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Federal Communications Commission
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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

CS Docket No. 97-80

**COMMENTS OF THE
CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION**

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SUMMARY

CEMA strongly supports many of the proposals put forward in the *Notice*, and urges the Commission to take swift and certain action, as discussed in these comments, so as to secure a competitive market for devices used to navigate multichannel video programming services and other customer-premises equipment ("CPE") used in conjunction with such services. Consumers, not service providers, should be the arbiters of what equipment should be deployed on customers' premises that can be used to gain the full benefits of the services to which these customers subscribe.

A primary barrier to compatibility, as with competitive availability, has been the concern of MVPDs to guarantee the integrity of their networks and to prevent unauthorized reception of their programming. Network security has prompted multichannel video programming distributors (MVPDs) to maintain physical control of the security circuitry contained within the CPE, and MVPDs have been unwilling to allow manufacture or distribution of CPE competitive with the equipment that they provide. However, recent technical developments no longer require that security circuitry reside exclusively within the CPE. The Joint Engineering Committee, made up of members of CEMA and the National Cable Television Association (NCTA), has recently agreed upon the "National Renewable Security Standard ("NRSS"). The NRSS sets forth a standard interface with which any consumer electronics device to receive the necessary security information for the MVPD. This technology will enable a competitive market to develop for CPE with no threat to the security of the network. In addition, the decoder interface standard developed for analog cable and consumer electronics compatibility can address security concerns in the analog environment.

With the legitimate security concerns of MVPDs having thus been addressed, the Commission can move ahead on a number of issues to establish a competitive market for navigation devices. Underlying the Commission's efforts should be the core principle that the public should

have a right to interconnect competitively provided navigation devices to any compatible multichannel video programming system. This "right to attach" would form a solid basis for encouraging the development of a marketplace characterized by portability and interoperability, such as that which has developed for telephone CPE. The corollary of the consumer's right to attach is the service provider's obligation to unbundle CPE from network services. CEMA also recognizes the importance of ensuring that customer-owned CPE, when attached, does not cause any harm to the network. CEMA agrees with the Commission that the telephone model -- especially a "Part 68" equivalent for navigation devices -- would be a sound starting point from which to promote a competitive market. In addition, the Commission should encourage adoption by MVPDs of industry-wide standards that will be needed to allow the marketing of interoperable, portable navigation devices nationwide. Such standards should be developed through voluntary, industry-led processes of the type that are already emerging in the digital environment.

Consumers must have maximum choice in CPE used in conjunction with multichannel video services. The Commission should first address the creation of a competitive market for devices which present the least difficult security and standardization problems. These devices, such as cable modems, typically involve new technologies and the absence of an embedded base and security measures to protect video programming.

The Commission's rules implementing Section 629 should also be broadly inclusive of MVPDs. In so doing, the Commission should give priority attention to entrenched cable system operators, but other MVPDs must be addressed as well. To allow local exchange carriers and non-dominant cable systems that opt for open video systems ("OVS") status to avoid the reach of a pro-competitive, deregulatory policy for navigation devices would be inconsistent with the express intent of Section 629 and would significantly undercut the implementation of the Commission's rules.

To build competitive devices, manufacturers must have timely access to the standards and technical specifications necessary to enable equipment interconnection and interoperation. The Commission must ensure that multichannel video service providers publicly disclose information about the physical and logical interfaces of their systems in a way that allows "plug and play" of CPE, if a competitive market for such video CPE is to be realized.

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**COMMENTS OF THE
CONSUMER ELECTRONICS MANUFACTURERS ASSOCIATION**

The Consumer Electronics Manufacturers Association ("CEMA") hereby submits the following comments in response to the Notice of Proposed Rulemaking ("*Notice*") which the Commission issued in the above-captioned proceeding on February 20, 1997.¹ CEMA strongly supports many of the proposals put forward in the *Notice*, and urges the Commission to take swift and certain action, as discussed below, so as to secure a competitive market for devices used to navigate video programming services and other customer-premises equipment ("CPE") used in conjunction with such services.

In the *Notice*, Congress requests comments on the implementation of Section 629 of the Telecommunications Act. CEMA urges the Commission to bear in mind that Congress passed

¹ See *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices*, CS Docket No. 97-80, FCC 97-53 (released Feb. 20, 1997) [hereinafter "*Notice*"].

