

**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

COMMENTS OF CENTURYLINK

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SUMMARY

CenturyLink, a global provider of communications, hosting, cloud and IT services, offers its Prism® TV Internet Protocol-based (“IP”) video services (“IPTV”) to over 285,000 customers in 19 markets, passing 3.2 million homes. As a competitive video provider facing direct competition from existing cable operators as well as direct broadcast satellite providers, CenturyLink would be directly and adversely affected by the rules proposed in the Notice of Proposed Rulemaking (“NPRM”) in the captioned proceeding.

The rules, as proposed, are flatly inconsistent with the language of Section 629 of the Communications of 1934, as amended (which requires that the Commission adopt regulations “to assure the commercial availability of navigation devices”), the FCC’s own characterization of that language, the provision’s legislative history, as well as the explicit direction of Congress in the Satellite Television Extension and Localism Act Reauthorization Act of 2014 (“STELAR”). In addition, the proposed rules would violate the section’s proscription on the Commission taking any action that would jeopardize the security of MVPD programming and services.

The proposed rules are also not necessary to ensure a competitive market for navigation devices in today’s marketplace. This is based on clear evidence of the commercial availability of equipment from manufacturers, retailers and other vendors not affiliated with any MVPD, which are used by consumers to access multichannel video programming. The market is also flooded with programming services that are available from third party providers, with new providers continuously announcing the release of their programming via over-the-top (“OTT”) application-based solutions.

CenturyLink currently supports distribution of its video content over many different consumer devices available from third party providers. In addition, customers can access live programming available on Prism TV from numerous video programming providers on the device of their choice. CenturyLink's experience is consistent with the Commission's own findings in its recent video competition reports. Indeed, even when looking just at set-top boxes, there are a myriad of devices currently available at retail from which subscribers may choose. While retail purchase of set-top boxes may have not met the Commission's expectations, the NPRM ignores that this is a function of consumer choice, based on the perceived pros and cons of leasing versus buying, particularly for equipment that is undergoing technological change and is frequently upgraded or replaced.

Finally, the proposed rules are not necessary to protect consumers, and rather than being pro-consumer, will ultimately harm them. In particular, the proposed rules will harm competition for the provision of video service, increase the cost of programming to consumers, and stifle technological innovation. As to CenturyLink, in particular, the company has made significant investments in developing its navigation interface and is also investing resources to support delivery of 4K content on Prism TV in the near future as well as to enhance customer options for receiving and viewing its video content. If CenturyLink is forced to strip out its proprietary navigation protocols and make naked metadata streams available to third party customer equipment providers, it will lose a key and essential tool for competing with incumbent and other video providers. At a minimum, the time and dollars that CenturyLink will have to invest to comply with the proposed new rules will have a direct, negative impact on its ability to innovate and on its technological advancement.

For all of these reasons, the Commission should abandon its effort to require MVPDs to unbundle their services into the Information Flows proposed in the NPRM under the guise of assuring the commercial availability of navigation devices. Instead, the Commission should find, consistent with Section 629(e), that there is a competitive market for MVPD services and navigation devices such that regulation in this area is not warranted or necessary to promote competition or the public interest. Alternatively, the Commission should limit this proceeding, as directed by Congress, to consideration of recommendations for software-based downloadable security solutions for navigation devices that are not unduly burdensome, are uniform, and technology- and platform-neutral.

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COMMENTS OF CENTURYLINK¹

CenturyLink respectfully submits these comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.²

I. INTRODUCTION AND BACKGROUND

A. Overview

CenturyLink is a global provider of communications, hosting, cloud and IT services. In 2007, CenturyLink began offering Internet Protocol-based (“IP”) video services (“IPTV”), branded under the name Prism[®] TV. In providing Prism TV, CenturyLink is a multichannel video programming distributor (“MVPD”) that provides facilities-based video service to over 285,000 customers in 19 markets and passes 3.2 million homes.³ As a competitive video provider in its Prism TV markets facing direct competition from existing cable operators as well

¹ This filing is made on behalf of CenturyLink, Inc. and its subsidiary entities that provide video services.

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

³ In 2015, CenturyLink added four new markets (Seattle, Minneapolis, Portland, and Salt Lake City) and increased Prism customers by 19 percent.

as direct broadcast satellite providers, CenturyLink would be directly and adversely affected by the rules proposed in the NPRM.

The rules, as proposed, would impede CenturyLink's ability and limit its incentive to innovate and invest in new navigation technologies, and would devalue CenturyLink's unique delivery of content to its customers. The rules not only reach beyond the Commission's mandate under Section 629 of the Communications Act of 1934, as amended,⁴ but also threaten the security of CenturyLink's network. Simply put, the Commission's path forward from CableCARD and the integration ban is no path at all. Rather, the proposed rules would establish new mandates that have at their core, the fostering of a whole new ecosystem for the navigation of MVPD content, when all Congress had in mind was to have the Commission take steps to assure that third-party set-top boxes and other navigation devices would be available from retail outlets.

As background, we begin with an overview of CenturyLink's Prism TV and related services and continue with discussions of the reach of the Commission's authority under Section 629 of the Communications Act, the status of today's flourishing market for access to content, and the harms that customers will endure should the Commission impose the new rules as proposed.

B. Background on Prism TV

Prism TV's IPTV service is distributed over CenturyLink's managed two-way IP network and delivered to subscriber homes usually via a fiber/copper network, or sometimes, via fiber-to-the-home technology. The service delivers high-quality video content, including High Definition ("HD") channels, local broadcast stations, premium channels, on-demand content and

⁴ 47 U.S.C. § 549.

international programming. The service also offers a large selection of sports channels and premium mobile content. Subscribers also have access to on-demand content, programmer-provided apps like HBO GO, and can download the Prism[®] TV App to their mobile device to watch video content and manage their DVR. Prism TV's advanced features include a wireless set-top box, a whole-home DVR, fast channel change, Find-It-Fast Navigation[®], and an app center that provides access to interactive and local content.

