

2. Even if Residential Gateways Are Technically Covered, the Commission Should Forbear from Applying Commercial Availability Requirements to Such Equipment.

Assuming arguendo that the Commission determines that residential gateways (or NIMs) are within the scope of Section 629, it should nonetheless forbear from applying its rules to these sophisticated broadband network devices that have the potential to dramatically impact the manner in which voice, video, and data services are provided to consumers. Beyond increasing the efficiencies of broadband delivery, this equipment could increase the level of video, data, and local telephony competition in the marketplace by equipping broadband networks with the capability of delivering customized, bundled offerings of multimedia services to their customers.

Equally importantly, forbearance in the case of residential gateways is essential to avoid the complexities and confusion that would arise due to the disparate regulatory regimes which might otherwise arguably apply to such equipment. The Commission recognized this potential for confusion in its Inside Wiring NPRM:

[M]ulti-use devices may be developed that allow subscribers to receive video, data and voice services In such cases, the disparate regulatory schemes for cable-related CPE and telephone-related equipment could cause confusion for service providers as well as subscribers and regulators. For example, service providers may be uncertain whether rates for such equipment are subject to regulation. Similarly, subscribers may be uncertain of their rights to connect CPE to the networks over which they receive service.⁷⁹

⁷⁹ Inside Wiring NPRM, 11 F.C.C.R. 2747, at ¶ 69 (1996).

The Commission has ample authority to forbear from applying its telco and MVPD commercial availability rules to residential gateways and other such multi-function, network-type equipment. For example, the Commission enjoys general authority to forbear (other than in cases where Congress expressly restricts that authority⁸⁰):

[T]he expert agency entrusted with administration of a dynamic industry is entitled to latitude in coping with new developments in that industry In a statutory scheme in which Congress has given an agency various bases of jurisdiction and various tools with which to protect the public interest, the agency is entitled to some leeway in choosing . . . which regulatory tools will be most effective in advancing the Congressional objective.⁸¹

The Commission's discretion to employ various regulatory tools includes the option "not to exercise particular authority which . . . has been granted."⁸²

Perhaps the most directly relevant source of Commission forbearance authority in this context is Section 706 of the 1996 Act.⁸³ This section directs the Commission to forbear from regulations in order to encourage deployment of "advanced

⁸⁰ See, e.g., 47 U.S.C. § 160(d) (expressly prohibiting the Commission from forbearing from certain specified regulations in the context of interconnection and BOC entry into long distance).

⁸¹ Philadelphia Television Broadcasting v. F.C.C., 359 F.2d 282, 284 (D.C. Cir. 1966).

⁸² Nat'l Ass'n of Regulatory Util. Comm'rs v. F.C.C., 533 F.2d 601, 620 n.113 (D.C. Cir. 1976).

⁸³ 1996 Act, § 706.

telecommunications capability."⁸⁴ "Advanced telecommunications capability" is defined as:

high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology.⁸⁵

This definition is written as if Congress had residential gateways squarely in mind at the time.

D. Section 629 Does Not Apply to OVS Operators or OVS Packagers.

GI agrees with the Notice's analysis that the commercial availability requirements do not apply to OVS operators.⁸⁶ Section 653(c)(1)(C) of the Communications Act specifically states, "Parts III and IV (other than sections 623(f), 628, 631, and 634), of [Title VI of the Communications Act] shall not apply [] to any operator of an open video system ..." (emphasis added). Since new Section 629 was added to *Part III* of Title VI, and since section 629 is not one of the sections specifically listed in section 653(c)(1)(C) as applying to OVS operators, it is clear that Congress intended to exempt OVS operators from the Section 629

⁸⁴ See id., § 706(a).

⁸⁵ Id., § 706(c)(1).

⁸⁶ See Notice at ¶ 15.

requirements. The Commission is without authority to contradict this clear congressional directive.⁸⁷

Nor is a different conclusion "warranted with respect to programming distributors making use of an OVS system" (i.e., "OVS packagers").⁸⁸ As noted, the central purpose of Section 629 was to ensure that consumers are not forced to purchase navigation devices "from the cable system or network operator."⁸⁹ Thus, it is clear that Section 629 applies only to the owner and operator of the MVPD facilities, and not to any separated entity that may be providing programming over such facilities.⁹⁰

While GI believes that these conclusions are compelled by the statutory language, GI shares the Commission's concern that such interpretations could mean that "MVPDs that are in direct

⁸⁷ See Chevron U.S.A. v. Natural Resources Defense Council, 467 U.S. 837, 842-845 (1984) (agency must give effect to the plain language of a statute).