Section 629 with the express purpose of ensuring a vibrant and competitive consumer market in navigation devices. Therefore, CEMA suggests that the Commission measure each contemplated regulatory action by the simple standard of whether such action will help maximize consumer choice with respect to navigation devices and enable consumers to connect such devices to any compatible multichannel video programming system.

I. Introduction and Statement of Interest

CEMA is the principal U.S. trade association of the consumer electronics industry. CEMA members design, manufacture, import, distribute and sell consumer electronics equipment, including digital and analog television receivers, personal computers, digital versatile disk ("DVD") players, direct broadcast satellite ("DBS") equipment, and a wide variety of other products. CEMA's membership includes most major consumer electronics manufacturers, as well as many smaller companies that design, produce, import, sell and service consumer electronic products in the United States.

CEMA strongly supports the pro-competitive philosophy embraced by the *Notice*. Consumers, not service providers, should be the arbiters of what equipment should be deployed on customers' premises that can be used to gain the full benefits of the services to which these customers subscribe. Consumer choice and competition are two sides of the same coin. This proceeding offers the possibility of a significant breakthrough for competitive forces which can revolutionize the way consumers utilize the mix of services and equipment available to them. If the promise embodied in the *Notice* is fulfilled, then consumers will no longer be constrained by the obstacle of a limited-functionality set-top box or some other device mandated by the service

provider. Instead consumers will demand and have available to them, from retailers and service providers alike, an ever-expanding range of products that will meet their demands at every level of price and functionality.

CEMA thus has an intense interest in this proceeding and great concern that the Commission's pro-competitive thrust not be thwarted. Monopoly service providers, which have no interest in giving up their power to control regional equipment markets, can be expected to raise a number of obstacles to the achievement of a competitive market in navigation devices, converter boxes, and other equipment used to access services provided by cable systems or other multichannel video programming distributors ("MVPDs").² Over the last several years, CEMA members have become increasingly concerned about the distinctly different market conditions that exist in the cable and consumer electronics ("CE") industries and the critical relationship between these two markets. In every product sector, the consumer electronics market is characterized by rapid innovation and robust price competition. By contrast, there is presently no consumer market for equipment that has traditionally been supplied by cable systems operators to their subscribers. Unfortunately, the benefits to consumers of the many advances in new, innovative CE video products have sometimes have sometimes proved difficult to realize because of the limitations imposed by interconnection and interoperation with cable subscriber equipment.

² Throughout these comments, CEMA uses the terms "customer-premises equipment", "CPE," or "navigation devices" to describe such equipment. Although the *Notice* correctly points out that these terms are broad enough to include such CE equipment as television receivers and video cassette recorders, *Notice* at ¶ 17, CEMA uses these terms to signify the types of devices listed in paragraph 18 of the *Notice*. CEMA agrees with the Commission that no Commission action is necessary to assure the commercial availability, under competitive conditions, of TVs and VCRs. *Id.* at ¶¶ 17, 55.

The inability of consumers to easily obtain these benefits -- and of consumer electronic manufacturers to deliver them -- underlay the cable-consumer electronics compatibility provisions of the 1992 Cable Act.³ CEMA was a primary supporter of that legislation and has actively participated in the standards-setting process and the Commission's implementation efforts in ET Docket No. 93-7 to arrive at a "decoder interface" standard to achieve compatibility. The instant proceeding builds on the efforts in Docket 93-7: a primary barrier to compatibility and competitive availability has been the need of MVPDs to guarantee the integrity of their networks and to prevent unauthorized reception of their programming.

As a consequence of this concern, much of the video CPE market has been closed to the consumer electronics industry in the name of "network security." Network providers have long been able, both technically and legally, to control access to their signals through control of the equipment that attaches to their networks. Practically speaking, this has required MVPDs to maintain physical control of the security circuitry contained within the CPE and, for this reason, MVPDs were unwilling to allow manufacture or distribution of CPE competitive with the equipment provided by the MVPD.

Fortunately, recent technical developments no longer require that security circuitry reside exclusively within the CPE in the analog or digital worlds. In the digital domain, the Joint Engineering Committee, made up of members of CEMA and the National Cable Television Association ("NCTA"), has recently agreed upon the "National Renewable Security Standard

³ Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460, § 17 (2d Sess. 1992).

