

independent programmers in particular, infringe on copyright interests, jeopardize security, and facilitate piracy. These threats to the content production ecosystem are entirely unnecessary given that MVPD apps fully implement the contractual requirements in programming agreements and provide programmers with the necessary assurances to license the full range of content.

The Set-Top Box Mandate Ignores Licensing Agreements. Programmers observed that the Commission’s forced disaggregation mandate would enable third-party device manufacturers and app developers to create derivative services without permission from or compensation to programmers or content creators.⁶¹ These comments firmly rebut the Chairman’s conclusory and unsupported claim that the Set-Top Box Mandate will “honor[] the sanctity” of programming agreements.⁶² Rather, as the Content Companies explained: “[T]he Commission’s proposals as structured would allow third parties to appropriate, monetize, and distribute content without undertaking any of the risks or expenses associated with the creation of that content and without being bound by any of the duties or obligations that distributors agree to in order to obtain distribution rights.”⁶³

Under the Commission’s proposal, third-party device manufacturers and app developers would be free to ignore key licensing terms between MVPDs and programmers, such as those related to content protection, content integrity, and content promotion, enabling third parties to,

⁶¹ See, e.g., Content Companies Comments at 6-12, Revolt Comments at 2; Cerda et al. Comments at 1.

⁶² See Fact Sheet, FCC Chairman Proposal To Unlock The Set-Top Box: Creating Choice & Innovation, at 2 (Jan. 27, 2016), https://apps.fcc.gov/edocs_public/attachmatch/DOC-337449A1.pdf; see also Notice, 31 FCC Rcd. at 1601 (statement of Chairman Tom Wheeler) (“This proposal will *not* interfere with the business relationships or content agreements between MVPDs and their content providers or between MVPDs and their customers.”) (emphasis in original).

⁶³ Content Companies Comments at 2.

for example, overlay advertising, alter channel placement, and display pirated content next to lawful content.⁶⁴ Proponents of the rule claim that such concerns are unwarranted,⁶⁵ but commenters point out that TiVo is overlaying ads today and such practices are likely to become more widespread under the Commission's proposal.⁶⁶ And because MVPDs and programmers would not have a direct contractual arrangement with these third parties under the proposed rules, there would be no effective method for enforcing licensing terms.⁶⁷ The Set-Top Box Mandate would, thus, reduce programmers' incentives to create programming and diminish their ability to monetize the content they do produce.⁶⁸

The Set-Top Box Mandate Harms Diverse and Independent Programmers. Proponents of the Set-Top Box Mandate claim that the proposed rules would somehow create new opportunities for programmers, particularly diverse and independent programmers, by making it easier to search for their content and enabling them to find an audience.⁶⁹ But these claims are without merit.

Diverse and independent programmers have explained that the Commission's proposal would be particularly harmful for their networks.⁷⁰ For example, Revolt noted that "the first

⁶⁴ See Comcast Comments at 73-74, 77-82; EchoStar/Dish Comments at 2, 18-19; IFTA Comments at 5-7.

⁶⁵ See TiVo Comments at 20 (claiming that TiVo devices have always protected content); INCOMPAS Comments at 21-22.

⁶⁶ See NCTA Comments at 44-47; NAB Comments at 11-12; Comcast Comments at 81; see also Letter from Neal M. Goldberg, Vice President & General Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-64, at 2 (Jan. 21, 2016) ("Jan. 21 NCTA Ex Parte").

⁶⁷ Indeed, TiVo clearly stated that it "is not, and never has been, bound to programming agreements entered into by MVPDs to which TiVo is not a party." TiVo Comments at 19.

⁶⁸ See, e.g., Directors Guild of America Comments at 7-8; Mnet America Comments at 1.

⁶⁹ See CVCC Comments at 49-53; Greenlining Comments at 4-5; TiVo Comments at 6-7; INCOMPAS Comments at 7; Public Knowledge Comments at 39-44.

⁷⁰ See, e.g., TV One Comments at 13-15; Mnet America Comments at 1; Crossings TV Comments at 2-3; MMTc et al. Comments at 8-11; see also Creators of Color Comments at 1-2.

victims [of the Commission's mandate] will be diverse and independent voices."⁷¹ A group of independent content creators echoed these concerns, stating that the proposal "will result in audiences having fewer and less diverse options for programming on TV."⁷² Furthermore, claims that the Set-Top Box Mandate will benefit diverse and independent programmers are belied by what device makers are doing in the marketplace today. They have every opportunity to make diverse and independent content easier to find and watch, but these device makers are not doing so.⁷³ There is no reason to believe that would change under the proposed rules. In contrast, as explained below, Comcast has created dedicated VOD libraries for diverse content and has provided other features like enhanced search and voice remote to enable subscribers to easily find and access diverse and independent programming in a variety of ways.

Public Knowledge alleges that Comcast disadvantages diverse programming in its VOD menu, and points to this as "evidence" of the harms associated with MVPD-controlled user interfaces.⁷⁴ These allegations are baseless. Comcast has a section of its VOD library dedicated to diverse programming, and has been an industry leader in supporting diverse and independent programming. In the last five years, Comcast has expanded the quality and quantity of diverse VOD programming to nearly 12,000 hours as of the end of 2015, an increase of 70 percent over 2014 and more than 1,100 percent over year-end 2010.⁷⁵ In addition, Comcast has substantially

⁷¹ Revolt Comments at 2.

⁷² Cerda et al. Comments at 1.

⁷³ See Comcast Comments at 82.

⁷⁴ See Public Knowledge Comments at 25. In addition, CVCC's claims that Comcast seeks an equity interest in diverse networks in exchange for carriage are false, see CVCC Comments at 50, and Comcast no longer has any ownership stake in TV One, see Opposition of Comcast Corporation to Petition of the National Association of African American Owned Media and Entertainment Studios, Inc., MB Docket No. 10-56, at 10-11 (Apr. 4, 2016) (rebutting similar claims).

