

The Commission's market-driven decision is largely consistent with the recommendation of the Computer Industry Coalition for Advanced Television Services ("CICATS"). In its comments, CICATS suggested that because "voluntary, industry-set DTV broadcasting standards better serve the public interest than the adoption of government-mandated standards," the Commission should "adopt no more than a minimally necessary DTV standard."⁵⁵ The Commission in response encouraged and eventually adopted a compromise solution based on a narrowed DTV specification that satisfied both the "Grand Alliance" and the concerns of the computer industry.

Nevertheless, the FCC's action to adopt any standard—albeit a narrow standard—was an extraordinary and virtually unprecedented event. While for unique reasons specific to the issue of digital television the Commission was committed to setting a standard,⁵⁶ it insisted on a streamlined, targeted approach that preserved market flexibility in the face of dynamic technological change. The Commission clearly recognized that "[w]ith required standards, equipment manufacturers 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."⁵⁷

⁵⁵ CICATS Comments at i.

⁵⁶ The Commission found that a prescriptive DTV standard was necessary in order to provide "additional [financial] certainty to consumers, licensees, and equipment manufacturers" by assuring that their investments in DTV "would not be made obsolete by a different technology." Fifth FNPRM at ¶ 32. This network externality justification, especially relevant to free over-the-air broadcast television, was reinforced by the Commission's commitment to facilitate a "rapid construction of digital facilities" and an early return of broadcasters' analog spectrum. Fifth Report and Order at ¶ 7.

⁵⁷ Fifth FNPRM at ¶ 35.

Chairman Hundt carefully explained the FCC's concerns over broad government-mandated standards in his separate statement to the Fifth Further NPRM in the DTV proceeding:

I remain skeptical, however, about whether the government should be in the business of mandating standards at all . . . Shouldn't we be concerned that erecting a regulatory barrier to the use of new technologies may discourage the research and development necessary for innovation? . . . In short, I have seen nothing yet that persuades me that the Commission was wrong in 1988 to express skepticism about government-mandated television standards because such requirements may reduce choice and prevent the timely introduction of new technology.

Thus, the Commission's approach favoring a flexible and limited standard is consistent with sound public policy as well as its own historical practice and preference to let the marketplace dictate precise technical standards. As suggested in the NPRM, this same approach should be applied to commercial availability under Section 629. The Commission should place principal reliance on the market and on voluntary, consensus-based industry standards in achieving commercial availability of set-top boxes and other navigation devices.

II. THE COMMISSION SHOULD NOT IMPOSE ANY MANDATORY TECHNICAL STANDARDS FOR COMMERCIAL AVAILABILITY OF NAVIGATION DEVICES

The Commission should not mandate any technical standards in implementing commercial availability under Section 629 of the Act. First, the text and legislative history of the statute provide no support for compulsory FCC set-top box standards or for the notion that requiring "portability" of navigation devices is within the appropriate scope of Commission authority. Second, the Commission must respect Congress' judgment, which permeates the 1996 Act, that the proper FCC role respecting

standards is for the Commission to defer to appropriate industry standards-setting organizations, where technical matters can be resolved efficiently and flexibly through the established process of open, consensus-based standards development. As applied to Section 629, therefore, the Commission should adopt the NPRM's suggested approach of promulgating only a "performance" requirement, leaving to MVPDs the choice of how to achieve commercial availability of the navigation devices used with their video programming networks.

A. Section 629 Provides the Commission With No Standard-Setting Authority and No Charter to Require "Portability" of Navigation Devices

The NPRM inquires whether the Commission should set, or whether it has the power to adopt, interface standards for the separation of security and non-security functions of navigation devices. It is clear that Section 629 does not provide the Commission with any explicit standard-setting authority. Quite to the contrary, the statute specifically charges the Commission only to "consult" with "appropriate industry standard-setting organizations,"⁵⁸ and does not authorize the development or adoption of technical standards for commercial availability. Thus, any argument that the FCC should establish standards to "assure" the commercial availability of navigation devices must come from outside the plain language of Section 629.

A congressional grant of standards-setting power finds no support in the legislative history of Section 629. In enacting this provision, the Conference Report

⁵⁸ 47 U.S.C. § 549(a).

confirms that Congress intended that “the Commission avoid actions which could have the effect of freezing or chilling the development of new technologies and services. . . .