Approximately ninety percent of new Prism TV customers also purchase high speed Internet service, which resonates well for those who enjoy over-the-top streaming video alternatives. In its IPTV markets, CenturyLink offers broadband speeds ranging from 1.5Mbps to 100Mbps, and in markets where it has launched full gigabit service, those customers are enjoying CenturyLink video products using incredible speeds over its gigabit network.

Prism TV is a competitive offering to existing video distribution services that gives consumers a valuable choice in the markets in which it is offered. At the same time, CenturyLink's ability to provide that choice in existing or new markets depends on a regulatory and market environment that will support its competitive entry.

II. DISCUSSION

A. The Proposed Rules are Beyond the Commission's Authority under Section 629, Violate the Section's Explicit Mandate, and are Contrary to the Explicit Direction of Congress.

The NPRM tentatively concludes that the Commission has the legal authority under Section 629 to adopt its proposed rules.⁵ Finding ambiguity in a provision that mandates the adoption of regulations to "assure the commercial availability of . . . converter boxes, interactive communications equipment, and other equipment used by consumers to access" video

⁵ NPRM, ¶ 21.

programming and other services offered by MVPDs,⁶ the Commission concludes that its mandate is not limited to facilitating the commercial availability of navigation *equipment*. Rather, the Commission finds that a “broad interpretation” of otherwise unambiguous statutory language is necessary to “facilitate the commercial development of competing navigation *technologies*.”⁷ In other words, according to the Commission, “[i]n today’s marketplace, ‘navigation devices’ . . . include both hardware and software technologies.”⁸

Thus, the Commission concludes, its authority extends not just to the commercial availability of navigation devices, *per se*, and asks whether it should modify its definition of navigation devices “to treat software on the device (such as an application),” as itself a “‘navigation device,’ separate and apart from the hardware on which it is running.”⁹ And, to further this goal of assuring the competitive availability of new, innovative navigation technologies, the Commission asserts the authority to require that Service Discovery, Entitlement, and Content Delivery information – the three “Information Flows” it identifies in the NPRM – be provided by MVPDs to “all hardware manufacturers, software developers, application designers, system integrators, and other such entities . . . who are involved in the development of navigation devices or whose products enable consumers to access multichannel video programming over any such device.”¹⁰

The Commission’s new-found view of its authority and the scope of Section 629 is flatly inconsistent with the language of the provision itself, its own characterization of that language,

⁶ See 47 U.S.C. § 549(a).

⁷ NPRM, ¶ 21.

⁸ *Id.*

⁹ *Id.*, ¶ 24.

¹⁰ *Id.*, ¶ 21.

the provision’s legislative history, as well as the explicit direction of Congress in the Satellite Television Extension and Localism Act Reauthorization Act of 2014.¹¹ In addition, it would violate the section’s proscription on the Commission taking any action “which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems”¹² For these reasons alone, it should decline to adopt the rules proposed in the NPRM.

1. The Proposed Rules Exceed the Commission’s Statutory Authority.

Section 629(a) could not be clearer: “The Commission shall . . . adopt regulations to assure the commercial availability . . . of converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, from manufacturers, retailers, and other vendors not affiliated with any multichannel video programming distributor.”

While the path to implementation has no doubt been challenging,¹³ the section’s mandate is rather straightforward: “The FCC was directed to take steps to make converter boxes (and other navigation devices) commercially available from sources other than cable operators.”¹⁴

¹¹ Satellite Television Extension and Localism Act Reauthorization Act of 2014 (“STELAR”), § 106, Pub. L. No. 113-200, 128 Stat. 2059, 2063-4 (2016).

¹² 47 U.S.C. § 549(b).

¹³ See *EchoStar Satellite L.L.C. v. Federal Communications Commission*, 704 F.3d 992, 994 (D.C. Cir. 2013) (observing in an opinion vacating the Commission’s CableCARD regulations implementing Section 629, that “in an industry marked by constant innovation and year-to-year change, the dispute over the regulations in this case have lasted a full decade”).

¹⁴ See *General Instrument Corp. v. Federal Communications Commission*, 213 F.3d 724, 727 (D.C. Cir. 2000).

One need read no further than the very first sentence of the NPRM to realize that the rules proposed by the Commission exceed its rather limited statutory mandate. There, the Commission indicates that it is proposing rules “that will both empower consumers to choose how they wish to access the multichannel video programming to which they subscribe, and promote innovation in the display, selection, and use of this programming and of other video programming available to consumers.”¹⁵ 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.

This narrow reading of Section 629 is also confirmed by the legislative history of the provision. The original House version of what ultimately became Section 629 under Section 304 of the Telecommunication Act of 1996,¹⁶ was a far broader provision than what was ultimately enacted. Specifically, Section 203 of H.R. 1555, entitled “Competitive Availability of Navigation Devices”, adding new Section 713 to the Communication Act, would have mandated that the Commission “adopt regulations to assure *competitive availability*, to consumers of telecommunications subscription services, of converter boxes, interactive communications devices, and other customer premises equipment from manufacturers, retailers, and other vendors

¹⁵ NPRM, ¶ 1.

