on these concerns even though such matters were clearly flagged by the Downloadable Security Technology Advisory Committee Final Report. As the Independent Content Creators state, "extra advertising would necessarily weaken the impact and value of the existing native ads in the underlying program feed, diminishing what advertisers will be willing to pay for placements in our programming."[43] This concern, much like the copyright and content security issues discussed above, at their core go to the value of video content and the advertising and other revenues that such content produces. As has been said by a few parties, we have entered a "Golden Age of Television,"[44] and the depth and diversity of video content available to consumers is breathtaking in addition to being available just about anywhere and anytime a consumer chooses. Much of this depends on the advertising revenue that content creators earn for their product, revenue that as with any business enterprise is reinvested in new and innovative products and services (in this case additional programming for consumers to enjoy). Unfortunately, the Commission's scant attention to the potential for advertising revenues to diminish threatens the continued expansion of the very content that is at issue here in terms of how it is accessed by consumers.

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[42] Comments of Revolt Media, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), p. 2; Directors Guild, p. 6; Independent Content Creators, p. 2; Independent Film & Television Alliance, p. 6; MPAA/SAG, p. 6; Tower of Babel, p. 2; Creators of Color, p. 2.

[43] Independent Content Creators, p. 2.

[44] MPAA/SAG, p. 1; Comcast, p. 3.

V. A LARGE AND DIVERSE GROUP OF PARTIES REJECT THE NPRM'S PROPOSALS AS INCONSISTENT WITH THE CONCEPT OF CONSUMER PRIVACY

MVPDs, content creators, and even one prominent proponent of the NPRM's proposals agree that it is severely lacking in terms of protecting consumers' privacy. Given that the Commission is conducting a concurrent proceeding to examine additional privacy protections for consumers with respect to similar types of personal data at risk here, it is troubling that the NPRM fails to consider such concerns fully here as well.[45]

As an initial matter, even a prominent administration proponent of the NPRM's proposals acknowledges concerns with respect to privacy. As NTIA points out, "[p]roviders of devices - whether MVPDs or others - will have access to large amounts of personal information about the users of those devices, not limited to the programming that they search for, watch, or purchase."[46] Yet, as NTIA goes on to state, "MVPDs generally have more rigorous statutory obligations concerning their collection and use of personally identifiable subscriber information

[45] More specifically, is not at all clear why the Commission believes that broadband Internet access service consumers require special legal protection and strict oversight of practices that might affect the privacy of their data, but appears to express less concern about others' use of the same data in the online context or in this NPRM about the use of similar data by purveyors and providers of third-party set-top box devices. *Compare*, Protecting the Privacy of Customers of Broadband and Other Telecommunications Services, Notice of Proposed Rulemaking, WC Docket No. 16-106, FCC 16-39 (rel. Apr. 1, 2016), ¶ 2 (finding that "the current federal privacy regime, including the important leadership of the Federal Trade Commission (FTC) and the Administration efforts to protect consumer privacy, does not now comprehensively apply the traditional principles of privacy protection to these 21st Century telecommunications services provided by broadband networks") *with* Comments of Google, MB Docket No. 16-42, CS Docket No. 97-80 (fil. Apr. 22, 2016), pp. 5-8 (arguing that strict oversight of privacy in the set-top box context is unnecessary precisely because of established privacy policy practices, state laws, and FTC oversight).

[46] Letter to Federal Communications Commission Chairman Tom Wheeler from Lawrence Strickling, National Telecommunications and Information Administration ("NTIA"), MB Docket No. 16-42 (fil. Apr. 14, 2016) ("NTIA Letter"), p. 5.

than do non-MVPD providers of navigation equipment."[47] To the extent that the Commission recognizes this gap, the proposed self-certification process falls far short of a workable solution, as it places the entire burden of enforcement on the MVPD. As the leaders of the Congressional Privacy Caucus pointed out, under the self-certification process, "the only remedy to immediately protect consumer information would be to shut off services to all users of a third party device or application found to be in violations of the self-certification."[48] Beyond the fact that the Commission has seemingly not even considered the liability that could attach to MVPDs that fail to cut off their customers fast enough to avoid even a small privacy breach, the self-certification process turns MVPDs into the "privacy police." Yet small MVPDs certainly do not have the tools or resources to ferret out bad actors in the privacy space. They also do not relish (nor should they be forced by the Commission) to shut off their subscribers. The competitive environment they operate in and the numerous other hurdles small MVPDs face in terms of providing their customers with an affordable video service need not be compounded by the self-certification process as proposed by the NPRM. Beyond that, such a "cut off the subscriber to enforce the third-party's self-certification" process would only cut off subscribers *after* a breach has occurred, cold comfort to the affected subscriber.

