Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	
	)	
Video Device Competition	)	MB Docket No. 10-91
	)	
Implementation of Section 304 of the Telecommunications Act of 1996;	)	
	)	
Commercial Availability of Navigation Devices	)	CS Docket No. 97-80
	)	
Compatibility Between Cable Systems and Consumer Electronics Equipment	)	PP Docket No. 00-67
	)	

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I. INTRODUCTION AND SUMMARY

In its *Notice of Inquiry* ("*NOI*"), the Commission seeks comment on ways to "unleash competition" in the retail market for set-top video devices that are compatible with the services of all multichannel video programming distributor ("MVPD") services to better effectuate the intent of Section 629 in the Communications Act.[1] To this end, the Commission has proposed requiring all MVPDs to provision an all video ("AllVid") adapter that would "communicate with the MVPD service, perform tuning and security decryption functions that may be specific to a particular MVPD."[2]

The Commission's proposal, however, is based on a false premise. Competition in the video device market has *already* been unleashed, and it is on a path towards even greater competition and innovation in the near future. Indeed, the delivery of video (from a range of providers and over a variety of devices) is one of the hottest areas of innovation today. Ongoing marketplace developments are accomplishing the goals of Section 629 better than any technology mandate could, and indeed are doing so despite the Commission's prior, failed efforts to use technology mandates to achieve these goals. Facing intense intermodal competition from both traditional and newer providers of video content, video providers are finding new and innovative ways to provide a range of video content over a wide variety of devices while also increasing the sophistication and capabilities of their video offerings. Imposing new technology mandates on video

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[1] *Video Device Competition, Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, Notice of Inquiry, MB Docket No. 10-91, CS Docket No. 97-80, PP Docket No. 00-67, FCC 10-60 ¶ 1 (rel. Apr. 21, 2010) ("*Notice of Inquiry*" or "*NOI*").

[2] *Id*. ¶ 2.

providers would divert substantial time, money, and resources away from these more productive efforts towards a mandate that will not achieve the goals of Section 629.

While these market developments are rendering the need for any technology mandates superfluous, an AllVid mandate as currently proposed would harm consumers and distort competition. As video programming has developed, providers have made and continue to make substantial investments in improving their customers' user experience by using graphical user interfaces, interactive guides and services, and other advanced features. These innovations have provided substantial benefit to consumers and have allowed video providers to differentiate their services in a competitive marketplace. If the Commission were to adopt new one-size-fits-all, lowest-common-denominator technology mandates or impose requirements to unbundle the video content, the result would be to inhibit innovation, diminish the consumer experience, and undermine the incentive for providers to invest in innovative new services and the broadband networks that deliver them.

To take just one example, a technology mandate requiring a uniform, standardized output would likely get in the way of providers' efforts to make it easier for consumers to learn about and order available content and services, or to trouble-shoot issues with their services, all without time-consuming calls to a provider or truck-rolls. Such consumer support mechanisms – which are handled in different ways by different providers and are one of many areas in the video marketplace where innovation is rampant – are increasingly inherent in the user interfaces presented to consumers. They allow providers to market their services and support their customers in a way that is user-friendly and

effective. But such approaches would be threatened by one-size-fits-all approaches that require standardized interfaces and outputs by all providers.

The Commission's approach of focusing solely on MVPDs in an effort to increase competition and innovation also ignores the complexity of today's dynamic video marketplace and the range of players that affect the services available to consumers. In the Broadband National Plan, the Commission recognized the triangle ecosystem – involving applications, network, and devices – with providers innovating and offering consumers combinations of all three. This dynamic is equally true of the video marketplace, and it would be shortsighted and counterproductive for the Commission to focus new, innovation-inhibiting regulation on any part of this competitive marketplace. It would be especially damaging, however, to distort the marketplace by applying such regulation to only one subset of players in this space. Such an approach would, for example, ignore that device manufacturers often rely on proprietary or non-standardized systems or protocols (*e.g.*, proprietary digital rights management standards) that make it difficult for the services of others to function (absent a separate business arrangement and close collaboration with a video provider). Or that those manufacturers may not allow their devices to be used with particular video services (in the absence of a business arrangement). The MVPD-centric approach would ignore that "online" video providers such as Hulu and YouTube are free to deny "network" operators or "device" manufacturers access to their services and content (in the absence of a business deal). And it would ignore that device manufacturers or video providers may lack the authority (absent a business arrangement) to innovate on top of online search engines. Again, all of these parts of the ecosystem are contributing to the dynamic, innovative, and

competitive video/broadband ecosystem, and none should be subject to new technology mandates from the Commission. But it would be particularly damaging – in terms of ongoing innovation, investment, and competition – to single out MVPDs for such regulation.

