

---

---

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matters of	)	
	)	
International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act	)	GN Docket No. 09-47
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51, NBP PN #27
	)	
Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act	)	GN Docket No. 09-137
	)	
Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices	)	CS Docket No. 97-80
	)	

**COMMENTS OF DIRECTV, INC. – NBP PUBLIC NOTICE #27**

Susan M. Eid  
Senior Vice President, Government Affairs

Stacy R. Fuller  
Vice President, Regulatory Affairs

**DIRECTV, Inc.**  
901 F Street, NW  
Suite 600  
Washington, DC 20004  
202-383-6320

December 22, 2009

---

---

## SUMMARY

Nobody could disagree with the basic premises behind this proceeding. Broadband deployment is an important national goal. Internet video is “tremendously popular.” And Internet delivery of video to televisions will become increasingly important. *This is already happening today*, and DIRECTV is already fully engaged in this evolution. All of DIRECTV’s new set-top boxes are capable of supporting IP services. DIRECTV is also a Promoter member of two industry consortiums, the Digital Living Network Alliance and the RVU Alliance, that have been developing standards allowing consumers to access content – including Internet content – between and among various home devices, including televisions. DIRECTV is hardly alone in this: hundreds of companies, including content service providers, consumer electronic manufacturers, and retailers, have made the connected digital home a business priority and, consequently a market reality for consumers today. These alliances are very close to making home networking and the Internet as easy for consumers to use as watching their televisions. “Outside help” from the Commission at this point could only delay things.

DIRECTV, however, disagrees with the proposition that forcing multichannel video programming distributors (“MVPDs”) to deploy *particular devices* is a helpful way to promote broadband deployment. To begin with, such a mandate would be a solution in search of a problem—there is no shortage of devices on the market that allow subscribers to enjoy both traditional MVPD content and non-linear content on their televisions (or even to bypass MVPD service altogether). Such a requirement, moreover, would be problematic in its own right:

- Developing a new, government-mandated “home gateway device” to “bridge” MVPD functionalities with other devices would be hugely expensive and time-consuming. Since satellite network architecture is fundamentally different than cable network architecture, the Commission would have to drop ten years of CableCARD progress and start from scratch.
- No government-mandated device can possibly hope to keep up with advances in technology. Such devices are, by nature, “camels” – *e.g.*, horses developed by

- Requiring deployment of such a device would hinder satellite innovation specifically. Satellite television is a one-way service, unlike cable’s two-way architecture. While cable can build innovation in the network, satellite carriers must place the innovative aspects of its service in the set-top box. DIRECTV could not have offered its video on demand service or Sunday Ticket SuperFan, for example, to users of a “home gateway” device. *Third-party producers of “innovative” set-top boxes could not have introduced these features, either,* because they are part and parcel of DIRECTV’s service. DIRECTV, like all MVPDs, makes huge expenditures on research and development to enhance the user experience. A government-mandated gateway device would hamstring DIRECTV’s ability to continue doing so.
- Requiring deployment of such a device would raise prices for our subscribers. DIRECTV has always allowed subscribers to buy or lease its set-top boxes. They *overwhelmingly* choose to lease them, both to avoid out-of-pocket expenses and because they can upgrade their box (and thus new features) more easily this way. Leasing also allows DIRECTV to purchase set-top boxes from manufacturers in large volume, thereby driving down equipment prices. Forcing DIRECTV to abandon this model would lead to higher prices, affecting precisely those consumers that the Commission most wants to attract – *i.e.*, cost-conscious consumers who do not yet have broadband access.

There exist any number of real obstacles to broadband deployment, and the Commission is right to address them. The absence of a government-mandated, Internet television gateway device, however, is surely not one of those obstacles. DIRECTV respectfully urges the Broadband Task Force to reconsider its focus on this particular concern.

**TABLE OF CONTENTS**

I. DIRECTV ALREADY PARTICIPATES IN NUMEROUS ONGOING INITIATIVES SUPPORTIVE OF INTERNET VIDEO TO TELEVISIONS..... 2

II. A GOVERNMENT-MANDATED “ALL MVPD” DEVICE WOULD BE UNNECESSARY AND UNWISE ..... 6

    A. Developing Standards For an “All-MVPD” Device Would Take Years..... 7

    B. Government-Mandated, Lowest-Common-Denominator Devices Would Risk Early Obsolescence..... 8

    C. A Government Mandate Would Hinder Satellite Innovation..... 9

    D. A Government Mandate Would Result in Higher Prices and Fewer Choices for Satellite Subscribers ..... 10

III. CONCLUSION..... 12

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matters of	)	
	)	
International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act	)	GN Docket No. 09-47
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51, NBP PN #27
	)	
Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act	)	GN Docket No. 09-137
	)	
Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices	)	CS Docket No. 97-80
	)	

