

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

|   |   |                      |
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| In the Matter of                            | ) |                      |
|   | ) |                      |
| TiVo Inc.                                   | ) | MB Docket No. 12-230 |
| Request for Clarification and Waiver of the | ) |                      |
| Audiovisual Output Requirement of Section   | ) |                      |
| 76.640(b)(4)(iii)                           | ) |                      |

**COMMENTS OF  
THE NATIONAL CABLE & TELECOMMUNICATIONS ASSOCIATION**

The National Cable & Telecommunications Association, the principal trade association for the U.S. cable industry representing cable operators serving more than 90 percent of the nation’s cable television households, more than 200 cable program networks, and providers of set-top boxes and other equipment and services to the cable industry, files these comments on the Petition for Clarification or Waiver filed by TiVo in the above-captioned proceeding.<sup>1</sup> TiVo asks the Media Bureau for a waiver of the requirement that HD set-top boxes provided by cable operators meet “an open industry standard” for tuning, transport and remote control signaling by December, 2012 and a “clarification” from the Bureau of which standard is “an open industry standard” under the rule.<sup>2</sup>

**I. THE COMMISSION INTENTIONALLY DID NOT MANDATE A PARTICULAR MEANS FOR PROVIDING SET-TOP FUNCTIONALITY, SO AS NOT TO REPEAT THE MISTAKE OF CODIFYING THE 1394 CONNECTOR**

One of the lessons learned from earlier efforts at specifying set-top outputs was that technology changes far more rapidly than do FCC rules. In 2003, the IEEE 1394 digital interface

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<sup>1</sup> *Media Bureau Seeks Comment on TiVo’s Request for Clarification and Waiver of the Commission’s Audiovisual Output Requirement*, DA 12-1347, 77 Fed. Reg. 54910 (Sep. 6, 2012).

<sup>2</sup> Petition of TiVo Inc. for Clarification or Waiver of the Audiovisual Output Requirement of Section 76.640(b)(4)(iii) (July 25, 2012) at i(TiVo “respectfully requests that the Media Bureau of the FCC clarify the requirement that cable operator-distributed set-top boxes include an industry-standard home networking interface, and grant TiVo a limited waiver to comply with such requirement.”).

appeared to be a promising connector and was codified in FCC rule. But other interfaces (such as Ethernet, USB, Wi-Fi, and MoCA) rapidly eclipsed 1394, leaving cable customers bearing the costs for 1394 connectors that retail manufacturers had abandoned and few consumers used.

In the 2010 CableCARD rulemaking, certain parties asked the Commission to specify a successor interface to be included on HD set-top boxes, but the Commission did not want to repeat the mistake of codifying 1394.<sup>3</sup> Rather, the Commission concluded that it should give cable operators the choice of using whatever physical interfaces they chose. It identified a baseline of expected functionality (tuning, transport and remote control signaling) and then declared: “we find that it is appropriate, at this time, to refrain from specifying the exact manner in which this baseline of functionality is to be implemented.” The Commission then repeated: “We ... require operators to provide these additional functionalities by December 1, 2012, but *do not mandate a particular means by which these functionalities are to be provided.*”<sup>4</sup>

## **II. WORK IS BEING DONE ACROSS INDUSTRIES TO IMPLEMENT CONSUMER-FRIENDLY NETWORKING TECHNIQUES**

Cable operators have worked – and are working – closely with major retail consumer electronics (“CE”) manufacturers, chip manufacturers, telcoTV providers, and DBS providers in DLNA and other venues on guidelines that enable the networking of commercial video content to connected devices within home networks. The work has progressed well. For example, DLNA Premium Video guidelines enable recorded content to be streamed to connected devices

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<sup>3</sup> *Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices*, 25 FCC Rcd 14657 at ¶¶ 40-41 (2010) (“2010 CableCARD Order”) (“Certain commenters suggested that the Commission should adopt baseline standards to define a ‘functional’ IP connection on a set-top box. Various industry associations have developed suites of standards that include functionality we might rely on. For example, Panasonic suggested that the Commission require that the IP connection pass through ‘OpenCable Host Thin Chassis Device’ remote commands. ... CEA and the Digital Living Network Alliance (‘DLNA’) each suggest that the Commission require that devices follow the DLNA guidelines. ... The 1394 Trade Association and Texas Instruments commented that each leased set-top box should be required to play back any video that is sent to it over an IEEE 1394 interface.”).

<sup>4</sup> 2010 CableCARD Order at ¶ 44 (emphasis added).

and enhancements to these guidelines to support live linear, video-on-demand, and interactive features are expected soon.

Although DLNA has not yet published formal certification for devices that utilize such guidelines, home networking is already underway. Commission staff was able to witness the implementation of home networking techniques in May, 2012 at the Cable Show in Boston. The demonstrations ranged from retail devices accessing and playing DVR content to such devices utilizing remote user interfaces to present live linear, video-on-demand, and interactive program guides via HTML5 browsers.<sup>5</sup>

DLNA-based outputs provide one way to comply with the interface requirements, but there are other solutions, such as delivery of content from the network rather than from hardware in the home. As part of this overall industry transition towards new networking experiences, we should expect a number of compliant approaches as the market works through this evolution from the prior single option of 1394 on legacy devices to DLNA, cloud-based, and other innovative solutions on newer set-top box models.

