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June 3, 1998

VIA MESSENGER

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

JUN 3 1998

Re: CSB Docket No. 97-80

Dear Ms. Roman Salas

On Wednesday, June 3, 1998, the undersigned, on behalf of Echelon Corporation, met with Mr. Rick Chessen, Senior Legal Advisor to Commissioner Tristani, to discuss Echelon's views on the decoder interface proposals in CSB Docket No. 97-80. The attached copies of Echelon's May 20, 1998 ex parte, Echelon's May 16, 1997 Comments and the Ad Hoc Computer and High-Technology Coalition's May 16, 1997 Comments in the above captioned proceeding were distributed

Pursuant to Section 1.1206 of the Commission's Rules, two copies this letter are enclosed for filing. Please contact me should you have any questions in regard to this matter.

Sincerely,

Elise P.W. Kiely

cc: Rick Chessen, Senior Legal Advisor to Commissioner Tristani

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May 20, 1998

VIA MESSENGER

Magalie Roman Salas  
Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

**RECEIVED**

MAY 20 1998

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Re: *ET Docket No. 93-7; CSB Docket No. 97-80*

Dear Ms. Roman Salas:

Echelon Corporation ("Echelon"), reiterates its long pending request that the Commission promptly issue a Public Notice seeking comment on the so-called "decoder interface" standard for cable compatibility.<sup>1</sup> Now that the National Cable Television Association ("NCTA") and the Consumer Electronic Manufacturer's Association ("CEMA") have notified the Commission that both components of the decoder interface standard -- EIA/IS-05.1, the physical connection component, and EIA/IS-105.2, the communications protocol -- have finally been balloted and approved,<sup>2</sup> the Commission is required to solicit public comment on the standard and determine its legality under the amended provisions of Section 17 of the 1992 Cable Act.<sup>3</sup>

Even though the concept of a decoder interface for ensuring compatibility among TVs, VCRs and cable "set-top box" converters has been under consideration by the FCC for nearly five years, the Commission has *never* sought public comment on this standard. In fact, in 1994 the Commission stated that public comment on the standard *would* be solicited once the decoder interface was completed.<sup>4</sup> The NCTA/CEMA Ex Parte demonstrates that development of the decoder interface standard is finished and that the time has now come for the Commission to give

<sup>1</sup> Joined by some of the nation's largest and most well-recognized computer, energy and high-technology companies, Echelon, for the past two years, has sought public comment on the issue of the decoder interface. Joint Petition for Further Reconsideration, ET Docket No. 93-7 (filed May 28, 1996); letter from Glenn Manishin, Echelon, to William F. Caton, FCC, dated March 28, 1997.

<sup>2</sup> Letter from Andy Scott, National Cable Television Association and George Hanover, Consumer Electronics Manufacturers Association, and Andy Scott, National Cable Television Association, to William F. Caton, FCC, dated March 26, 1998 (*NCTA/CEMA Ex Parte*).

<sup>3</sup> Cable Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460, § 17 (1992) (codified, as amended, at 47 U.S.C. § 544a).

<sup>4</sup> *Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992—Compatibility Between Cable Systems and Consumer Electronic Equipment*, First Report and Order, ET Docket No. 93-7, 9 FCC Rcd. 1981 ¶ 40 (released May 4, 1994) ("*First Report and Order*").

## BLUMENFELD & COHEN

William F. Caton  
May 20, 1998  
Page 2

all interested parties the opportunity to comment on (i) whether this is an appropriate standard under Section 17 of the 1992 Cable Act, and (ii) whether the standard satisfies the specific limitations of Section 301(f) of the 1996 Act, 47 U.S.C. §§ 544a(a)(4), (C)(1)(A), (c)(2)(D).

Public comment is now critical because the Commission has indicated that it is considering the decoder interface in its current proceeding on the commercial availability of navigation devices.<sup>5</sup> As the Commission recognized in its Notice of Proposed Rulemaking in that proceeding, Section 301(f) is “intended to restrict the Commission’s standard-setting authority and to respond to issues associated with the ‘decoder interface standard’ that is the subject of the Commission’s proceeding in ET Docket 93-7—the cable compatibility proceeding.”<sup>6</sup> Ignoring the legal mandate in Section 301(f), as well as the fact that the decoder interface has never been the subject of public comment before the FCC, Circuit City has recently proposed that the Commission adopt both EIA/IS-105.1 and 105.2 in Docket No. 97-80.<sup>7</sup> In proposing this standard, Circuit City misrepresents the decoder interface as being “accredited by the American National Standards Institute” (“ANSI”) *Id.* at 2. The decoder interface is not yet an ANSI standard, however, because it has not even been submitted to — let alone approved by — ANSI as consistent with ANSI’s requirements of openness, balance and due process. Circuit City’s formal proposal of the decoder interface standard, however, underscores the urgency for the Commission to accept public comment on this issue. Before the Commission can legitimately assess the decoder interface as part of any Section 629 decision in Docket No. 97-80, it must first determine whether it complies with the Commission’s legal mandate under Section 17 of the 1992 Cable Act, as amended by Section 301(f) of the 1996 Act. Since it is improper for the Commission to adopt a standard in the navigation device proceeding that is specifically *prohibited* by Section 301(f), it would be unfair, and plainly inconsistent with congressional intent, for the FCC to mandate a standard pursuant to Section 629, or any other provision, without giving parties the opportunity to be heard.