**COMMENTS OF DIRECTV, INC. – NBP PUBLIC NOTICE #27**

DIRECTV, Inc. (“DIRECTV”) submits these comments in response to the public notice (“Notice”) issued in the above-captioned dockets with respect to video device innovation and the National Broadband Plan (“Plan”).<sup>1</sup> As the leading satellite television service provider and an active participant in numerous industry working consortiums devoted to innovation in content

---

<sup>1</sup> *Comment Sought on Video Device Innovation*, DA 09-2519, GN Docket Nos. 09-47, 09-51, 09-137; CS Docket No. 97-80 (rel. Dec. 3, 2009) (Public Notice) (“Notice”).

delivery, DIRECTV has a keen interest in (and substantial experience with) the issues addressed in the Notice.

**I. DIRECTV ALREADY PARTICIPATES IN NUMEROUS ONGOING INITIATIVES SUPPORTIVE OF INTERNET VIDEO TO TELEVISIONS**

The Commission's Broadband Taskforce ("Taskforce") is correct in its belief that the future will bring new applications, increased Internet use, more viewing options, and more demand to access Internet content on televisions.<sup>2</sup> This, in DIRECTV's view, is indisputable. DIRECTV, however, does not agree with the Taskforce that the delivery of Internet content to televisions is a far-off goal necessitating government intervention. It is happening today – and DIRECTV is at the forefront of efforts to make it more widespread.

Of course, anybody can connect a television to the Internet through the use of a host of devices that are available *now*. Many televisions connect to the Internet without the need of any intervening devices at all.<sup>3</sup> Customers who want the functionality of an intervening device have many other choices available to them. For example, Boxee (a start-up company recently featured in the *New York Times*) is developing a set-top box that allows access to certain Internet content and social networking sites.<sup>4</sup> Boxee also reportedly is developing an open source box that would allow a user to visit any Internet site. As the Notice observed, TiVo, Xbox 360, Apple TV,

---

<sup>2</sup> Notice at 2.

<sup>3</sup> IMS Research estimates 25 percent of television households will have TV sets capable of displaying Internet video content by the end of 2010. IMS Research, Press Release, Internet Video: Connected TVs Play Catch Up (Dec. 4, 2009), [http://www.imsresearch.com/press\\_release\\_details.html&press\\_id=1199](http://www.imsresearch.com/press_release_details.html&press_id=1199).

<sup>4</sup> Stone, Brad, *A New Set-Top Device To Put Web Video on TV*, NEW YORK TIMES, Dec. 8, 2009 at B10.

Roku, Vudu, and Playstation 3 also have Internet functionality that allows streaming of video content to a TV.<sup>5</sup>

As the Task Force correctly observes, however, some consumers will want to access Internet content via the set-top boxes through which they now receive linear video content from their multichannel video programming distributor (“MVPD”).<sup>6</sup> DIRECTV recognized this years ago.

More than five years ago, DIRECTV began adding home network support on each of its high-definition (“HD”) boxes, allowing IP connectivity for home networking. This, of course, is the basic building block for Internet service via the set-top box. About a year and a half ago, DIRECTV began offering services that use such support. DIRECTV’s video on demand service is provided over broadband, requiring each subscriber to connect her set-top box to a broadband service in order to access such programming. DIRECTV also provides other interactive services that rely on a broadband connection. For instance, today, hundreds of “TV Apps” are available through DIRECTV.<sup>7</sup> These interactive applications allow subscribers to instantly access Flickr, webcams, NFL scores, weather, and other content. Importantly, DIRECTV is developing and deploying all of these consumer-friendly, IP-based functionalities as a *complement* to – not a replacement for – its delivery of linear satellite video service. And because DIRECTV is a

---

<sup>5</sup> Notice at 4.

<sup>6</sup> Notice at 2.

<sup>7</sup> See <http://tvapps.directv.com/index.do>.

national service, each of its capable set-top boxes offers these innovations to consumers throughout the country.<sup>8</sup>

DIRECTV recognizes that these solutions do not yet allow customers to access “the Internet” through DIRECTV set-top boxes. The Digital Living Network Alliance (“DLNA”) and the RVU Alliance, however, are developing interoperable solutions for the delivery of content (including Internet video content) throughout the home (including to televisions).

