



PUBLIC NOTICE

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COMMENT SOUGHT ON VIDEO DEVICE INNOVATION NBP Public Notice # 27

PLEADING CYCLE ESTABLISHED

GN Docket Nos. 09-47, 09-51, 09-137; CS Docket No. 97-80

Comment Date: December 21, 2009

In this Public Notice, we seek comment on how the Commission can encourage innovation in the market for video devices that will assist the Commission's development of a National Broadband Plan pursuant to the American Recovery and Reinvestment Act of 2009 (Recovery Act),¹ and serve the goals of Section 629 of the Communications Act of 1934, as amended.²

Internet video has proven to be tremendously popular. In March 2009, viewers streamed nearly ten billion videos and averaged three hours watching video on the Internet.³ Subscription video services, including traditional cable services provided by many companies,⁴ video services offered by companies traditionally considered telephone companies,⁵ and Internet-based subscription services,⁶ use or plan to

¹ American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115 (2009) (Recovery Act); *see also 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, A National Broadband Plan for Our Future*, 24 FCC Rcd 10505 (2009) ("2009 706 NOP"); *Comment Sought on International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act*, GN Docket No. 09-47, Public Notice, 24 FCC Rcd 3908 (2009).

² 47 U.S.C. § 549(c).

³ Chris Albrecht, *Hulu: More Vids to Fewer Uniques in March*, NEWTEEVEE.COM (April 13, 2009) available at <http://newteevee.com/2009/04/13/hulu-more-vids-to-fewer-unique-in-march/>.

⁴ Todd Spangler, *SCTE Panelists Talk Internet TV*, MULTICHANNEL NEWS (April 3, 2009) available at http://www.multichannel.com/article/191265-Cable_Show_2009_SCTE_Panelists_Talk_Internet_TV.php; Jeff Baumgartner, *SCTE Expo: MSOs Prep IPTV Push*, CABLE DIGITAL NEWS (Oct. 28, 2009) available at http://www.lightreading.com/document.asp?doc_id=183804&site=cdn.

⁵ AT&T's U-Verse video service is entirely IP-based, and Verizon's FiOS video service is a hybrid QAM/IP service. *See* Letter from Jim Lamoureux, General Attorney, AT&T Services, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, MB Docket No. 05-311 (June 2, 2006); Verizon Comments in CS Docket No. 97-80 at 2 (filed August 24, 2007).

use Internet Protocol (“IP”) to deliver their video content. As the popularity of IP delivery of video continues to increase, we believe that new applications will emerge, Internet use will increase, consumers will have more viewing options, and more viewers will want to access Internet content on their televisions.

In addition to Section 629’s statutory mandate that the Commission adopt regulations to assure a competitive market for navigation devices, we believe that video devices are an important part of developing a National Broadband Plan. Although 76 percent of U.S. households have personal computers, 99 percent have television sets.⁷ The convergence of the television and content delivered by IP makes this a critical time to promote innovation in set-top devices that could support the Commission’s effort to drive broadband adoption and utilization. Accordingly, the Commission wishes to consider taking an active role in formulating a solution that will spur the development of a retail market for nationally portable video devices that will work across all delivery platforms, including MVPD platforms and broadband-based video platforms. We seek comments on the following specific issues to help us better understand these issues as we develop a National Broadband Plan.

A. What technological and market-based limitations keep retail video devices from accessing all forms of video content that consumers want to watch?

Consumers can choose from a plethora of devices that are able to access Internet video, but it appears that none of these devices is able to access all types of video content, and few of them are able to access MVPD content.⁸ Consumers can access the Internet using a variety of delivery methods (e.g., wireless, DSL, fiber optics, broadband over powerlines, satellite, and cable) on myriad devices made by hundreds of manufacturers; yet we know of no device available at retail that can access all of an MVPD’s services across that MVPD’s entire footprint. We seek comment on the technological and market limitations that explain this disparity.