As the Commission is aware, in Section 301(f) Congress took the extraordinary step of intervening in the pending cable compatibility rulemaking to constrain the Commission’s standard-setting authority in the face of its consideration of the decoder interface standard, including both the EIA/IS-105.1 and 105.2. Finding that compatibility among consumer electronics equipment can be assured with “narrow technical standards” and “a minimum degree of common design,” Congress directed the Commission to ensure that any standards adopted to promote cable compatibility “do not affect features, functions, protocols, and other product and service options . . . including telecommunications interface equipment, home automation communications, and computer network services.” 47 U.S.C. § 544a(c)(2)(D) (emphasis added).

The decoder interface violates Section 301(f) on two levels. First, the interface standard includes the CEBus<sup>8</sup> home automation communications protocol, which is not a “narrowly tailored” compatibility standard designed to address the “specific problems the 1992 Act asked the FCC to handle.”<sup>8</sup> Moreover, because CEBus is only one of numerous competing protocols for home automation communications and thereby provides an unfair competitive advantage to manufacturers of CEBus-based products, the decoder interface “affects” home automation services

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<sup>5</sup> *Implementation of Section 304 of the Telecommunications Act of 1996 Commercial Availability of Navigation Devices*, Notice of Proposed Rulemaking, FCC 97-53, CS Docket No. 97-80 (released February 20, 1997).

<sup>6</sup> *Id.* at ¶ 36.

<sup>7</sup> Letter from Robert S. Schwartz, Circuit City, to William F. Caton, FCC, dated May 18, 1998 (*Circuit City Ex Parte*).

<sup>8</sup> 142 Cong. Rec. H1160 (daily ed. Feb. 1, 1996) (*emphasis supplied*).

BLUMENFELD & COHEN

William F. Caton  
May 20, 1998  
Page 3

in violation of Section 301(f). In order for the Commission to ensure compliance with Section 301(f), it must invite public comment on this important issue before taking any action in the navigation device proceeding.

Pursuant to Section 1.1206 of the Commission's Rules, two copies of this letter are enclosed for filing. Please contact me should you have any questions in regard to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Manishin", with a long horizontal flourish extending to the right.

Glenn B. Manishin  
Elise P.W. Kiely

EPWK:hs

cc: Dale Hatfield, Chief, Office of Engineering and Technology  
William H. Johnson, Deputy Chief, Cable Services Bureau  
John Wong, Cable Services Bureau  
Bruce A. Franca, Office of Engineering and Technology  
Karen Kornbluh, Mass Media Bureau

**Receipt**

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

**RECEIVED**

In the Matter of )  
 )  
Implementation of Section 304 of the )  
Telecommunications Act of 1996 )  
 )  
Commercial Availability of )  
Navigation Devices )

CS Docket No. 97-80

**MAY 16 1997**

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

**COMMENTS OF THE AD HOC COMPUTER AND  
HIGH-TECHNOLOGY COALITION**

The Ad Hoc Computer and High-Technology Coalition ("CHTC") respectfully submits these comments in response to the Notice of Proposed Rulemaking ("Notice") released by the Federal Communications Commission ("FCC" or "Commission") in the captioned proceeding.<sup>1</sup>

CHTC concurs with the Notice's well-founded reluctance to mandate technical standards for so-called "navigation devices."<sup>2</sup> We urge the Commission to avoid interfering in the competitive, market-driven development of technically advanced products that combine computing, television and related multimedia functionalities. This is an accelerating market transition that will clearly benefit consumers and

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<sup>1</sup> *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, Notice of Proposed Rulemaking, CS Docket No. 97-80, FCC 97-53 (released Feb. 20, 1997) ("Notice").

<sup>2</sup> The CHTC members joining these comments are: 3Com Corp., American Innovations, Ltd., Ascend Communications, Inc., Apple Computer, Inc., Central & South West Communications, Inc., Cisco Systems, Inc., Detroit Edison Company, Echelon Corporation, EUA Cogenix Corp. d/b/a EUA Day, Global Village Communication, Inc., Netscape Communications Corp., Novell, Inc., Silverthorn Group, Inc., Sun Microsystems, Inc., Venrock Associates, Wisconsin Public Service Corp. and WISVEST Corporation.

business—so long as government allows both market forces and the private, voluntary industry standards process to flourish.