[I]n implementing this section, the Commission should take cognizance of the current state of the marketplace and *consider the results of private standards-setting activities.*”⁵⁹

Congress’ disdain for government-imposed standards is clearly evidenced by this legislative history, which is a direct product of the Senate’s sound initial rejection of the commercial availability provision.⁶⁰

The reasons for the Senate’s defeat of commercial availability centered around concerns that the measure may have sanctioned mandatory Commission standards. Leading the opposition, Sen. Pressler (then Chairman of the Senate Telecommunications Subcommittee and floor manager of the bill) argued that “[t]his amendment is drafted in such a way that I cannot imagine the FCC reacting in any other way but to try to issue standards governing set top boxes. . . . Standards should be set by industry. Urging the FCC to step in to find a solution may not be the right way to proceed.”⁶¹ Sen. Ford further explained that “when you set standards, you limit the technology in a great many places, because as long as they meet the standards, they do not have to be competitive.”⁶² Based on these and similar arguments against government-imposed standards, the Senate overwhelmingly rejected commercial availability, by a 64-30 vote, as part of the 1996 Act.⁶³

⁵⁹ Conference Report at 181 (emphasis supplied).

⁶⁰ Only the House provision on Section 629 was presented to the Conference Committee because a proffered commercial availability amendment to the Senate bill was overwhelmingly defeated.

⁶¹ 141 Cong. Rec. S7993, S7997 (remarks of Sen. Pressler) (daily ed. June 8, 1995).

⁶² 141 Cong. Rec. S8000 (Remarks of Sen. Ford) (daily ed. June 8, 1995).

⁶³ 141 Cong. Rec. S8000-01.

The Commission questions whether navigation devices should be “portable” so that the devices “will work with similar types of MVPDs in different parts of the country.”⁶⁴ Whether or not portability is good public policy, however, Section 629 requires that portability be achieved by the marketplace, not Commission regulation. While standard-setting advocates may attempt to exploit the Commission’s inquiry on portability—likely arguing that a “competitive” set-top box market necessitates mandatory portability requirements—any argument that Section 629 provides for or implies a portability requirement must be rejected.

Section 629 does not authorize portability. The word “portability,” or its functional equivalent, appears nowhere in the statutory language or the Conference Report adopting this provision. Rather, Section 629 is limited to requiring the FCC to ensure “the commercial availability” of navigation devices from “vendors unaffiliated with any multichannel video programming distributor.”⁶⁵ “Portability” means that navigation devices of one MVPD can work with another MVPD’s network. Nothing in Section 629 seeks to achieve this result. As long as at least one unaffiliated vendor is making the devices available on a commercial basis, the statute is satisfied.

If Congress had intended to include a portability requirement in Section 629, it would have done so explicitly. In fact, the House version of this provision—which was later modified in the Conference Committee—directed the FCC to “assure the *competitive availability*” of certain navigation devices.⁶⁶ Introducing the House bill, which he and Rep. Markey co-sponsored, Rep. Bliley explained that this legislation

⁶⁴ NPRM at ¶ 24.

⁶⁵ 47 U.S.C. § 549(a).

⁶⁶ H.R. 1275, 104th Cong., 1st Sess. § 203(b); *see also* Conference Report at 180.

would have required the Commission to take affirmative steps to promote "national competition" in the provision of set-top boxes and other new technologies.⁶⁷ Thus, under the House bill, it was arguable (although by no means clear) that the statutory command of "competitive availability" implicitly sanctioned portability regulations for navigation devices.

The Conference Committee, however, rejected "competitive availability" language, and any inference of national interoperability associated with it, in favor of "commercial availability."⁶⁸ This change is dispositive, because commercial availability in no way implies a portability requirement. Under the final statutory language, the Commission is not authorized to use its Section 629 regulations to achieve the competitive market for navigation devices envisioned by the House sponsors. As the Conference Report makes clear, the purpose of the section is to guarantee that consumers are not "captive" customers of their MVPD for set-top boxes,⁶⁹ not to allow for new, nationwide interoperability standards that seek to impose a radically different technical and market structure on existing set-top box manufacturers. Rather, the Commission's regulations need only ensure that navigation devices are available at retail from vendors unaffiliated with the subscriber's MVPD, and there is no

⁶⁷ 141 Cong. Rec. E635 (remarks of Rep. Bliley) (daily ed. March 21, 1995).