As noted above, the Commission is at present conducting a concurrent privacy proceeding that is examining this issue as it relates to broadband providers and the data they possess by virtue of their provision of broadband Internet access service. It must be remembered that providers operating outside the traditional Internet Service Provider or MVPD

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47 *Id*.

48 Letter from Diana DeGette, Member of Congress and Joe Barton, Member of Congress to Federal Communications Commission Chairman Tom Wheeler, May 11, 2016, available at: http://futureoftv.com/wp-content/uploads/2016/05/DeGette-Barton-letter-on-STB-Privacy-05.11.16.pdf.

space possess much of the same consumer data and have the very same incentive to use that data in ways that may raise concern. This includes both so-called "edge providers" as well those third-party entities potentially providing set-top boxes to consumers as envisioned by the NPRM. While NTCA urges the Commission to proceed carefully in that concurrent proceeding such that any rules adopted do not inadvertently overburden small carriers or limit legitimate and potentially popular with the consumer uses of data for advertising or service enhancement purposes, any rules adopted in that proceeding should apply with equal force and applicability to third-party device manufacturers and providers at issue here. Should the Commission adopt rules in that concurrent proceeding based on a determination that consumers' data is at risk of being used for nefarious or objectionable purposes, failure to apply comparable rules to all parties with access to such data would leave open a huge gap that would be indefensible from a policy and a legal standpoint.

VI. A LARGE AND DIVERSE GROUP OF PARTIES REJECT THE NPRM'S PROPOSALS AS AN UNLAWFUL EXTENSION OF THE COMMISSION'S AUTHORITY UNDER SECTION 629

In addition to recognizing the flawed policy underpinning the NPRM's proposals, a large and diverse group of parties [49] agree that the proposal to require MVPDs to create three "Information Flows" and make them available to third-party manufacturers of navigation devices exceeds the scope of the Commission's authority under Section 629 of the Act.

As NTCA stated in its initial comments, any reading of Section 629(a) reveals that its purpose is to provide *consumers*, not third-parties, access to MVPD services. The unbundling of

[49] NCTA, pp. 161-169 and Appendix A: THE FCC'S "COMPETITIVE NAVIGATION" MANDATE: A LEGAL ANALYSIS OF STATUTORY AND CONSTITUTIONAL LIMITS ON FCC AUTHORITY, Theodore B. Olson, Helgi C. Walker, and Jack N. Goodman; AT&T, pp. 59-76; CenturyLink, pp. 3-12; Comcast, pp. 32-43; MPAA/SAG, pp. 12-13.

the "Information Flows" as proposed by the NPRM, on the other hand, strays far beyond that limited purpose and does so in a manner that vastly exceeds the scope of the Commission's mandate. Specifically, the "Information Flows" proposal is at its core a disaggregation, or unbundling, of MVPDs' services into separate services, to which device manufactures will be given access, allowing them to in turn package those MVPD services into a user interface and service all their own. Device manufacturers will be able to access MVPD services (specifically, MVPD video programming as a Commission-created separate unbundled service) and package that service into one all their own, adding features to enable such entities to differentiate themselves. In this sense, it would seem that the Commission, instead of assuring the commercial availability of *devices* that consumers use to access MVPD services, is in fact attempting to create an entirely new market. Nothing in Section 629 offers any support for the Commission-sponsored creation of an entirely new market for a new service offered by third-parties that includes as a piece part the underlying metadata (including video content) provided by MVPDs.[50] In short, the Commission is empowered to ensure that competitive devices are made available, not to create a new market for new and innovative user-interfaces offered by third-parties.[51]

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[50] *See*, AT&T, pp. 62-63. ("Nothing in that text directs the Commission to order MVPDs to unbundle their services into their component parts and make those parts available to competitors so that they can offer their own services through competitive 'user interfaces.' Simply put, Section 629(a) is about making available competitive *equipment* to access *existing* services, not forcibly requiring MVPDs to assist in creating new services offered by third parties."). *See also*, CenturyLink, p. 6 ("Contrary to the Commission's statements, nowhere does Section 629 empower the Commission to foster the deployment of new, innovative navigation technologies, user interfaces, displays, and ways of interacting with programming, or to nourish the development of a new app-based, equipment-agnostic MVPD navigation ecosystem. Rather, the Commission's sole job is to assure the commercial availability of navigation devices.").