## INTRODUCTION

The parties joining in these comments—ranging from home automation and computer software companies to equipment manufacturers and electric utilities—share a common belief that the revised model for FCC standards-setting created by the landmark Telecommunications Act of 1996<sup>3</sup> must be applied to the Commission's decisions on cable television set-top boxes and other "navigation devices." CHTC members include companies involved in standards in a wide variety of high-technology markets—many of which were directly involved in lobbying for provisions of the 1996 Act that affect the Commission's standards-setting authority—who joined a May 1996 petition for reconsideration in a companion FCC proceeding addressing cable equipment compatibility standards.<sup>4</sup>

In this Notice, the Commission now seeks guidance on its obligation under Section 629 of the Act, enacted as Section 304 of the 1996 Act, to "assure the commercial availability" of cable converters and other navigation devices. Section 629 does *not* authorize the FCC to set technical standards, but instead directs the Commission to promulgate commercial availability regulations only "in consultation with appropriate industry standard-setting organizations." 47 U.S.C. § 629(a). As a result, the Notice correctly observes that the Commission "seek[s] not to develop standards ourselves, but

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<sup>3</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996)(to be codified at 47 U.S.C. § 151 et. seq.)(*"1996 Act"*).

<sup>4</sup> Joint Petition for Reconsideration, *Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992—Compatibility between Cable Systems and Consumer Electronics Equipment*, ET Docket No. 93-7 (filed May 28, 1996).

to urge the adoption of voluntary standards.”<sup>5</sup> Nonetheless, the Notice also solicits comment on whether the security (conditional access) and non-security (navigation) functions of set-top boxes should be “unbundled,” and whether the Commission could “approve a variant of the decoder interface connector,” under consideration in the cable compatibility proceeding, to meet its Section 629 obligations.<sup>6</sup>

CHTC wholeheartedly endorses the Commission’s stated preference to refrain from setting standards and to leave this task principally to the marketplace and private, voluntary standards bodies.<sup>7</sup> The Commission has quite properly not advocated FCC adoption or approval of any technical standard—whether the analog decoder interface or a digital standard—for navigation devices. Indeed, adoption of a Commission set-top standard would be unwise, unnecessary, and inconsistent with Congress’s clear intent that the FCC should defer to private standards-setting organizations. FCC adoption in this proceeding of the so-called “decoder interface,” which Section 301(f) of the 1996 Act effectively overrules, would be equally harmful and would embroil the Commission in an entirely unnecessary dispute over the scope of its standards-setting powers.

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<sup>5</sup> Notice at ¶ 66.

<sup>6</sup> Notice at ¶¶ 34, 72, 74.

<sup>7</sup> “If such an unbundling is found to be necessary to assure the commercial availability of equipment, our *preferred option* for developing the necessary framework to accomplish this would be to adopt only a conduct or performance rule mandating the separation involved, leaving to the industry participants involved the task of developing the necessary interface standards.” Notice at ¶ 73.

**I. STRONG PUBLIC POLICY CONSIDERATIONS DEMAND THAT THE COMMISSION REFRAIN FROM MANDATING TECHNICAL STANDARDS FOR SET-TOP BOXES AND OTHER "NAVIGATION DEVICES"**

**A. Government-Mandated Technical Standards Stifle Innovation and Discourage Product Design and Development**

It is widely recognized that as a general matter (excepting public safety and interference considerations), government should not be in the business of setting and imposing technical standards.<sup>8</sup> As the computer industry advocated during the Commission's recent proceeding on advanced television ("ATV"), government-mandated technical standards frequently serve more to entrench obsolete or outdated technologies that have outlived their usefulness than to meet any legitimate public need.<sup>9</sup> Particularly in industries characterized by rapid technological change—like America's vibrant computer and high-technology industries—government standards largely stifle innovation, discourage product and service development, and delay manufacturer responsiveness to consumer and marketplace needs.

The Commission's ATV proceeding provides strong support for these principles. The computer industry was not alone in its opposition to a single, mandatory transmission standard for digital television. The National Cable Television Association ("NCTA") agreed that:

[A] government-mandated standard, although appealing in a short-term way, is the wrong way to go. . . . While a government-

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<sup>8</sup> See, e.g., Bruce M. Owen & Steven S. Wildman, *Video Economics* at 261 (Harvard University Press 1992); Stanley M. Besen & Leland L. Johnson, *Compatibility Standards, Competition and Innovation in the Broadcasting Industry*, at 131 (The Rand Corporation 1986) ("Besen & Johnson"); Jeffrey Kraus, "Implications of FCC Regulation of Telecommunications Technical Standards," *IEEE Communications Magazine*, at 28, 31 (Sept. 1982).