⁶⁸ The Conference Committee also made several other important substantive changes in the House bill, for instance (i) adding the requirement that the Commission "consult" with "appropriate" industry standards-setting organizations, (ii) expanding the scope of covered entities from "telecommunications systems operators" to MVPDs, (iii) adding completely new sections on "avoidance of redundant regulation" and specifying that Section 6298 neither "expands or limits" the Commission's authority, and (d) requiring a sunset for all Commission commercial availability regulations. 47 U.S.C. §§ 549(a), (d), (e), (f).

⁶⁹ Conference Report at 181.

requirement that these devices be made compatible for use with different MVPDs and different scrambling systems across the country.

The absence of any statutory power to compel navigation device portability has important consequences for the scope of any standards considered under Section 629. Even if the Commission concludes that separation of security and non-security functions is a predicate to commercial availability (which as discussed below is not the case), the NPRM's suggestion that a "standard interface" is required for such separation hinges on portability.⁷⁰ For navigation devices compatible with an MVPD's scrambling or other programming security system to be manufactured and sold by unaffiliated vendors, the third-party vendor need only be in a position to design equipment that is interoperable with *one* network. The "interface" for navigation devices can therefore be unique to the MVPD, without jeopardizing commercial availability, so long as the necessary technical specifications are licensed to or otherwise available to third-party manufacturers.

Given Congress' express reservation of signal security decision to MVPDs in Section 629 and the well-known history of piracy of cable programming,⁷¹ it would sharply contradict the limited role of FCC regulations under Section 629 for the Commission to bootstrap a "standard interface" for navigation devices on the unsustainable foundation of set-top box portability. Portability rests on a foundation built on sand, one completely beyond the purpose of Section's 629's commercial availability requirement.

⁷⁰ NPRM at ¶ 34.

⁷¹ 47 U.S.C. § 549(a).

B. Congress Has Repeatedly and Consistently Expressed the Policy That the Commission Should Defer to Private Standards-Setting Bodies Instead of Promulgating Compulsory Government Standards

There are numerous provisions of the 1996 Act in which Congress has directed the Commission to defer to private standard-setting organizations in lieu of promulgating technical standards of its own. These provide further evidence of Congress's intent that the Commission should avoid setting technical standards in implementing commercial availability under Section 629.

The clearest example of this principle is found in Section 301(f) of the 1996 Act—the "Eshoo Amendment." In Section 301(f),⁷² Congress took the extraordinary action of intervening in a pending rulemaking, the cable equipment compatibility proceeding, to directly limit the Commission's authority to set standards and preserve a far wider role for market-based, industry-developed technical specifications.

Section 301(f) modifies the Commission's authority under the 1992 Cable Act by requiring the Commission to achieve compatibility with "narrow technical standards" requiring only a "minimum degree of common design and operation."⁷³ As Rep. Eshoo explained, under this provision, the FCC is "required to maximize competition and private standards, not the role of government."⁷⁴ To this end, the Eshoo Amendment directs the Commission to "let the market resolve standards issues for emerging technologies"—like DBS, video-on-demand and home automation—and to limit its

⁷² 47 U.S.C. §§ 624A(a)(4), (c)(1)(A), (c)(2)(D).

⁷³ Among other things, Section 301(f) directs the Commission to "consider the need to maximize open competition in the market for all features, functions, protocols, and other product and service options of converter boxes and other cable converters unrelated to the descrambling or decryption of cable television signals." 47 U.S.C. § 544a(a)(4).

⁷⁴ 142 Cong. Rec. H1160 (daily ed. Feb. 1, 1996).

cable compatibility standards to solve only the specific problems listed in the 1992 Cable Act.⁷⁵ In adopting this provision, the Conference Committee emphasized that Section 301(f) limits the Commission's standard-setting authority in order to avoid "the risk that premature or overbroad Government standards may interfere in the market-driven process of standardization in technology intensive markets."⁷⁶

Section 256 is yet further evidence of Congress's concern over government-imposed standards. This provision was revised prior to passage to eliminate express FCC standards-setting powers and authorize the Commission merely to "participate . . . in the development by appropriate industry standards-setting organizations" of telecommunications network interconnectivity standards.⁷⁷ Once again, rather than authorize the Commission to adopt standards of its own, Congress has instructed that the FCC should give priority to the open, consensus-driven standards-setting process that serves to develop (and revise with technological advances) the multitude of technical standards necessary for modern communications services, products and networks.

