

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

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In the Matter of:)	
)	
Implementation of Section 304 of the)	CS Docket No. 97-80
Telecommunications Act of 1996;)	
Commercial Availability of Navigation)	
Devices)	
)	
Motorola, Inc.'s Request for Waiver of 47)	CSR-8251-Z
C.F.R. § 76.640(b)(4))	
)	
TiVo, Inc. Petition for Clarification or)	CSR-8252-Z
Waiver of 47 C.F.R. § 76.640(b)(4))	
_____)	

COMMENTS OF VERIZON

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Verizon supports a waiver of the IEEE 1394 interface requirement for all set-top boxes in all industry segments.¹ The Commission should take this opportunity to broadly eliminate the 1394 requirement.² Despite its mandatory inclusion as an available set-top hardware port, the IEEE 1394 interface never gained widespread use in the set-top box context. As Verizon has noted previously, the marketplace for video devices, driven by consumer demand, is already showing signs of convergence and a migration to IP as a *de facto* standard for home networking and the transmission between devices of video content³ and set-top applications do not typically make use of the IEEE 1394 interface, notwithstanding availability of the IEEE 1394 port hardware. Given the foregoing, the Commission should remove the outmoded 1394 requirement, since requiring the inclusion of hardware that frequently goes unused only adds cost without offsetting consumer benefits and slows the adoption of newer, consumer-driven technologies. Moreover, the Commission should not limit its waiver to retail set-top boxes⁴ or to boxes from a specific manufacturer because the justification for the waiver remains consistent across all manufacturers and distribution channels and limiting the waiver would distort the marketplace and hinder competition.

¹ 47 C.F.R. § 74.640(b)(4) (detailing the IEEE 1394 requirement).

² Request for Waiver of Motorola, Inc. CS Docket No. 97-80 (filed Nov. 25, 2009) (“Motorola Request”).

³ Verizon Comments-NBP Public Notice # 27, GN Docket Nos. 09-47, 09-51 & 09-137, CS Docket No. 97-80 (filed Dec. 22, 2009).

⁴ Petition for Waiver of TiVo Inc., CS Docket No. 97-80 (filed Nov. 6, 2009) (“TiVo Petition”).

I. A Waiver of the 1394 Requirement Is in the Public Interest

In 2003, the Commission's 1394 requirement was adopted as a "means of ensuring the connectivity" of set-top boxes.⁵ At the time, the IEEE 1394 standard was the only interface available that could accomplish both home networking and the recording of protected of cable video content.⁶ Since then, the 1394 interface has gone largely unused, while a range of alternative technologies have been developed that equal or exceed the capabilities of IEEE 1394 and do so at much lower costs.

As the pending waiver petitions document, the requirement to provide set-top boxes that incorporate an IEEE 1394 interface hinders rather than promotes innovation, interoperability and consumer benefit.⁷ Manufacturers can provide consumers with a richer media experience at lower cost through the use of newer technologies. The implementation costs of IP are a few cents per device, as compared to more than \$5 for a chip that supports IEEE 1394.⁸ Moreover, virtually no home entertainment products that receive content from set-top boxes and other consumer electronic devices rely on the 1394 interface for recording or home networking.⁹

Indeed, as home networks become more common and consumers demand more connectivity between their home entertainment systems, personal computers, and mobile

⁵ *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, 18 FCC Rcd 20885, ¶ 24 (2003).

⁶ Motorola Request at 4.

⁷ See Motorola Request; TiVo Petition; Petition of Intel Corp. for Waiver of 47 C.F.R. § 76.640(b)(4), CS Docket No. 97-80 (filed Oct. 7, 2009) ("Intel Petition").

⁸ Motorola Request at 5-6 (quoting Intel Petition at 5).

⁹ *Id.* at 5.

devices, the marketplace is responding to those demands with new and better technologies. As Motorola notes, most home networks today rely on commonly-used IP connectors, such as Ethernet, Multimedia over Coax Alliance (“MoCA”), and wireless IP, rather than 1394.¹⁰ Additionally, IP-based home networking standards like the Digital Living Network Alliance (“DLNA”) have already been developed and incorporated into a number of consumer electronic devices.¹¹ To the extent that consumers do use the 1394 interface, such use is generally limited to the transport of data files from digital cameras and other electronic devices to personal computers.¹² But even in that context, the 1394 interface is being replaced with USB and other digital connectors, and virtually every network router sold today uses IP. And notwithstanding the lack of practical utility for 1394 interfaces in set-top boxes, consumers bear the substantial costs associated with the licensing fees that result from the inclusion of this interface in all set-top boxes.