¹⁶ Telecommunications Act of 1996, Pub. L. No. 104-104, § 304, 110 Stat. 56, 125-126 (1996) (“1996 Act”).

not affiliated with any telecommunications system operator.”¹⁷ The House Report noted that the provision had two overarching goals, both tied to competition – competition in the markets for navigation devices and other customer premises equipment, as well as competition among service providers:

[T]he transition to competition in network navigation devices and other customer premises equipment is an important national goal. Competition in the manufacturing and distribution of consumer devices has always led to innovation, lower prices and higher quality. Clearly, consumers will benefit from having more choices among telecommunications subscription services arriving by various distribution sources.¹⁸

However, the provision ultimately enacted into Section 629, by Section 303 of the 1996 Act significantly narrowed the House provision.¹⁹ First, the scope of the regulations to be adopted by the Commission is “narrowed to include only equipment used to access services provided by multichannel video programming distributors.”²⁰ Second, rather than adopt regulations to “assure *competitive* availability” of navigation devices, the Commission is directed to prescribe regulations to “assure *commercial* availability” of navigation devices.²¹

Moreover, the Commission’s decisions which originally implemented Section 629 properly reflected the statute’s focus on the provision as a means to foster the commercial availability of *equipment* used to access MVPD programming and services. Specifically, in the

¹⁷ See H. Rept. 104-204 at 37, 104th Cong., 1st Sess. (1995) (“House Report”) (text of H.R. 1555, Section 203, adding Communications Act of 1934, § 713(b) (emphasis added)). Under the House bill telecommunications subscription services were defined as “the provision directly to subscribers of video, voice, or data services for which a subscriber charge is made” and a telecommunications system operator as a provider of such services. *Id.*, § 713(a).

¹⁸ *Id.* at 112.

¹⁹ S. Rep. 104-230, 104th Cong., 2d Sess. at 181 (1996) (Joint Explanatory Statement of the Committee of Conference).

²⁰ *Id.*

²¹ *Id.*

Navigation Device First Report and Order, the Commission describes the mandate of Section 629 as to “ensure the commercial availability of ‘navigation devices,’ the *equipment* used to access video programming and other services from” MVPD systems: “The purpose of Section 629 and the rules we adopt is to expand opportunities to *purchase this equipment from sources other than the service provider,*” which the Commission described as “set-top boxes and other customer premises equipment (‘CPE’).”²²

Similarly, in the Navigation Device Order on Reconsideration, the Commission described the scope of Section 629 as requiring it “to ‘assure’ that ‘navigation devices’ or customer premises equipment (‘CPE’), used in conjunction with multichannel video programming distribution, are available for commercial retail purchase.”²³ And again in the 2003 Navigation Device Second Report and Order, in which the Commission adopted the CableCARD standard, the Commission described the purpose of the Section 629 proceedings as “to facilitate the direct connection of digital ‘navigation devices’ or customer premises equipment purchased from retail outlets -- including television receivers, set-top boxes and digital recorders -- to cable television and other multichannel video programming distributor (“MVPD”) systems.”²⁴

While the Commission asserted in its 2003 order specifying the CableCARD standard that “[t]he mandate of Section 629 is broad,” as it acknowledges in the very next sentence of that order, all that Section 629 really requires is that the Commission “assure the commercial

²² *Commercial Availability of Navigation Devices*, Report and Order, 13 FCC Rcd 14775, 14776-8 at ¶¶ 1,7 (1998).

²³ *Commercial Availability of Navigation Devices*, Order on Reconsideration, 14 FCC Rcd 7596, 7597 at ¶ 1 (1999).

²⁴ *Commercial Availability of Navigation Devices (Compatibility Between Cable Systems and Consumer Electronics Equipment)*, Second Report and Order and Second Further Notice of Proposed Rulemaking, 18 FCC Rcd 20885, 20886 at ¶ 1 (2003).

availability of navigation devices.”²⁵ Indeed, as the D.C. Circuit found in its 2013 decision in *EchoStar v. FCC*, vacating the CableCARD orders as exceeding that mandate, the statutory language is anything but broad, and is certainly “not as capacious as the agency suggests.”²⁶

In *EchoStar v. FCC*, EchoStar challenged “encoding” rules, which were adopted by the Commission as part of its CableCARD rules, and prescribed what distributors could encode within their programming streams.²⁷ The encoding rules banned “selectable output control”, which allows distributors and content providers to remotely shut off a connector output on a program-by-program basis, prohibited down resolution of broadcast programming, and limited the level of copy protection applicable to certain categories of programming.²⁸ DBS providers objected to the application of the encoding rules to all MVPDs, and the Commission concluded that applying them only to cable operators, would, among other things, “create a competitive

²⁵ *Id.*, 20905 at ¶ 46.

²⁶ *EchoStar*, 704 F.3d 992, 997 (D.C. Cir. 2013).

²⁷ *Id.* at 994. By way of background, in its 1998 order implementing Section 629, the Commission required MVPDs to make available a security element separate from the other elements of a navigation device. As the Commission recognized in its most recent Video Delivery Competition Report, this was “designed to let unaffiliated consumer electronics companies offer retail video navigation devices and let MVPDs retain control over system security.” *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Sixteenth Report, MB Docket No. 14-16, 30 FCC Rcd 3253, 3377 at ¶ 329 (2015) (“2015 Competition Report”). The Commission required that this separate security element connect to and function with other navigation devices through a commonly-used or standard interface, *see id.*, and adopted what has come to be known as the “integration ban” – the requirement that MVPDs also rely on the separated security element in the devices leased to consumers. NPRM, ¶ 6. In the 2003 Second Report and Order on review in *EchoStar*, the Commission adopted the CableCARD standard on which digital cable systems were required to rely in order to meet these security requirements.