("NRSS").⁴ The NRSS sets forth a standard interface with which any consumer electronics device may receive the necessary security information for the MVPD. This technology will enable a competitive market to develop for CPE with no threat to the security of the network

With respect to analog systems, the Cable-Consumer Electronics Advisory Group ("C³AG") has balloted and accepted the "decoder interface" (EIA/IS-105.1) as a private sector standards activity. This interface provides for a separate "descrambler" module containing security circuitry, thus overcoming the "network security" obstacle to competitive availability of analog navigation devices.

CEMA fervently believes that an open, competitive market for CPE, which will allow the public to use their equipment with a growing range of cable and other video delivery services, will benefit consumers, the consumer electronics industry, and MVPDs. The Commission should make the creation of a competitive market for navigation devices its top priority in this proceeding.

II. Section 629 of the Telecommunications Act Requires That the Public Have a Right to Interconnect Competitively Provided Navigation Devices to Any Compatible Multichannel Video Programming System.

This proceeding comes as a result of Section 304 of the Telecommunications Act of 1996, which was added as Section 629 to the Communications Act, and which instructs the Commission to:

[A]dopt regulations to assure the commercial availability, to consumers . . . of . . . equipment used . . . to access multichannel video programming and other services offered over multichannel video programming systems from manufacturers, retailers, and other vendors not affiliated with any multichannel video programming distributor

⁴ The interim standard for the NRSS has been designated IS-679.

47 U.S.C. § 629. In the *Notice*, the Commission correctly concludes that the purpose of Section 629 is to "provide consumers with the benefits of competition in the manufacture and sale of [navigation] devices." CEMA suggests that the true benefits of competition can only be realized by the public when every consumer is free to connect competitively provided navigation devices to any compatible multichannel video programming system.

CEMA fully recognizes that the development of a nationwide competitive market for navigation devices will not be a short-term process. In recognition of the complexity of the issues addressed in this proceeding, we agree that the Commission must begin by defining the "basic principles" that will serve as the foundation for a competitive market's construction.

The *Notice* suggests that a core requirement for implementation of Section 629 is a "right to attach."⁵ CEMA agrees that the most fundamental principle underlying Section 629 is the consumer's right to connect to the multichannel video programming system any non-network device, so long as the device does not harm the network. This "right to attach" would form a solid basis for encouraging the development of a marketplace characterized by portability and interoperability, such as that which has developed for telephone CPE. CEMA therefore strongly supports the Commission's decision to incorporate into its rules this basic principle, which it has already adopted in the telephone context in its *Carterfone* decision.⁶

⁵ *Notice* at ¶ 11.

⁶ *Use of the Carterfone Device in Message Toll Telephone Service*, 13 FCC2d 42, *recon. denied*, 14 FCC2d 571 (1968). The "subscriber's right reasonably to use his telephone in ways which are privately beneficial without being publicly detrimental" was established, in a judicial decision that pre-dates *Carterfone*, as a matter of law and as a right that the Commission cannot unreasonably deny. *Hush-A-Phone Corp. v. United States*, 238 F.2d 266, 268-69 (D.C. Cir. 1956).

The corollary to the consumer's right to attach is the service provider's obligation to unbundle CPE from network services. The consumer benefits of unbundling have been amply demonstrated in the telephone area. As the Commission observed seventeen years ago:

As a result of this policy the terminal equipment market is subject to an increasing amount of competition as new and innovative types of CPE are constantly introduced into the marketplace by equipment vendors. We have repeatedly found that competition in the equipment market has stimulated innovation on the part of both independent suppliers and telephone companies, thereby affording the public a wider range of terminal choices at lower costs. Moreover, this policy has afforded consumers more options in obtaining equipment that best suits their communication or information processing needs. Benefits of this competitive policy have been found in such areas as improved maintenance and reliability, improved installation features including ease of making changes, competitive sources of supply, the option of leasing or owning equipment, and competitive pricing and payment options.⁷

CEMA recognizes the importance of ensuring that customer-owned CPE, when attached, does not cause any harm to the network. CEMA agrees with the Commission that the telephone model provides the logical starting point in addressing this issue. The Commission's adoption of the certification requirements set forth in Part 68 of the Commission's rules has functioned effectively to protect telephone networks from harm caused by customer-owned CPE. CEMA sees no reason why a "Part 68" registration requirement applied to navigational devices would not function equally as well to safeguard the networks of MVPD providers. Although the *Notice* correctly points out that technical and other differences exist between telephone facilities and MVPD facilities, we agree with the Commission that the telephone model -- especially a "Part 68" equivalent for navigation devices -- would be a sound starting point.