1. What limitations prevent consumer electronics manufacturers from developing a true “plug-and-play” device that is network agnostic?
2. What technical or market limitations keep certain video devices from accessing video services to which a consumer has subscribed?
3. With respect to Internet access, consumers can purchase or lease interface devices (for example, cable modems) that perform all of the network-specific functions and connect via Ethernet ports to a multitude of competitively provided consumer devices including computers, printers, game consoles, digital media devices, wireless routers, refrigerators, network storage devices, and more. What technical or market limitations prevent video content distributors from providing similar devices that allow for innovation in the navigation device market?

⁶ See, e.g., Press Release, Netflix, Netflix Offers Subscribers the Option of Instantly Watching Movies on their PCs (January 16, 2007), available at <http://www.netflix.com/MediaCenter?id=5384>.

⁷ See Broadband Gaps, Federal Communications Commission at 17 (November 18, 2009).

⁸ See Saul Hansell, *Netflix to Sell a Device for Instantly Watching Movies on TV Sets*, N.Y. TIMES, May 20, 2008 (highlighting differences between the Roku, TiVo and AppleTV devices); Brad Stone, *Netflix and TiVo to Partner on Movies*, N.Y. TIMES, October 30, 2008 (reporting that TiVo devices can access Netflix’s streaming service in addition to “TV shows over the Internet from Amazon.com, Walt Disney Studios and Jaman.com”).

B. Would a retail market for network agnostic video devices spur broadband use and adoption and achieve Section 629's goal of a competitive navigation device market for all MVPDs?

In June 2007, the Commission released a Further Notice of Proposed Rulemaking seeking comment on competing proposals for bidirectional compatibility between cable systems and consumer electronics devices.⁹ The Commission sought comment also on other approaches that would assure consumer electronics device compatibility with all MVPDs.¹⁰ Some parties argued that an all-MVPD solution “likely would require years for all the affected parties to address and act on the complex technical and business issues inherent in such an approach,”¹¹ while others argued that an all-MVPD approach is the only way to achieve Section 629's goal of a competitive market for navigation devices.¹² We seek further comment on this issue.

1. How could the Commission develop a standard that would achieve a retail market for devices that can attach to all MVPD networks and access Internet-based video sources?
2. What are the pros and cons of each of these types of solutions, and which one would do the most to promote broadband adoption and utilization? Would any inhibit broadband adoption and utilization?

C. Can the home broadband service model be adapted to allow video networks to connect and interact with home video network devices such as televisions, DVRs, and Home Theater PCs via a multimedia home networking standard?

Home broadband service separates the elements specific to the platform by using a gateway device, such as a cable modem, DSL modem, or optical network terminal to convert the signals to Ethernet, the *de facto* home-networking standard. The Digital Living Network Alliance (“DLNA”) and the High Definition Audio/Video Networking Alliance (“HANA”) each assert that their home networking standards would be well suited to connect interface devices to a consumer's home network, as an analogue to Ethernet in the data networking world.¹³ We seek comment on how these standards would be implemented.

⁹ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 22 FCC Rcd 12024 (2007).

¹⁰ *Id.* at 12028-9, ¶ 13.

¹¹ Letter from Peter M. Fannon, Vice President Technology Policy, Government & Regulation, Panasonic, and Paul G. Schomburg, Senior Manager, Government & Public Affairs, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at 3 (Oct. 30, 2007). *See also* DIRECTV Reply Comments in CS Docket No. 97-80 at 2-3 (filed Sept. 10, 2007); AT&T Reply Comments in CS Docket No. 97-80 at 7-12 (filed Sept. 10, 2007).

¹² NCTA Comments in CS Docket No. 97-80 at 71-74 (filed Aug. 24, 2007); NCTA Reply Comments in CS Docket No. 97-80 at 45-46 (filed Sept. 10, 2007); Echostar Comments in CS Docket No. 97-80 at 2-3 (filed Aug. 24, 2007); Time Warner Cable Comments in CS Docket No. 97-80 at 7-8 (filed Sept. 10, 2007); Public Knowledge Comments in CS Docket No. 97-80 at 5 (filed Aug. 24, 2007).