²⁸ *EchoStar*, 704 F.3d at 995.

imbalance” in the industry, and served “to strike a measured balance between the rights of content owners and the home viewing expectations of consumers.”²⁹

In vacating the CableCARD rules adopted under Section 629, the court found that Section 629 “provides no explicit textual basis for the encoding rules, instead authorizing ‘regulations to assure the commercial availability’ of navigation devices.”³⁰ The court rejected the Commission’s argument that the encoding rules fulfill consumer expectations that “their digital televisions and other equipment will work to their full capabilities” and that enhancing consumer demand through consumer satisfaction would ensure a viable commercial market for navigation devices, fulfilling the Section 629 mandate.³¹ In addition, the court rejected the Commission’s reasoning that the encoding rules were an essential element to the industry Memorandum of Understanding (“MOU”) that gave rise to the CableCARD standard, which, the Commission reasoned, was necessary to assure the commercial availability of navigation devices.³²

But this cannot be enough to tether the encoding rules to § 629. The FCC cannot simply impose any regulation stipulated in an MOU as a means of promoting the commercial availability of navigation devices, no matter how tenuous its actual connection to § 629’s mandate. To read § 629 in this way would leave the FCC’s regulatory power unbridled - so long as the agency claimed to be working to make navigation devices commercially available.

The Commission fared no better with its argument that the encoding rules were reasonably ancillary to its effective execution of its duties under Section 629. The court, “[g]uided by the principle that ancillary jurisdiction is not ‘unrestrained authority’”, refused to

²⁹ *Id.* at 996.

³⁰ *Id.* at 997.

³¹ *Id.*

³² *Id.* at 997-998.

“interpret ancillary authority as a proxy for omnibus powers limited only by the FCC's creativity in linking its regulatory actions to the goal of commercial availability of navigation devices.”³³

Here, the Commission goes well-beyond measures necessary to assure the commercial availability of set-top boxes and other navigation devices. Instead, it proposes rules “to promote innovation in the display, selection, and use of” MVPD video programming and services,³⁴ which, are based on the notion that in order to promote a competitive market for retail navigation devices, manufacturers must be able to differentiate their products from MVPDs through the use of such features as unique user interfaces, search functions, and the ability to record programming.³⁵

The Commission, however, should it adopt the proposed rules, would fall into the same trap that ensnared its CableCARD rules. Rather than focusing on the narrow mandate of Section 629, it is mandating the provision of Information Flows that manufacturers and consumer interest groups are saying are necessary to differentiate third party products, and make them more attractive to consumers. This is no different than the reasoning that was fatal to the CableCARD encoding rules – that enhancing consumer demand through consumer satisfaction would ensure a

³³ The Commission argued that the encoding rules were reasonably ancillary to its mission of ensuring commercial availability of navigation devices, because it removed one of the “stumbling blocks” to the consumer electronics industry's production of such equipment for retail. In other words, according to the Commission, the rules were necessary to address the “inability of industry to agree on a comprehensive set of technical copy protection measures and corresponding encoding rules” that would “ensure the availability of high value content to consumers in a protected digital environment”. However, the court found that by that standard, “there is little the FCC could not regulate in the name of fulfilling § 629's mandate. . . . Under the FCC's view, its ancillary jurisdiction is effectively plenary.” *Id.* at 998.

³⁴ NPRM, ¶ 1.

³⁵ *See, e.g.*, FCC Staff Guidance to DSTAC, Apr. 27, 2015, available at: <https://transition.fcc.gov/dstac/fcc-staff-guidance-04272015.docx>.

viable commercial market for navigation devices, fulfilling the Section 629 mandate.³⁶ As was the case in *EchoStar*, that is far too tenuous a connection to the Commission’s narrow mandate under Section 629, and the proposed rules are beyond the Commission’s authority.

2. The NPRM is Flatly Contrary to Congress’ Direction to the Commission in STELAR.

As the Commission recognizes in the NPRM, Section 106 of STELAR, passed by Congress in 2014, had two main purposes. First, it eliminated the integration ban as of December 4, 2015, and directed the Commission to remove the integration ban from its regulations. Second, it directed the Commission Chairman to appoint a working group of technical experts to recommend a system for downloadable security that could advance the goals of Section 629. Specifically, Section 106(d) directed the Chairman to establish a working group of technical experts “to identify, report, and recommend performance objectives, technical capabilities, and technical standards of a not unduly burdensome, uniform, and technology-- and platform-neutral software-based downloadable security system designed to promote the competitive availability of navigation devices in furtherance of section 629 of the Communications Act.”³⁷

In response to Section 106, the FCC chartered a new federal advisory committee, the Downloadable Security Technical Advisory Committee (“DSTAC”).³⁸ Consistent with Section 106, DSTAC’s charter described as its scope and objective to “file a report with the Commission by September 4, 2015 identifying, reporting, and making recommendations for performance

³⁶ *EchoStar*, 704 F.3d at 995.

³⁷ STELAR, § 106(d).

³⁸ See *Downloadable Security Technology Advisory Committee, Charter (Dec. 5, 2014)* available at: <https://transition.fcc.gov/dstac/dstac-charter.pdf>

objectives, technical capabilities, and technical standards of a not unduly burdensome, uniform and technology- and platform neutral software-based downloadable security system.”³⁹ As noted in the DSTAC Final Report, the DSTAC recommendations, and now the NPRM, exceeded the scope of the Congressional mandate in STELAR:⁴⁰

One of the points of contention within the advisory committee is whether examination of non-security related issues is beyond the scope of the congressional mandate. STELAR gave the committee a very specific mission as stated in the Introduction. STELAR does not direct the committee to recommend just any performance objectives, technical capabilities, or technical standards, but only those related to designing a downloadable security system, and only to the extent that they are not unduly burdensome. Thus some committee members believe the analysis of Working Group 4 on non-security issues exceeds the scope of issues Congress intended the advisory committee to consider.