⁷⁵ See Comcast Comments, MB Docket No. 16-41, at 19 (Mar. 30, 2016).

expanded carriage of over 141 independent networks by more than 217 million subscribers since 2011.⁷⁶ One hundred of the independent networks carried by Comcast are focused on diverse programming, and Comcast is exploring innovative ways to feature independent content across multiple screens.⁷⁷

Furthermore, Public Knowledge's absurd and misleading claim that Comcast does not display VOD programming according to some negotiated channel line-up does not make any sense in the context of a VOD menu, which does not have "channels."⁷⁸ Linear services, not VOD, are presented in the channel lineup menu. Moreover, Comcast's VOD offerings indeed are displayed fully consistent with any programming contract provisions that govern such display, e.g., children's programming not being displayed next to R-rated programming.

The Set-Top Box Mandate Infringes on Copyright Interests. There is likewise no merit to the claim that the Set-Top Box Mandate will ensure that copyright interests will continue to be protected exactly as they are now.⁷⁹ Programmers and other commenters explained that the Set-Top Box Mandate would essentially create a zero-rate compulsory copyright license.⁸⁰ Third parties would be able to "use copyrighted content to enhance their commercial services without

⁷⁶ This includes "expanded carriage of networks tailored to diverse audiences such as The Africa Channel (by more than two million), Crossings TV, a channel focused on Asian American programming (by more than three million), Mnet, a South Korean-based music television channel (by more than four million), TV One (more than 600,000), and African-American religious programmers UP (f/k/a Gospel Music Channel) and Word Network (by six million and three million, respectively)." *See id.* at 17-19.

⁷⁷ *See id.*

⁷⁸ *See* Public Knowledge Comments at 24.

⁷⁹ Comcast and other commenters explained that, in addition to infringing on programmers' copyright interests, the Set-Top Box Mandate would also infringe on MVPDs' copyright interests in their works and the copyright interests of guide data providers and metadata providers. *See, e.g.,* Comcast Comments at 50-51; EchoStar/Dish Comments at 22-23; NCTA Comments at 168 & App. A at 48-55; Gracenote Comments at 10-13 (expressing concern that the Commission's proposal would force MVPDs to pass through Gracenote's proprietary metadata – Entertainment Identified Register ID – to third parties).

⁸⁰ Content Companies Comments at 34-40; Comcast Comments at 73-74; MPAA Comments at 7-8.

compensating the content company,” thus interfering with copyright holders’ exclusive rights to control how their original content is published and used and enabling the creation of unauthorized derivative works.⁸¹ Numerous commenters point out that the Commission has no jurisdiction over copyright and certainly no authority to mandate a zero-rate compulsory copyright license.⁸²

Public Knowledge suggests that the Set-Top Box Mandate does not create copyright concerns because the proposal is simply a successor to CableCARD.⁸³ That argument is wrong. The Commission’s proposal goes well beyond the CableCARD model. Manufacturers of retail CableCARD devices are subject to a privately-negotiated and administered agreement that gives cable operators and programmers rights to enforce specific warranties protecting programming, security, and operations; provides for certification and testing of retail devices; and was designed to be transitional to an apps-based approach for two-way interactive services – all of which are prohibited under the Commission’s proposal.⁸⁴

The Commission has suggested that a DFAST-type license may address the copyright and other programming-related concerns with the proposal,⁸⁵ but that ignores the fact that DFAST is ill suited for today’s video ecosystem. The DFAST license was created exclusively for delivering one-way linear channels to retail CableCARD devices.⁸⁶ The programming and

⁸¹ MPAA Comments at 4-5; *see also* Content Companies Comments at 34-40.

⁸² *See, e.g.*, Content Companies Comments at 34-40; Copyright Alliance Comments at 1; MPAA Comments at 7-8.

⁸³ Public Knowledge Comments at 10.

⁸⁴ *See* NCTA Comments at 60-61; *see also* Jan. 15 NCTA Ex Parte.

⁸⁵ *See Notice* ¶ 71; *see also* CVCC Comments at 32-33; INCOMPAS Comments at 21-22; TiVo Comments at 20.

⁸⁶ NCTA Comments at 60-61.

other rights used to create today's competing MVPD services have evolved far beyond the unenhanced linear rights covered in DFAST.⁸⁷ Rather, programmers today rely on highly individualized and tailored business-to-business licensing agreements with MVPDs to establish, for example, linear and on-demand rights, in- and out-of-home viewing rights, trusted devices and security arrangements, and acceptable advertising – going beyond what any DFAST-type license would be capable of addressing.⁸⁸ And, as NCTA has observed, “the DFAST warranty has not even sufficed for one-way services. It has not stopped TiVo from overlaying ads on top of broadcast signals carried on cable or streaming signals out of the home without license.”⁸⁹

Moreover, regardless of whether the Commission contemplates managing the licensing itself or tasking a third party to do so, such heavy-handed government intrusion into the marketplace would be unwarranted given that programmers, distributors, device makers, and other participants in the video ecosystem are successfully negotiating licenses all the time. In short, a DFAST-type license would displace business-to-business arrangements that are driving today's flourishing video marketplace.

Although the *Notice* suggests that programmers retain “rights or remedies under copyright law” to sue third parties for infringing uses of their content, programmers noted that it would be patently unfair for the Commission to rely on litigation to solve problems of its own creation and shift substantial burdens onto programmers. NAB remarked that “[i]t is

⁸⁷ *Id.* at 60-63.

⁸⁸ These agreements are negotiated and updated every few years to account for new products, usages, security threats, and devices.

⁸⁹ Letter from Neal M. Goldberg, Vice President & General Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 15-64, at 2 (Jan. 21, 2016) (“Jan. 21 NCTA Ex Parte”) (also noting that “[t]he fact that TiVo's practices have not invited litigation may merely reflect TiVo's limited market share, rather than demonstrating the success of the DFAST model”).

unreasonable to expect content providers to shoulder the logistical and economic burden of monitoring many competing consumer device and application options, litigating to protect the value of their content with third-parties”⁹⁰ The Content Companies similarly stated that “[r]elying on copyright litigation is no substitute for the entire contractual structure that supports the development and delivery of great content to consumers.”⁹¹

The Set-Top Box Mandate Weakens Security and Facilitates Piracy. Programmers and numerous other commenters warned that the Set-Top Box Mandate would jeopardize content security and facilitate piracy.⁹² Programmers and content owners increasingly require a trusted execution environment as a key element of a strong content security regimen. This environment ensures that all apps and software processes operate within strictly enforced memory partitions that are inaccessible to one another, that content in video and audio decoding pipelines is accessible only to the requesting app, and that apps and software processes consist of “signed code” with a security certificate, so that the integrity of the software can be monitored to prevent hacks, malware, and “jailbreaks” that bypass content security measures. These and other security requirements would be ignored under the Commission’s proposal.⁹³ The proposed rules