⁸⁸ See Notice at ¶ 15.

⁸⁹ Conference Report at 181 (emphasis added).

⁹⁰ See Notice at ¶ 14. This conclusion with respect to OVS packagers is also supported by Commission precedent. In its orders implementing the OVS provisions, the Commission construed the term "operator of an open video system" under Section 653(c)(1)(C) (the very section at issue here) to also include OVS program packagers. See OVS Second Report and Order, 3 Comm. Reg. (P&F) 196, at ¶ 182 (1996) (rejecting arguments that Congress' use of the term OVS "operators" was intended to exclude extension of the program access rules to OVS packagers); OVS Second Order on Reconsideration, 4 Comm. Reg. (P&F) 4309, at ¶¶ 168-174 (1996) (affirming decision to interpret OVS operators to include OVS packagers).

competition could fall under different regulatory regimes"⁹¹
However, GI believes that the way to deal with this very legitimate concern is not to somehow read into the statute a requirement that Section 629 applies to OVS systems and/or OVS packagers. Rather, the Commission should pursue a flexible regulatory approach with respect to other MVPDs, such as cable operators, in order to minimize the potentially adverse competitive effects of this regulatory disparity. GI proposes such a flexible regulatory approach in the following sections.

V. FOR NON-EXEMPTED EQUIPMENT, THE COMMISSION SHOULD ADOPT A FLEXIBLE REGULATORY MODEL BASED ON A "PERFORMANCE RULE-INCENTIVE MECHANISM" -- "PRIME" -- APPROACH TO ASSURE COMMERCIAL AVAILABILITY.

The discussion in the foregoing sections demonstrates that the Commission is authorized to refrain from imposing the Section 629 requirements on certain MVPDs and/or MVPD equipment, and that the Commission should (and, indeed, must in certain circumstances) exercise such regulatory restraint. In this section, GI describes its proposal for the implementation of the Section 629 requirements with respect to covered MVPD equipment that is not otherwise exempted from the rules.

A. The Performance Rule Incentive Mechanism Approach ("PRIME").

The only way to faithfully reconcile the competing congressional policy objectives in Section 629 in the highly

⁹¹ See Notice at ¶ 45.

dynamic MVPD industry -- particularly given the strictures to protect security and foster innovation -- is to adopt a flexible regulatory approach that has two primary prongs: (1) a performance rule prong; and (2) a regulatory incentive prong. Under this Performance Rule Incentive MEchanism ("PRIME") model, the Commission would:

- (1) establish commercial availability requirements that the covered MVPDs would have to meet by a date certain and afford the MVPDs broad flexibility to meet such requirements using any of a variety of acceptable distribution models (i.e., the "performance rule" prong); and
- (2) encourage MVPDs to achieve commercial availability for other covered navigation devices by providing them with regulatory incentives to do so (i.e., the "incentive mechanism" prong).

Each of these aspects of the PRIME approach are discussed in greater detail in the sections below.

1. The "Performance Rule" Prong of the "PRIME" Approach.

The Commission asks whether in lieu of setting standards it could "set[] performance criteria that must be met by a date certain" to achieve commercial availability for covered MVPD equipment. Under this performance rule approach, the Commission would "achieve the commercial availability objectives of Section 629 by simply permitting MVPDs to continue to lease or sell equipment on the condition that equipment serving the same

functions also is commercially available, after a date certain, through retail outlets."⁹² GI supports this approach.

As demonstrated in Section IV, supra, a number of existing distribution models for MVPD navigation devices satisfy the "commercial availability" standard of Section 629. Under a performance rule approach, MVPDs would be permitted to select from among any of the following distribution models, as well as other acceptable models, to achieve "commercial availability" for covered equipment:

1. A manufacturer supplies the same navigation device to both the MVPD and to a retail outlet that is unaffiliated with the MVPD. This model could be used, for example, for cable modems and even for the sale at retail of integrated devices that incorporate security elements;
2. Pursuant to an industry-developed standard interface, MVPDs make available to their subscribers a security/network module (and perhaps also the integrated unit and non-security/features modules), and compatible, non-security/features modules are available for distribution through an unaffiliated retail outlet;
3. A manufacturer or other vendor unaffiliated with the MVPD markets MVPD navigation devices (either separated components or integrated units) directly to consumers through a telephone or online-based system (such as a 1-800 number); or
4. An unaffiliated retailer acts as an agent of the MVPD for the marketing and provision of service and equipment (as, for example, under the Primestar model).