- DLNA, [www.dlna.org](http://www.dlna.org), is an industry alliance that includes major consumer electronic and PC manufacturers, software developers, and MVPDs. DLNA technology allows customers to access content across connected devices, such as computers, televisions, Blu-Ray players, and personal digital assistants (“PDAs”), including content accessed by such devices from the Internet. Because all devices designed to DLNA standards are able to communicate with each other, manufacturers and content providers have the opportunity to innovate and differentiate their products. For example, DIRECTV HD set-top boxes have DLNA functionality with advanced features being added continuously. Thousands of DLNA certified devices, such as televisions, Blu-Ray players and game consoles, are available in stores today.

As the DLNA website explains:

The value of the digital living vision is in its ability to provide consumers with a wide range of compelling uses and experiences. This requires the availability of a broad spectrum of products across many categories. *These products range from intelligent source devices such as advanced digital set-top boxes, PCs, and access platforms (i.e., residential gateways), as*

---

<sup>8</sup> Thus, the statement in the Notice that “we know of no device available at retail that can access all of an MVPD’s services across that MVPD’s entire footprint” is inaccurate with respect to DIRECTV. Notice at 2.

well as simple sink and source devices that provide content acquisition, recording, playback, rendering, storage, sourcing capabilities and content protection. Some examples of these devices include PDAs, notebook PCs, broadcast tuners, networked storage units, CD/DVD players and recorders, TV monitors, stereos, multimedia mobile phones, home theaters, wireless monitors and game consoles as well as other video, audio and image capturing devices.<sup>9</sup>

DLNA, without a government mandate, has envisioned and is rapidly working toward a world of advanced set-top boxes and residential gateways – precisely the type of device innovation that the Taskforce has determined can drive broadband adoption and utilization.<sup>10</sup>

- The RVU Alliance, [www.rvualliance.org](http://www.rvualliance.org), is working to develop technology that also results in making it easier for consumers to connect TVs to the Internet and will enable a high-quality, digital entertainment experience throughout the home. RVU uses DLNA as a foundation – it is not an alternative to DNLA, but is an additional building block. The RVU technology is expected to accelerate the availability of service provider content throughout the connected home.
- Both DLNA and RVU allow compatible devices in the home to share content once they are connected by a local area network (“LAN”). If that LAN includes a path to the Internet, then devices with web browsing capability can access the Internet.

The Broadband Task Force “wishes to consider taking an active role in formulating a solution that will spur the development” of technologies and business models to facilitate

---

<sup>9</sup> See [http://www.dlna.org/about\\_us/faqs/](http://www.dlna.org/about_us/faqs/) (emphasis added).

<sup>10</sup> Notice at 2.

delivery of Internet content to TVs.<sup>11</sup> Development of such technologies and business models, however, is well underway. No “active role” is needed here.

## **II. A GOVERNMENT-MANDATED “ALL MVPD” DEVICE WOULD BE UNNECESSARY AND UNWISE**

The Task Force rests on solid ground when it describes the growing importance of Internet video on televisions. As discussed above, however, it moves onto shakier ground when it suggests that set-top box issues are somehow hampering this process.<sup>12</sup> And it walks on highly unstable ground when it suggests, as it recently did to the Commission, that MVPDs should be *required* to “provide a small, low-cost device whose only functionality is to bridge the proprietary MVPD network elements (conditional access, tuning and reception functions) to common, open standard widely-used in home communications interfaces.”<sup>13</sup>

Such a requirement would be, to begin with, a solution in search of a problem. As discussed above, those who wish to access Internet content on their television already have many options available to them *today*, with more options becoming available every year from service providers, consumers electronics manufacturers and startups – all without Commission intervention.

Such a requirement would, moreover, be highly problematic in its own right. It would: (i) take years to develop the equipment; (ii) produce devices quickly surpassed by newer technology; (iii) harm satellite innovation; and (iv) raise prices.

---

<sup>11</sup> Notice at 2.

<sup>12</sup> The Taskforce has identified a “gap” between PC households (76 percent) and TV households (99 percent). But the 99 percent of households with TVs do not all subscribe to subscription video services, and not all subscribers have set-top boxes.