The Senate Report, in describing what became the DSTAC provision of STELAR, made absolutely clear that the provision’s purpose was limited to “set top box security” architecture to foster the sale of set top boxes, not some new navigation technology ecosystem. In addition to sunsetting the FCC’s existing “integration ban”, the Senate Report noted that the provision would establish “a working group overseen by the FCC to consider technical standards for a next-generation set-top box security architecture meant to help foster increased retail set-top box

³⁹ *Id.*

⁴⁰ DSTAC Summary Report at 1 (Aug. 28, 2015). One reason for this, apparently, is that in Staff Guidance, Commission Staff directed DSTAC to go beyond the Congressional mandate limited to “designing a downloadable security system, and only to the extent that they are not unduly burdensome.” Instead, in response to questions from the consumer electronics industry and public interest advocates, staff directed DSTAC, in addition to focusing on downloadable security solutions, to make recommendations on features such as unique user interfaces, search functions, and the ability to record programming. FCC Staff Guidance to DSTAC, Apr. 27, 2015, available at: <https://transition.fcc.gov/dstac/fcc-staff-guidance-04272015.docx>.

competition.”⁴¹ Moreover, the specific provision of the bill that ultimately became Section 106(d):⁴²

would direct the FCC to convene a working group of technical experts from a variety of stakeholders to identify, report, and recommend performance and technical standards for a software-based downloadable security system in order to promote the competitive availability of set-top boxes, including boxes from third parties available at retail.

The legislative history on the House side, likewise, reflects that rather than being an invitation to use Section 629 as an excuse to impose vast new regulatory requirements on the MVPD industry in the name of advancing new navigation technologies and next generation options for consumers, STELAR was in fact intended to find a successor solution to CableCARD and the integration ban, and was described as “prime examples of the kinds of deregulatory changes that we are looking at as we work to replace the 80-year old Communications Act.”⁴³

In short, STELAR directed the Commission to form a working group for the sole purpose of making recommendations on the development of a not unduly burdensome, downloadable security system, as a successor to CableCARD and the integration ban. It provided no new basis of regulatory authority beyond that already existing in Section 629, and made crystal clear Congressional intent that the purpose of Section 629 was to assure alternative, third party sources for set-top boxes available at retail. The Commission’s use of the STELAR-mandated DSTAC process as a jumping off point for new burdensome rules that have as their core purpose fostering the development of an entirely new competitive MVPD navigation ecosystem, directly contravenes that Congressional mandate.

⁴¹ S. Rept. 113-322, 113th Cong., 2nd Sess. at 6 (2014).

⁴² *Id.* at 14.

⁴³ STELA Reauthorization Act of 2014, 160 Cong. Rec. H. 8081 (statement of Rep. Fred Upton).

3. The NPRM is Contrary to Section 629's Prohibition on the Commission Taking any Action which Would Jeopardize Security of Video Programming and Other Services.

Section 629(b) prohibits the Commission from prescribing regulations under subsection (a) that 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.”⁴⁴ There is no question that here, if adopted, the proposed rules would subject MVPDs and their program suppliers to serious, significant, and substantial risk,⁴⁵ in violation of that provision.

The Commission proposes to require MVPDs to make their content available through a security system that can be licensed to commercial navigation device providers without any need to test with the MVPD, obtain certification from the MVPD, or otherwise seek permission from the MVPD to make that content available to consumers through their commercial navigation devices.⁴⁶ The Commission cannot simultaneously prohibit MVPDs from testing and certifying that commercial navigation devices can securely provide their programming in compliance with their content agreements without jeopardizing the security of that programming.

Moreover, the Commission cannot require that MVPDs design access to their programming through a standard security system without jeopardizing the security of that programming. The mere assertion by the Commission that it will allow MVPDs to retain control over their security by allowing them to choose which “compliant” security system they will

⁴⁴ 47 U.S.C. § 549(b).

⁴⁵ See *General Instrument Corp. v. FCC*, 213 F.3d 724, 731, 734 (D.C. Cir. 2000) (discussing the risk showing required for a finding that the Commission’s Section 629(a) regulations violate the “jeopardize” prohibition in Section 629(b)).

⁴⁶ NPRM, ¶¶ 12, 72 and 78.

design to, does not solve the problem. There are too many nuances to an MVPD's content agreements that cannot be designed into a standard security protocol for access to content.⁴⁷ As the Commission recognized in the Navigation Device Second Report and Order, "security" is more than just protection from theft of programming; it encompasses protection of the terms of negotiated content agreements. In particular, the Commission recognized that the issue of service theft when a device is no longer in the service provider's control is comprised of two components: "[the] unauthorized access to service (theft of service) and unauthorized redistribution or copying of programming content legally acquired for a limited use (copy protection/digital rights management)."⁴⁸ As such, any security protocol must enable protection of content as embodied in negotiated content agreements. A standard security protocol that does not enable an MVPD to confirm the security protocol with the navigation device provider will not enable negotiated content protection and thus will jeopardize the security of multichannel video programming in violation of section 629(b).

B. The Proposed Rules Are Not Necessary to Ensure a Competitive Market for Navigation Devices in Today's Marketplace.

As articulated above, the FCC's authority under Section 629 is limited to facilitating the commercial availability of navigation equipment. Any mandate beyond the Commission's authority is not only ultra vires, it is also unnecessary. Moreover, the Commission's desire to create a diverse programming market is already being met. There is clear evidence in today's marketplace of the commercial availability of equipment from manufacturers, retailers and other

⁴⁷ Distribution rights, channel placement, neighborhooding, minimum penetration requirements are but a few of the typical requirements found in programming agreements.