⁹² See id. at ¶ 67.

2. The "Incentive Mechanism" Prong of the PRIME Approach.

The Commission also should establish regulatory incentives to encourage MVPDs to make other types of navigation devices not covered by the performance rule commercially available.

One such incentive would be to allow all current rate regulated cable equipment which a cable operator demonstrates has met the "commercially available" standard to be rate deregulated. Such an incentive mechanism is well within the Commission's authority and is consistent with the overarching policy objectives of both the 1992 Cable Act and the 1996 Act.⁹³

⁹³ While the 1992 Cable Act requires the Commission to prescribe standards to "establish, on the basis of actual cost, the price or rate for" cable customer equipment, it does not require that all such equipment must be priced at actual cost. 47 U.S.C. § 543(b)(3). Thus, the plain language of the Act affords the Commission discretion to forbear from rate regulating cable customer equipment, if circumstances so warrant. This analysis is supported by the clear preference of Congress in the 1992 Cable Act for competition over regulation in the setting of rates for cable service and equipment. 47 U.S.C. § 543(a)(2). See also Inside Wiring NPRM, 11 F.C.C.R. 2747, at ¶ 76 (1996). It is also consistent with the discretion afforded the Commission under Section 4(i) of the Communications Act to perform any and all acts and to establish any rules which are "not otherwise inconsistent with this Act" and which "may be necessary in the execution of its functions." The Commission's discretion to employ various regulatory tools includes the option "not to exercise particular authority which . . . has been granted." Nat'l Ass'n of Regulatory Util. Comm'rs v. F.C.C., 533 F.2d 601, 620 n.113 (D.C. Cir. 1976).

For example, the Commission's rulings on the regulatory status of equipment sales,⁹⁴ NPTs,⁹⁵ and A/B switches⁹⁶ are clear precedent that a cable operator (even prior to a finding of effective competition) may implement an unregulated rate for customer equipment provided that a comparable alternative is available to all customers which will act as a competitive check on the pricing of such equipment. The same principles that led the Commission to deregulate cable operator equipment and service rates in these cases are equally applicable here. If an MVPD navigation device meets the "commercial availability" standard established by the Commission, such third-party availability will act as a competitive check on the pricing of comparable equipment offered directly by

⁹⁴ The Commission has found that "equipment sales by an operator will be unregulated where the operator offers subscribers the same equipment under regulated leased rates." The Commission recognized that the regulated equipment lease price establishes competition to the operator's sales price for that equipment and thereby renders unnecessary regulation of the sales price. First Rate Reconsideration Order, 73 R.R.2d (P&F) 932, at ¶ 51 (1993) (emphasis added).

⁹⁵ In its Going-Forward Order, the Commission established the concept of a "New Product Tier" ("NPT") and determined that this tier of new program services will not be rate regulated because subscribers have access to the functionally equivalent basic service tier ("BST") and "cable programming services tiers" ("CPSTs"). Going-Forward Order, 10 F.C.C.R. 1226, at ¶ 36.

⁹⁶ The Commission has found that the sale of A/B switches is unregulated because, inter alia, "competitive sources for such switches exist in the community through which subscribers may obtain them." In the Matter of SBC Media Ventures, Inc., Appeal of Local rate Order of Montgomery County, MD, 9 F.C.C.R. 7175, at ¶ 17 (1994).

the cable operator. Thus, the Commission should deregulate the operator's offering of covered equipment in such cases.⁹⁷

Finally, this approach -- which fosters the development of a commercial market for MVPD navigation devices through the creation of operator incentives -- is entirely consistent with the fundamental policy approach of the 1996 Act. The best example of this is the 1996 Act's chosen method of facilitating competition in the local telephone market, i.e., establishing the prospect of entry into the long distance market as a significant incentive to encourage LECs to open their networks to competitors.⁹⁸

GI recommends that the Commission implement the incentive prong of the PRIME approach through a combined certification-complaint process. Under this process, cable operators would be required to file a document with the Commission and with their local franchising authority ("LFA") certifying that a particular navigation device covered by the Commission's Section 629 rules has satisfied the commercially available standard. Upon the filing of such certification, the operator's rates for such equipment would no longer be subject to rate regulation. Thereafter, if the LFA

⁹⁷ In its Inside Wiring NPRM, the Commission endorsed this conclusion:

We [tentatively conclude] that deregulating rates for currently regulated CPE would be in the public interest if the marketplace for CPE becomes competitive. Inside Wiring NPRM, 11 F.C.C.R. 2747, at ¶ 76.