The AllVid mandate, as proposed, also ignores the reality of implementing standards and the complex nature of the video services and home networking. Today's digital subscription video services may require as many as one hundred different software interfaces in order to operate over the customer's navigation device and the provider's servers. By contrast, cable modems – the analogy some proponents of an universal adapter have made – involve a much smaller number of interfaces and thus present a much less daunting technical challenge. The complexities that result likely render any technology mandate of the type proposed in the *NOI* infeasible and will delay the benefits of more productive innovation.

Moreover, some of the suggestions made in the *NOI* for the AllVid solution go well beyond the scope of Section 629. For example, the *NOI* suggests as one possibility that the AllVid framework would allow retail devices to select from the full array of services that MVPDs offer and use those services in any manner. If implemented in this manner, the AllVid solution would require MVPDs to "unbundle" their video services and make the component parts available to other providers on a disaggregated basis – something the text of Section 629 neither contemplates nor authorizes and that would raise serious First Amendment concerns.

Rather than requiring MVPDs and consumer electronics manufacturers to expend significant time, money, and resources on pursuing the AllVid proposal, the Commission

should learn from its past mistakes like the failed CableCARD experiment and IEEE 1394 interface mandate (which requires the inclusion of a specific and expensive hardware connector despite a near complete lack of marketplace acceptance), and should refrain from imposing any technology mandates. The Commission should instead encourage open, network-agnostic, industry-led standards setting processes. Flexible, industry-led standards developed through open and accredited standards-setting bodies, such as the Alliance for Telecommunications Industry Solutions ("ATIS"), the Digital Living Network Alliance ("DLNA"), Multimedia over Coax ("MoCA"), and the RVU Alliance, can be significant in pushing video convergence in the direction of more sophisticated and feature-rich offerings to consumers and increasing the availability of retail devices that can access MVPD services as intended in Section 629.

II. ONGOING MARKETPLACE DEVELOPMENTS ARE ALREADY ACCOMPLISHING THE GOALS OF SECTION 629 BETTER THAN ANY TECHNOLOGY MANDATE COULD.

Driven by consumer demand rather than (and, in some cases, despite) regulatory mandate, the marketplace for video devices is already expanding. In today's video marketplace, consumer demand, technological developments, and competition among a variety of video content providers have put immense pressure on MVPDs and other providers of video content to offer new and innovative choices for consumers. As consumers increasingly desire to consume media, access information, and connect to social networking services on a wide variety of devices, all providers in the video marketplace – including MVPDs, other providers of video and online content, consumer electronic manufacturers and others – have powerful and increasing incentives to ensure that video services are available in an increasing number of ways and using a wide range of devices. Indeed, video providers are already working with consumer electronics

manufacturers and content providers to develop standards, such as DLNA and RVU Alliance, which will facilitate access to content from a variety of sources and allow it to be viewed over a variety of devices connected to home networks.

In light of these developments, it would be counterproductive to impose new technology mandates on any players in the video marketplace – and even more so to impose such regulation on a subset of providers in the space – and doing so would distort competition and inhibit continued innovation. Moreover, with these ongoing marketplace developments that have led to significant innovation and service differentiation to the benefit of consumers comes the technological complexities of today's MVPD services, video services are far more complicated than legacy linear cable programming. As a result, a one-size-fits-all adapter solution would face a vast array of technical challenges that will ultimately frustrate, rather than serve, the goals of Section 629.

A. Verizon FiOS TV Currently Offers Innovative Services That Go Far Beyond Prescheduled Video Content.

Verizon, as a new entrant to the video marketplace facing strong and ubiquitous competition, must be particularly aware of and ready to satisfy consumer demands. As a result, the company works constantly to differentiate its offerings by investing in new and innovative services and features for FiOS TV. This consumer-driven innovation has led Verizon to offer services that go well beyond traditional video services and the distribution of prescheduled video content.

With FiOS TV, Verizon combined the best of digital cable technology with the emerging capabilities of Internet Protocol ("IP") TV. On its fiber-to-the-home platform, Verizon uses one laser carrying the capacity of an 860 MHz cable system dedicated only to linear programming delivery, and two other lasers delivering upstream and

downstream voice, Internet access and FiOS-TV interactive services (such as video-on-demand, the Interactive Media Guide, widgets, as well as search and other capabilities) using a high-speed, high capacity IP data infrastructure. The result is an all-digital TV service with over 130 high definition channels and hundreds of standard definition channels in each market with robust, two-way interactive capability. As a result, Verizon's set-top boxes are unique in that they combine traditional one-way cable technology with interactive IP capabilities making them powerful platforms that enable Verizon to innovate and increase the choices available to our customers.