<sup>9</sup> See, e.g., Comments of the Computer Industry Coalition on Advanced Television Services, *Advanced Television Systems and their Impact Upon Existing Television Broadcast Services*, MM Docket No. 87-268, July 11, 1996 at 8 ("CICATS Comments").

imposed, well-defined standard may guarantee certainty, it will freeze technology in a rapidly changing industry and unnecessarily define commercial development of the technology. Moreover, when the marketplace settles down, standards, if necessary, will be set voluntarily and without government intervention. . . . Even where advised by industry representatives, the government should not substitute its judgment for that of the marketplace. It would be a grave mistake to define a standard based on today's view of optimal technology.<sup>10</sup>

And as Chairman Hundt explained just weeks ago, the Commission's ultimate ATV decision—which rejected a single standard in favor of a revised standard that decreased barriers to what the Chairman termed “TV-PC convergence”—“gave the marketplace an opportunity to pick the winner.”<sup>11</sup>

These same policy considerations ought to be brought to bear in the Commission's deliberations over whether to adopt technical standards for navigation devices under Section 629. Today's television and video programming marketplace is just beginning the start of two major technical revolutions: the advent of digital programming, and the convergence between personal computer (“PC”) and television functionalities. These trends will directly impact the features, functions and standards of set-top boxes, which may well evolve into devices far more complex and useful than today's limited-function cable converters. Adopting any technical standard, let alone

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<sup>10</sup> Comments of NCTA, *Advanced Television Systems and their Impact Upon Existing Television Broadcast Service*, MM Docket No. 87-268, July 11, 1996 at 8 (“NCTA ATV Comments”). See also Declaration of Bruce M. Owen at 9-10 (“Producers of the dominant technology will have a powerful vested interest in stifling the new technology in the political arena. New technologies with great merit may be frozen out for years, simply because of the slow pace at which government agencies change policies, a pace dictated by consideration of procedural fairness and due process rather than economic efficiency.”).

<sup>11</sup> *Advanced Television Systems and their Impact Upon Existing Television Broadcast Service*, Fifth Report and Order, MM Docket No. 87-268, FCC 97-116 (released April 27, 1997), Separate Statement of Chairman Reed E. Hundt, at 2 (“Hundt ATV Statement”).

the analog decoder interface, would fly in the face of these fast-paced technological and marketplace developments.

**B. Government-Imposed Standards Would Be Particularly Dangerous for America's High-Technology Industry**

There is little question that America's high-technology industry is a crossroads phase in its development. By designing and marketing technologically advanced consumer products, computer companies are striving to make the PC—which today is already capable of receiving and display television signals—more important than the television with the American consumer.<sup>12</sup> Similarly, electric companies are rapidly introducing services, such as demand-side management, that will increasingly integrate communications functions with traditional utility services. And poised between these two is the home automation industry, a nascent market that may well revolutionize consumers' interaction with all of these products and services—TVs, PCs, utilities, security systems and more.

The signs of this accelerating clash among markedly different industries are stark. Last month, Microsoft, Intel and Compaq unveiled a technical standard for digital interactive television programming.<sup>13</sup> Personal computer manufacturers, led initially by Gateway 2000 and Toshiba, are now marketing large computer monitors that incorporate both TV receivers and remote control capabilities. And Microsoft's recent announcement that it will purchase Web TV is widely expected to further

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<sup>12</sup> E.g., *Building Your Next TV: Two Industries Fight for a \$150 Billion Prize*, New York Times, March 28, 1997, at D1.

<sup>13</sup> *Computer Makers Challenge Broadcasters Over TV Format*, New York Times, April 8, 1997, at D1.

accelerate the delivery of digital television and the convergence of broadcast and computer technologies.<sup>14</sup>

All of these developments will affect the future design, functionalities and interoperability of navigation devices. Some manufacturers may choose to integrate programming and security features into their devices, eliminating the "set-top" box entirely, while others may opt to transform the set-top box into a PC-based "digital server," providing consumers with access to the Internet, telephone and home automation functions in addition to multichannel video programming. And it is likely that virtually all of these developments will occur in the digital domain, with transmission, navigation and conditional access functions provided as a stream of computer bits rather than an analog signal.

Given the rapid pace of technical development and the tremendous difficulty of predicting where the market will move in this new era of PC-TV competition, a Commission-mandated standard for set-top boxes would be particularly dangerous for America's high-technology industry. Technical standards in the computer and related high-tech markets have always been established either as a result of consensus, voluntary industry standards-setting processes, *de facto* standards set by technologically advanced firms that lead their product markets, or combinations of both. The Commission itself has been sensitive to the potentially restrictive effects of government standards, observing that:

Required standards may reduce some forms of competition while enhancing others. With required standards, equipment manufacturers

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<sup>14</sup> *Microsoft to Buy WebTV for \$425 Million*, Wall Street Journal, April 7, 1997 at A3; *Microsoft Deal to Aid Blending of PC's, TV's and the Internet*. New York Times, April 7, 1997, at D1.

cannot compete by offering differentiated products using different technologies. Required standards preclude this form of competition. As such a *primary cost of required standards is loss of variety*.<sup>15</sup>

With the increasing convergence of computers, TVs and other home appliances, the last thing this Commission should do is adopt or approve a standard for "navigation devices" that would deny to American consumers the tremendous variety and choice that these new competitive trends promise to bring over the next decade.