⁷ *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 77 FCC2d 384, 439 (1980) (¶ 141) ("*Computer II*") (subsequent history omitted).

The robust competition which characterizes all other segments of the consumer electronics market -- and which, through Section 629, Congress sought to bring to the video CPE market -- is possible because of standards. Purchasers of analog -- and soon digital -- televisions know that they will work anywhere in the nation because of transmission standards prescribed by the Commission. The current telephone model succeeds in significant part because of the existence of transmission systems and interfaces which are standardized and which permit equipment to be portable from provider to provider. Such nationally accepted standards allow consumer electronics companies to mass produce goods for a national market. The resulting economies of scale make possible the robust competition and wide diversity of products that characterize the consumer electronics markets.

The simple fact is that there can be no competitive national market for CPE if the technical interface characteristics of MVPDs vary widely from system to system. CEMA recognizes that system architectures vary among multichannel video distributors, and this variation presents a significant practical obstacle for portability. As for interoperability, CEMA believes that open, industry-led standards processes for common security and transmission interfaces should be encouraged and are a prerequisite for true CPE competition. CEMA does not suggest that the interfaces for all video delivery systems should be standardized by regulation on a single model. For a variety of reasons, cable, DBS, and telephone networks have evolved differently, thus necessitating different technical interfaces for equipment that can work with all media. Consumer expectations are that a change from one form of MVPD to another -- from cable to DBS, for example -- may reasonably warrant a change in CPE. Within a single medium, however, (digital cable, for example) there is no persuasive reason why a single set of interface standards cannot be agreed upon so as to

promote the portability of equipment that connects to such medium. While such standards need not be codified in the Commission's rules, adherence to such standards is absolutely necessary if the consumer's right to attach is to be meaningful.

The Commission should therefore encourage adoption by MVPDs and the CE industry of joint, industry-wide standards that will be needed to allow the marketing of interoperable, portable navigation devices nationwide. Such standards should be developed through voluntary, industry-led processes of the type that are already emerging in the digital environment.

III. Section 629 Requires That Consumers Have Maximum Choice in CPE Used in Conjunction with Multichannel Video Services.

The plain language of section 629 requires the Commission to ensure that navigational devices are commercially available "from manufacturers, retailers, and other vendors not affiliated with any multichannel programming distributor." This language is based upon the sound principle that competition, not regulation, is the best and most effective way to ensure consumer choice, and recognizes that consumer choice is maximized by the competitive availability of devices from a variety of manufacturers and vendors through a variety of outlets.

The Commission is therefore faced with the complex task of creating a competitive market from the current system of regionalist service provider monopolies. Clearly, the accomplishment of a national, competitive market for all navigational devices cannot be accomplished immediately. In the *Notice*, the Commission wisely proposes to first address the creation of a competitive market for devices which present the least difficult security and standardization problems. We encourage the Commission to follow this course, and point out a number of areas which would be appropriate for priority attention.

For digital navigational equipment such as cable modems, which have not yet been deployed to consumers, there are no barriers to immediate competitive availability. The Commission's immediate focus on digital navigational devices would secure competitive availability in the upcoming digital age.

In addition, CEMA urges the Commission to include within the scope of its commercial availability policies the equipment used by consumers to connect to open video systems ("OVS"). CEMA acknowledges the apparent, but not necessarily conclusive, inconsistency created by the omission in Section 653(c) of any reference to the applicability of Section 629.⁸ It is important to note that Section 653 applies to local exchange carrier provision of "cable service" and the provision by cable operators and other persons of "video programming service." An important element in the Commission's development of its pro-competitive CPE policy in the telephone area was its determination that the provision of CPE was not common carrier service and thus not subject to Title II regulation.⁹ Similarly, the Commission has the