Section 629 follows this same congressional preference for private standards-setting activities. Not only is the statute limited to FCC "consultation" with industry standards-setting organizations, but the Senate linked Section 629 directly to the same principles underlying the Eshoo Amendment. As Sen. Burns explained, the Eshoo Amendment is "one example" of the policy that "[i]f private groups are able to develop

⁷⁵ *Id.*

⁷⁶ Conference Report at 170-71.

⁷⁷ 47 U.S.C. § 256(b)(2).

sufficient standards on their own, there is no need for the FCC to intervene.”⁷⁸ As discussed in Section III, this policy compels the Commission to refrain from adopting the decoder interface standard, or a “variant,” in this docket without first satisfying the commands of the Eshoo Amendment.

C. The Commission Can Achieve Commercial Availability Under Section 629 With a “Performance” Standard That Allows MVPDs to Determine Whether or Not to Adopt Any Standard Interface

In light of the limited scope of Commission standard-setting under Section 629, Echelon believes the best course is for the Commission to follow the NPRM’s “preferred” solution of adopting only a “conduct” or “performance” standard for MVPD commercial availability.⁷⁹ Under this alternative, the Commission would promulgate a rule that requires compliance with Section 629, but without specifying how MVPDs or cable operators must satisfy the retail availability obligation.

As parties involved in manufacturing set-top boxes will likely discuss in their comments, MVPDs can make navigation devices available for consumer purchase from unaffiliated vendors in a variety of ways. These include: (a) maintaining a proprietary security system, but selecting a set-top box vendor that licenses its technology to third-parties for manufacture of compatible equipment, (b) moving to digital scrambling and adopting an industry standard for set-top boxes, to which other vendors could design their products, or (c) publishing their network specifications in RFP form so that unaffiliated manufacturers can produce navigation devices meeting their requirements. Stripped of the strawman of “portability,” any or all of these approaches are sufficient

⁷⁸ 142 Cong. Rec. S700 (daily ed. Feb. 1, 1996).

⁷⁹ NPRM at ¶ 73.

to meet the commands of Section 629. If the Commission prescribes any one of them, it will only interfere in the market-driven technological developments that the Conference Report expressly directs the FCC to avoid.

The Commission need not and should not mandate any technical standards to achieve retail availability, because MVPDs can satisfy the obligations of Section 629 without adopting any "standard"—whether Commission or industry sponsored. Rather, as the NPRM indicates, the Commission can enact a performance rule that requires the end result, leaving the options up to the cable system or other MVPDs as to how it will achieve compliance. It is *not* necessary that the Commission require any such performance rule to include separation of security and non-security elements or navigation devices. A separation requirement would undermined MVPD interests in safeguarding programming security and is necessary, as the NPRM acknowledges, only to promote interoperability of set-top boxes among cable systems and other MVPD networks.

Such an approach would comport with the market developments that have occurred since Section 629 was enacted. Major set-top box manufacturers are now licensing their intellectual property for the production of compatible "clone" devices by competing vendors. Industry standards for digital set-top boxes have been developed that, as discussed below, allow for even wider interoperability without FCC action. Echelon therefore believes that given the market and standards-setting developments since Section 629 was first enacted, the Commission can achieve commercial availability without technical standards and without any detailed regulations. The Commission need only create a time-limited deadline for the elimination by MVPDs of all barriers to

the manufacture and retail sale of compatible navigation devices, and leave it to the industry and the marketplace to determine the best, most cost-effective and consumer-friendly way of meeting this legal obligation.

III. THE COMMISSION CANNOT ADOPT OR APPROVE THE DECODER INTERFACE AS A STANDARD FOR COMMERCIAL AVAILABILITY OF NAVIGATION DEVICES WHEN SECTION 301(f) SPECIFICALLY PROHIBITS THIS STANDARD FOR CABLE COMPATIBILITY

Section 301(f) clearly prohibits Commission adoption of the decoder interface in the cable compatibility proceeding. The plain language of the statute, the Conference Report highlighting Congress' intent to require market-driven standards, and the sponsor's explanation of the purpose of the provision all demonstrate the effect of Section 301(f) on the decoder interface. As the NPRM recognizes, 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."⁸⁰ The Eshoo Amendment makes it unlawful for the Commission to adopt the decoder interface as designed by the C3AG.