⁹⁸ See 47 U.S.C. § 271(d).

received 10 verified subscriber complaints about the operator's pricing of such equipment, the LFA could file a petition with the Commission asking that the operator demonstrate that the commercially available standard has been satisfied with respect to the equipment at issue.

B. The Flexible PRIME Approach is the Only Way to Reconcile the Competing Policy Objectives in Section 629 in the Highly Dynamic MVPD Industry.

The Commission must reconcile Section 629's competing objectives across a potentially wide range of distributors and equipment types, all of which have differing needs regarding security, marketing, and product dissemination. In addition, it must undertake this endeavor at a time when the MVPD marketplace is experiencing an unprecedented level of innovation and the convergence of broadband and computer technologies. A flexible regulatory approach is the only way to accommodate these marketplace dynamics and to reconcile the competing policy objectives of Section 629.

1. A Flexible Regulatory Approach is Especially Warranted Given Congress' Directives Not to Jeopardize Network Security or Impede Innovation.

Section 629(b) precludes the Commission from prescribing regulations "which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems."⁹⁹ Congress was thus unmistakably clear that

⁹⁹ 47 U.S.C. § 549(b).

the directive to preserve security "trumps" the commercial availability directive. Stated another way, the Commission is not authorized to adopt regulations -- even if they would assure commercial availability -- if such regulations also would jeopardize system security.¹⁰⁰

For this reason, GI believes the Commission may not require that any particular type of solution be used by MVPDs to achieve commercial availability for navigation equipment that includes security technology. For example, if the Commission were to mandate that commercial availability for digital consumer terminals must be achieved via a standard interface separating security and non-security components, and such an interface resulted in increased levels of piracy, the Commission's action would violate Section 629(b)'s proscription on government-mandated solutions that impair network security.¹⁰¹ It would also harm paying subscribers who, as Congress has noted, "are forced to subsidize the benefits

¹⁰⁰ A similar trumping function is performed by Congress' directive to "avoid actions which could have the effect of freezing or chilling the development of new technologies and services." Conference Report at 181. The waiver provision in Section 629(c) is also intended to avoid regulations that impede innovation.

¹⁰¹ Similarly, to the extent any such Commission-adopted interface standard improperly draws the line between network and non-network functions, the MVPD operator's ability to create and deliver innovative services in the future could be seriously impaired, contrary to Congress' express directive to avoid all such innovation-stifling regulations. See Conference Report at 181.

that other individuals are getting by receiving cable service without paying for it."¹⁰²

To avoid this result, the Commission should not require that commercial availability of security-related equipment must be achieved using a particular technology solution.¹⁰³ Rather, as Besen and Gale conclude:

Two factors argue for allowing market forces to determine which security method will ultimately prevail in a digital world. First, as noted above, MVPDs, and the suppliers of equipment to them, have the correct incentives to optimize the method that will be employed. Second, as discussed elsewhere in this paper, imposing standards in an industry where technology is changing rapidly is likely to be misguided. For both reasons, the choice of the security system used to protect digital transmissions -- in particular, whether security should be separated or embedded -- should be left to the MVPD.¹⁰⁴

¹⁰² See House Committee on Energy and Commerce, H.R. Rep. No. 934, 98th Cong., 2d Sess. 84 (1984). As the Notice points out, the Commission's authority to require a separation approach to assure commercial availability is also called into question by the amendments to Section 624A of the Communications Act. See Notice at ¶ 36. GI's flexible regulatory approach avoids this legal hurdle and any potential challenges under Section 624A, as amended.