[51] *See*, NPRM ¶ 1 ("In this proceeding, we propose rules that will both empower consumers to choose how they wish to access the multichannel video programming to which they subscribe, *and*

It should also be noted that the Commission cannot expand its authority (or escape the limit on its authority as noted above) through a creative definition of MVPD services or the invention of new services not contemplated by Section 629. As AT&T points out, the Commission's mandate to separate out the so-called "Information Flows" depends on its definition of "Navigable Service" a "newly invented term that Congress never used and that thus has no legal relevance under Section 629."[52] Most importantly, the Commission "defines these 'Navigable Services' to *exclude* parts of the MVPD's service, including the user interface, search functionality, 'news headlines, weather information, sports scores, and social networking.'"[53] Nothing in Section 629 provides the Commission with the authority to separate out piece parts of the MVPD service by inventing new terms that appear nowhere in the text of the statute. Moreover, that fact that certain portions of the whole of the MVPD service (the news headlines, weather information, sports scores, and social networking that the NPRM points to[54]) are "available from other sources"[55] is both irrelevant to the discussion and not in any fashion an invitation by Congress to the Commission to expand its authority in such a manner.

The Commission also cannot escape the bounds of its limited Section 629 authority by suddenly declaring that software is "equipment." Taken to its logical extreme, this definition of "equipment" would require MVPDs that have themselves abandoned set-top boxes in favor of

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promote innovation in the display, selection, and use of this programming and of other video programming available to consumers.") (emphasis added).

52 AT&T, p. 68.

53 *Id*., (Internal citations omitted, emphasis in the original.)

54 NPRM, ¶ 40.

55 *Id*.

apps to provide the "Information Flows" to a third-party app developer that does not itself provide any piece of physical equipment. The very fact that equipment (*i.e.*, hardware) used by MVPD subscribers to view MVPD programming and other services also includes elements of software does not transform software *alone* into equipment. Moreover, the Commission cannot take a term in a statute commonly understood[56] to have a particular meaning (in this case physical hardware) and suddenly infuse it with an entirely new meaning. A quick review of available dictionary definitions of "equipment" finds that *Webster's Third New International Dictionary*, for example, defines equipment as "the *physical resources* serving to equip a person or thing."[57]

Section 629(a) itself also provides additional context. More specifically, the NPRM's assertion that the term "equipment" is ambiguous is belied by the presence of additional language in that provision, indeed in the same sentence ("converter boxes, interactive communications equipment, and other equipment"), that might inform the Commission's understanding of the term "equipment." While the *Yates* decision requires an agency to view a particular word in a statute in accordance with "the company it keeps,"[58] the Commission's new definition of "equipment" would ignore additional language in that section that one might assume would provide some guidance to the agency. Any assertion that such an implausible definition of "equipment" is necessary because Congress directed the agency to "take cognizance of the existing market" raises interesting questions. Such an assertion seems to suggest that the

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56 *See*, ACA, p. 62 ("If one asked an electrical engineer about the equipment used at his firm, he would describe the hardware, not the software and applications it runs. Simply put, software — intangible code — is not equipment.").

57 *See*, AT&T, p. 70, citing Webster's Third New International Dictionary 768 (2002).

58 *Yates v. United States*, 135 S. Ct. 1074, 1085 (2015).

Commission believes that equipment would mean software if only Congress were writing Section 629 today. Even if true, it is clear that an agency is not permitted to substitute its judgment of how the law *should* have been written in place of the plain language of a statute. This is particularly true considering that Section 629 is fairly specifically directed at "the set-top box" as it existed in 1996 and not software-based competitive user-interfaces the Congress could not dream of two decades ago.