⁹⁰ NAB Comments at 12; *see also* Content Companies Comments at 28-31 (“[A]ll programmers would confront an environment in which they are forced to play ‘whack-a-mole’ – repeatedly having to fight to undo damaging violations after the fact each and every time a third party attempts to commercialize content (perhaps in the guise of ‘innovation’) by ignoring programmers’ rights.”); MPAA Comments at 17-18 (“The primary mechanism for copyright holders to enforce their exclusive rights is program license agreements. It is misplaced to assume that enforcement via litigation could compensate for the displacement of detailed arrangements that have been carefully negotiated between programmers and distributors.”); TV One Comments at 18 n.42 (“[B]ringing a copyright infringement case would be far too expensive and take far too long to resolve to be an effective means of relief for a small programmer like TV One.”).

⁹¹ Content Companies Comments at v.

⁹² *See, e.g.*, Content Companies at 20-25; Copyright Alliance Comments at 15; Comcast Comments at 86-87.

⁹³ *See, e.g.*, Letter from Jordan B. Goldstein, Vice President, Regulatory Affairs, Comcast, to Marlene H. Dortch, Secretary, FCC, at 1 (May 11, 2016); Content Companies Comments at 24-25; MPAA Comments at 21-22; Copyright Alliance Comments at 15; AT&T Comments at 45-47; NCTA Comments at 100-03. An ecosystem that denies content providers and MVPDs the ability to reach commercial agreements that provide certainty on appropriate levels of platform security will simply motivate content owners to distribute their highest value content

also would remove key mechanisms for ensuring the secure delivery of content that MVPDs use in their apps and user interfaces, and would rely on outside entities to test and certify third-party devices and apps. In light of these various threats and harms, the Set-Top Box Mandate would contravene the clear statutory directive that the Commission not adopt rules that would jeopardize security.⁹⁴

Security vendors and several other commenters also observed that the Commission's proposal would threaten the diversity of security solutions.⁹⁵ According to Cisco, "[a] government-mandated, monolithic security requirement like the [Notice] contemplates is directly contrary to the nimble quality of the highest-level security. . . . Organically-evolved, diverse security models reduce the risks of a single point of attack."⁹⁶ ARRIS noted that the proposed rules also would limit the content security options for MVPDs by requiring MVPDs to support a security solution that is available on RAND terms.⁹⁷ Proponents of the Set-Top Box Mandate seemingly disregard these critical security concerns, and some go so far as to suggest that the Commission even further limit security options for MVPDs.⁹⁸

on more secure systems that are outside the scope of government regulation. *See, e.g.*, Comcast Comments at 75-76 & n.206.

⁹⁴ *See* 47 U.S.C. § 549(b); *see also* AT&T Comments at 81-82; CenturyLink Comments at 15-16; NCTA Comments at 165; Content Companies Comments at 20-25.

⁹⁵ *See, e.g.*, MPAA Comments at 23 ("Uniformity in security or use of a single content protection system creates a *single point of failure*, making content vulnerable and exposing it to attacks."); ARRIS Comments at 13; Cisco Comments at 7-8.

⁹⁶ Cisco Comments at 7-8. Verimatrix, another content security company, has underscored the drawbacks of standardization of usage rights, such as "creating overly complex formats to try to capture all future possible ways that content might be offered to a consumer, and even then, the potential of foreclosing an innovative offer that is elemental to a novel business model." Letter from Jim C. Williams, President, Verimatrix, to Marlene H. Dortch, Secretary, FCC, at 2 (May 10, 2016) ("Verimatrix Ex Parte").

⁹⁷ *See, e.g.*, ARRIS Comments at 12-15; *see also* Cisco Comments at 9-13; NCTA Comments at 90-100; Comcast Comments at 86-97; Verimatrix Ex Parte at 2 ("[W]e are most familiar with RAND in patent licensing statements before standards bodies, not in the context used in the proposed rule.").

⁹⁸ *See* TiVo Comments at 18-19 (asking that the Commission limit the number of security solutions MVPDs would be permitted to rely on under the Set-Top Box Mandate by requiring that such solution be supported by

Some proponents claim that the Set-Top Box Mandate would reduce piracy and infringement by making it easier to access lawful content.⁹⁹ However, these claims do not withstand scrutiny. The Copyright Alliance explained that “the standardization in security measures will make devices easier to hack, thus making copyrighted content easier to steal, and the proliferation of illegal copies will make it more difficult for copyright owners to police their copyrights.”¹⁰⁰ Moreover, MVPD apps are *already* increasing access to lawful content without any of these attendant security risks.

V. THE RECORD UNDERSCORES THAT PRIVACY AND OTHER CONSUMER PROTECTIONS WILL BE WEAKENED UNDER THE SET-TOP BOX MANDATE.

The record reflects deep concerns about the harms to consumers that would result from the Set-Top Box Mandate. Numerous commenters, including consumer and public interest groups, observed that the proposed rules would erode critical consumer protections granted by Congress in the Communications Act. They emphasized that these harms are entirely of Commission’s own making, and would be avoided under the apps-based approach. The self-certification regime contemplated in the *Notice*, under which third parties would simply certify to MVPDs compliance with Title VI consumer protections, is completely unworkable, fails to address these harms, and is not a viable “work around” to the Commission’s lack of jurisdiction over third-party device manufacturers and app developers. Consumers would have no guarantee

MVPDs that, in the aggregate, serve at least 15 million subscribers without being tied to an MVPD-specific Trust Authority, chipset, or other hardware requirement); *see also* CVCC Technical Appendix at 4 (singling out Google’s Widevine and Microsoft PlayReady as the preferred DRMs); Amazon Comments at 8-9; Computer & Communications Industry Association Comments at 22-23.

⁹⁹ See Google Comments 4-5; Public Knowledge Comments at 47-50.