¹⁰³ See Notice at ¶ 72. For example, nothing should prevent MVPDs from satisfying the commercial availability standard using "embedded" security solutions, in which the security element is incorporated inside an integrated product. Based on extensive experience as the leading security system manufacturer for MVPD systems, GI firmly believes that embedded security systems afford operators the greatest protection from signal theft, particularly when the embedded security can be supplemented by a renewable security element in the event of a security breach. See discussion in Appendix D regarding smart card and embedded security solutions. See also Appendix B, at 6-7 (discussing embedded and hybrid security configurations).

¹⁰⁴ Besen and Gale at 13-14.

Government prescriptions with respect to security-related equipment are particularly ill-advised as MVPDs increasingly implement digital technology. Today, for example, using analog security technology the cable industry is forced to tolerate 15-20% piracy levels.¹⁰⁵ As digital comes on line, however, GI believes that zero percent piracy tolerance will be a possibility.¹⁰⁶ It is critical that the Commission not deny the industry this possibility by depriving operators of the flexibility to deploy whatever equipment and security methods they deem appropriate for their networks. If new services fail because operators' hands have been tied by government to the wrong security solution, any retail market for customer equipment designed to access such services will also fail.¹⁰⁷

In this regard, GI would like to state in unequivocal terms that smart cards are not the answer to achieving commercial

¹⁰⁵ For a glimpse into the devious minds and the support network behind such piracy levels, GI suggests that the Commission staff browse the worldwide web site www.hackerscatalog.com, which claims to be "the hacker's complete resource center."

¹⁰⁶ The superiority of digital security is based on the fact that: (1) digital offers a more sophisticated technique, i.e., it encodes all information into bits which may then be encrypted using complex algorithms; and (2) whereas analog security uses hardware-defined, and somewhat limited, solutions, operators have greater flexibility to upgrade digital security protection by downloading information to navigation devices from the system headend, which allows more extensive manipulation (encryption) of the data.

¹⁰⁷ The same analysis is true with respect to network innovation. If the Commission's rules limit operators' flexibility to develop and offer new services and upgraded network features, innovation in the retail equipment market will also suffer.

availability for security-related equipment. British Sky Broadcasting ("BSkyB") employs such smart-card technology in Europe to protect its signal from hackers, and DirecTV employs such a system in the United States. The BSkyB system, however, has already been seriously compromised. In May 1994, BSkyB undertook a 3-million card switchout at a cost of \$15 - \$20 million; the upgraded security was then broken within the year.¹⁰⁸ One successfully prosecuted BSkyB pirate stated that the smart-card system used by BSkyB is "as leaky as a sieve."¹⁰⁹ Similarly, a breakdown in the News Datacom smart card system used in the DBS industry required the shipment of replacement security cards to 2.4 million customers.¹¹⁰

In Appendix D, GI provides a white paper that describes some of the basic problems associated with smart cards in high-security, broadcast-type applications. It also describes why GI has

¹⁰⁸ See William Mahoney, "To Catch a Thief," Multichannel News, April 3, 1995, at 18B.

¹⁰⁹ Id. (quoting David Lyons, a prosecuted pirate smart card dealer in Ireland).

¹¹⁰ "Pirates Focus Sights on DBS," Multichannel News, February 10, 1997, at 53, 56. A recent report confirmed the vulnerability of the new smart-card technology: "Smart cards, the wallet-sized electronic devices that have been touted as the tamper-proof solution to computer security, are vulnerable to a new attack by sophisticated hackers" David Bank, "Smart Cards are Open to New Attack by Hackers," Wall St. J., Oct. 21, 1996, at B14.

implemented "embedded security" as the most secure technological approach to preventing signal piracy in all of its MVPD systems.¹¹¹

By contrast, GI's flexible regulatory approach "would both permit the commercial entities involved to themselves develop the best means of complying with Section 629 and would provide incentives for development of equipment susceptible to retail sales marketing."¹¹² Thus, for example, MVPDs may, in fact, determine that the best method of achieving commercial availability for security-related equipment is through a separation of security and non-security components.¹¹³ However, an MVPD may instead decide that the best method for achieving commercial availability for such equipment while preserving network security is to authorize its manufacturer-supplier to provide to an unaffiliated retailer the same integrated navigation device (including embedded security components) that the manufacturer also provides to the MVPD.¹¹⁴

¹¹¹ Indeed, the trend in MVPD security is away from split security systems, such as smart cards, toward an embedded approach. For example, GI's recent contract awards in both the U.K. and Canada to supply navigation equipment are for GI's embedded security solution, despite the fact that these operators had previously used smart card-based security systems. See also Appendix B for a primer on the various MVPD security approaches in both the analog and digital realms.