In Section 301(f), Congress specifically found that compatibility among consumer electronics equipment, such as TVs and VCRs can be assured with "narrow technical standards" and "a minimum degree of common design," leaving all features, functions, protocols and service options to selection in the competitive marketplace. Based on this finding, the Eshoo provision directs the Commission to:

ensure that any standards or regulations developed under the authority of [Section 624A] to ensure compatibility between televisions, video cassette

⁸⁰ NPRM at ¶ 36.

recorders, and cable systems do not *affect* features, functions, protocols, and other product and service options other than those [such as picture-in-picture, etc.] specified in paragraph (1)(B), including telecommunications interface equipment, home automation communications, and computer network services.⁸¹

In prescribing regulations under this provision, Congress further directed the Commission to consider—as its first priority in implementing cable equipment compatibility—“the need to maximize open competition in the market” for all features and functions of set-top boxes “unrelated” to the descrambling of cable signals.

By adopting this provision, 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. When Congress dictates the decision in a pending administrative proceeding, by amending the statute to take the agency’s proposal “off the table,” the agency is expected to heed the legislative directive. Rep. Eshoo explained the need for this highly unusual action:

[T]he agency has taken our 1992 Cable Act—the source of the Commission’s power to assure compatibility between televisions, VCR’s, and cable systems—and gone far beyond what appropriate public policy requires or its statutory authority permits. *The Commission’s 1994 proposal for a decoder interface would make the television set the gateway to the burgeoning information superhighway, relegating the computer, and all other home appliances, to second-tier status.* It also would include one specific home automation protocol—called CEBus, or Consumer Electronic BUS—as the mechanism by which all cable-ready TV’s and set-top boxes would communicate. My amendment prevents these consequences.

* * *

Under Section 301(f), the FCC is required to maximize competition and private standards, not the role of Government regulation. It is required to

⁸¹ 47 U.S.C. § 544a(c)(2)(D) (emphasis added).

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 to solving those limited problems. The Commission must rework its compatibility proposal. It should also seek input from the computer, home automation and other potentially affected industries, not just cable television and consumer electronics industries.*⁸²

The decoder interface violates Section 301(f) on two levels. First, the interface standard includes a home automation communications protocol, known as CEBus[®] or Consumer Electronic Bus, between the descrambling modules and the TV/VCR.⁸³ Under its prior name, CEMA explained to the Commission that “[t]he 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.”⁸⁴ As a home automation standard, the CEBus protocol is not a “narrowly tailored” compatibility standard designed to address the “specific problems the 1992 Act asked the FCC to handle.” Home automation is completely unrelated to the ability to watch and record two scrambled cable programs, tape two consecutive programs on different channels, or to access premium video display features.⁸⁵ Rather, CEBus goes “far beyond what appropriate public policy requires or its statutory authority permits.” Thus, by including this communications protocol, the

⁸² 142 Cong. Rec. H1160 (daily ed. Feb. 1, 1996) (emphasis supplied).

⁸³ “The connector and bus physical layer formats were derived from the CEMA IS-60 CEBus[®] standard.” Summary of Final Agreement on Cable Ready Television Receiver by the Cable-Consumer Electronics Compatibility Advisory Group, ET Docket No. 93-7, at 2 (filed March 11, 1997).

⁸⁴ 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).

⁸⁵ 47 U.S.C. § 624a(c)(1)(B).

decoder interface violates Congress's directive that compatibility issues must be resolved with "narrow standards."

Moreover, CEBus is only one of numerous competing protocols for home automation communications that are currently competing to define a new market for inter-device communication for lighting, entertainment, security and other "smart house" functions. By including this unnecessary protocol, which is completely unrelated to the descrambling of cable television signals, the decoder interface provides an unfair competitive advantage to manufacturers of CEBus-based products and thereby discriminates against the competing technologies in the emerging home automation market. Thus, there is no doubt that the decoder interface's CEBus protocol "affects" home automation services in violation of Section 301(f).

While Section 301(f) specifically addresses the decoder interface, the legislative history of Section 629 demonstrates that the standard-setting principles of the Eshoo Amendment extend beyond just the cable compatibility proceeding. During debate on Section 629, a colloquy between Sens. Burns and Faircloth reveals the applicability of Eshoo-based deference to private standard-setting authority to the commercial availability of navigation devices.