To underscore concerns about the unbridled expansion of the Commission's authority, USTelecom points to a recent D.C. Circuit opinion that vacated certain Commission rules adopted under the auspices of Section 629. Specifically, the D.C. Circuit in *EchoStar* [59] "warned the Commission that Section 629 does not encompass measures with only a 'tenuous . . . connection to § 629's mandate;' and that it does not 'empower the FCC to take any action it deems useful in its quest to make navigation devices commercially available.'"[60] ACA also reminds the Commission that the *EchoStar* court, "recognized that while '§ 629's directive to adopt regulations to assure the commercial availability of navigation devices may afford the FCC some wiggle room in crafting its regulatory regime, the statute's language is not as capacious as the agency suggests.'"[61] ACA goes on to sum up the NPRM and the parallels one cannot help but draw between it and the rules at issue in the *EchoStar* case, stating that:

> Here, too, expediency does not allow the Commission to require MVPDs to disaggregate their networks, equipment, and services to accommodate both virtual and physical parasitic navigation "devices" or "technologies" so that third parties can offer new services using the resulting disaggregated information flows – as opposed to third party devices accessing the services the MVPD chooses to offer

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

60 USTelecom, p. 15, citing *EchoStar Satellite L.L.C. v. FCC*, 704 F.3d 992 (D.C. Cir. 2013).

61 ACA, p. 68. (Internal quotations omitted).

> or provide in their original and complete form, such as those manufactured by TiVo and Roku.[62]

In short, the "Information Flows" rules as proposed by the NPRM go far beyond "wiggle room" in terms of the Commission's authority under Section 629, and are likely to meet the same fate as the far more limited but still ultimately unlawful rules adjudged as outside the scope of that section just three years ago.

Ironically, the NPRM's proposals somehow manage to both *exceed the scope* of the Commission's authority (as noted above) and simultaneously *fall short of actual mandates* contained in the language present in that statutory provision. More specifically, Section 629(b)[63] expressly imposes upon the Commission a duty to protect the security of video content. As a number of content creators have demonstrated, the "Security Elements" fall far short of both MVPD and content creators' expectations as to security of multichannel video programming as well as the expectation of Congress when drafting that provision.

Finally, with respect to the device market, as has been noted above, the proposal to "unlock the box" in the name of creating device competition is entirely unnecessary, as the choice that consumers have in terms of devices to access the content of their choice is vast and expanding daily. This state of the market calls into question whether the Commission has adequately conducted an analysis of the market such that it can determine that the far-reaching action it proposes here is necessary to achieve the aim of Section 629 or whether the device market is indeed competitive. Indeed, the NPRM notes at one point that Congress directed the

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62 *Id*., p. 69.

63 47 U.S.C. § 549(b) ("The Commission shall not prescribe regulations under subsection (a) of this section which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems, or impede the legal rights of a provider of such services to prevent theft of service.").

Commission to "take cognizance of the current state of the marketplace."[64] The Commission cannot and should not pick and choose when it follows the directive of Congress.

VII. SHOULD THE COMMISSION MOVE FORWARD WITH THE NPRM'S PROPOSALS, IT SHOULD ADOPT A SMALL MVPD-SPECIFIC TRANSITION PERIOD OR A SMALL COMPANY EXEMPTION, AS WELL AS AN "ANALOG-ONLY" EXEMPTION

The NPRM seeks comment on whether the Commission should adopt an exemption from the proposed rules for small MVPDs or whether it should consider alternative implementation deadlines for these providers.[65] NTCA supports an exemption or an alternative implementation deadline for small MVPDs that recognizes the unique circumstances under which small, rural MVPDs operate and the disproportionate burden that the NPRM's proposal will impose on these providers.[66]

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[64] NPRM, ¶ 22, citing S. Rep. 104-230, at 181 (1996) (Conf. Rep.) (explaining that "one purpose" of Section 629 "is to help ensure that consumers are not forced to purchase or lease a specific, proprietary converter box, interactive device or other equipment from the cable system or network operator" and that in implementing Section 629 "the Commission should take cognizance of the current state of the marketplace and consider the results of private standards setting activities").

[65] *Id.*, ¶ 81.

[66] Should the Commission adopt a small MVPD exemption, it must also adopt the NPRM's proposal to limit the "Information Flows" requirement to competitive navigation devices only. NPRM, ¶ 37. In other words, this provision would ensure that MVPDs are *not* required to "commonly rely" on the three Information Flows for their own devices leased to consumers today or in the future. This proposal, first raised in the DSTAC final report, is intended to ensure that MVPDs would not need to replace their own set-top boxes leased to end-users. Adoption of this specific carve-out and applying it to *all* MVPDs regardless must be paired with a small company exemption to ensure that such exemption is not undermined by the market moving towards the standards adopted for competitive devices and adopting it for all set-top boxes. Specifically, adoption of the NPRM's proposed rules is likely to initiate a wholesale shift in the set-top box market. As the market for set-top boxes undergoes such a significant change, and if large and mid-size carriers (but not small MVPDs with an exemption in place) are required to replace the devices they currently provide to subscribers, existing set-top boxes leased to subscribers by small carriers are likely to be outdated in short order, and replacement models that work with small MVPDs' existing network architectures may not be available. In the end, such a result would undermine if not eliminate any value to a small company exemption.