**II. THE DECODER INTERFACE STANDARD SHOULD NOT BE ADOPTED OR APPROVED BY THE COMMISSION BECAUSE IT IS UNNECESSARY, ANTICOMPETITIVE, AND IN ITS PRESENT FORM UNLAWFUL**

Despite its acknowledgment that Section 629 does not support the imposition of mandatory technical standards, the Notice inquires whether the Commission should adopt or approve the so-called "decoder interface."<sup>16</sup> The CHTC members strongly urge the Commission not to take this or any other action that would impose an analog cable television standard on the computer and other unrelated high-technology industries. The decoder interface—developed by the "Joint Engineering Committee" of NCTA and the Consumer Electronic Manufacturers Association ("CEMA") in a closed process, without either the private or governmental due process that is the essential hallmark of standards development—is particularly unsuited to the new era of digital convergence. It is unnecessary, anticompetitive and, at least in its present form, unlawful under the specific provisions of the 1996 Act intended to prevent Commission adoption of this flawed standard.

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<sup>15</sup> Fifth FNPRM at ¶ 35 (emphasis supplied).

<sup>16</sup> Notice at ¶¶ 34, 72, 74.

**A. Adoption of the Decoder Interface is Unnecessary and Outdated**

As a technical matter, the analog decoder interface is unnecessary and outdated. Section 629 requires the Commission to ensure the "commercial availability" of set-top boxes, while allowing system operators to protect the security of their signals. In satisfying this mandate, the Commission should promulgate forward-looking principles based on the new digital environment.

It is by now very clear that the future of both the computing and television industries lies in digital technology. And in the digital domain, the separation of security and non-security functions which the Notice suggests as one mechanism for implementing Section 629<sup>17</sup> is easily achieved, without either mandatory Commission standards or the decoder interface. In the digital mode, all of the security-related circuitry of a navigation device can be placed on low-cost, replaceable media, for instance a PC Card or a SmartCard, and used to provide consumer access to programming with a commercially purchased set-top box. As Circuit City has explained, in order to ensure the secure transmission of digital signals, the Commission need only (i) define a standard interface for reading digital software carriers, such as a PC Card slot, and (ii) require that for any digital transmission of a secured signal by a system operator, the circuitry governing access must be provided to the consumer by a compatible software carrier.<sup>18</sup>

The technology to satisfy this approach currently exists. Direct Broadcast Satellite ("DBS") firms such as DirecTV utilize SmartCard-based conditional access

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<sup>17</sup> Notice at ¶¶ 34-36.

<sup>18</sup> Comments of Circuit City Stores, Inc., *Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, MM Docket No. 87-268, at 10-11 (July 11, 1996).

systems and digital converter boxes sold at retail, and voluntary industry standards already exist for PC Card, SmartCard and other digital interfaces. While DBS uses a proprietary approach to signal security, its huge initial success demonstrates that the marketplace responds rapidly to consumer demand for ownership of navigation devices.<sup>19</sup> Therefore, the Commission can implement its "preferred option" of adopting only "a conduct or performance rule" requiring retail availability of navigation devices, leaving to individual manufacturers and established, private standards-setting bodies such as the American National Standards Institute "the task of developing the necessary interface standards."<sup>20</sup>

The decoder interface is therefore unnecessary in the digital domain, because simpler, cheaper and far better alternatives already exist for separating security from non-security functions of navigation devices. As an analog standard, moreover, the decoder interface is not optimized for digital transmission and encryption, and hence threatens to retard the Commission's efforts to encourage the development and marketing of digital technologies. One of the Commission's overriding goals in the ATV proceeding was the rapid deployment of digital broadcasting by creating a market conducive to early consumer investment in ATV receivers and related digital products.<sup>21</sup> In stark contrast, because the decoder interface is not designed for use with

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<sup>19</sup> Conversely, some of DirecTV's competitors, such as PrimeStar, lease their navigation devices to consumers, and use the lower capital costs of acquiring a DBS system in their customer acquisition marketing campaigns.

<sup>20</sup> Notice at ¶ 73.