Mr. FAIRCLOTH. The competitive availability of navigation devices provision, Section 304, instructs the FCC to consult with 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 for 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.⁸⁶

The NPRM asks whether the limitations of Section 301(f) affect its authority to adopt or approve the decoder interface as a means of implementing Section 629.⁸⁷ It is improper for the Commission to mandate a standard in one proceeding that is specifically prohibited in another proceeding. Commission adoption of the decoder interface standard under the guise of commercial availability would be a direct evasion of congressional intent. Congress has specifically expressed its desire that the FCC refrain from unilaterally imposing standards, but rather defer to the private, industry standard-setting process. Any argument that suggests the FCC mandate a standard pursuant to Section 629 ignores Congress's repeated and consistent statements against such action. Moreover, having prohibited the decoder interface in the cable compatibility proceeding, Congress certainly could not have intended to authorize the Commission to adopt the same standard to further commercial availability without some explicit indication. In sum, using the decoder interface, which the Commission has still not addressed substantively in the cable compatibility proceeding in the wake of the 1996 Act, under the purported authority of Section 629 would be an improper and unlawful "end run" around Section 301(f).

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

⁸⁶ 142 Cong. Rec. S700 (daily ed. Feb. 1, 1996).

⁸⁷ NPRM at ¶ 36.

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 cover 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. 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."⁸⁸ 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

⁸⁸ *Id.*

301(f) and 629.⁸⁹ *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.

Echelon believes that the terms of Section 301(f) must be construed to apply to any Commission-mandated standard for analog set-top boxes under Section 629.⁹⁰ The proper administrative approach is therefore for the Commission to limit any decision on commercial availability to digital navigation devices, for instance by grandfathering the installed base of analog CPE, and focus its attention on moving forward into the new digital era. If the decoder interface or any variant of that standard is permissible is a question that should be resolved, first and only, in ET Docket No. 93-7. Whether or not the express terms of Section 629 follow the Eshoo Amendment in prohibiting the decoder interface, the only way to harmonize the two provisions is for the Commission to meet the congressional command for cable compatibility using the narrow standard-setting powers of Section 301(f), instead of opening a hidden and highly suspect "back door" in the law without first concluding the tasks Congress first asked the FCC to undertake in the 1992 Cable Act.

⁸⁹ See Section IV(D) below.

⁹⁰ The NPRM cites language in the House report on Section 301(f) to the effect that the Eshoo Amendment was not intended to limit the Commission's authority under the House version of Section 629. NPRM at ¶ 36. This language is irrelevant to interpretation of the final 1996 Act, however, because the Conference Committee made extensive changes to the House bill's commercial availability provision—while incorporating Section 301(f) verbatim—and not adopting the language from the House Report. The House Commerce Committee's views on the relationship between Section 301(f) and Section 629 are not germane because the vastly of the difference Conference provision. Thus, there is a clear congressional intent to require a narrowed scope for any Commission cable compatibility regulations, and absolutely none at all indicating that the Conference Committee anticipated undoing in Section 629 what it had done in Section 301(f).

IV. THE DECODER INTERFACE IS AN OVERBROAD, ANTICOMPETITIVE AND OUTDATED TECHNICAL STANDARD

Echelon and the Joint Petitioners in ET Docket No. 93-7 have addressed in detail, in connection with the pending petition for reconsideration in the cable compatibility proceeding, the many reasons why the decoder interface standards is overbroad, anticompetitive and outdated.⁹¹ These issues are summarized below, but in sum, the decoder interface improperly affects home automation communications, provides the TV with an anticompetitive "gateway" status in the home, discriminates against computer video systems, requires a new and incompatible physical interface necessitating the replacement of all current TVs and VCRs, and would undermine consumer incentives to make the massive financial investment in DTV equipment that formed the basis for the Commission's recent landmark decisions on digital television.

A. The Decoder Interface Provides an Anticompetitive Regulatory Advantage To One of Many Competing Home Automation Communications Protocols

As explained above, the decoder interface incorporates the CEBus home automation protocol, which is incompatible with other competitive protocols (including Echelon's open LonWorks[®] standard for home automation). By sanctioning the IS-105 standard with this protocol, the Commission would effectively neutralize competition among the numerous rival technologies currently available in this emerging market. This would give a direct economic advantage to CEMA and its affiliated enterprises,

⁹¹ See, e.g., Attachment A to these comments (Echelon's July 1996 ex parte submission in ET Docket No. 93-7).

one that is inconsistent with competition on the merits and certainly not in the public interest. Rather than having the government select the "winner" in the market for home automation communications, as the decoder interface would effectively do, competitive rivalry should determine which home automation protocol is superior.