The advanced technology used by Verizon to deliver FiOS TV has enabled Verizon to be on the cutting edge of introducing innovations in the video marketplace. One such innovation is the offering of IP-based "Widgets" to FiOS TV customers. Widgets are applications that run on Verizon's set-top boxes. The first Widgets that Verizon created were simple weather and traffic apps, and these remain extremely popular. Last year, Verizon was the first video service provider to bring Facebook and Twitter to the TV using Widgets. The Twitter Widget allows subscribers to see what other people are saying about the same programs they watching, turning TV viewing into a social media experience. The Facebook Widget allows subscribers to check on friends' statuses, update their own, and view Facebook pictures on their television sets.

Verizon has continued to roll out additional Widgets that increase the choices available to consumers. In recent months, Verizon introduced new Widgets that allow access to an expanding range of Internet video content and hundreds of Internet radio stations to the FiOS TV experience. FiOS TV customers can now simply use their remote controls to search for and enjoy any YouTube video or iHeart Radio station –

right on their TV screens. This is in addition to other online video-sharing sites such as blip.tv, Dailymotion and Veoh that were already available to FiOS TV customers. The addition of YouTube, the world's most popular online video community, will add millions more videos to Verizon's service, and Verizon continues to work with other partners to increase and simplify consumers' access to content, including online content.

As Verizon continues to develop Widgets with partners like these, it is working on a software development kit that would allow a wide range of independent developers to create FiOS TV Widgets that could be brought to consumers through a TV app store called the Widgets Bazaar. To this end, Verizon is already working with hundreds of independent developers and plans to continue to work with many more.

In addition to Widgets, Verizon has made significant investments in improving FiOS TV users' experience by developing interactive guides, graphical user interfaces, and other innovative ways of allowing their customers to navigate and discover the expanding universe of content available. Besides providing subscribers with easy-to-use search functions, Verizon's Interactive Media Guide (which is an integral part of FiOS TV) allows subscribers to order new channels, movies, or premium services, troubleshoot any problems with set-top boxes, and program remote controls all right from home on their TV screens. In fact, to date, more than 15 million self-service transactions have taken place using the Interactive Media Guide. And FiOS TV on demand gives subscribers access to more than 18,000 titles per month. Subscribers may also remotely program their digital video recorders (DVRs) online through their wireless devices or computers.

FiOS TV also gives consumers access to tailored interactive content that is directly integrated with video programming. For instance, during the Winter Olympics, customers could view events on live channels while also having the ability to use interactive features that provided information about athletes, events, and the medal count.

In order to offer these services and to streamline and improve the customer's experience, Verizon continues to invest in and develop the capabilities of its set-top boxes, which many consumers prefer for their simplicity of use, the ability to contact just one provider for support, and the assurance of access to all FiOS TV features.

These types of innovations – which are also being undertaken in varying degrees by many of Verizon's competitors, often in direct response to Verizon's market entry – have had undoubted benefits for consumers. Where customers used to have to consult hard copy guides in order to understand their video choices and be strictly limited to defined linear streams of programming, consumers now can quickly and easily use a variety of different means to find content to enjoy, from looking up specific shows to discovering related or similar content, can engage in social interaction regarding that content, can access content from across the World Wide Web, and can design their own schedules and tailor the programming they receive to their own needs. Each of these innovations was simply inconceivable when the 1996 Act was passed. In addition to providing these consumer benefits, these innovative features allow MVPDs to differentiate their services by offering innovative features and improving the underlying network technology over which video programming is delivered. In particular, Verizon's investment in fiber optics gives consumers superior picture quality and access to high-speed Internet services through bundled offerings.

B. Marketplace Developments Well Underway Will Lead to Even Greater Video Convergence in the Near Future.

The dynamic video marketplace has spurred innovation to increase video convergence even more in the near future. For instance, Verizon and other providers are now providing their subscribers with online access to an increasing range of content that was previously available only on television. Under this initiative, Verizon will make online access to TV content from certain channels available to FiOS TV and Internet customers, so that subscribers can access that content from computers and mobile devices, including handhelds like the Droid, iPad, laptops and tablet computers. Other content providers also use the Internet to make an increasing amount of video content available to a wide audience. The growing popularity of sports programming online illustrates these developments.[3]

Additionally, Verizon has already completed proof-of-concept trials with several manufacturers that would allow consumers to access FiOS TV through game consoles and other networked devices, such as Blu-ray™ devices, without the need for a set-top box. Other video providers are already doing the same.[4] These solutions, which are developed collaboratively by MVPDs and consumer electronic manufacturers, respond directly to how consumers want to access video content today and promise a far richer

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[3] For example, NBC's online coverage of the 2008 Olympics generated 70 million video streams and 10 million hours viewed, *see* NBC Olympics Wins Emmy With Silverlight, *available at* http://team.silverlight.net/announcement/nbc-olympics-wins-an-emmy-with-silverlight/ (last visited July 13, 2010), and the recent World Cup generated over 25 million hours of total online game video through a combination of ESPN3.com and UnivisionFutbol.com, *see* Univision, ESPN: 25 Million-Plus Hours of World Cup Games Watched Online, available at http://paidcontent.org/article/419-univision-espn-25-million-plus-hours-of-world-cup-games-watched-online/ (last visited July 13, 2010).