⁸ Section 653(c)(1) is prefaced by "[a]ny provision that applies to a cable operator . . ." in its instructions as to the applicability and non-applicability of various provisions of Title VI of the Communications Act. By its terms, Section 629 applies to the Commission, not cable operators, and requires the Commission to promote the commercial availability of equipment used by consumers of "multichannel video programming and other services." These latter terms are defined on a non-exclusive basis and could include parties that provide cable service as OVS. *See* 47 U.S.C. § 522(13) (Sec. 602(13) of the Act). The omission of any reference to Section 629 in Section 653(c) does not necessarily exempt OVS from the scope of Commission rules promulgated under Section 629, because Section 629 mandates Commission regulations about equipment availability and does not simply create regulatory obligations for cable operators.

⁹ *Computer II*, 77 FCC2d at 450-57. The Commission found its authority to deregulate telephone CPE inherent in its authority under Section 205 to remedy unjust and unreasonable charges and practices. *Id.* at 452-53 (¶ 176). Similar authority is vested in the Commission in various provisions of Section 623.

authority to determine that navigation devices are not properly a "service element" of multichannel video programming services, including cable service offered as OVS, and should not be subject to regulation under Title VI.¹⁰ In so doing, the Commission could remain faithful to the dictates of the OVS provisions of the 1996 Act while being fully responsive to the direction set forth by Congress in Section 629. To allow local exchange carriers and non-dominant cable systems that opt for OVS status to avoid the reach of a pro-competitive, deregulatory policy for navigation devices would be inconsistent with the express intent of Section 629 and would significantly undercut the implementation of Commission rules established thereunder.

Finally, the Commission should immediately focus on ensuring competitive availability in markets served by entrenched providers that are not subject to effective competition. In particular, the Commission should give priority attention to cable system operators. While CEMA agrees that priority attention should be given to the provision of equipment by MVPDs with market power, CEMA disagrees with the tentative conclusion of the *Notice* that the existing equipment rate rules promulgated under Section 623(b)(3) address the requirements of the second sentence of Section 629(a). Specifically, there is no indication in the language of Section 629 that cable operators can escape the reach of rules promulgated thereunder simply because they are no

¹⁰ Section 623(b)(3) requires the Commission to prescribe "standards" for the rates charged by cable operators "used by subscribers" to receive cable service. 47 U.S.C. § 543(b)(3). This provision does not mandate that such equipment be provided as an element of cable service and, in fact, unbundles the rates for such equipment from the rates for video programming services, thus facilitating a more general unbundling altogether. See generally David A. Nall, *Cable Television Subscriber Equipment: Lessons from the Common Carrier Experience*, 46 Fed. Comm. L. J. 125, 127-32 (Dec. 1993).

longer subject to rate regulation under the standards set forth in Section 623(l)(1).¹¹ Even if the Commission determines as a matter of policy, rather than statutory interpretation, that its existing equipment rate rules address the issue of subsidized equipment rates when such equipment is offered as an element of cable service, such a determination would not be dispositive of the Commission's responsibilities under the first sentence of Section 629(a), *i.e.*, "to assure the commercial availability . . . of equipment . . . from manufacturers, retailers, and other vendors not affiliated with any multichannel video programming distributor." As CEMA has discussed above, this responsibility necessitates the unbundling of CPE from video programming services. The unbundling and commercial availability policies should apply to all MVPDs. CEMA notes that the primary class of MVPDs challenging cable's entrenched position, *i.e.*, DBS providers, offer their services to consumers, for the most part, in conjunction with a range of equipment choices from various manufacturers that can be obtained from numerous retailers. The requirements of the second sentence of Section 629(a) apply, in CEMA's view, only where provision of CPE is by the system operator itself under terms where service rates subsidize equipment charges.

¹¹ The colloquy of two Senators, neither of whom were primary proponents of Section 629, cited in the *Notice* at ¶ 40 is not persuasive.

IV. To Build Competitive Devices, Manufacturers Must Have Timely Access to The Standards and Technical Specifications Necessary to Enable Equipment Interconnection.