B. The Decoder Interface's Set-Back Architecture Accords the Television an Anticompetitive and Artificial Dominant Status

The decoder interface moves the descrambling functions from the set-top box to the back of the television in a "set back" module. This re-design of the feature access functions is both technologically unnecessary and anticompetitive. The new placement is unrelated to the descrambling functions listed in Section 17 of the 1992 Cable Act. Specifically, the 1992 Cable Act directs the Commission to adopt compatibility regulations that will allow consumers to watch one "scrambled" cable channel while recording another and enjoy the advanced television display functions, such as "picture-in-picture."⁹²

The set-back design of the decoder interface does nothing to satisfy these issues. Even under the set-back architecture, the decoder interface requires two descrambling modules to achieve the functions mandated in the 1992 Cable Act. Thus, the only positive achievement in moving the descrambling functions to the back of the television is to reduce the "clutter" of the navigation device on top of the television. This result does not justify adoption of the IS-105 standard.

The new architecture, however, also serves an anticompetitive purpose. The set back design is incompatible with several manufacturers' use of set-top modules to

⁹² 47 U.S.C. § 544a.

provide both security and feature access to provide interactive video and video game programming services. By migrating the descrambling functions to the back of the television, the decoder interface makes the television the "centerpiece of the home." This status is achieved not by superiority in the marketplace, but by an unnecessary and artificial architecture incorporated in the IS-105 standard.

By increasing the importance of the television, the decoder interface improperly advances the interests of television and VCR manufacturers, dealing a damaging and unfair blow to other industries competing in the converging video marketplace. The victims of this new design include not only the high-tech industries marketing new products, but also the consumers who would benefit from innovative product design and a robust competitive market.

C. The Decoder Interface Discriminates Against Computer Video Systems In Favor Of Cable Systems

IS-105 includes a broad protocol and command set features that are optimized for cable television programming and cable systems. However, these same technical features—including data transmission rate, inter-device communications, and others—are incompatible with the needs of other high-tech industries who have already started developing and marketing innovative new products in the converging video-information marketplace. The decoder interface provides an artificial and anticompetitive advantage in favor of cable television systems.

For example, if the decoder interface is adopted, the recent explosion of PC-TV products and services described previously will become largely inaccessible to consumers. By discriminating against computer video technologies, the decoder

interface arbitrarily selects the television as the "gateway" to the home.⁹³ This determination neutralizes market forces and takes the decision of who will prevail in the "battle of the eyeballs" out of the consumers hands and allows the government to make that determination. This is precisely what Section 301(f)'s requirement that the Commission "not affect" unrelated markets such as "computer network services" was meant to avoid.

D. The Decoder Interface Requires a New and Incompatible Physical Interface With Consumer's CPE

The decoder interface requires a *new* 26-pin physical interface for connection of televisions, VCRs, descrambling modules and other CPE. The 26-pin connector is, by definition, incompatible with all existing analog televisions, VCRs and computers. Neither PC ports nor communications protocols can interoperate with IS-105 products. Thus, adopting this standard would require the almost immediate replacement of millions of analog televisions and VCRs to achieve interoperability. While this massive replacement will greatly benefit the manufacturers of these products, consumers will be forced to invest in "second-generation" analog CPE at the dawn of the digital age.

The Commission should reject any suggestion that it adopt "only" the 26-pin physical interface specification and allow industry to "voluntarily" establish the standards for other interoperability protocols. Because both existing computer products

⁹³ As Bell Atlantic advised the Commission more nearly two years ago, the Decoder Interface artificially positions the TV set as the "gatekeeper" to the integrated, broadband "information superhighway" of the future. Bell Atlantic Ex Parte Presentation, ET Docket No. 93-7, Slide 7 (May 31, 1995). The Commission has also recognized this problem. "[W]e also appreciate that [the Decoder Interface] could constitute a gateway that constrains the development of new technologies. Moreover, the potential for such a constraining effect is substantially greater in the current period, where there is rapid development of new communications technologies and services that are distinctly different from those available in the past." *First Report and Order*, 9 FCC Rcd. at 1987.

and non-CEBus home automation systems are incompatible with the new 26-pin decoder interface connector, adoption of this physical standard would as a practical matter provide a huge competitive advantage to CEBus-based products, as by FCC fiat the CEBus connector would become mandatory for all set-top boxes and other consumer electronics products used with video programming services.