[4] *See, e.g.*, Comments of Time Warner Cable, Inc., CS Docket 97-80, PP Docket 00-67 at 2 (filed Jun. 14, 2010).

user experience and feature set than could be provided using a one-size-fits-all model of navigation device integration. This is because Verizon and its consumer electronic partners can work together and leverage the full breadth of their respective capabilities, rather than being hampered by the lowest common denominator as they would be in trying to adopt a single, universal model. For example, many gaming devices have much more processing power than typical set-top boxes, thus potentially enabling innovative new capabilities for consumers if the service provider and electronics manufacturer are able to collaborate to take full advantage of their respective capabilities. If both parties are instead required to devote the time, energy, and resources needed to build to a single mandate for the "gateway" between their services and devices, not to mention standardize the hundreds of interfaces across those services and devices, such collaboration will be frustrated. Without the constraints of a universal technology mandate, on the other hand, these developments will lead to a more robust competitive market as providers strive to differentiate offerings available on various retail devices. In particular, without the constraints of a mandate, Verizon and its partners will be able to deliver all of the many features of FiOS TV as an integrated package over retail devices rather than being confined to an undifferentiated, standardized feed that goes without all of the special features that make FiOS TV the exciting and innovative offering that it is. By provisioning access to subscription video services on many different types of consumer electronics devices available on retail shelves, the goals of Section 629 will be met, and consumers will gain the added benefit of greater functionality on their devices.

C. These Marketplace Developments Have Occurred in Spite of, Not Because of, Prescriptive Technology Mandates.

Given the state of today's marketplace, prescriptive technology mandates intended to spur innovation are unnecessary. Indeed, if history is a guide, such mandates would likely have the opposite effect by inhibiting innovation and reducing services to the lowest common denominator. By failing to account for the variety of services and devices – and the associated diversity of technological approaches – by which providers serve consumers today (much less the wide and unpredictable range of services and devices that may be available in the future), one-size-fits-all technology mandates create a substantial risk of distorting competition and delaying or denying innovative services, devices, and approaches that would otherwise be available to consumers.

Verizon's past experience vividly illustrates the danger posed by well-intentioned technology mandates. Verizon's FiOS service uses an innovative combination of both QAM and IP delivery technologies in order to fully exploit the vast capabilities of Verizon's fiber optic network. There is no question that Verizon's FiOS services have yielded customer benefits, both in terms of competition and service innovation. However, despite the obvious consumer benefits that flow from Verizon's market entry and innovation, Verizon has been forced to waste time and resources modifying its cutting-edge services and network infrastructure in order to support the legacy cable-centric CableCARD mandate.

The harms to consumers from technical mandates are not confined to opportunity costs and effects of decreased innovation – due to the CableCARD standard's limitations, consumers who use CableCARD devices are less likely to sign up for innovative video services offered over non-traditional technologies because their home electronics

equipment may not work as well, or they may lose some functionalities on a competitive provider's service. Though the CableCARD mandate was intended to increase the commercial availability of navigation devices pursuant to Section 629, consumer demand for retail devices with CableCARDs has been quite low, and "many retail device manufacturers abandoned CableCARD as a solution to develop a retail market before any substantial benefits of the integration ban could be realized."[5] The IEEE 1394 interface mandate – which requires a specific and costly digital hardware output and was intended to improve home networking – provides a similar cautionary example. The mandate adds considerable cost, but despite its mandated ubiquity consumers have demonstrated a strong preference for other home networking standards. Indeed, recognizing that "IP has overwhelming marketplace support and serves the same purpose that the IEEE 1394 connection is intended to serve," the Media Bureau recently granted an interim waiver of the 1394 requirement.[6]

The Commission should take from the failure of CableCARD and 1394 interface mandates a broader lesson: Mandating the use of particular technologies is a recipe for failure. Rather than repeat this mistake by creating a successor technology mandate, the Commission should encourage the pro-consumer developments that have grown up in

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[5] *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, Fourth Further Notice of Proposed Rulemaking, 25 FCC Rcd 4303, ¶ 8 (2010) (noting, in addition, that since July 1, 2007, cable operators have deployed only 489,000 CableCARDs for installation in retail devices, as compared to 18.5 million leased set-top boxes).