¹⁰⁰ Copyright Alliance Comments at 15.

that third-party devices and apps would provide the same consumer privacy protections,¹⁰¹ comply with requirements relating to EAS messages,¹⁰² or comply with commercial limits in children's programming.¹⁰³ MVPDs would have no practical way to monitor third parties and no contractual or regulatory mechanisms to enforce compliance with these consumer protections. Further, the proposal could undermine the Commission's efforts to ensure the accessibility of video programming to the detriment of consumers.

In contrast, as numerous commenters conclude,¹⁰⁴ the existing apps-based model provides the dual benefits of advancing the Commission's navigation device goals in this proceeding while preserving bedrock consumer protections, demonstrating that the Commission's proposal is all the more indefensible. MVPD-supplied apps protect consumer privacy, deliver EAS alerts, observe ad limits on children's programming, and abide by closed captioning and other accessibility requirements.

Privacy. The clear evidence in the record is that the Set-Top Box Mandate will result in the loss of consumer privacy rights.¹⁰⁵ Although proponents of the Set-Top Box Mandate claim

¹⁰¹ See, e.g., NCTA Comments at 75-85; Comcast Comments at 93-97; EPIC Comments at 3-8; Center for Digital Democracy at 2; Letter from Lawrence E. Strickling, NTIA, to Chairman Wheeler, at 5-6 (Apr. 14, 2016) ("NTIA Letter").

¹⁰² See, e.g., NCTA Comments at 85-86, 89; AT&T Comments at 53-54; Content Companies Comments at 26-27; Letter from Jessica L. Rich, Director, Bureau of Consumer Protection, FTC, to Marlene H. Dortch, Secretary, FCC, at 2 n.3; Cox Communications Comments at 3.

¹⁰³ See, e.g., NCTA Comments at 75-77; AT&T Comments at 53-54; Content Companies Comments at 26-27; Cox Communications Comments at 3.

¹⁰⁴ See, e.g., ACA Comments at 57; AT&T Comments at 48-53; NCTA Comments at 148-54; Frontier Comments at 16; NTCA – The Rural Broadband Association Comments at 23-24; Cerda et al. Comments at 3; Copyright Alliance Comments at 14-15.

¹⁰⁵ See, e.g., EPIC Comments at 4-8; NCTA Comments at 75-85; Center for Digital Democracy Comments at 2. Comcast focuses here on privacy issues, but commenters also detail threats to EAS and advertising limits on children's programming. See NCTA Comments at 75-77, 85-86; Content Companies Comments at 26-27.

that existing privacy protections will remain intact,¹⁰⁶ these assurances ring hollow. Sections 631 and 338 of the Communications Act restrict MVPDs' use and disclosure of subscribers' personally identifiable information ("PII"), including subscriber viewing history, absent prior customer consent. In this regard, as the record shows, it is not at all clear how the Commission can conclude that MVPDs are authorized, consistent with Section 631 or Section 338, to disclose sensitive PII to unaffiliated third-party device makers and app developers for the purposes envisioned in the *Notice* absent consumer consent.¹⁰⁷

Even assuming the Commission could overcome this initial hurdle, there are significant problems with its proposed method for addressing the serious privacy concerns created by a self-certification approach. Notably, as explained in Comcast's initial comments and reinforced by numerous commenters, there is no way for the MVPD to understand, let alone enforce, the privacy practices of the third-party device maker or app developer, especially given that the proposed rules prohibit any contractual arrangement between these parties.¹⁰⁸ In this respect, it is especially troubling that Google – one of the key proponents of the Set-Top Box Mandate – explicitly states its intent *not* to comply with the privacy obligations imposed on MVPDs under Section 631 and 338. Rather, Google underscores the Commission's lack of authority to impose or enforce similar consumer privacy obligations on third-party device manufacturers and app developers, stating unequivocally that "limitations on the FCC's jurisdiction under Section 629 of the Communications Act prevent it from applying the rules that apply to 'cable operators' and

¹⁰⁶ See Amazon Comments at 7-8; CVCC Comments at 44-46; Google Comments at 5-8; Public Knowledge Comments at 30-36; TiVo Comments at 25-27.

¹⁰⁷ See Comcast Comments at 94; NCTA Comments, App. A at 40.

¹⁰⁸ See, e.g., EPIC Comments at 6-8; AT&T Comments at 48-53; Comcast Comments at 95-97; NCTA Comments at 75-77.

‘satellite carriers’ to suppliers of devices.”¹⁰⁹ In short, Google believes that the more stringent privacy protections that apply to an MVPD-supplied device or app should not apply to its own devices or apps even when the consumer would be accessing the same MVPD content. This may serve Google’s data collection and monetization goals, but it would not serve the interests of consumers. While Chairman Wheeler has stated that he disagrees with Google’s view and believes the privacy protections should apply to device makers and app developers,¹¹⁰ he has not proposed any means that would ensure those entities can comply in any way the Commission can enforce since, for some reason, the Commission has protected edge providers from regulatory oversight at all cost. Moreover, the Commission’s proposal refuses to allow contractual privacy for MVPDs to enforce the rules, and rejects the apps-based approach which would obviate this concern.

Google and other proponents of the Set-Top Box Mandate claim that existing federal, state, and EU laws would ensure privacy protections to MVPD customers, but these protections are a mirage. These laws simply are not coextensive with the consumer rights and protections under Sections 631 and 338. NCTA explained that there are many states that lack *any* applicable privacy rules, and those state laws that do exist generally fail to offer protection equivalent to that afforded by Title VI.¹¹¹ And NTIA further observed that “the baseline privacy protection a

¹⁰⁹ Google Comments at 7.

¹¹⁰ See Wash. Post Interview with Chairman Wheeler (Feb. 10, 2016), https://www.washingtonpost.com/video/business/technology/fcc-chairman-talks-set-top-boxes-consumers-right-to-choose/2016/02/10/5c19cdba-cff0-11e5-90d3-34c2c42653ac_video.html (“What we’re going to do in our rulemaking is say [to new entrants], ‘You have to have the same kind of [privacy] rules that cable companies have.’”); Tom Wheeler, Chairman, FCC, Press Conference at FCC Open Meeting (Feb. 18, 2016), <http://www.c-span.org/video/?404893-1/fcc-meeting-cable-settop-box-purch&start=3271> (“To be able to license the standard, you’re going to have to comply with the Title VI Section 631 privacy rules which apply to cable operators.”)