⁴⁸ *Navigation Device Second Report and Order*, 18 FCC Rcd at 20888, ¶ 4.

vendors not affiliated with any MVPD, which are used by consumers to access multichannel video programming and other service offered by MVPDs.

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.”⁴⁹ Yet, the Commission goes on to conclude, without support or rationale, “that almost all consumers have one source for access to the multichannel video programming to which they subscribe: the leased set-top box or the MVPD-provided application.”⁵⁰

The market reality does not support the Commission’s conclusion.⁵¹ The market is flooded with programming services and their internal navigators that are available from third party providers, with new providers continuously announcing the release of their programming via over-the-top (“OTT”) application-based solutions. CenturyLink currently supports distribution of its video content over many different consumer devices. These alternative devices are all available from third party providers. Customers can access live programming from independent third parties including CBS All Access, HBO Now, Noggin, Sony TV, Apple TV, NBC Universal, Sling Television, Showtime, Starz, MLB TV, NFL Game Pass, and Lionsgate. In addition, customers can obtain real time programming through OTT providers which is not

⁴⁹ NPRM, ¶ 13.

⁵⁰ *Id.*

⁵¹ Scott Wallsten, *An Economic Analysis of the FCC’s Set-Top Box NPRM*, Technology Policy Institute, at 9 (“[I]t is not the case that ‘almost all consumers have one source’ for their boxes, but that all consumers choose to lease their boxes from their MVPD”), *In the Matter of Expanding Consumers’ Video Navigation Choices, Commercial Availability of Navigation Devices*, MB Docket 16-42, CS Docket No. 97-80 (filed Apr. 18, 2016) (“Wallsten”).

available for CenturyLink to distribute, as well as delayed airing of programming through providers such as Netflix, Hulu Plus, and Amazon Prime.⁵² Sling TV and Playstation Vue offer services similar to traditional MVPD service including feeds of channels that are typically found on cable TV.⁵³ Of course, its subscribers can obtain the local broadcasters for free over-the-air.

CenturyLink's experience is consistent with the Commission's own findings in the recent video competition reports. In the 2015 Annual Video Competition Report, the Commission found the existence of a strong and expanding market for online video delivery ("OVD") through a variety of platforms:

The OVD marketplace continues to expand and change. Entrants often use new technologies and experiment with a variety of business models. OVDs are constantly entering and exiting the marketplace and changing the services and programming they offer, in response to viewer demand as well as external factors, such as the ability to access content and reach consumers.⁵⁴

The rapid expansion of the OVD market has led to a highly competitive (i.e. alternative) market for access to multichannel video programming. The Commission tries to ignore the fact that the popularity of streaming and navigation devices such as Amazon Fire TV, Apple TV, Chromecast, Roku, assorted video game systems, and mobile devices shows that Congress's goals in Section 629 have been met.⁵⁵ In the NPRM, the Commission tries to discount the clear evidence before it by asserting that "[w]ith certain limited exceptions, it appears that those

⁵² Forbes *The TV Hackers Guide: OTT Holiday Shopping List*, <http://www.forbes.com/sites/stevenrosenbaum/2015/12/18/the-tv-hackers-guide-ott-holiday-shopping-list/#4c2a7f596240>.

⁵³ Wallsten at 7-8.

⁵⁴ 2015 Video Competition Report, 30 FCC Rcd at 3377, ¶ 268 (2015).

⁵⁵ NPRM, ¶ 14; Wallsten at 8 ("By at least one estimate, in 2015, 21 percent of U.S. households had an OTT streaming device – 37 percent of those had a Roku device, 19 percent had Google Chromecast, 17 percent had AppleTV, and 14 percent an Amazon Fire device") *citing* <http://www.ooyala.com/videomind/blog/ott-set-top-box-sales-accelerate-roku-was-best-seller>.

devices are not “used by consumers to access multichannel video programming,” and are even more rarely used as the sole means of accessing MVPDs' programming.”⁵⁶ Not only is this statement unsupported, it is not true. CenturyLink Prism TV subscribers are able to use Roku devices to watch video programming that CenturyLink offers on any television within a subscriber’s residence, even without a set-top box attached; and Prism TV content is also available on numerous supported devices.⁵⁷

There is even competition when inquiry is limited just to devices that are actual “set-top boxes” or the equivalent. Since the implementation of the CableCARD there have been alternatives to the MVPD’s leased set-top boxes, and since 2012 customers could choose from a myriad of devices.⁵⁸ The entire notion of needing a “set-top box” to access content is misleading in today’s market, since subscribers can now access content from “smart” equipment already in their home.⁵⁹ These devices may include their TV, game consoles, and blue ray DVD players. An example of set-top box alternatives and the programming available through them as early as 2012 is:⁶⁰

⁵⁶ *Id.*

⁵⁷ *See Supported Devices*, attached hereto as Exhibit 1. CenturyLink is also working closely with television program providers to implement Television Everywhere (“TVE”) solutions that will permit authenticated subscribers to watch programming on any device, anywhere. The limitations on this service being made available are wholly external to CenturyLink.

⁵⁸ *See D. Pierce, Buying a set-top box: everything you need to know, get big-screen content back on your big screen* by David Pierce, *The Verge.com* (May 17, 2012), available at: <http://www.theverge.com/2012/5/17/2997361/buying-set-top-box-buying-guide>.