[6] *Intel Corporation, Motorola, Inc., Tivo, Inc., Requests for Waiver of Section 76.640(b)(4)(ii) of the Commission's Rules*, Memorandum Opinion and Order, CSR-8229-Z, CSR-8251-A, CSR-8252-Z, DA 10-1094 (rel. Jun. 18, 2010) ("*1394 Waiver Order*").

spite of the last attempt at regulating technology standards. These developments are already leading to industry efforts that will better serve consumers, encourage innovation, and ultimately fulfill the objectives of Section 629.

D. Mandating a One-Size-Fits-All Approach Would Be Bad Policy That Would Distort The Dynamic Video Marketplace and Inhibit Innovation.

Adopting the one-size-fits-all AllVid proposal as currently proposed would have a number of significant drawbacks.

As an initial matter, the approach of focusing on – and adopting technological mandates that apply to – a single sector in the diverse and dynamic video marketplace would distort competition and inhibit innovation. As explained above, just like the broadband marketplace more generally, the ecosystem for "video services" is dynamic and evolving. Innovation is occurring among services (both traditional and online), devices, applications, and content – in fact, these various lines become more blurred all the time as innovation continues. In this context, it would be a mistake to single out a subset of providers for technology mandates, and doing so would inhibit innovation and distort competition. For example, as explained above, the practices of device manufacturers – many of which, like Android device makers and Apple, use proprietary approaches that require a business arrangement and close collaboration in order to support a particular video provider's service – affect the range of choices available to consumers. Similarly, Hulu, YouTube or any other "online" video providers can decide which devices and services will have access to their services and on what terms. Indeed, content providers like Hulu and YouTube mandate user experiences and require that MVPDs and consumer electronics vendors use specialized applications in order to consume their content. And a provider of search – such as Google – can decide to work

with a video provider to facilitate innovative ways of finding content. Or not. None of that is to say that any of these video providers should be subject to technology mandates from the Commission – they should not. But the dynamic nature of this marketplace does illustrate the complexity and evolving nature of video services (and devices) and why it would be a mistake to single out one set of providers for technology mandates that would freeze innovation in its tracks.

Even as applied to the services of this subset of providers, a one-size-fits-all AllVid approach would cause a number of problems. As the number of video choices has expanded over the past 15 years, MVPDs have made significant investments in improving their users' experience by developing interactive guides, graphical user interfaces, and other innovative ways of allowing their customers to navigate, discover, and purchase the expanding universe of content available. In addition to providing these consumer benefits, these innovative features allow MVPDs to differentiate their services by improving the underlying network technology over which video programming is delivered. A uniform, lowest common denominator mandate would undermine MVPDs' ability to offer differentiated services to consumers. In particular, it would effectively prevent MVPDs from designing the kinds of electronic storefronts that make it easy for consumers to discover and purchase content through the MVPD's system. Integrated retail offerings of this type benefit customers by enhancing the availability of desirable services and making it easier for the consumers to order (and for the MVPDs to provide) those services. Blocking the ability of MVPDs to offer services like this in new and innovative ways will harm consumers and diminish incentives to invest in the broadband networks over which those services are delivered.

Unbundling video services also raises other potential problems. Intellectual property rights and copyrighted content could be threatened by inappropriate new obligations to disaggregate a service or new technology mandates that provide access to programming without appropriate safeguards.[7] Additionally, forced unbundling could disrupt licensing agreements between MVPDs and content providers. Licensing agreements contain negotiated specifications on a number of issues, including channel placement. A content unbundling mandate could interfere with these agreements by allowing a device manufacturer to bypass the licensing agreement and display and organize content in any way it chooses. And forced unbundling would also distort video competition because other increasingly popular providers of video programming, such as YouTube, Netflix, and Hulu, would not be subject to the same requirements and thus would be allowed to maintain the integrity of their service offerings to ensure a consistent look and feel for consumers and make sure all features are available while other video providers would not.

E. The Commission's One-Size-Fits-All AllVid Adapter Solution Would Face a Vast Array of Technical Challenges.

The AllVid proposal also significantly underestimates the technological complexities involved in provisioning digital subscription services, which would make the AllVid adapter an infeasible solution. Although new marketplace developments have led to significant innovation and service differentiation to the benefit of consumers, these new services are far more complicated than legacy linear cable programming.[8] In fact,

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[7] *See AllVid NOI* ¶ 32.