<sup>13</sup> National Broadband Policy Framework, Dec. 16, 2009, Open FCC Meeting at 20 *available at* [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-295259A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-295259A1.pdf)

### **A. Developing Standards For an “All-MVPD” Device Would Take Years**

The Task Force describes the introduction of a “small, low cost” device as if it were a simple process. History teaches otherwise. The Commission need only look at the CableCARD negotiations to know how difficult and time-consuming it can be to develop a government-mandated, multi-MVPD device. That process has now taken more than a decade, and, as the notice acknowledges, is still not complete.<sup>14</sup>

Developing a new device that would apply to cable, telco and satellite would be more difficult yet. As DIRECTV described in detail in an earlier proceeding, because satellite systems use a completely different network architecture than cable systems and telco systems, any such device would have to be developed along different lines than the CableCARD.<sup>15</sup> Indeed, “[a]part from the casing, the F input connectors, and the video and audio output connectors, practically every aspect of a DIRECTV navigation device differs from a cable navigation device.”<sup>16</sup>

The Commission would, in other words, have to start from scratch. And there is every reason to think that new, “all-MVPD” negotiations would be even more difficult than those involving only the cable industry. For example, because satellite – unlike cable – does not have a series of licenses, agreements, standards, regulations, and the like upon which to build, new negotiations would have to establish this essential foundation for satellite operators. In addition, to the extent these devices are intended to be interoperable among all MVPDs, such negotiations would presumably need to include not only DIRECTV, DISH Network, and CEA, but also

---

<sup>14</sup> Notice at 3.

<sup>15</sup> Comments of DIRECTV, Inc. CS Docket No. 97-80, PP Docket No. 00-67 (Aug. 24, 2007).

<sup>16</sup> *Id.* at 7.

NCTA, Verizon, AT&T, and every other industry player. It should be self-evident that three-, four-, and five-way negotiations would be more difficult than two-way negotiations between the cable and consumer electronics industries.

**B. Government-Mandated, Lowest-Common-Denominator Devices Would Risk Early Obsolescence**

No government-mandated device can possibly hope to keep up with advances in technology. Such devices are, by nature, “camels” – *e.g.*, horses developed by committee. At best, they represent the lowest common denominator of technology. At worst, they are obsolete upon introduction.

The Commission’s implementation of Section 629 serves as a perfect example. Negotiations concerning *those* government-mandated devices involved numerous, complex moving parts for more than a decade. Yet over that same period, technology evolved substantially – from the inclusion of digital video recorders (“DVRs”) and video on demand (“VOD”) services to new interactive applications. Regulation was simply unable to keep up with non-regulated technology. It is widely understood, for example, that the introduction of CableCARDS has hindered the launch of Switched Digital technology.

New “agnostic gateway” devices would surely cause similar problems. They may or may not work with today’s MVPD offerings—and, as discussed below, would be especially problematic for satellite technology. These devices are even more likely to be problematic for future, as-yet-undeveloped MVPD offerings. Requiring such devices would thus risk hindering innovation and consumers would be saddled with devices that, like CableCARDS, are unable to take advantage of technological advancements.

### **C. A Government Mandate Would Hinder Satellite Innovation**

While mandating gateway devices would hinder innovation generally, the most harm – and the most immediate harm – would fall upon satellite subscribers. This is because satellite, unlike cable and telco, places many of the most innovative features of its service *in the set-top box itself*.

Satellite systems are not “two-way” as that term is implemented by cable operators. Two-way cable systems depend on intensive use of a proprietary cable return path in order to provide interactivity and similar services. Satellite systems, by contrast, do not rely on the presence of an active return path. DIRECTV’s set-top boxes communicate with DIRECTV only very infrequently, using a return path supplied by the customer such as a phone or broadband connection. Cable and telco devices, by contrast, can be in constant contact with the operator’s headend via the operator’s own facilities.

DIRECTV is able to accomplish many of the same “two-way” functions as cable by using a fundamentally different approach compatible with its network architecture. For example, while cable system subscribers “pull” VOD programming from a central server, DIRECTV employs a “carousel” approach in which VOD programming is transmitted at regular intervals from its satellites. DIRECTV offers many of its advanced features – from NFL Sunday Ticket SuperFan to comprehensive coverage of the Masters to Common Sense Media ratings to 3-D capability – in much the same way. This type of approach is deeply embedded throughout DIRECTV’s network architecture. It is reflected in set-top box hardware and software; it is the basis of the conditional access system; it is critical to the program guide; and it even flows through the customer service and billing systems.