¹¹¹ See NCTA Comments at 84.

subscriber receives should not hinge on where the consumer lives.”¹¹² Proponents also claim that EU privacy rules and the federal Video Privacy Protection Act (“VPPA”) can provide adequate privacy protections,¹¹³ but EU privacy rules offer little practical protection or recourse for U.S. video consumers and there is substantial uncertainty whether the VPPA would even apply to third-party devices and apps used to access MVPD content.¹¹⁴

Likewise, contrary to the comments filed by the FTC’s Director of the Bureau of Consumer Protection, who is not empowered to speak on behalf of the FTC as a whole, relying on the FTC to enforce the Commission’s proposed privacy self-certification scheme pursuant to its authority under Section 5 of the FTC Act does not resolve these consumer privacy concerns. As an initial matter, the FCC has no authority to subdelegate its regulatory and enforcement responsibilities under Section 631 and Section 338 to the FTC or to any other federal agency. Indeed, it is black letter law that an agency may *not* subdelegate its own delegated power to another agency *without authorization from Congress*. As the D.C. Circuit has made clear:

[T]he cases recognize an important distinction between subdelegation to a *subordinate* and subdelegation to an *outside party*. . . . We therefore hold that, while federal agency officials may subdelegate their decision-making authority to subordinates absent evidence of contrary congressional intent, *they may not subdelegate to outside entities – private or sovereign – absent affirmative evidence of authority to do so*.¹¹⁵

¹¹² NTIA Letter at 5 & n.27.

¹¹³ See, e.g., Public Knowledge Comments at 33.

¹¹⁴ NCTA Comments at 84. With respect to the VPPA, it is not clear a retail provider of devices used to view cable service programming could be classified as a “video tape service provider,” which is a prerequisite to coverage under that statute. See *id.* (noting that Google has convinced a judge that the VPAA does not apply to Google, and that TV manufacturer Vizio has made similar arguments).

¹¹⁵ *U.S. Telecom Ass’n v. FCC*, 359 F.3d 554, 565-66 (D.C. Cir. 2004) (emphases added); see also *G.H. Daniels III & Assocs. v. Perez*, 626 F. App’x 205, 207 (10th Cir. 2015) (“Courts are quite tolerant of the administrative practices of agencies, but passing the buck on a non-delegable duty exceeds elastic limits.”).

Congress knows how to authorize inter-agency delegations,¹¹⁶ and it did not do so here. Such subdelegation would be particularly inappropriate where, as here, the Commission has no authority to regulate third-party device manufacturers and app developers under Sections 631 or 338 in the first place, and the entire scheme would be a patent effort to avoid those statutory limits.¹¹⁷

Moreover, an FTC enforcement model would not preserve all of an MVPD customer's existing privacy rights under Sections 631 and 338. At the very least, MVPD customers would be deprived of their right to bring private legal actions for misuse of their viewing data by retail device makers and app developers, as well as their right to have government agencies obtain a court order before an agency can obtain their viewing data, as is now the case for MVPD subscribers.¹¹⁸ The FTC (and the Commission for that matter) cannot legally authorize such relief against device makers and app developers – only Congress can do so.¹¹⁹

¹¹⁶ See, e.g., 31 U.S.C. § 3726(g) (“The Administrator may delegate any authority conferred by this section to another agency or agencies if the Administrator determines that such a delegation would be cost-effective or otherwise in the public interest.”).

¹¹⁷ The FTC also lacks independent authority to interpret or enforce the Communications Act. The Commission, not the FTC, possesses general authority to implement the Communications Act. 47 U.S.C. § 151. The Act specifically references the particular instances in which the FTC has a role to play – none of which makes any mention of Sections 631 or 338. See *id.* §§ 228(c)(1), (3), (10), 313. Because the FTC has not been entrusted with implementing the Communications Act, it may not authoritatively interpret or enforce it.

¹¹⁸ See 47 U.S.C. §§ 551(f)(1), (h). In fact, the Commission itself has recognized that Section 631 cannot be construed or administered in a manner that negates the court order requirement for government access to viewing data. In a 1992 order rejecting LFA attempts to gain access to cable company complaint records containing individually identifiable customer viewing information, the Commission said that such complaint information could not be disclosed under the “legitimate business activity” exception to the statute and stated that: “Including regulatory compliance within the ‘legitimate business activity’ exception might negate the separate court order requirement that would otherwise limit governmental access to this type of information. This does not appear to have been intended.” *Cable Television Technical and Operational Requirements; Review of the Technical and Operational Requirements of Part 76, Cable Television*, Memorandum Opinion and Order, 7 FCC Rcd. 8676 ¶ 39 n.34 (1992).

¹¹⁹ See, e.g., *Alexander v. Sandoval*, 532 U.S. 275, 291 (2001) (holding that federal agencies may not create private rights of action through their rules: “Language in a regulation may invoke a private right of action that Congress through statutory text created, but it may not create a right that Congress has not. . . . Agencies may play the sorcerer’s apprentice but not the sorcerer himself”); *Bonano v. E. Caribbean Airline Corp.*, 365 F.3d 81, 84 (1st Cir. 2004) (“A private right of action, like substantive federal law itself, must be created by Congress. . . . [R]egulation, on its own, cannot create a private right of action.”).

This reduction in consumers' privacy protection is highlighted by how the enforcement approach would presumably apply in practice. Under the Commission's proposal, a consumer might use an MVPD-supplied device or app as well as a third-party device or app. To the extent there were privacy-related issues with the MVPD, enforcement would be handled pursuant to the standards and full consumer protections set forth in Sections 631 and 338, but if there were issues with the third-party device or app, enforcement would instead be administered by the FTC pursuant to its Section 5 standards with the reduced privacy protections noted above. This bifurcated and unequal enforcement approach would clearly fail to meet the privacy expectations of MVPD consumers, and is thus a far inferior approach when compared to the existing apps-based model, under which privacy obligations are clearly defined by the Communications Act, consumer expectations are clearly established, *and the same substantive privacy standards and protections apply to all consumers regardless of whether they lease a set-top box from their MVPD or access their MVPD service on a retail device.*

Finally, it is unclear who would be ultimately responsible for adjudicating the *Notice's* proposed "remedy" of decertifying third-party devices and apps for non-compliance. And regardless of how the Commission attempts to enforce this self-certification regime, ultimately it is consumers who would be punished. As Congresswoman DeGette and Congressman Barton explained, "[s]hould the MVPD believe that the third party has violated the self-certification requirement, the only remedy to immediately protect customer information would be to shut off service to all users of a third-party device or application found to be in violation of the self-certification. This outcome will harm consumers equally if not more so than it would the third

party in violation of sections 631 and 338.”¹²⁰ In short, the group most at risk under this regime would be consumers.