[8] *See, e.g.*, Letter from Alicia W. Smith, The Smith-Free Group, LLC, Counsel to Sony Pictures Entertainment, L.P., to Marlene H. Dortch, FCC, Secretary, MB Docket No. 10-91, CS Docket No. 97-80 & PP Docket No. 00-67 (filed Jul. 1, 2010) (describing

MVPDs have evolved from purveyors of channels of programming into full digital media retailers that merchandise, transact business for multimedia and interactive content and applications, as well as deliver customer service through various means, including through interactive guides and user interfaces. Today's digital subscription video content offerings include more than one hundred software interfaces and standards over the customer's navigation device and the provider's servers that handle channel changing, bidirectional communications, launching and controlling video on-demand streams, requesting metadata for video content, buying and provisioning access to content, and receiving electronic support. And to make matters more complex, consumer electronics manufacturers often use a number of non-standard approaches, including proprietary operating systems, closed application programming interfaces, incompatible digital rights management systems, and onerous licensing and application approval processes. As such, the Commission's current proposal, which would require the standardization of this myriad of necessary software interfaces and standards[9] (but does not even delve into standardizing approaches used by consumer electronics manufacturers), is not a feasible solution and would lead to significant problems that will ultimately slow innovation and harm consumers.

As contemplated in the *NOI*, the AllVid adapter mandate could lead to several specific problems and complications, each of which would be significant. *First*, the

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the significance of marketplace developments and open standards-setting processes underway and noting that "it will be necessary to resolve a range of issues before working on technical standards for an AllVid device, in order to avoid the shortcomings experienced with CableCARD.").

[9] *See AllVid NOI* ¶ 22. As proposed, the AllVid adapter would host conditional access, provisioning, reception and decoding functions, all on one device.

proposed AllVid solution would mandate a specific physical interface.[10] Although Ethernet and WiFi are popular IP standards, they may not be the appropriate solution in all cases for all providers. For example, installing Ethernet requires running different cable infrastructure in a user's home, which may be both cost-prohibitive and unduly intrusive. As a result, by mandating a specific physical standard the Commission would foreclose important progress made by many video providers in the use of other IP standards such as MoCA, which cost-effectively uses existing inside wiring to transmit IP data. And while WiFi avoids the need for costly and complex re-wiring, using unlicensed spectrum that is host to numerous potential interference concerns in order to transmit the high levels of data necessary for video programming may be unworkable in many instances, and WiFi may simply not be adequately robust to support certain services. Mandating a specific physical interface standard would also shut out yet-to-be-discovered standards that could prove to be even more valuable to consumers.

Second, any AllVid device would require device management systems supported by consumer electronics devices attached to the device. Under the current proposal, it is unclear how device management would be handled and what the obligations of consumer electronics manufacturers would be in this regard. And customers may not know who to call – the MVPD or the device manufacturer – when problems arise. Supporting the AllVid adapter and its applications would be extremely complicated and costly for video providers without adequate device management capabilities on all devices connected to the AllVid. Marketplace developments have already led to the development of device management solutions such as the Universal Plug and Play protocol ("UPnP"), which

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[10] *See id*. ¶¶ 26-27.

allow a device to dynamically join networks, obtain an IP address, announce its name and learn about the presence and capability of other devices on the network. The development and implementation of these standards, however, should be left to evolve in the marketplace according to consumer demand.

Third, the AllVid proposal raises further issues as to how a provider would deliver a graphical user interface ("GUI") – the interface needed to facilitate the consumer's use of and interaction with the video service. Because the Commission has no authority to require unbundling of an MVPD's services, an AllVid adapter would need to deliver not only video programming but other features, such as the GUI, to retail devices. To render a GUI application on the television set, consumer electronics vendors would need to define an open common television programming interface that does not yet exist. Alternatively, providers would be required to define an AllVid specification that would allow for the GUI to be rendered remotely from a provider server. Both options are complex and could lead to further unforeseen complications that could ultimately deprive consumers of valuable GUIs.

Fourth, the AllVid proposal would face significant challenges in terms of protecting the ability to guarantee quality of service ("QoS"). In fact, the AllVid proposal would likely require providers to renegotiate QoS issues with consumer electronics manufacturers and in home networking standards such as DLNA. To meet consumer expectations of high QoS in the provisioning of video service, the AllVid specification will require consumer electronic devices to implement QoS on the home local area network, mandatory content protection, options to support closed-captioning, parental controls, and multiple video and audio formats. Aside from technological

specifications, MVPDs and consumer electronics manufacturers must reach agreement on how to handle customer care issues if problems arise. This is particularly true because, regardless of the problem's cause, MVPDs generally are the entities that will receive customer calls. Negotiating these options with consumer electronics manufacturers in existing standards will take time and be a very complicated process. All of these options would also likely significantly raise the cost of consumer electronics devices. Even though similar negotiations are required as MVPDs work with device manufacturers in the marketplace, they are more efficient when driven by consumer demand instead of being imposed by regulatory mandate. Thus, a mandate would short circuit these ongoing developments and require providers and manufacturers to shift their resources and attention from these productive efforts to a solution that will likely not be feasible and could hinder the negotiation of customer care issues – all to the ultimate detriment of consumers.