As an initial matter, NTCA supports an exemption from the NPRM's proposals for small MVPDs.[67] Small MVPDs already face significant challenges in the video business, particularly as content prices continue to strain their ability to remain viable, and those challenges have been documented in detail in the record.[68] The additional costs of compliance with the NPRM's proposals may be the "tipping point" that leads a number of NTCA members to consider exiting an already break-even (at best) video services market—thereby *reducing* rather than enhancing competition in the availability of video products.

At the same time, the Commission must acknowledge the limited utility of such an exemption even as one could be helpful. Specifically, while critical as a short-term measure to ensure that a number of small MVPDs are not forced to exit the market due to the compliance costs of the NPRM's proposals, any mandate ostensibly made applicable *only* to large and mid-size MVPDs is likely to "trickle down" to smaller providers as well. This is especially true considering the fundamental reengineering of MVPD networks and set-top devices and the technology necessary to connect the two that will result from adoption of the "Information Flows" proposal. In short, the MVPD environment—including the hardware, software, and other inputs that go into delivering content to subscribers via a device—is likely to look far different when the dust settles from adoption and eventual implementation of this proposal. It is unlikely that small MVPDs will be shielded from that dust. More specifically, it absolutely cannot be

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[67] An exemption for small MVPDs would be entirely consistent with the language of Section 629. In short, nothing in Section 629 requires regulations adopted pursuant to that provision to apply to all MVPDs, nor does it require that commercially available equipment that becomes available as a result of those regulations be compatible with every single MVPD. In fact, the most that Section 629 can be argued to require is that a market for navigation devices manufactured by parties other than MVPDs be allowed to develop.

[68] Comments of NTCA, MB Docket No. 15-158, (fil. Aug. 21, 2015); Comments of NTCA, MB Docket No. 15-216, (fil. Dec. 1, 2015).

assumed that small MVPDs will not be forced by the market to move toward the mandated technology standards at some point in the future, even if an exemption is in place. Even with an exemption, as their networks and the set-top boxes they lease to subscribers become outdated, smaller providers will be forced into compliance with whatever standard is mandated here. Indeed, equipment manufacturers complying with the mandate will likely impose its requirements on small MVPDs that lack the market power to push back. In other words, an exemption will only delay the inevitable.

One possible alternative approach that could be paired with any temporary exemption could be a small company-specific implementation schedule. Such a process would be particularly important should the Commission move forward with a "multiple standards" approach as discussed above. In any case, however, small carriers should be permitted to delay implementation of the NPRM's proposals until such time as the market "settles on" an eventual standard for both the "Non-Security" and "Security" elements addressed in these comments. The Commission could, for example, delay implementation for small carriers until competitive navigation devices achieve 15 percent market share of all set-top boxes used by all MVPD subscribers. Small MVPDs should under such a scenario be given no less than three years from the determination that competitive devices have reached that requisite market penetration threshold. Such a delayed implementation schedule would ensure that small MVPDs can begin a move towards implementation once the standards body process has been completed *and* the market that results is close to maturity. A transition period to then come into compliance after a standard has been adopted by the market will also ensure that small MVPDs are not confronted with an immediate need to reengineer their networks, thus enabling these providers to spread these significant costs over several years.

Finally, NTCA reiterates its support here for the Commission's tentative conclusion to exempt analog-only MVPDs altogether. As ACA has noted, "proponents of the Device Proposal have not suggested *any* methodologies by which MVPDs that operate analog-only systems can use a virtual headend to deliver their entire service to subscribers."[69] While NTCA continues to believe that the virtual headend is a concept in need of substantial development and testing, at the very least those proposing it have considered its application to the majority of MVPDs in this country. Because no standard for analog-only providers has even been considered, the Commission's tentative conclusions to exempt such providers is correct.

VIII. CONCLUSION

For all of the reasons discussed above, the Commission should abandon the proposals as made in the NPRM.

[69] Letter from Ross Lieberman, Senior Vice President of Regulatory Affairs, American Cable Association, to Marlene H. Dortch, Secretary, Federal Communications Commission, p. 1 (Feb. 11, 2016) ("ACA Feb. 11 *ex parte*"), p. 7.

Respectfully submitted,

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