⁵⁹ *Id.*

⁶⁰ *Id.*



The Commission should be fully aware of this since according to the *2015 Video Competition Report*, the CPE marketplace is flourishing: “Today’s CPE marketplace offers consumers more flexibility in content consumption through a growing list of devices that also enable time- and place-shifting.”⁶¹

The Commission has assumed that the reason why so few customers choose to purchase their set-top box instead of leasing the equipment from the providers is that somehow the MVPDs are creating disincentives for customers to purchase their equipment.⁶² What the NPRM ignores is that there are very good reasons for subscribers to lease instead of purchase equipment.

Unquestionably, a critical aspect of a consumer’s decision to lease rather than purchase a set-top box comes down to the cost to the consumer and the expense of purchasing versus leasing

⁶¹ 2015 Video Competition Report, 30 FCC Rcd at 3405, ¶ 321.

⁶² NPRM, ¶¶ 14-15.

a set-top box. By way of example, the newly released TiVo Bolt set-top box sells for a retail price of \$299.99.⁶³ In addition, after the first year of service, TiVo Bolt subscribers must pay for TiVo service, which currently costs \$149.00 per year, or about \$15 per month.⁶⁴ In contrast, according to the NPRM the average cable customer can lease a set-top box from their provider for an average of \$231 per year, or about \$19 per month.⁶⁵

CenturyLink expends a significant amount of money to purchase, maintain and upgrade provider-owned set-top boxes to the benefit of customers who can enjoy low lease rates for the latest technology. CenturyLink's experience is thus consistent with the Commission's own findings in other proceedings unvarnished by its policy agenda in the instant NPRM. In particular, here the Commission ignores what it explicitly found in its most recent Video Competition Report – that an MVPD's success in leasing set-top boxes to subscribers is tied directly to its ability to “continue to develop and refine their leased CPE offerings to improve the consumer experience, lay the groundwork for future technological changes in[]network technologies, and provide value to the operator in other contexts.”⁶⁶

CenturyLink upgrades its set-top boxes to provide new or enhanced features and meet customer demand for the latest technology. To that end, CenturyLink is now investigating the purchase of new in home equipment in order to support the delivery of 4K content.

Leasing set-top boxes provides customers with a low-cost way to obtain the latest set-top box equipment at a low monthly cost. In comparison, a customer who purchased a new box

⁶³ See *Tivo.com*, available at <https://www.tivo.com/shop/bolt#/bolt> (last viewed April 17, 2016).

⁶⁴ *Id.*

⁶⁵ *NPRM*, ¶ 13; *c.f.*, Wallsten at 15 (questioning the validity of the FCC's source for the \$231 figure).

⁶⁶ 2015 Video Competition Report, 30 FCC Rcd at 3407, ¶ 324.

every 2-3 years to keep pace with technology could end up paying 2-3 times the cost of leasing with a significant upfront outlay. The high percentage of customers who have chosen to lease rather than buy cable modems supports this analysis.⁶⁷

C. The Proposed Rules Are Not Necessary to Protect Consumers and Will Ultimately Harm Consumers.

The NPRM's justification for the proposed rules, despite being ultra vires, purports to be consumer friendly. However, the proposed rules are far more likely to be harmful to consumers than consumer friendly. The proposed rules will harm competition for the provision of video service, increase the cost of programming to consumers, and stifle technological innovation.

CenturyLink is a competitive MVPD provider that relies, in part, on its own market innovations to compete. Across the U.S., CenturyLink provides a competitive alternative to satellite providers DISH and DirecTV in all of its markets, Comcast in nine markets,⁶⁸ Cox in three markets,⁶⁹ and other incumbent cable providers in additional markets.⁷⁰ CenturyLink competes on service and customer experience, including CenturyLink distinguishing itself through its navigation interface for delivery of video. For example, CenturyLink's Multi-View capability displays four different shows in a single genre (e.g., news, sports, children's programming) on a single screen; the Find-It-Fast Navigation[®] feature allows subscribers to search for programming by title, actor, or director; the Warp-Speed Channel Change eliminates delay experienced when waiting for their TV programming display to catch up with their remote control selections; and

⁶⁷ A CenturyLink broadband customer can choose to either purchase their broadband modem or rent them from CenturyLink. Over seventy percent choose to lease.

⁶⁸ Seattle, WA, Minneapolis/St. Paul, MN, Denver, CO, Orlando, FL, Portland, OR, Salt Lake City, UT, Ft. Myers, FL, Colorado Springs, CO and Tallahassee, FL.

⁶⁹ Phoenix, AZ, Las Vegas, NV, Omaha, NE.

⁷⁰ E.g., Time Warner Cable in Raleigh, NC.

the Last 5 feature allows subscribers to switch between the last five channels watched, making it easy to channel surf or flip between sports games. In order to provide this superior customer experience CenturyLink has made significant investments in developing its navigation interface. It also has negotiated program affiliation agreements with each of its programmers for distribution of the programming to subscribers. These agreements protect the programmer and permit CenturyLink to provide a superior, customer-centric service. If CenturyLink and the MVPDs it competes with are forced to strip out their proprietary navigation protocols and make their naked metadata stream available to third party customer equipment providers, CenturyLink will lose a key and essential tool for competing with incumbent video providers. This will harm, not benefit the consumer.

The NPRM proposes to require MVPDs to provide Service Discovery, Entitlement, and Content Delivery information (the Information Flows) in standardized formats that the MVPD chooses. The NPRM would further require that MVPDs give unaffiliated entities access to the Information Flows in a published, transparent, and standardized format so that those entities would understand what information is available to them.⁷¹ Essentially, the proposal is to require an MVPD to turn over all the metadata involved in its programming distribution. CenturyLink obtains its video content through individually negotiated program affiliation agreements with various programmers, who then deliver a signal to CenturyLink's headend facilities. The Service Discovery data is purchased by CenturyLink on a per subscriber basis. CenturyLink pays for this data to provide a unique and innovative customer experience, and the Commission's proposal would allow third-party entities to appropriate this data without compensation or charge for use to provide their own customer experience.

