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October 6, 2010

EX PARTE

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: **CS Docket No. 97-80, PP Docket No. 00-67**

Dear Ms. Dortch:

On October 5, 2010, Rick Chessen, Senior Vice President, Law & Regulatory Policy of the National Cable & Telecommunications Association ("NCTA"), Paul Glist from the law firm of Davis Wright Tremaine and I had a meeting with Joshua Cinelli, Legal Advisor to Commissioner Michael Copps. On October 6, 2010, we had a meeting with Brad Gillen, Legal Advisor to Commissioner Meredith Baker. In both meetings we discussed issues raised in the above-referenced CableCARD rulemaking proceeding. In particular we focused on the following issues: (1) CableLabs testing and related requirements, (2) the appropriate outputs ("interfaces") to be included on high-definition ("HD") set-top boxes, including one-way HD Digital Terminal Adapters ("DTAs"); (3) proposals for self-installation of CableCARDs and (3) set-top box and CableCARD billing and pricing proposals.

These discussions reflected the positions NCTA has taken in comments, reply comments, and *ex parte* filings in the CableCARD rulemaking proceeding, including the NCTA September 22, 2010 *ex par*te letter addressing HD set-top box interface issues (a copy of which is attached).

Please do not hesitate to contact me if you have any questions regarding this filing.

Respectfully submitted,

/s/ Neal M. Goldberg
Neal M. Goldberg

Attachment

cc: Joshua Cinelli
Brad Gillen

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September 22, 2010

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: CS Docket No. 97-80, PP Docket No. 00-67

Dear Ms. Dortch:

In recent meetings with Commission staff, the National Cable & Telecommunications Association ("NCTA") was asked to respond to questions about the Commission's proposal regarding appropriate outputs ("interfaces") to be included on high definition ("HD") set-top boxes. As we have said in our filings in this proceeding, we agree with the Commission statement that "allowing manufacturers greater choice in the specific interface they include in their set-top boxes will serve the public interest by enabling connectivity with the multitude of IP devices in consumers' homes."[1] Indeed, the Consumer Principles to which NCTA's cable operator members are committed and which NCTA submitted to the Commission well before adoption of the rulemaking in this proceeding specifically provide that "Consumers should have the option to easily and securely move video content between and among devices in their homes."[2]

But because any rule – even one providing interface options – will be instantly out of date before the ink is dry, our filings in this docket urged the Commission to provide even greater flexibility than it proposed by eliminating a regulatory mandate for any particular interface(s). As was the case with the 1394 requirement, the dynamic market will result in better consumer-driven solutions than any FCC-imposed technology mandates.[3] We also urged the Commission not to mandate or define remote control commands or bi-directional capabilities for such

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[1] *In re Implementation of Section 304 of the Telecommunications Act of 1996; Commercial Availability of Navigation Devices; and Compatibility Between Cable Systems and Consumer Electronics Equipment*, Fourth Further Notice of Proposed Rulemaking, 25 FCC Rcd 4303 ¶ 20 (2010).

[2] Letter from Kyle McSlarrow, President and CEO, NCTA, to Julius Genachowski, Chairman, FCC, NBP Public Notice #27, GN Docket Nos. 09-47, 09-51, & 09-137, CS Docket No. 97-80 at 2 (Mar. 12, 2010).

[3] Indeed, as the Media Bureau recently recognized, "IP communications over Ethernet and Wi-Fi has achieved overwhelming marketplace acceptance for home networking of media devices," *In re Intel Corp., et al. Requests for Waiver of Section 76.640(b)(4)(ii) of the Commission's Rules*, Memorandum Opinion & Order, 25 FCC Rcd 7539 ¶ 9 (2010), and this has occurred in the absence of any government mandate and notwithstanding the regulatory preference accorded to the 1394 interface.

interfaces because any such effort would both ignore the considerable scoping, standardization, definition, and development work that such a rule would require.[4] It would also prejudge issues best left for the AllVid inquiry.[5]

The Bureau has now asked us to address whether the digital video outputs from HD set-top boxes should – or could – be required to receive remote-control commands from connected devices over Ethernet, USB, or Wi-Fi networks under an existing CEA standard (CEA 931-C).

In NCTA's Comments, we explained that currently there are no comprehensive bi-directional standard protocols that could effectively turn every downstream device on an Ethernet, USB, or Wi-Fi network into a controller of an interactive set-top box. Therefore, there are no standards currently available that could be codified into Commission rules.[6] Nonetheless, traditional cable operators as well as Verizon, AT&T, and other MVPDs offer home networking products today because home networking increases the value of a subscription service for customers. This marketplace reality is reflected in the NCTA Consumer Principles cited above. To that end, the cable industry is working in consortia such as DLNA and MoCA to offer consumers the ability to easily share content among the devices in their homes. These efforts track closely and quickly with consumer demand, marketplace competition, and technology advances – certainly quicker than if Commission regulations had to be constantly amended to reflect technological or marketplace changes. Indeed, since these efforts can serve as a basis for a cross-industry "AllVid"-like approach currently being considered by the Commission, imposing any particular interface solution only on cable set-top boxes could well prejudge that proceeding. Consequently, no rule is needed to assure cable operator support for market-driven video interfaces. Even in the absence of any rule, cable operators would continue to support and offer interfaces in their leased devices that their customers want.