It is important to recognize that the C3AG-developed decoder interface, and with it the 26-pin physical interface standard, is not the product of traditional industry standards-setting activities. Rather, the C3AG was formed to meet the Commission's requirements under the 1992 Cable Act, and has not been organized or administered as the sort of open, consensus-based industry standards-setting body to whom Congress wants the Commission to defer.

The Conference Report to Section 629 lists "appropriate" standard-setting organizations with whom the Commission should consult for commercial availability. These include IEEE, DAVIC (Digital Audio Video Council), MPEG, ANSI.⁹⁴ Even though Congress was well aware of their existence and their work on the decoder interface, neither the JEC nor the C3AG are listed as "appropriate bodies." If Congress felt that the IS-105 standard was a proper tool for ensuring commercial availability, it would have at least referenced the JEC and or the C3AG. Their absence is conspicuous evidence that the Commission should not consider the decoder interface standard, including its physical interface, under Section 629.

⁹⁴ Conference Report at 181.

Most likely, Congress chose not to include the JEC and C3AG because their practices do not satisfy the due process procedural requirements of Section 273(d)(4) of the 1996 Act. Section 273(d)(4) applies to “[a]ny entity that is not an accredited standards development organization and that establishes industry-wide standards for telecommunications equipment.”⁹⁵ Among other things, this provision requires that these entities issue both a “public notice,” and “a public invitation to interested industry parties” to fully participate on a “nondiscriminatory basis” so as not to “unreasonably exclude any interested party.”⁹⁶ The JEC and C3AG, as bodies of the cable television and consumer electronics industries, were not balanced among all potentially affected industries and adopted voting procedures which denied many industry participants, including Echelon, any substantive role whatsoever in the standard development process.⁹⁷ Had the C3AG (or C4AG) been organized as an ANSI-accredited standards-setting organization, instead of an “advisory group” to the FCC, these sort of closed and biased procedures would clearly have been impermissible. Consequently, there is no basis on which the Commission can properly approve the decoder interface or encourage its adoption as a “voluntary” industry standard.

E. The Analog IS-105 Standard is Not Designed for Efficient Compatibility With the Emerging Digital Environment and Would Cause a Dead Weight Loss To Consumers

As an analog standard, the decoder interface is not an optimal interoperability standard to interface with all digital video and encryption technologies, including the

⁹⁵ 47 U.S.C. § 273.

⁹⁶ 47 U.S.C. § 273(d)(4)(a)(i)&(ii).

⁹⁷ See note 19 above.

Commission's recently adopted DTV digital broadcast standard. Advancements in digital technology are progressing rapidly and competition in the video programming market has dramatically intensified. "Competitors in the video programming market, such as DBS, cable, and wireless cable, have aggressively pursued the potential of digital technology."⁹⁸ Because the decoder interface is not designed to efficiently communicate with these services, it threatens the Commission's goal "to ensure robust competition in the video market that will bring more choices at less cost to American consumers."⁹⁹

While the Commission, through its DTV standard, seeks to facilitate the "digital revolution," the decoder interface would require consumers to purchase new analog televisions and VCRs. These investments will have to be made on the heels of the Commission's recent adoption of a transmission standard for digital television. Thus, these new analog IS-105 compatible consumer products will quickly become obsolete with the introduction of digital televisions in the next few years. As the Washington Post recently reported regarding the new DTV decision, "[a]bout all that is certain is that the 250 million televisions now in use nationwide won't be up to the job. They will have to be replaced or outfitted with special converter boxes that industry executives said will cost from \$50 to \$200."¹⁰⁰

⁹⁸ *Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service*, Fifth Report and Order, FCC 96-207, MM Docket No. 87-268 (released April 21, 1997) at ¶ 13/89 ("Fifth Report and Order")

⁹⁹ Fifth Report and Order at ¶ 5.

¹⁰⁰ *TV's Wave of the Future Takes On A Digital Look*, The Washington Post, April 28, 1997. Moreover, the FCC recognizes that the "viability of digital broadcast television will require millions of Americans to purchase digital television equipment." Fifth Report and Order at ¶ 3.