<sup>21</sup> Indeed, this strong interest was one of the motivating factors that lead the Commission to take the extraordinary step of mandating a transmission standard. Explaining that the primary interest in adopting the ATV standard was to protect the interests of the American consumer, Commissioner Ness emphasized that the Commission's action "will accelerate the availability of digital broadcast signals in major markets [and] stimulate demand for new television and computer products." *Advanced Television Systems and their Impact Upon Existing Television Broadcast Service*, Fifth Report and Order, MM Docket No. (Footnote continued on next page)

digital televisions, PCs and VCRs, and is interoperable with common digital interfaces such as PC Cards, SmartCards and the like, it would as a practical matter severely undermine the economic incentive of consumers to invest in new digital programming technologies. Consumers who have already purchased a "cable ready" decoder interface-equipped analog television and VCR will find it difficult or impossible to justify expending \$2,000 or more on digital TV equipment, thereby directly undermining the Commission's ATV policies.

CHTC therefore believes that the Commission should not promulgate any technical standards for commercial availability of analog converters, set-top boxes or other navigation devices. This equipment is the last of its generation, and will be replaced over the next decade with digital devices for which Commission technical standards are not necessary. But in any event, the decoder interface is equally unnecessary in order to ensure commercial availability of analog set-top boxes. Since the enactment of Section 629, market developments have made the decoder interface irrelevant. These include, for instance, the third-party licensing of descrambling technology by major cable television set-top box manufacturers and the development of new approaches to analog signal security that support analog cable descrambling without set-top boxes. Even setting aside its anticompetitive impact and questionable legal status, addressed below, the decoder interface is thus an idea whose time has already passed.

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87-268, FCC 97-116 (released April 27, 1997), Separate Statement of Commissioner Ness, at 1 (April 3, 1997).

**B. The Decoder Interface Would Have a Pronounced Anticompetitive Impact in the PC-TV, Home Automation and Related High-Tech Markets**

Perhaps as a result of its development as a closed, joint project of NCTA and CEMA, the decoder interface is optimized for the requirements of cable system operators and television manufacturers.<sup>22</sup> The essential elements of the decoder interface are its elimination of set-top boxes, integration of programming and other non-security functions into TVs and VCRs, and use of a CEMA-sponsored physical connector and communications protocol for interaction among the TV, VCR and multiple "set-back" security decoders and "feature" modules. This architecture poses a grave threat to those industries, including computers and home automation, that were not included in the Commission-directed negotiations leading to the decoder interface specification.

This anticompetitive effect, although highly technical, is simple to describe. First, the decoder interface would position the TV as the "gateway" to the home entertainment suite, requiring all other products, including PCs, to conform to its technical standards in order to interact with either the cable signal or the television set. This would impose substantial and unnecessary costs on PC manufacturers (as well as diminishing the speed and "intelligence" advantages of the PC when used as a television receiver) at the very time the market is increasingly pushing for a merger of TV and PC functionalities. Second, the decoder interface itself—including both the physical connector and the associated communications protocol—is inconsistent with

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<sup>22</sup> This is a natural result of the fact that, as the Notice recognizes, the decoder interface was specifically designed to implement Section 17 of the 1992 Cable Act (Section 624A of the Communications Act) dealing with cable television equipment compatibility. Notice at ¶ 36.

all existing interface standards; neither current PC ports nor communications protocols can interoperate with decoder interface based products. Third, the decoder interface uses as its communications bus CEMA's "CEBus®" home automation protocol,<sup>23</sup> which is *only one of a number of rival technologies competing to automate American homes for lighting, security, entertainment and related functions*. Thus, the decoder interface would embed in every "navigation device" the physical interface and communications protocol for one home automation technology, creating immense and potentially insurmountable obstacles to the cost-effective commercialization of any alternative approach to home automation.

In light of these severe competitive ramifications of adopting the decoder interface, CHTC is pleased that the Commission has not proposed in the Notice to adopt this standard as an FCC requirement. We caution, however, even if the Commission decides to "approve" or "endorse" voluntary industry standards—which CHTC believes is unnecessary under Section 629—the decoder interface should not be considered by the Commission. One of the reasons for the anticompetitive consequences outlined above is that the decoder interface is not the product of the open, balanced and fair standards-setting processes required by ANSI. Neither the JEC nor the C3AG are ANSI-accredited standards developers, and their activities in developing

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<sup>23</sup> "The connector and bus physical layer formats were derived from the CEMA IS-60 CEBus® standard." Summary of Final Agreement on Cable Ready Television Receivers by the Cable-Consumer Electronics Compatibility Advisory Group, ET Docket No. 93-7, at 2 (filed March 11, 1997). "The Decoder Interface message protocol is defined by EIA IS-60. IS-60 is a home automation standard developed over a period of eight years and designed to support the present and future needs of a wide spectrum of consumer products." Proposal of the Consumer Electronics Group of the Electronics Industries Association for a Decoder Interface Standard, ET Docket No. 93-7, at 8 (filed Aug. 15, 1994).

the decoder interface have not been open to other potentially affected industries.<sup>24</sup>