In any event, CEA 931-C is not a standard that could effectively turn every downstream device on an Ethernet, USB, or Wi-Fi network into a controller of an interactive set-top box.[7] That standard was intended to define a standardized method for communication of certain basic operational functions between two connected devices in a home network, based on protocols built on the 1394 standard and on HTTP over IP. It specifies how a remote control unit could send commands to a connected device using HTTP. But CEA 931-C is not suited for home networks where multiple devices can be making requests of a connected device at the same time. As explained in the CEA-931-C standard, it explicitly does not specify how a networked device can identify the connected device that it is attempting to control,[8] and it does not specify

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[4] *See* NCTA Reply Comments, CS Docket No. 97-80, at 21 (June 28, 2010). Unless otherwise indicated herein, all comments and reply comments were filed in CS Docket No. 97-80 on June 14, 2010, and June 28, 2010, respectively.

[5] *See id.*

[6] *See* NCTA Comments at 33-35.

[7] Remote Control Command Pass-through Standard for Home Networking, ANSI/CEA-931-C (Dec. 2007).

[8] "This standard does not specify the method a controller device might use to determine which target device on the network should be the recipient of a given command." CEA 931-C at 2.

behavior required of that connected device in response to any given function.[9] In short, the CEA standard does not, as a practical matter, work for IP-based home networks. None of the current IP-based devices with an Ethernet interface (mostly based on UPnP/DLNA) use this standard. More fundamentally, CEA 931-C does not address the foundational elements of IP address acquisition and device and service discovery needed for IP-based home networks. These elements are defined or being defined in DLNA, not under CEA 931-C. The cable industry is currently working closely with other MVPDs and the consumer electronics, IT, and mobile devices communities in the DLNA Forum to define certain features and functions on Ethernet and Wi-Fi connectors to support DLNA retail devices that receive MVPD content.

Codifying outputs and output functionality in federal regulations creates additional risk to technological innovation and competition. This is well illustrated by a handful of comments that seek to convert a "fix" for the CableCARD regime into a pre-judgment of home networking solutions. For example, Texas Instruments, which has a proprietary interest in the 1394 interface, proposed to redefine output functionality extensively to turn a 1394 output from an HD set-top box into the exclusive national home networking solution – attempting to overturn the marketplace's verdict against 1394 and short-circuiting the AllVid inquiry.[10] Codifying or referencing CEA 931-C runs the same risk.

This is why so many parties recommended that the Commission provide greater flexibility in granting relief from the current 1394 interface requirement. MPAA, EchoStar, Verizon, Entropic, and others joined NCTA in urging the Commission to repeal the interface mandate entirely or to permit any video output on HD set-top boxes.[11] The Telecommunications Industry Association and the RVU Alliance urged the Commission to permit any IP-based interface.[12] As OPASTCO noted, "[t]echnological developments, marketplace demands, and consumer expectations evolve rapidly, often much more quickly than the regulatory process can reasonably accommodate."[13]

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[9] "This standard … does not specify specific behavior required of the target device in response to any given function." *Id*.

[10] *See* Texas Instruments Comments at 3.

[11] *See, e.g.*, MPAA Comments at 5 (stating that the Commission should "allow[] cable operators to select the most appropriate networking interface(s) for inclusion in their leased STBs based on marketplace demand. If the Commission nonetheless elects to require that all leased STBs include a home networking interface, MPAA requests that – at the very least – the Commission refrain from mandating the specific interfaces to be included."); EchoStar Comments at 7 (noting that Ethernet, Wi-Fi, USB 3.0 may eventually be replaced by more innovative technologies); Verizon Comments at 7-8 (arguing that mandating even a broad list means that existing/yet-to-be-developed standards would inevitably be left off the list); Ubee Interactive Comments at 2 (stating that it is difficult to predict marketplace adoption of home networking interfaces, particularly for video); U.S. Chamber of Commerce Comments at 4 (explaining that, given the pace of innovation in video devices, technology mandates are perilous); Comcast Comments at 29 (asserting that it is impossible to predict whether today's technology will be supplanted tomorrow); Motorola Comments at 9 (noting that there is substantial risk that any new technology mandates would become obsolete quickly, like 1394).

[12] *See* TIA Comments at 3; RVU Alliance Comments at 2.

[13] OPASTCO *et al* Comments at 5.

Flexibility in selecting and implementing digital interfaces is critical to enable manufacturers and service providers to keep up with ever-changing technologies and marketplace opportunities. The Commission would be well served to avoid adopting a rule requiring specific remote control functions, bi-directional capabilities, video formats, or any of the other detailed technical requirements suggested in comments. The best way to deliver that flexibility while assuring consumer choice would be to repeal the interface mandates in Section 76.640(b)(4).

Please do not hesitate to contact me should you have any questions regarding this filing.

Respectfully submitted,

/s/ Neal M. Goldberg

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