Accordingly, a broad waiver that applies to all set-top boxes is appropriate here because compliance with Section § 76.640(b)(4) of the Commission’s rules uniformly harms consumers and providers with no redeeming benefits. The Commission should thus issue a general waiver, rather than one targeted to a particular manufacturer.¹³

¹⁰ *Id.* at 6-7.

¹¹ Currently, 1800 devices are DLNA-certified, including 556 televisions, 887 personal computers, 24 digital video recorders, and 38 digital media adapters. See DLNA™, Search & Match, at <http://www.dlna.org/products/>.

¹² Motorola Request at 5.

¹³ The FCC has previously issued broad waivers, particularly when such waivers would avoid unnecessary delay and administrative burden. *See, e.g., IP-Enabled Services; Implementation of Sections 225 and 251(a)(2) of the Communications Act of 1996, Access to Telecommunications Service, Telecommunications Equipment and Customer Premises Equipment by Persons With Disabilities, Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities; the Use of N11 Codes and Other Abbreviated Dialing Arrangements*, Order

II. Any Waiver Should Apply to All Set-Top Boxes

Furthermore, this waiver should apply universally to all set-top boxes and not just to set-top boxes in the retail segment, as TiVo suggests.¹⁴ TiVo's waiver petition focuses on the costs of redesigning the company's existing product to incorporate the 1394 interface,¹⁵ and argues that such a redesign would make TiVo's device less cost-competitive. It is not clear why simply complying with the general 1394 requirement would impose a cost disadvantage upon TiVo in particular. In fact, limiting the waiver to retail set-top boxes as TiVo suggests would have a far more obvious discriminatory effect than enforcing compliance with a universal requirement. A limited waiver would distort the market and hinder competition for video devices, ultimately harming consumers. Nevertheless, it is true that forcing device manufacturers, including TiVo, to incorporate the relatively expensive and seldom-used 1394 interface generally reduces consumer

and Public Notice Seeking Comment, 22 FCC Rcd 18319, ¶ 11 (2007) (granting a limited waiver of the 711 call handling requirement for all interconnected VoIP providers); *Telecommunications Relay Services and Speech-to-Speech Services for Individuals with Hearing and Speech Disabilities*, Order, 17 FCC Rcd 157, ¶2 (Common Carrier Bureau 2001) (granting an industry-wide waiver of certain VRS requirements for two years in response to petitions for waiver from two specific providers); *Implementation of Sections 11 and 13 of the Cable Television Consumer Protection and Competition Act of 1992*, Report and Order, 8 FCC Rcd 6828 (1993) (adopting a blanket anti-trafficking waiver for small cable systems); *Implementation of the Pay Telephone Reclassification and Compensation Provisions of the Telecommunications Act of 1996*, Memorandum Opinion and Order, 13 FCC Rcd 4998 (CCB 1998) (granting a blanket waiver of Part 69.4(b) and (c) of the Commission's rules); *BellSouth Corp. Petition for Waiver of Section 32.22 of the Commission's Rules*, Memorandum Opinion and Order, 2 FCC Rcd 5146 (CCB 1987); *Daniel R. Goodman, Receiver; Dr. Robert Chan*, 10 FCC Rcd. 8537, ¶ 10 (1995). Indeed, within the past week the FCC granted a broadly applicable waiver of certain restrictions on community use of broadband access funded by the E-rate program. See *Schools and Libraries Universal Service Support Mechanism*, Order and Notice of Proposed Rulemaking, CC Docket No. 02-6, FCC 10-33 (rel. Feb. 19, 2010).

¹⁴ TiVo Petition.

¹⁵ TiVo Petition at 5-7.

welfare by forcing customers to pay for an interface that they will likely never use. Thus, the Commission should ensure that consumers benefit from a variety of competitive video device choices that are unencumbered from the costs of provisioning the near obsolete 1394 output.

In sum, to further encourage progress and innovation in home networking, the Commission should sweep aside the outdated 1394 requirement, which has not produced useful benefits and has been overtaken by technological advances. And as the Commission considers ways to foster greater innovation in video devices, the Commission should avoid similar results going forward by turning away from the failed approach of imposing technology mandates, and should instead encourage market-based solutions that follow consumer demand, and remove existing, outdated requirements related to these issues.

Respectfully submitted,

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