Fifth, the proposed December 31, 2012 implementation deadline is wildly unrealistic and ignores the difficult reality of standard setting.[11] Implementing even simple standards across devices and networks is a complex process that takes time. For example, although work began on High-Definition Multimedia Interface ("HDMI"), a relatively simple single direct wire connector, in 2002, eight years later it still suffers from interoperability problems. Though these problems are being worked out by industry participants, the interoperability issues with AllVid, which would require interoperability between multiple indirectly connected devices over a shared IP network, would likely be much more significant, costly, and time-consuming.

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[11] *See AllVid NOI* ¶ 37.

III. SECTION 629 DOES NOT AUTHORIZE THE COMMISSION TO REQUIRE MVPDS TO UNBUNDLE SERVICES.

As discussed above, Verizon's FiOS TV service, and similar offerings developed by competing MVPDs, offer many innovative features and functions apart from prescheduled video programming content. The *NOI* suggests as one possibility that the AllVid solution could require MVPDs to disaggregate or unbundle their services by stripping away value added functions like programming guides and self-service applications. Under such a framework, the AllVid adapter would be designed to allow device manufacturers to disaggregate content and combine it with any other content from any other source, thereby turning video networks into "dumb pipes."[12] Such a radical restructuring of the video market vastly exceeds the authority granted to the agency by the statute and would raise serious First Amendment concerns by infringing video providers' protected speech.

The Commission lacks statutory authority to require the unbundling of a provider's video service. The text of Section 629 neither authorizes nor contemplates the disaggregation or unbundling of multichannel video programming services. Section 629(a) reads:

> The Commission shall, in consultation with appropriate industry standard-setting organizations, adopt regulations to assure the commercial availability, to consumers of *multichannel video programming and other services offered over multichannel video programming systems*, of converter boxes, interactive communications equipment, and other equipment used to access *multichannel video programming and other services offered over multichannel video programming systems*, from manufactures, retailers, and other vendors not affiliated with any multichannel video programming distributor.[13]

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[12] *See NOI* ¶ 22.

[13] 47 U.S.C. § 549(a) (emphasis added).

By using the phrase "multichannel video programming and other services offered over multichannel video programming systems," Congress made clear that it wanted the Commission to focus on the availability of "equipment used to access services over multichannel video programming systems."[14] Nowhere does the text indicate that the Commission is authorized to require MVPDs to unbundle those services, or that the Commission's regulations can permit third parties to pick and choose among the constituent elements of the services offered by MVPDs in order to design their own distinct services.[15] Some of the suggestions in the Commission's AllVid proposal, which appear to take as a given that the mandated technology must support service unbundling, go far beyond any reasonable interpretation of Section 629.

The legislative history shows that, if anything, at the time it enacted Section 629, Congress supported the encouragement of innovation rather than a far-reaching technology mandate. The Conference Report states that "the Commission [should] avoid actions which could have the effect of freezing or chilling the development of new

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[14] *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, Report and Order, 13 FCC Rcd 14775, ¶ 19 (1998) (discussing Congress's intent).

[15] If Congress had intended Section 629 to require unbundling of video programming it would have done so clearly, as it did for telecommunications services in Section 251. In the same Act in which it adopted Section 629, Congress made clear that telecommunications carriers had a duty to provide "nondiscriminatory access to network elements on an *unbundled* basis." 47 U.S.C. § 251(c)(3) (emphasis added). As courts have held, "[w]here Congress has carefully employed a term in one place and excluded it in another, it should not be implied where excluded." *Sundance Land v. Cm'ty First Fed. Savings & Loan*, 840 F.2d 653, 663 (9th Cir. 1988) (quoting *Pena Cabanillas v. United States*, 394 F.2d 785, 789 (9th Cir. 1968)); *Feldman v. Philadelphia Nat'l Bank*, 408 F. Supp 24, 33-34 (E.D. Pa. 1976); *see also United States v. Juvenile No. 1*, 118 F.3d 298, 305 (5th Cir. 1997), cert. denied 522 U.S. 976 (1997), and cert. denied 522 U.S. 988 (1997) ("Where Congress includes particular language in one section of a statute, but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposefully in the disparate inclusion or exclusion.").

technologies and services . . . in implementing this section, the Commission should take cognizance of the current state of the marketplace and consider the results of private standards setting activities."[16]

