

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

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

To: The Commission

COMMENTS OF UBEE INTERACTIVE

Founded in 1991, Ubee Interactive (“Ubee”) is the leading provider of residential, commercial, and automotive premise product solutions to broadband service providers globally to deliver the best communication, information, and entertainment experiences to their end-users. With a global presence that supports customers throughout Americas, Europe, Africa, Middle East, and Asia Pacific, Ubee leverages its two-decade history of customer-centric, innovative, cost-effective, and high-quality design, operations and services to deliver more than 20 million world class data, voice, video, and mobile-portable devices.

Ubee has three regional headquarters: Englewood, Colorado, USA to support Americas markets, Amsterdam, Netherlands supports Europe, Africa, and Middle East markets, and Hsinchu, Taiwan, R.O.C. that supports Asia Pacific markets.¹

We are pleased to be able to provide the Commission with commentary on the proposed changes to the interface requirements in the Fourth Further Notice.²

¹ More information on Ubee is available at <http://www.ubeeinteractive.com/>.

² *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, CS Docket No. 97-80, PP Docket No. 00-67 (“Fourth Further Notice”).

I. INTERFACE REQUIREMENTS

In the Fourth Further Notice, the Commission concludes that previous commentators on IEEE-1394 waiver requests made “compelling cases that IP connectivity will provide consumers with the functionality that the IEEE 1394 interface requirement was intended to provide, such as Home Networking”³ The Commission has tentatively concluded that allowing manufacturers greater choice will serve the public interest, and will enable connectivity between set-top boxes and IP devices in consumers’ homes.⁴ The Commission also proposes modifying section 76.640 of the rules to allow “Ethernet, USB 3.0, or WiFi connectivity” as alternatives to the existing IEEE-1394 output requirement.⁵

Ubee agrees that *IP connectivity* will serve the public interest and will enable connectivity such as described. However, the Commission proposes modifying section 76.640 of the rules to allow specific *physical* interfaces and does not propose requiring IP connectivity.

It is difficult to predict marketplace adoption of home networking interfaces, particularly for video applications. Certainly some seem to be poised for wide use in the home (including Ethernet and Wi-Fi), but others have significant advantages which may yield widespread adoption (such as MoCA, Homeplug, etc.).

The Commission should require at least one digital compressed interface, and the requirement should recognize the non-IP IEEE-1394 legacy. The interface should be chosen at the operators’ option, but should be required to be either an IEEE-1394 interface or an interface with IP at Layer 3 (the “Network” layer). Interfaces that comply with the latter requirement include IEEE 802.11 “Wi-Fi”, IEEE 802.3 “Ethernet”, MoCA, HPNA, Homeplug and G.hn.⁶

³ *Id.* at ¶ 19.

⁴ *Id.*

⁵ *Id.* at ¶ 19, App. A (amending § 76.640(b)(4)(ii)).

⁶ Alternately, if the Commission concludes that it is necessary to specify specific physical interfaces, the interfaces included should be at least the following: IEEE-1394, IEEE 802.11 “Wi-Fi”, IEEE 802.3 “Ethernet”, MoCA, HPNA, Homeplug and G.hn. However, Ubee feels that even this larger list is likely to be incomplete, and in fact it is impossible to predict which interfaces will eventually succeed in the market, therefore impossible to draft specific allowances for those future interfaces.

II. PROMOTING THE DIGITAL TRANSITION

The “integration ban” prohibits cable operators from deploying navigation devices with integrated security.⁷ The Media Bureau has generally granted waivers from the integration ban to provide cable operators an incentive to transition to an all-digital system.⁸ The Commission proposes to broaden this incentive by allowing deployment of new, one-way navigation devices that do not have recording functions, and seeks comment on the effect this change would have on the retail market for CableCARD devices.⁹ The Commission also seeks comment on the potential effect of limited the incentive to cable systems with activated capacity of 552 MHz or less.¹⁰

As the Commission has correctly decided, it is in the public interest to promote cable systems’ transition to all-digital.¹¹ CableCARD relief will accelerate the transition to all-digital cable systems, by decreasing the costs of converting.

There are many benefits to consumers that accrue by removing the integration ban. Set-top boxes will be less expensive, and the all-digital conversion will, as a result, occur more quickly, yielding more bandwidth for digital services. Additionally, the set-top boxes will be less complex, more reliable and also smaller and less obtrusive.