⁷¹ NPRM, ¶ 35.

Almost fifteen years ago the Commission decided that the best way to stimulate the commercial availability of set-top boxes and other navigation devices was to mandate the CableCARD standard. The CableCARD mandate cost the cable industry over \$1 billion dollars in unnecessary costs. Meanwhile the marketplace developed tablets, smartphones, smart TVs, and connected devices for accessing video and video delivery networks like Netflix, Amazon Prime, Hulu Plus, Sony Play Station Vue, and DISH's Sling TV. Individual content owners also launched OTT apps for the receipt of their programming.⁷² At the same time the delivery of multichannel video moved from standard definition programming to high definition and 3D programming. Comcast developed its X-1 platform which it now licenses to third parties and enables access to a myriad of devices. Companies like CenturyLink were able to develop IPTV-based systems which provide customers with greater choice and a superior customer experience and upon which a host of new advancements in the video space can be developed and delivered to customers seeking new alternatives to existing cable and satellite TV providers. On the horizon are developments such as video gateways. It was the marketplace that produced these innovations and made possible the ability of people to "cut the cord", not government mandate.

CenturyLink is actively investing resources to support delivery of 4K content on Prism TV in the near future as well as to enhance customer options for receiving and viewing its video content. But, those resources are limited and if CenturyLink is going to succeed as a competitor in the video services space it needs to be able to focus those resources on those efforts.

Unfortunately, the proposed rules, if adopted, will likely require CenturyLink to divert those

⁷² HBO, Showtime, Starz, CBS, and Sundance are just several of the programmer-based OTT providers.

limited resources to complying with a regulatory mandate that seems unlikely to enhance consumer welfare.

At a minimum, the time and dollars that CenturyLink will have to invest to comply with proposed new rules will negatively impact its ability to innovate and will stifle CenturyLink's technological advancement. Alternatively or additionally, these new rules if adopted, may force CenturyLink to address additional regulatory costs by raising prices for its video services. This, of course, will undermine its ability to compete in a video distribution market that is already subject to slim margins that continue to be eroded by escalating programming costs. And, as a relatively new entrant and small video services distributor, these impacts will be graver for CenturyLink compared to large, incumbent video distributors. Higher video service prices for consumers cannot be the result the Commission seeks in its efforts to ensure the commercial availability of navigation devices.

Still further, the video market is growing and changing at breakneck speed. How consumers access and view video content is changing almost as fast as new approaches can be imagined. Because the true market for navigation devices is thriving and morphing in directions that the Commission's proposals fail to consider, the Commission's proposals for ensuring the commercial availability of navigation devices will surely miss the mark. The ultimate reality here is that there is no market problem that the Commission needs to fix. To the extent that consumers' costs to lease set-top boxes are truly a significant problem, the market is already offering solutions. That market is thriving, innovative, and increasingly competitive as new players appear in the market at a rapid pace. The Commission should step back, take in the whole view, and determine that its proposed regulations, and indeed, any rules in this area, are unwise and unwarranted.

III. CONCLUSION

For the foregoing reasons, the Commission should abandon its effort to require MVPDs to unbundle their services into the Information Flows proposed in the NPRM under the guise of assuring the commercial availability of navigation devices. Such an approach exceeds the Commission's authority under Section 629, is contrary to the direction of Congress in STELAR, and violates Section 629's directive that the Commission's navigation device rules not jeopardize the security of MVPD programming and services. In addition, the proposed rules are unnecessary and would harm consumers.

Instead, the Commission should find, consistent with Section 629(e), that there is a competitive market for MVPD services and navigation devices such that regulation in this area is not warranted or necessary to promote competition or the public interest. Alternatively, the Commission should limit this proceeding, as directed by Congress, to consideration of

recommendations for software-based downloadable security solutions for navigation devices, that are not unduly burdensome, are uniform, and technology- and platform- neutral.

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EXHIBIT 1

CENTURYLINK SUPPORTED DEVICES

Prism[®] TV app supported devices

The Prism[®] TV application supports a wide range of Apple, Android (including Amazon and Nook), and Roku players.

Apple iOS mobile devices

Software requirements:

Apple iOS version 5.1 or higher

Supported devices:

iPad 2, 3, and 4

iPad Mini 2 and 4

iPad Air 1 and 2

iPad Pro

iPhone 3GS, 4, 4s, 5, 5s, 6, 6s, and 6 Plus

iPod Touch 3rd Gen, 4th Gen, and 5th Gen

Apple Watch

Android mobile devices

Software requirements:

Android version 4.0.3 through 5.1

Standard wireless carrier software only (no rooted phones)

Supported devices:

Samsung Galaxy S3

Samsung Galaxy S4

Samsung Galaxy S5

Samsung Galaxy Note 2

Samsung SGH-T989 - Galaxy S II (phone)

Samsung SPH-D710 - Galaxy S II (phone)

Samsung Galaxy Tab 2 10"

Samsung Galaxy Note II LTE

Amazon Kindle Fire HDX

Amazon Kindle Fire HD

Amazon Kindle Fire HD 8.9

Amazon Fire Phone

Asus Transformer Pad Infinity

Asus/Google Nexus 7 (OS 4.4)

HTC EVO 4G

HTC First

HTC One X

Motorola Droid RAZR M

Motorola ME811 - Droid X

Motorola XT912 - Droid RAZR

Google Nexus 7

Roku

Streaming Stick®

Streaming Players (Roku 1, 2, 3)

4K UHD Player (Roku 4)

Roku TV (models vary)