No competitive market in CPE will be possible unless CPE manufacturers are granted sufficient access to the specifications and standards necessary to ensure the interconnection and interoperation of commercially available navigation devices with MVPD networks. The Commission must ensure that multichannel video service providers publicly disclose information about the physical and logical interfaces of their systems in a way that allows "plug and play" of CPE, if a competitive market for such video CPE is to be realized. One potential model for network disclosure requirements is that set forth in Section 273(c) of the Communications Act,¹² which is patterned on the Commission's long-standing network disclosure requirements developed in the common carrier area.¹³ Similar to its efforts in the common carrier area, the Commission should establish rules that will promote competitive equipment markets by requiring timely disclosure of technical information sufficient for manufacturers to produce CPE that interoperates with multichannel video service networks. Disclosures must be sufficiently broad in scope and defined in detail to permit CPE manufacturers to design equipment that will be completely

¹² Section 273(c) requires each Bell Operating Company ("BOC") to file with the Commission "full and complete information with respect to the protocols and technical requirements for connection with and use of its telephone exchange service facilities." 47 U.S.C. § 273(c).

¹³ See, e.g., *Furnishing of Customer Premises Equipment and Enhanced Services by American Telephone and Telegraph Co.*, 102 FCC2d 655, 660-61, 684-88 (1985) (subsequent history omitted); *Computer and Business Equipment Manufacturers Association*, 93 FCC2d 1226 (1983); *Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, 84 FCC2d 50, 82-83 (1980) ("[W]e will extend to all carriers owning basic transmission facilities the requirement that all information relating to network design be released on the same terms and conditions, insofar as such information affects either intercarrier interconnection or the manner in which interconnected CPE operates.")

interoperable with the transmission systems, but must recognize intellectual property rights. While the Commission need not become the repository of all technical information disclosures, it should develop a system that applies to all MVPDs with radio licenses, local franchises, or certificates of compliance such that the fact and substance of such disclosures can be readily obtained by CPE manufacturers.

Intellectual property rights present the potential for thorny legal issues, but as a practical matter, most physical interfaces for CPE-MVPD interconnection have been developed through open standards processes. Operating protocols and other software downloads may present more difficult issues. The Commission should well consider, however, that Section 629's overriding goal of CPE commercial availability will be thwarted if only equipment obtained from MVPDs can make full use of the services and capabilities offered by these MVPDs. In order to establish and maintain a competitive CPE market, the Commission should require compulsory licensing, on non-discriminatory terms and conditions, of protocols and software that have a material effect on the interconnection and interoperation of competitively-supplied CPE.¹⁴

The transition to a digital environment provides an opportunity to promote the portability and interoperability of devices used in conjunction with digital media. Toward this

¹⁴ The *Notice* seeks comment on the Commission's authority to affect proprietary rights. *Notice* at ¶ 69. While the Commission possesses no express statutory authority to order compulsory licensing of intellectual property that affects CPE-MVPD interconnection, its mandate under Section 629 and its general authority under Section 4(i) are sufficient to require such licensing as a condition for the deployment of network capabilities for which no public information disclosure has been made. CEMA agrees with the general thrust of paragraph 70 of the *Notice*, in that the absence of either public disclosure or non-discriminatory licensing of technologies affecting the interconnection or interoperation of navigation devices could nullify the commercial availability imperative of Section 629.

end, CEMA urges the Commission to actively encourage portability and interoperability by promoting the adoption of open, compatible standards between digital broadcasters and digital multichannel video service networks. Open standards will facilitate the competitive development of the digital CPE market and the digital video services market. During the transition to competitive multichannel video systems markets, rules that affect service providers' hardware and equipment designs and manufacturing processes, such as those affecting interconnection and requiring separable security functions, should be phased in so as to avoid making service providers' investments obsolete.

Once the Commission is assured that the service and equipment markets are open and subject to effective competition, detailed rules regarding information disclosure, unbundling and other requirements designed to promote commercial availability of CPE can be discontinued. Certain minimal requirements regarding changes in network interconnection and interoperation characteristics may continue to be necessary, however. CEMA suggests that the Commission take as a model the requirement of Section 68.110(b), which requires telephone companies to afford their customers reasonable notice of network changes that will affect the interoperation of subscribers' CPE. Such a minimally intrusive requirement applied to MVPDs would minimize consumer dislocation and frustration while not unduly retarding service upgrades.

V. In Noncompetitive Multichannel Video Services Markets, Safeguards Should Be Adequate So as to Prevent the Bundling of CPE and Services.