This new idea of a convoluted, indirect enforcement through certifications that will provide fewer protections than direct enforcement of the statute (e.g., loss of a private right of action for consumers and required court order before sensitive PII is disclosed to the government) is simply an unlawful delegation of the FCC’s authority, an abdication of its statutory responsibilities, and just one more example of the difficulties and consumer harms created by this flawed approach – an approach that is entirely unnecessary given that the apps approach completely avoids these difficulties and consumer harms.

Accessibility. Commenters also highlighted the proposal’s shortcomings with respect to accessibility protections. The American Council of the Blind, Telecommunications for the Deaf and Hard of Hearing, Inc., NCTA, and others noted that, unlike MVPD-supplied devices and apps or even third-party devices, third-party apps are not subject to the Commission’s accessibility rules regarding support for closed captioning, video description, and audible emergency information.¹²¹ Thus, the proposed Set-Top Box Mandate would create an “app gap” that would “undermine the accessibility of video programming required by the [Twenty-First Century Communications and Video Accessibility Act or “CVAA”].”¹²² Beyond this, the Commission’s proposal would create customer confusion and frustration in resolving any issues

¹²⁰ See Letter from Reps. Diana DeGette & Joe Barton to Chairman Wheeler, FCC (May 11, 2016); see also Comcast Comments at 96-97; AT&T Comments at 52; NCTA Comments at 80. As such, simply “shutting off” devices and relying on revocation of the Information Flows as Public Knowledge proposes, is ineffective and anti-consumer. See Public Knowledge Comments at 34.

¹²¹ See American Council of the Blind Comments at 1-2; NCTA Comments at 87-90; Telecommunications for the Deaf and Hard of Hearing et al. (“TDI et al.”) Comments at 3-6.

¹²² TDI et al. Comments at 4.

with accessibility features since MVPDs would have no way of knowing how third parties deliver and provide support, if any, for such features.¹²³ And without any contractual or regulatory mechanism to address accessibility features in third-party apps, the Set-Top Box Mandate would also weaken the Commission's accessibility compliance regime by undoing the Commission's efforts to create bright-line compliance rules.¹²⁴

The accessibility gaps in the Commission's proposal stand in stark contrast to the apps-based model. Today, MVPD devices and apps comply with closed captioning, video description, and other accessibility requirements.¹²⁵ Furthermore, MVPD customers can turn to their MVPD when they have an issue with accessibility features, and the MVPD can troubleshoot the issue and, if necessary, coordinate with programmers or others to fix the problem.¹²⁶

VI. COMMENTERS OVERWHELMINGLY DEMONSTRATE THE SUBSTANTIAL COSTS OF THE COMMISSION'S PROPOSAL.

It is apparent from the record that the Commission's proposed Set-Top Box Mandate would impose substantial implementation costs. MVPDs have submitted extensive technical reports and engineering declarations detailing these impacts. Yet, the proponents of the rules have provided little to no analysis that could rebut these expert conclusions, simply offering a

¹²³ As Comcast and others explained, the Set-Top Box Mandate would create customer confusion and frustration with respect to more general customer service issues and troubleshooting since customers would not know who to contact or who is responsible if there is a problem accessing video programming through a third-party device or app. And MVPDs may not be able to resolve implementation issues that are within the third party's control. *See* Comcast Comments at 70-73; AT&T Comments at 57-59; Cox Comments at 11; EchoStar/Dish Comments at 24-25; Frontier Comments at 15-16; Roku Comments at 13.

¹²⁴ Some commenters urge the Commission to extend its accessibility rules to third parties to close the "app gap." *See* American Council of the Blind Comments at 1-3; TDI et al. Comments at 4-5. However, it is unclear whether the Commission has the authority to regulate these entities under the CVAA. Even if it did, the Commission gave no notice that such expansion of the accessibility rules was within the scope of this rulemaking.

¹²⁵ *See* Comcast Comments at 100-01; NCTA Comments at 87-90; American Council of the Blind Comments at 1-3; TDI et al. Comments at 4-8.

¹²⁶ *See* Comcast Comments at 100-01; NCTA Comments at 87-90.

vague, six-page technical appendix that, as discussed further below, contains numerous flaws and raises more questions than it answers.¹²⁷

Notwithstanding the consensus recommendation in the DSTAC Report that “[i]t is not reasonable to expect that all MVPDs will re-architect their networks in order to converge on a common solution,”¹²⁸ the Set-Top Box Mandate would force MVPDs to make costly network changes in order to deliver the three standardized Information Flows.¹²⁹ Public Knowledge contends that the Commission’s proposal provides MVPDs with more flexibility than under the CableCARD regime or the 2010 AllVid proposal.¹³⁰ As an initial matter, the notion that the Set-Top Box Mandate is somehow an improvement over CableCARD is absurd. As discussed above, the CableCARD model was limited to presentation of a cable operator’s linear channel lineup on retail devices and was subject to licensing and certification requirements. It did not, as contemplated in the Commission’s proposal, mandate the disaggregation of MVPD service using the three Information Flows or require the standardization of entitlements and other aspects of the service or remove MVPDs entirely from licensing and certification decisions.¹³¹ Furthermore, rather than giving MVPDs flexibility, the Commission’s proposal would require MVPDs to re-engineer their networks to support a government-imposed standard,¹³² and would

¹²⁷ See CVCC Technical Appendix.

¹²⁸ DSTAC Report, Executive Summary at 3.

¹²⁹ Given the fundamental differences in how MVPDs deliver their services, it is not technically feasible to make cloud DVR service available to third parties under the proposed rules as some proponents request. See TiVo Comments at 14; WGAW Comments at 11. Cloud DVR is not delivered through a standard interface and cannot be delivered to third parties using the Commission’s proposed Information Flows. See Comcast Comments at 61 n.160.