A. CABLECARD RELIEF WILL INCREASE MARKET-BASED COMPETITION

The competitive marketplace for one-way integrated security devices and conditional access systems that support them is much more open than for CableCARD boxes and conditional access systems.

For separated security set-top boxes and CableCARDs, there are approximately two vendors of set-top boxes, and those same vendors are the suppliers of the CableCARDs *and* conditional access security systems in use by the cable operators.

⁷ 47 C.F.R. § 1204(a)(1).

⁸ Fourth Further Notice at ¶ 22.

⁹ *Id.*

¹⁰ *Id.*

¹¹ *Bend Cable Communications, LLC d/ b/ a BendBroadband Request for Waiver of Section 76.1204(a)(1) of the Commission’s Rules; Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, Memorandum Opinion and Order, CSR-7057-Z, MB Docket No. 97-80, 22 FCC Rcd 209 (2007) at ¶ 27.

For integrated security set-top boxes, the competitive landscape is much different. There are several conditional access vendors, and a whole host of manufacturers like Ubee who each compete against each other without artificial duopolistic structural roadblocks.

When more suppliers may compete against each other, prices will be driven down and functionality will increase. This will decrease cable operators' costs, and speed deployment of all-digital networks, which will serve the public good.¹²

B. CABLECARD RELIEF WILL NOT HAVE ANY AFFECT ON RETAIL MARKET FOR CABLECARD DEVICES

For one-way devices without recording capability, there is no retail competition for set-top boxes or televisions. The Commission adopted the CableCARD and unidirectional cable compatibility rules in 2003.¹³

The bright spot in unidirectional digital cable ready story has been recognized by the Commission.¹⁴ Digital cable ready digital video recorders are the only CableCARD-reliant devices that are viable in the marketplace.

A number of unidirectional digital cable ready receivers without recording capability were introduced, but ultimately they failed in the marketplace. Today, there are few if any non-PVR devices available. Those that do exist, if any, are minor and unimportant and relieving the CableCARD requirement for one-way set-top boxes without recording capability would have no effect on the retail marketplace.

C. LIMITING RELIEF TO 552MHZ SYSTEMS PENALIZES CUSTOMERS OF LARGER CABLE SYSTEMS

Ubee does not believe that there is merit in limiting the CableCARD relief to smaller cable systems with activated capacity of 552 MHz or less.

Larger-capacity systems (those with more than 552 MHz activated capacity) still face capacity challenges. Such systems have more subscribers and carry more programming. However, they also carry more *analog* programming as part of their analog legacy.

¹² Fourth Further Notice at ¶ 22; *see also id.*

¹³ *Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices; Compatibility Between Cable Systems and Consumer Electronics Equipment*, Second Report and Order and Second Further Notice of Proposed Rulemaking, CS Docket No. 97-80, PP Docket No. 00-67, 18 FCC Rcd 20885, 68 FR 66776 (2003).

¹⁴ *See generally* Fourth Further Notice (in that no relaxation is proposed for PVRs, which are available in retail competitive products).

The best, fastest and most cost-effective way to increase the number of channels, diversity of services offered and promote innovation is to remove analog spectrum inefficiencies by moving to all-digital—using low-cost one-way DTAs.

Limiting relief will effectively penalize operators that have upgraded their plants to more than 552 MHz, but are still constrained due to analog carriage. The Commission should not penalize cable operators that attempted to address capacity constraints and market needs. Those operators did all that they could under the regulations extant at the time: DTAs are recent innovations which they should be able to use as well.

Moreover, by restricting relief to smaller capacity systems, *consumers* who happen to subscribe in areas where the cable network has been upgraded would have artificially high subscription costs to pay for non-integrated set-top boxes to facilitate an all-digital transition.

The public interest benefits of a cable digital transition is manifest, for both smaller and larger systems. The public interest is not served by limiting the advantages of spectrum efficiencies to systems with small activated channel capacity.

III. CONCLUSION

For the reasons cited above, the Commission should adopt the proposed changes to section 76.1204(a)(1) of the rules, and should adopt changes to section 76.640(b)(4)(ii) of the rules to require, at the operators' option, either an IEEE-1394 interface, or an interface with IP at Layer 3 (the "Network" layer).

Respectfully submitted,

/s/

Charles Kuai
Chief Strategy Officer
Ubee Interactive, Inc.
8085 S. Chester St., Suite 200
Englewood, CO 80112
(801) 944-0287

June 14, 2010