It is not clear that the “Gateway” devices being contemplated by the Commission will work with a one-way architecture. DIRECTV may be unable to reliably download software or

carousel content to its set-top boxes through these gateways. Third party producers of set-top boxes would similarly be technically unable to, or choose not to, offer these features themselves. DIRECTV thus could have been precluded from offering VOD to subscribers using such gateways.

A government mandate requiring a common platform could have the unintended result of freezing satellite technology where it is today and limiting satellite subscribers to bare-bones, feature free MVPD services. This would *dampen* satellite innovation and therefore slow uptake of broadband services – precisely the opposite of what the Commission hopes to achieve.

**D. A Government Mandate Would Result in Higher Prices and Fewer Choices for Satellite Subscribers**

Requiring deployment of home gateway devices could dramatically raise prices for DIRECTV subscribers. Today, customers can choose to purchase or lease DIRECTV receivers.<sup>17</sup> In offering both alternatives, the company has found that customers overwhelmingly prefer to lease a set-top box. This is in part due to a pricing approach that reflects the distinct costs associated with satellite services.<sup>18</sup> Due to the nature of satellite service, installations for DIRECTV's advanced products often are more difficult, and thus more costly, than those for other MVPDs.<sup>19</sup> If it wishes to encourage customers to switch from cable, DIRECTV cannot require hundreds of dollars in upfront equipment and installation costs. The low, monthly lease charge avoids large, out-of-pocket expenses for a new DIRECTV customer, thus removing a

---

<sup>17</sup> In addition to receivers available for purchase from DIRECTV itself, receivers are available at retail stores including Costco, Best Buy, and AT&T Wireless outlets.

<sup>18</sup> See, e.g., Testimony of John F. Murphy, Senior Vice President, Controller and Chief Accounting Officer, DIRECTV, before Public Hearing on Early Termination Fees, Federal Communications Commission (June 12, 2008).

<sup>19</sup> For example, DBS service requires a trained installer to mount a home antenna, install receivers, and run cabling to ensure receipt of a strong satellite signal.

significant impediment to video competition. Customers also can easily take advantage of new services and upgrades without the sunk cost of purchasing a device that may become outdated in a relatively short period of time.

The leasing model also benefits consumers because it allows DIRECTV to provide more innovative services. DIRECTV continuously strives to develop ever more compelling offerings for its customers. As discussed above, these are all provided by software downloads to set-top boxes. When most of its customers purchased boxes at retail, there was no guarantee that any new innovative downloads would work with all the boxes. Now that the large majority of subscribers have set-top boxes with a common technical baseline, DIRECTV can be sure that innovations are compatible with almost everyone's equipment.<sup>20</sup>

Leasing also allows DIRECTV to purchase set-top boxes from manufacturers in large volume, thereby driving down equipment prices. A government mandate to abandon this model would inevitably erode these economies of scale, making the cost of equipment higher across the board. Those who could afford more expensive devices – *i.e.*, those most likely to have broadband access already – would likely feel little effect. But the increased cost would likely have its largest effect on precisely those cost-conscious consumers who do not currently have a broadband connection.

---

<sup>20</sup> In addition, a common user interface has enabled DIRECTV to provide better customer service. At its inception, DIRECTV sold most of its set-top boxes at retail, and numerous manufacturers offered many different models. With so many different interfaces and varying capabilities and functionalities of different set-top boxes sold at retail, however, DIRECTV found it difficult to respond to subscribers' equipment-related issues. DIRECTV's greater ability to respond to customer service issues in a timely and comprehensive manner is a key to its success as a competitor to cable.

Such a regulatory mandate might actually hinder expansion of broadband services, and in the process exacerbate the divide between those who have broadband access and those who do not.

### **III. CONCLUSION**

The Task Force is right in seeking to promote broadband, and is right in recognizing that Internet video delivered to televisions could contribute to that effort. It errs, however, by underestimating the many options that are available for this service now, and the many more that will be available soon. And it risks *hindering* broadband deployment – not to mention innovative services and affordable navigation devices – by demanding deployment of a government-designed, lowest-common-denominator, “gateway” device. DIRECTV respectfully asks the Task Force to reconsider its focus on such devices and to avoid harming one of the aspects of broadband deployment that needs no government encouragement.

Respectfully submitted,

**DIRECTV, INC.**

By:           /s/ Stacy R. Fuller          

Susan M. Eid  
Senior Vice President, Government Affairs

Stacy R. Fuller  
Vice President, Regulatory Affairs

**DIRECTV, Inc.**  
901 F Street, NW  
Suite 600  
Washington, DC 20004  
202-383-6320

December 22, 2009