¹³⁰ See Public Knowledge Comments at 3.

¹³¹ Comcast Comments at 61-63; DSTAC Report at 30-32.

¹³² See, e.g., Public Knowledge Comments at 3. Dr. Reed confirms that the *Notice* “establishes new technical requirements that will necessitate significant changes in the technical design of current MVPD networks to address network reliability, network security and innovation needs.” Declaration of Dr. David P. Reed, Appendix A at 6 (“Reed Decl.”).

create a host of other harms. For example, delivering the standardized Information Flows to third-party devices and apps would likely take up additional network bandwidth,¹³³ diverting bandwidth from other services like broadband and complicating IP transition efforts by Comcast and other operators.¹³⁴ As Dr. Reed concludes, “constraining the flexibility of MVPDs to implement technical strategy in a highly competitive market where rapid technological changes are the norm is not the right regulatory approach since it will be the customers of the MVPDs that ultimately will suffer with suboptimal services.”¹³⁵

The record also makes clear that the Set-Top Box Mandate would require the development and deployment of costly new in-home equipment in order to deliver MVPD content to third-party devices and apps,¹³⁶ undermining the Commission’s key goal of reducing reliance on MVPD-supplied equipment. As the Natural Resources Defense Council and others noted, additional equipment would also undercut industry efforts to curb energy consumption of set-top boxes and other equipment and would raise energy costs.¹³⁷ Contrary to the suggestion advanced by some commenters that existing in-home equipment like a modem or router will suffice,¹³⁸ these devices are not designed to support the Commission’s proposed Information Flows. Furthermore, although CVCC claims that its Technical Appendix demonstrates that a “cloud-based” implementation of the proposal is feasible, Dr. Reed finds that the Technical

¹³³ See ARRIS Comments at 11; NCTA Comments at 113-14; *see also* ACA Comments at 48-49.

¹³⁴ See Comcast Comments at 63-64, 68.

¹³⁵ Reed Decl. at 14.

¹³⁶ See Comcast Comments at 64-67; ACA Comments at 53-54; NCTA Comments at 130-32; *see also* AT&T Comments at 25 (explaining that, because of the one-way architecture of DirecTV’s satellite network, it would need to make changes to its set-top box to include new outputs capable of supplying the three Information Flows).

¹³⁷ See NRDC Comments at 1-3; NCTA Comments at 132-34.

¹³⁸ See Public Knowledge Comments at 20.

Appendix lacks sufficient detail and fails to substantiate that the standards listed can support delivery of the Information Flows on a cloud-to-ground basis, and concludes that “the new video system architecture that MVPDs will need to build to support the [Notice] will require a new device in the home.”¹³⁹

VII. CONTRARY TO PROPONENTS’ CLAIMS, THE COMMISSION’S STANDARDS-SETTING PROPOSAL WOULD CHILL INNOVATION AND COULD NOT BE IMPLEMENTED IN THE TWO-YEAR TIMEFRAME CONTEMPLATED IN THE NOTICE.

The Set-Top Box Mandate would bring the unparalleled innovation in today’s dynamic video marketplace to a grinding halt. Many commenters warned that the proposed rules would saddle MVPDs with a one-size-fits-all technology mandate that would, contrary to Congress’s instructions, “have the effect of freezing or chilling the development of new technologies and services.”¹⁴⁰ Such forced standardization would lack the flexibility needed to respond to the rapid changes in the marketplace and technology, resulting in increased (and often unnecessary) costs to consumers and, critically, at further expense to innovation itself.¹⁴¹ As with the Commission’s prior attempts at technology mandates in this fast-changing environment, such as with CableCARD and with IEEE 1394 set-top box interfaces, the Commission’s proposed Set-

¹³⁹ Reed Decl. at 3; *see also id.* at 2-7. Dr. Reed further notes that “the lack of attention in the [Notice] to any issues associated with the cost of implementation to the proposed solution is troubling” and that “[i]n an ideal world, policy makers have a deep, quantitative understanding of the costs and benefits of their policy proposals and the alternatives.” *Id.* at 16. However, in this case, “[t]here are too many uncertainties and the regulatory framework mandates too many technical details for which the [Notice] has not performed the necessary cost-benefit analysis to insure this is the right direction to pursue” and “[t]here is simply too much risk associated with rushing to adopt an approach that has yet to be described in sufficient detail to be able to seriously conclude that benefits will outweigh the costs of adoption.” *Id.* at 17-18.

¹⁴⁰ H.R. Rep. No. 104-458, at 181 (1996); *see also* NCTA Comments at 106-13.

¹⁴¹ *See, e.g.*, Comcast Comments at 106-08; AT&T Comments at 29-32; ARRIS Comments at 11-12; NCTA Comments at 106-08, 114-18.

Top Box Mandate is likewise destined for almost immediate obsolescence, and will very likely result in substantial (and completely unnecessary) costs to consumers and harms to innovation.¹⁴²

Beyond the well-documented substantive concerns with government-imposed standards, the record makes clear that the Commission's proposed two-year deadline to develop and implement any new standard is entirely unrealistic.¹⁴³ Even putting aside the fact that standards setting alone generally takes many – and far more than two – years to complete,¹⁴⁴ the *Notice* fails to account for the significant time it would take for MVPDs to, as discussed above, redesign and re-architect their networks or to develop new in-home equipment to implement such a burdensome mandate.¹⁴⁵

Proponents of the Set-Top Box Mandate nevertheless continue to insist that the two-year deadline is feasible because standards could be developed quickly using off-the-shelf

¹⁴² See ACA Comments at 42-43; Comcast Comments at 106-08; NCTA Comments at 114-18.

¹⁴³ See, e.g., ARRIS Comments at 9; MPAA Comments at 30; USTelecom Comments at 11-12.

¹⁴⁴ See, e.g., AT&T Comments at 21-22 (“Establishing new standards from scratch has generally taken as long as ten years, even where the parties were aligned in purpose and the task at hand was far simpler.”); NCTA Comments at 123-24 (stating that it took ten years to develop the HTML5 standard, six years for CableCARD, and nine years for IEEE 1394, and noting that “such six-to-ten year period are typical even when there is widespread agreement on core objectives”). As Dr. Reed explains, “[A]lmost all estimates are overly optimistic of the time it will take to create a standard in an open standards body. . . . One of the first steps in well-managed standards development is to establish specific requirements and use cases for how the technology will be applied. Once rigorous effort is applied to develop specific and detailed descriptions of use cases for the standardized technology, the usual outcome is a much larger number of requirements than originally contemplated for coverage by the standard.” Reed Decl. at 9.