CEMA recognizes that Section 629 of the Communications Act allows multichannel video programming distributors to offer both service and equipment -- thus providing one-stop shopping for consumers -- if the system operator's charges to consumers for such devices and equipment are separately stated and not subsidized by charges for multichannel video programming and other services. Providers in non-competitive markets should not be allowed, however, to frustrate competition by bundling or cross-subsidizing CPE.

If a system provider in a non-competitive market chooses to provide CPE, the Commission should require that the equipment must be produced and sold through a separately owned affiliate. Such a requirement would be very similar to that imposed on monopoly Bell Operating Companies under Sec. 273(d)(3)(b). Similarly, revenues from the provision of video services must not be used to cross-subsidize the provision of CPE. A separate affiliate requirement would ensure that improper cross-subsidization and bundling would not take place.

Similarly, as discussed below, the Commission should prescribe safeguards to prevent all system providers from packaging security and nonsecurity devices in a way that places other CPE manufacturers at a technical disadvantage. While achieving this end, these safeguards must also take into account the need for manufacturer flexibility and, to the extent possible, minimize increases in equipment cost.

VI. MVPDs Are Entitled to Reasonable Protection Against Unauthorized Reception of Service. At the Same Time, to the Greatest Degree Possible, Security Circuitry Must Be Physically Separated from Other Navigational Device Functions.

The legitimate concerns of system providers and equipment manufacturers for the protection of their intellectual property must be respected. CEMA regards theft of service as a very serious matter, and notes that the Communications Act provides severe punishment for service theft. However, there is no essential technical reason why the security and non-security functions of navigation devices cannot be decoupled. For example, in instances where there is no security constraint, such as with switched telephony-like systems or data services entailing the use of cable modems, there is no technical reason why equipment must be supplied exclusively by system providers.

In situations where a security constraint exists and the security circuitry must be provided by the system operator exclusively -- as may be the case where addressable set-top and set-back boxes are deployed in conjunction with video programming services -- there is no essential need, with current technology, for the security circuitry to be integrated with tuner capabilities or other "navigation" functionality. Security circuitry, while properly considered part of the network, should be minimized and limited to the greatest extent possible.

The presumption under Section 629(a) should be that all navigation devices providing non-security functions should be commercially available. Where an MVPD asserts its rights under Section 629(b) to prevent theft of service, the Commission should carefully ascertain whether a security concern actually requires that any circuitry remain under physical control of the network operator. If not, creation of market competition requires that security circuitry be separated from other navigational device functions. If physical control over some security

circuitry is indeed necessary, the security circuitry should be separated out from all other circuitry so that it can be provided separately and directly by the network operator to the customer.

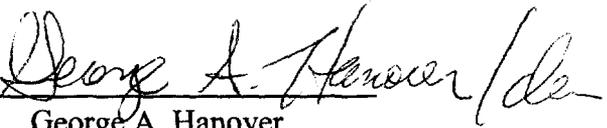
In practical terms for digital devices, the advances made in the NRSS standard-setting process mean that MVPDs could offer as a network element a security card that could be inserted into competitively-supplied CPE and would offer full security protection for the system operator. For analog devices, recent progress in the decoder interface standard-setting process demonstrates that security circuitry can be separated from other analog set-top box functionality. The Commission should move promptly to ensure that new deployment of set-top and converter boxes follows the model of separation between security and non-security functionalities described above. For existing deployments of set-top boxes offered as elements of analog cable service that combine security and non-security functionality, the Commission should devise a benchmark approach to assure that this equipment is phased out as service is upgraded and the transition to digital transmission is accomplished. The Commission may also wish to adopt the approach utilized in the implementation of Part 68, which "grandfathered" non-compliant equipment in place on the effective date of the rule change, but prohibited new installations of such equipment after a date certain.

VII. Conclusion

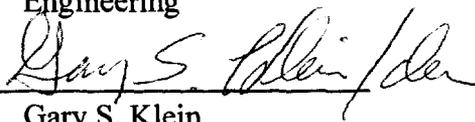
For the reasons given above, CEMA urges the Commission to move promptly on the proposals set forth in the *Notice* and endorsed above, in order to assure the commercial availability of navigation devices in competitive markets.

Respectfully submitted,

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