Section 629 specifies that the Commission should consult with "appropriate" standard-setting "organizations." The ad hoc, unaccredited "committee" and "advisory group" that developed the decoder interface are not the sort of "appropriate organizations" to which the Commission owes any deference.<sup>25</sup>

**C. Adoption of the Decoder Interface Under Section 629 Would Contravene Congressional Policy Towards FCC Standards Activities and Constitute A Highly Questionable "End Run" Around the "Eshoo Amendment" (Section 301(f))**

Adoption of the decoder interface in this proceeding would drag the Commission into a totally unnecessary dispute over the basis and scope of the its standards setting powers. FCC endorsement of the decoder interface almost surely would exceed the Commission's Section 629 authority for two reasons: (1) it is inconsistent with a clear congressional preference for private industry standards, and (2) it would represent an unanticipated "end run" around a provision of the 1996 Act—Section 301(f), sometimes called the "Eshoo Amendment"<sup>26</sup>—which was specifically targeted against the decoder interface.

Congress has expressed its clear preference for the use of market-driven standards established through voluntary, industry standards developing organizations. Section 301(f) itself requires that any FCC cable compatibility regulations must achieve

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<sup>24</sup> For instance, although representatives of non-cable of consumer electronics firms were permitted to attend C3AG meetings, all key votes with respect to the decoder interface were taken as "block" votes in which the respective cable and consumer electronics "caucuses" each had one collective vote. Thus, other potentially affected industries—even where they had notice of the C3AG proposals and the opportunity to participate—were permitted no technical or substantive role in development of the decoder interface standard.

compatibility with "narrow technical standards" that "maximize competition" for functions other than descrambling of cable programming, and directs that any Commission standard or regulation may "not affect" features, functions or protocols in unrelated markets such as computer network services and home automation. By minimizing mandatory FCC standards, the Eshoo Amendment maximizes reliance on the market itself, and the voluntary industry standards process, for the development of interoperability standards.

This same preference is apparent throughout other areas of the 1996 Act. Section 629 refers expressly to industry standards-setting organizations, and the Conference Report cautions that by requiring Commission "consultation" with a variety of standards bodies, "[t]he conferees intend that the Commission avoid actions which would have the effect of freezing or chilling the development of new technologies and services."<sup>27</sup> Indeed, the Act's original provisions on "commercial availability" were defeated overwhelmingly in the Senate, with Sens. Pressler, Ford and others all in opposition based on the risk of Commission-mandated technical standards for cable set-top boxes.<sup>28</sup> Similarly, Section 256, which was revised prior to passage to authorize the Commission only to "participate . . . in the development by appropriate industry standards-setting organizations of public telecommunications network

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<sup>25</sup> These ad hoc groups also do not meet the openness and due process requirements of Section 273(d)(4) of the Act, 47 U.S.C. § 273(d)(4), applicable to development of telecommunications standards by "[a]ny entity that is not an accredited standards development organization."

<sup>26</sup> 47 U.S.C. §§ 624A(a)(4), (c)(1)(A), (c)(2)(D).

<sup>27</sup> Conference Report at 181.

<sup>28</sup> See, e.g., 141 Cong. Rec. S7993, S7997 (remarks of Sen. Pressler), S7995 (remarks of Sen. Helms), S8000 (remarks of Sen. Ford) (daily ed. June 8, 1995).

interconnectivity standards," again gives priority to the voluntary standards-setting process.<sup>29</sup>

These provisions all speak to the policy question of whether FCC technical standards are appropriate, and all of them require that the Commission defer to the actions of industry standards-setting organizations. As noted, the decoder interface standard is neither the product of the voluntary industry standards setting process nor consistent with trends in standards for programming transmission and security, both of which increasingly employ digital solutions. The Notice recognizes that because Section 629 does not authorize mandatory FCC standards, the Commission's proper role is "to urge the adoption of voluntary standards."<sup>30</sup> This sort of proactive Commission engagement with private sector standards activities does not necessitate, and would be harmed by, premature Commission "approval" or endorsement of the decoder interface.

More importantly, Commission adoption of the decoder interface as a means of implementing Section 629 would be of highly questionable legality. There can be no doubt that Section 301(f) of the 1996 Act was intended to prevent Commission adoption of the decoder interface, at least without substantial modification. The Notice itself acknowledges that the Eshoo Amendment was "intended to restrict the Commission's standard setting authority and to respond directly to issues associated with the 'decoder interface standard.'"<sup>31</sup> Moreover, in Section 301(f) Congress took the extraordinary, highly unusual step of intervening in a pending FCC rulemaking. It is not only

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<sup>29</sup> 47 U.S.C. § 256(b)(2).

<sup>30</sup> Notice at ¶ 66.