¹⁴⁵ AT&T Comments at 25 (“[T]he Commission has recognized that a normal product cycle is 18-24 months. . . . Thus, if these rules must be implemented within two years, at best the [*Notice*] would leave at most six months and as little as no time whatsoever for establishing Open Standards Bodies, developing standards, and creating certification test regimes. That fact alone demonstrates the folly of the Commission’s proposed timeline.”); Comcast Comments at 64-67 (noting that MVPDs would need the same lead time to develop the new in-home gateway device); Cox Communications Comments at 12; EchoStar/Dish Comments at 11; NCTA Comments at 19-20. Moreover, the *Notice* fails to recognize that, even in addition to the time needed to develop commercial products, those products need to be tested for compliance with the standard before being released for manufacturing and sale. The Commission proposes no realistic framework for how this will be accomplished or what body is empowered to adjudicate issues uncovered in compliance testing. See, e.g., Comcast Comments at 103-06.

technologies.¹⁴⁶ But these claims have already been disproven. There is no off-the-shelf technology upon which new standards can be developed.¹⁴⁷ Although some proponents claim that it would be possible to build upon VidiPath to develop a standard quickly,¹⁴⁸ DLNA explains that the Commission's proposal "is *materially different* than the DLNA VidiPath architecture."¹⁴⁹ Rather, VidiPath *is an apps-based solution* and "is not designed to support a disaggregation model, and does not support access to MVPD service without the MVPD-supplied app."¹⁵⁰ In fact, DLNA estimates that a more realistic expectation for a project of this magnitude is approximately three years, and this does not even account for the necessary implementation time.¹⁵¹ Based on his extensive experience with standards-setting efforts, Dr. Reed likewise concurs that the two-year timeframe set forth in the *Notice* is not realistic.¹⁵²

¹⁴⁶ See, e.g., CVCC Comments at 30-31; INCOMPAS Comments at 18-21; Public Knowledge Comments at 15. CVCC also has claimed that the functionality of the implementations described in its Technical Appendix is the same as the demonstrations provided to the FCC by CVCC. NCTA has previously raised substantial questions about those demonstrations, see Jan. 15 NCTA Ex Parte, and as Dr. Reed further notes, "little technical analysis has been conducted regarding how the features were demonstrated, specific devices used, actual protocols used between devices and technical diagrams of the use cases shown," Reed Decl. at 12. He further underscores that: "Technology demonstrations can be useful tools to help perform early due diligence on technical options, but they also can engender false confidence, like 'fool's gold' with regard to the actual technical complexity associated with applying technology to solve a particular solution." *Id.*

¹⁴⁷ See, e.g., ARRIS Comments at 9; Comcast Comments at 104; ITTA Comments at 12-13.

¹⁴⁸ See CVCC Comments at 28-29 & n.61; Public Knowledge Comments at 20 & n.30.

¹⁴⁹ DLNA Comments at 2 (emphasis added).

¹⁵⁰ Comcast Comments at 104; see also NCTA Comments at 122 & n.291.

¹⁵¹ See DLNA Comments at 2. CVCC's reliance on DLNA and UPnP specifications, see CVCC Technical Appendix at 3, has another drawback. As Dr. Reed points out, "[E]xisting technologies can only bend so far to support use cases that the technology was not developed to support before an entirely new approach is warranted" Reed Decl. at 9-10. "[I]t appears the [*Notice's*] proposal supports the notion that DLNA and UPnP specifications can be modified to quickly provide a cloud-based solution for delivering the Information Flows, even though these technologies have been completely developed to only extend a remote user interface between devices connected over home networks. There is no evidence that DLNA and UPnP technology can make this leap in functionality." *Id.* at 10.

¹⁵² See *id.* at 9 ("Given DLNA's range for how long it would take to create a DLNA profile, the total time for the development of standards to the point of certification of equipment plus the time for implementation on MVPD networks will likely take 3 – 5 years.").

Given that the standards-setting process could not be completed and implemented in the two-year timeframe contemplated in the *Notice*, the Commission should recognize calls from the CVCC and others to adopt their preferred fallback standard for what they are: a thinly veiled attempt to have their favored technical solution codified into rules.¹⁵³ Comcast and others explained that standards-setting is a consensus driven process, and any fallback standard that would automatically become effective would only undermine incentives for proponents of the fallback standard to come to the table in the standards-setting process.¹⁵⁴ That would hardly qualify as an open standards process, and instead would further highlight the arbitrary and capricious nature of the Commission's proposed approach. Moreover, as Dr. Reed observes, "no technical standards exist today to support the [Commission's] proposal, and thus "no set of specifications exist today that can function as a fallback if the Open Standards Body is unable to create a standard on a timely basis."¹⁵⁵

VIII. CONCLUSION

The record confirms that the Commission's Set-Top Box Mandate is entirely unnecessary to achieve the goals of Section 629, and would threaten the dynamism and innovation in today's video marketplace. Instead, the Commission should embrace the proven apps-based approach – as MVPDs, OVDs, programmers, device manufacturers, and consumers have done – which will

¹⁵³ See CVCC Comments at 35-36; Public Knowledge Comments at 55.

¹⁵⁴ See, e.g., AT&T Comments at 25-26 (adopting a fallback proposal by the proponents of the Set-Top Box Mandate "would give all the leverage to third-party navigation device manufacturers, which would have no incentive to compromise in the development of workable standards"); NTCA—The Rural Broadband Association Comments at 19 (The "use [of] the 'Competitive Navigation' approach as a 'safe harbor' or 'fallback' . . . is effectively an open invitation to proponents of Competitive Navigation – an approach that found *no consensus* as part of the DSTAC process – to 'run out the clock' on finding a truly workable solution so that the 'fallback' becomes the *de facto* standard.") (emphasis in the original).

¹⁵⁵ Reed Decl. at 12-13.

only continue to expand device options for consumers consistent with Congress's statutory objectives.

Respectfully submitted,

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APPENDIX A