This flexibility to pursue a variety of approaches has promoted innovation and marketplace competition. For example, when TiVo filed its Petition in July, TiVo expressed concern that it might be handicapped in marketing its devices to cable operators. But since then TiVo has announced that it will be offering a new TiVo streaming technique for home

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<sup>5</sup> News Release, *CableNET® 2012 features new interfaces, connected devices and energy savings emphasis*, May 09, 2012, available at <http://2012.thecables.com/mediareleases/release/cablenet-2012-features-new-interfaces-and-more> (“The CableNext™ Showcase highlights cable company innovations in delivering high value video content to consumer electronics devices using IP content distribution technologies.”) See also Press Release, *CableLabs Tru2way Home Networking Interop Demonstrates Navigation of Linear Content Using Cable Operator HTML5 Program Guides*, June 7, 2012, available at [http://www.cablelabs.com/news/pr/2012/12\\_pr\\_HN\\_interop\\_060712.html](http://www.cablelabs.com/news/pr/2012/12_pr_HN_interop_060712.html) (“Interoperability scenarios included DLNA premium features (*i.e.*, streaming DVR content, server-side trick modes, DTCP-IP link protection, etc.) as well as streaming of linear content to HTML5 browser-based client services”).

networking and has been selected as General Communication Inc.'s exclusive provider of next-generation whole-home TV and multiscreen video solutions.<sup>6</sup>

### **III. THERE IS NO NEED FOR A “CLARIFICATION” TO MANDATE PARTICULAR TECHNOLOGY IMPLEMENTATIONS**

TiVo's request to the Media Bureau for a “clarification” appears to be asking that the Media Bureau mandate, on delegated authority, one particular means by which tuning, transport and remote control signaling are to be provided over home networks.<sup>7</sup> This approach would contradict the express judgment and conclusion of the Commission in the 2010 CableCARD Order. As noted, the Commission held in that Order that the interface rules “do *not* mandate a particular means by which these functionalities are to be provided.”<sup>8</sup>

As a threshold matter, that decision may not be reconsidered and overturned (in the guise of a “clarification”) in the context of a Bureau-level waiver proceeding.<sup>9</sup> More important, however, this is not the time to forget the lessons learned from the 1394 mandate which prompted the Commission in this proceeding to afford the market latitude in delivering the required functionalities in several ways that accommodate variety, consumer choice and innovation.

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<sup>6</sup> Press Release, *TiVo Launches TiVo Stream, Enabling Subscribers to Watch Recordings on Their iPads for the First Time*, September 6, 2012, available at <http://investor.tivo.com/phoenix.zhtml?c=106292&p=irol-newsArticle&ID=1732212&highlight=>. Todd Spangler, *GCI Fast-Forwards With TiVo*, Multichannel News, August 21, 2012, available at <http://www.multichannel.com/article/488713-GCI-Fast-Forwards-With-TiVo.php>. (describing TiVo agreements with a number of other cable operators to supply them with set-top boxes.).

<sup>7</sup> Petition at 7-8, 10-11. (TiVo invites a Bureau “clarification” that a cable operator may not follow any approach that is not “a”, “an”, and “the” one and only approach followed by all other cable operators.).

<sup>8</sup> See note 3.

<sup>9</sup> 47 C.F.R. § 0.283.

**IV. ANY RELIEF FROM THE RULE SHOULD BE EFFECTIVE “FOR ALL SERVICE PROVIDERS AND PRODUCTS IN THAT CATEGORY AND FOR ALL PROVIDERS OF SERVICES AND PRODUCTS,” AS CALLED FOR BY SECTION 629**

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If the Commission is inclined to provide relief to allow TiVo to await developments in the market before TiVo adopts DLNA or any other means of providing the expected functionality, then the relief should be more widely available than just to TiVo. The statute and FCC rule under which TiVo requested waiver call for such relief to be effective “for all service providers and products in that category and for all providers of services and products.”<sup>10</sup> Even under the general waiver standards of Section 76.7, the Commission strives to “ensure that other manufacturers with similar devices can enter and compete as quickly as possible.”<sup>11</sup>

In an earlier waiver of the HD set-top interface rule granted to Intel, Motorola, and TiVo, the Media Bureau stated: “We recognize that this decision could have competitive implications on other set-top box manufacturers. Thus, from the release date of this order until the expiration date specified below, cable operators may deploy any device that has an IP-based connector that outputs video in a format that third-party devices can receive in lieu of an IEEE 1394 interface, provided that the device complies with the rest of the Commission’s rules. Cable operators may do so on any system without the need to request a separate waiver.”<sup>12</sup>

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<sup>10</sup> 47 U.S.C. §549(c); 47 C.F.R. §76.1207.

<sup>11</sup> *Evolution Broadband, LLC*, 24 FCC Rcd 7890 at ¶ 15 (2009).

<sup>12</sup> *Intel Corporation*, 25 FCC Rcd 7539 at ¶ 11 (2010).

Similarly, in this matter, if the Commission provides relief to TiVo by delaying the effective date of the interface rule or otherwise, it should likewise do so for all set-top box manufacturers without the need for each of them to request a separate waiver.<sup>13</sup>

Respectfully submitted,

**/s/ Rick Chessen**

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September 21, 2012

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<sup>13</sup> In adopting the new interface rule, the Commission also acknowledged the potential for industry-wide relief by noting “we recognize that standard setting procedures can be complex and resource intensive. Should the Commission’s predictions with respect to finalization of appropriate standards prove inaccurate, we would entertain reasonable requests for extensions as long as cable operators demonstrate good faith efforts to work towards these functionalities.” 2010 CableCARD Order at ¶ 44 n. 151.