<sup>31</sup> Notice at ¶ 36.

reasonable to infer that Congress desired to restructure the scope of the Commission's powers for cable standards, but more precisely that Congress wanted to overrule prospectively any effort by the FCC to adopt the decoder interface. As Rep. Eshoo explained:

Under Section 301(f), the FCC is required to maximize competition and private standards, not the role of Government regulation. It is required to let the market resolve standards issues for emerging technologies—like satellite broadcasting, video-on-demand and home automation—and to keep its cable compatibility standards narrowly tailored to solve only the specific problems the 1992 Act asked the FCC to handle. . . . *The decoder interface, with its artificial bottleneck for the television and its unnecessary impact on home automation, is far from the only approach for solving those limited problems. The Commission must rework its compatibility proposal.*

142 Cong. Rec. H1160-61 (daily ed. Feb. 1, 1996)(remarks of Rep. Eshoo)(emphasis supplied).<sup>32</sup>

It is true that the terms of Section 301(f) are directed specifically to the Commission's cable equipment compatibility regulations, and that Section 301(f) does not expressly limit Section 629. Yet it is clear that Congress wanted to restrict the anticompetitive potential of the decoder interface and that, by acting directly on the Commission's cable compatibility proceeding, it sought to achieve that end. Had Congress anticipated that the Commission would seek to resuscitate the decoder interface under the guise of "navigation devices," it surely would have added an express prohibition to Section 629. Thus, it is illogical, unreasonable and presumptuous to pretend that a standard proposed for one purpose, then prohibited by congressional mandate, can be implemented by the Commission for a purportedly different purpose.

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<sup>32</sup> 142 Cong. Rec. H1160 (daily ed. Feb. 1, 1996)(emphasis supplied).

The only thing certain to arise from such a step would be years of unpleasant and unnecessary litigation over the scope of the Commission's standards-setting authority.

With respect to Sections 629 and 301(f), the Notice inquires as to "the relationship between these two provisions and how this relationship affects any proposal that seeks to separate security from other CPE functions."<sup>33</sup> This relationship is not at all ambiguous. *First*, the Commission cannot adopt the decoder interface, which was born in and remains under consideration as part of its cable compatibility rulemaking, merely by "relabeling" it as a navigation device standard. *Second*, whether or not the Commission has authority under Section 629 to mandate separation of security from non-security features, it cannot and should not do so by implementing the decoder interface. *Third*, the Commission cannot salvage the decoder interface by adopting only its physical interface specification, leaving the balance for "voluntary" adoption, because the standard is the result of an FCC-sanctioned advisory committee rather than the open, consensus industry standards-setting bodies contemplated by both Sections 301(f) and 629. *Fourth*, whether or not Congress expected the precise limitations of the Eshoo Amendment to apply under Section 629, it clearly directed the Commission to respect the same *principles of limited, minimal FCC standards-setting and deference to industry standards developing organizations*. Perhaps best reflective of this broader applicability for the policies underlying Section 301(f) is a colloquy that accompanied enactment of Section 628 on the Senate floor in February 1996:<sup>34</sup>

Mr. FAIRCLOTH. The competitive availability of navigation devices provision, Section 304, instructs the FCC to consult with

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<sup>33</sup> Notice ¶ 36.

<sup>34</sup> 142 Cong. Rec. S700 (daily ed. Feb. 1, 1996).

appropriate voluntary industry standards setting organizations for the purpose of promulgating a regulation. Given that the FCC is not a standards setting organization, do you agree that this legislation does not authorize the FCC to set a standard for interactive video equipment?

Mr. BURNS. I agree. Moreover, FCC involvement in the emerging digital market could have the effect of freezing or chilling that market. If private groups are able to develop sufficient standards on their own, there is no need to the FCC to intervene. One such example of this is the so-called Eshoo amendment, which leaves the development of "features, functions, protocols, and other product and service options" for analog cable equipment to the private sector.

The lesson is plain. The Commission should refrain from mandatory standards under Section 629—including any required separation of security and non-security features—unless and until it can be demonstrated that industry standards groups cannot address the issue of commercial sale of navigation devices. The Commission should leave standards development to the private sector. Under Section 629, that means that, absent some extraordinary circumstances not present here, the Commission should not adopt, approve, reference or otherwise endorse any technical standards for navigation devices. It instead should promulgate rules requiring each multichannel video provider to make its navigation devices commercially available, and allow the market and the consensus, voluntary industry standards process to determine what technical standards, if any, are needed to accomplish that objective.

## CONCLUSION

The CHTC urges the Commission not to interfere in the emerging digital marketplace by adopting overbroad standards, such as the decoder interface, under Section 629. Competitive market forces and private, voluntary standards-setting organizations are well-equipped to resolve any problems of commercial availability without direct Commission intervention in technical standards.

Respectfully submitted,

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Telecommunications Act of 1996 )  
)  
Commercial Availability of )  
Navigation Devices )

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