Mandated content unbundling would also raise substantial First Amendment concerns. As the Supreme Court has confirmed, video providers "engage in and transmit speech" by assembling and delivering a package of video services, and "they are entitled to the protection of the speech and press provisions of the First Amendment."[17] This is true because "[t]hrough original programming or by exercising editorial discretion over which stations or programs to include in its repertoire, cable programmers and operators see[k] to communicate messages on a wide variety of topics and in a wide variety of formats."[18] No less than a requirement for newspapers to make articles or sections of their papers available to other news outlets, a content unbundling requirement would directly infringe on these protected speech activities in violation of the First Amendment by allowing device manufacturers and providers to disrupt how video providers select and edit content and communicate to customers. As the Supreme Court has explained, forcing a newspaper to afford third-parties indiscriminate access to its printing press and newspages clearly violates the First Amendment: "[A] [g]overnment-enforced right of access inescapably 'dampens the vigor and limits the variety of public debate.'"[19] Prohibiting a newspaper from exercising editorial control over the form and content of its

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[16] H.R. Rep. 104-458, at 181 (1996) (Conf. Rep.).

[17] *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 636 (1994).

[18] *Id.*

[19] *See Miami Herald Pub. Co. v. Tornillo*, 418 U.S. 241, 257 (1974) (quoting *New York Times v. Sullivan*, 376 U.S. 254, 279 (1964)).

pages likewise violates the First Amendment: "A newspaper is more than a passive receptacle or conduit for news, comment, and advertising. The choice of material to go into a newspaper, and the decisions made as to limitations on the size and content of the paper, . . . constitute the exercise of editorial control and judgment."[20] Because the First Amendment protects the right not to speak just as clearly as it protects the right to speak,[21] the fact that the AllVid proposal contemplates stripping away editorial control over content and making that content available to third parties, rather than giving third parties access to facilities, does not change the analysis. Just as a government-mandated right of unfettered access to newspaper's source material would plainly raise serious First Amendment concerns, so too would a content unbundling mandate on video providers. These concerns would only be heightened to the extent that certain video content providers, such as Hulu or YouTube, were subject to different regulations.

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[20] *Id.* at 258.

[21] It is well settled that the First Amendment guarantees "both the right to speak freely and the right to refrain from speaking at all." *Wooley v. Maynard*, 430 U.S. 705, 714 (1977); *see also Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 559, 105 S.Ct. 2218, 2230, 85 L.Ed.2d 588 (1985) (quoting *Estate of Hemingway v. Random House*, 23 N.Y.2d 341, 348, 296 N.Y.S.2d 771, 776, 244 N.E.2d 250, 255 (1968)) ("The essential thrust of the First Amendment is to prohibit improper restraints on the *voluntary* public expression of ideas.... There is necessarily ... a concomitant freedom *not* to speak publicly, one which serves the same ultimate end as freedom of speech in its affirmative aspect.'") (emphasis in original); *Hurley v. Irish-American Gay, Lesbian and Bisexual Group of Boston*, 515 U.S. 557, 573 (1995) ("[O]ne important manifestation of the principle of free speech is that one who chooses to speak may also decide what not to say." (quotation marks omitted)).

IV. INSTEAD OF A COSTLY AND LIMITING TECHNOLOGY MANDATE, THE COMMISSION SHOULD ENCOURAGE OPEN, NETWORK-AGNOSTIC EFFORTS TO COLLABORATIVELY SET STANDARDS.

Although the Commission should not adopt a one-size-fits-all AllVid mandate or any other requirements focusing on a single subset of players in the dynamic video marketplace, there is still a role for the Commission to encourage open, network-agnostic industry-led standards setting processes. Flexible, industry-led standards developed through open and accredited standards-setting bodies can be significant in promoting innovation and competition. For example, ATIS is currently developing an IPTV Downloadable Security specification that is interoperable and agnostic as to the choice of video delivery system.[22] And certain standards like the DLNA have already been developed and are already incorporated into a wide range of devices. Similarly, work is underway within the RVU Alliance – a group including a wide range of consumer electronics and video companies such as Broadcom, Cisco, Samsung, DirecTV and Verizon – on an open standard which allows video networks to interact with various devices such as televisions, digital video recorders, and personal computers based on IP connectivity. Rather than pursue a complicated technology mandate that will likely be infeasible to implement and will inevitably suppress innovation, the Commission should encourage open and flexible standards setting and allow consumer-driven marketplace developments to continue the shift towards video convergence without regulatory intervention.

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[22] *See* ATIS, AISP.6-IPTV Downloadable Security Incubator (IDSI), *available at* http://www.atis.org/idsi/.

V. CONCLUSION

For the foregoing reasons, the Commission should not adopt technology mandates, particularly its AllVid adapter proposal. Instead, the Commission should encourage ongoing marketplace developments, which better serve consumers and the goals of Section 629.

Respectfully submitted,

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