¹³ Home Networking Proponents Comments in CS Docket No. 97-80 at 5-7 (filed Aug. 24, 2007); Letter from Robert S. Koppel, Director, Government Relations, Telecommunications Policy, Texas Instruments, to Marlene H. Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80, at Attachment (Dec. 10, 2007).

1. Are DLNA and HANA the only home networking standards that the Commission should consider in reviewing this model? If not, which other standards should the Commission consider?
2. What are the strengths and weaknesses of each home networking standard?
3. Would any of these standards allow consumers to use existing technology? For example, many devices already in consumers' homes can accept firmware upgrades and are already DLNA or HANA certified. Could the Commission adopt a network interface standard that allows those devices to connect to an MVPD network?

D. What obstacles stand in the way of video convergence?

The Commission's CableCARD rules have resulted in limited success in developing a retail market for navigation devices. Certification for plug-and-play devices is costly and complex.¹⁴ The tru2way license requires device manufacturers to separate cable navigation from all other functions that the device performs. On the other hand, devices like TiVo, Moxi, Microsoft's Xbox 360, AppleTV, Roku, Sony's Playstation 3, and Vudu each use a consistent menu as they navigate through video content regardless of its source. Certain elements of MVPD technology move at a faster pace than technology on the consumer device side (*e.g.*, the adoption of switched digital video), and vice versa (*e.g.*, the adoption of advanced video codecs in consumer devices). We seek comment on how to encourage innovation.

1. Given the flood of video content that is now available from a multitude of sources, what obstacles stand in the way of allowing consumers to navigate those sources? What can the Commission do to eliminate those obstacles?
2. Is there a solution that would allow MVPDs to continue innovating without making navigation devices obsolete when MVPDs adopt incompatible delivery methods?
3. Would a network interface solution address the concerns raised regarding cost and complexity of device certification and approval? Why or why not?

This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules. See 47 C.F.R. §§ 1.1200, 1.1206. Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented generally is required. See 47 C.F.R. § 1.1206(b). Other rules pertaining to oral and written *ex parte* presentations in permit-but-disclose proceedings are set forth in section 1.1206(b) of the Commission's rules, 47 C.F.R. § 1.1206(b).

- **All comments should refer to GN Docket Nos. 09-47, 09-51, and 09-137; and CS Docket No. 97-80.**
- **Please title comments and reply comments responsive to this Notice as "Comments —NBP Public Notice # 27."**

¹⁴ See, *e.g.*, Letter from Julie M. Kearney, Senior Director and Regulatory Counsel, Consumer Electronics Association, to Marlene Dortch, Secretary, Federal Communications Commission, CS Docket No. 97-80 (March 6, 2008).

- **Filers using the Commission’s Electronic Comment Filing System (ECFS) should enter the following text in the “Custom Description” field in the “Document(s)” section of the ECFS filing page: “Comments – NBP Public Notice # 27”.**
- **We strongly encourage parties to develop responses to this Notice that adhere to the organization and structure of the questions in this Notice.**

Comments may be filed using (1) the Commission’s Electronic Comment Filing System (ECFS), (2) the Federal Government’s eRulemaking Portal, or (3) by filing paper copies.¹⁵ Comments can be filed through the Commission’s ECFS filing interface located at the following Internet address: <http://www.fcc.gov/cgb/ecfs/>. Comments can also be filed via the Federal eRulemaking Portal: <http://www.regulations.gov>.¹⁶ Generally, only one copy of an electronic submission must be filed. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking number. Parties who choose to file by paper must file an original and four copies of each filing.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). All filings must be addressed to the Commission’s Secretary, Office of the Secretary, Federal Communications Commission.

- The Commission’s contractor will receive hand-delivered or messenger-delivered paper filings for the Commission’s Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002. The filing hours at this location are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554.

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For further information about this Public Notice, please contact Brendan Murray at (202) 418-1573 or Alison Neplokh at (202) 418-1083.

¹⁵ See Electronic Filing of Documents in Rulemaking Proceedings, 63 Fed. Reg. 24121 (1998).

¹⁶ Filers should follow the instructions provided on the Federal eRulemaking Portal website for submitting comments.