¹¹² Notice at ¶ 67.

¹¹³ Such a voluntary, industry-driven determination does not implicate Section 629(b) since it would not be pursuant to a regulation "prescribed" by the Commission.

¹¹⁴ GI notes, for example, that C-Band customers purchase such integrated units at retail, and that approximately 20,000 Primestar customers have purchased and own integrated decoders. Moreover,
(continued ...)

Because the MVPD industry is evolving at a rapid pace, what works in terms of assuring commercial availability for security-related equipment today may not work a year from now. Moreover, this analysis may be different for each MVPD given the inherent differences in network configuration. In such a highly dynamic and diverse environment, and particularly in light of Congress' directives not to impede network security or network innovation, a flexible regulatory approach is essential.

2. The Commission has Ample Authority Under Section 629 to Adopt a Flexible Regulatory Approach.

Nothing in Section 629 prevents the Commission from implementing a flexible regulatory approach. Neither the statute itself nor the legislative history contains any mention of specific standards, rules, marketing practices, or distribution arrangements that the Commission must require as part of its commercial availability regulations. To the contrary, the only specific direction Congress gave was with respect to things the Commission

(... continued)

cable operators in the U.S. and Canada have expressed an interest to GI in experimenting with this integrated retail model. The MVPDs in these instances have determined that highly sophisticated embedded security systems reduce the risk of piracy to an acceptable level. This is especially true with GI's devices, which, in the event of a security breach, are designed to relinquish control of the embedded security element to a separately supplied renewable security device. See Appendix D, at 8; Appendix B, at 6. The point is that the marketplace has already shown that a retail market can thrive even when integrated consumer terminals are provided at retail. The Commission should be mindful of this marketplace evidence and not preclude operators from continuing to pursue this integrated model to achieve commercial availability.

should not do, such as impede innovation or jeopardize security. In short, Congress afforded the Commission broad discretion to implement Section 629, and the Commission is well within its legal authority to pursue a flexible regulatory model.

Finally, Congress directed the Commission to "take cognizance of the current state of the marketplace" when establishing its commercial availability rules. As indicated above, the marketplace is already finding innovative ways to achieve commercial availability for a wide range of navigation devices, from basic cable converters, to remote control devices, to DBS and C-Band dishes. The cable industry is also making great strides toward standardizing much of the componentry within digital consumer terminals which will increase the level of interoperability among cable systems and facilitate commercial availability. These industry developments provide further evidence that the Commission should use the broad discretion Congress afforded it under Section 629 to implement a flexible regulatory approach to assure commercial availability.

VI. THE COMMISSION SHOULD ADOPT A PHASED IMPLEMENTATION OF ITS COMMERCIAL AVAILABILITY REQUIREMENTS.

The transition to a retail environment for MVPD navigation devices may have far-reaching implications for consumers, industry, and regulators alike. In order to minimize any adverse impact, GI recommends that the Commission phase in its commercial availability rules. Under a phased implementation of the PRIME approach, for example, the Commission would apply the commercial availability requirement to a different type of MVPD navigation device in each

phase of the implementation. This will allow the Commission to gain experience with the new rules and to adjust them over time to account for marketplace developments that are certain to change the bases upon which the Commission would adopt the rules today. In other words, the phased implementation would enable the Commission to efficiently modernize its rules to track the dynamism of the marketplace.

A. In the Initial Implementation Phase, the Commission Should Apply the Performance Rule to Cable Modems.

In the Notice, the Commission contemplates a phased implementation of its commercial availability requirements and asks whether it should first address "those devices presenting the least difficult security and standardization problems" or "emergent markets such as cable modems."¹¹⁵ GI believes that the cable modem is an ideal device on which to focus in the initial implementation phase. This is so for three reasons. First, cable modems do not present the same degree of security problems that are encountered in the video broadcast area.¹¹⁶ Second, the fact that industry

¹¹⁵ Notice at ¶ 19.

¹¹⁶ However, the Notice incorrectly intimates that cable modem transmissions do not implicate any security concerns. See Notice at ¶ 68. Cable modems confront unique security and privacy issues largely attributable to the design of cable networks. Cable modem service is distributed over shared network facilities making cable modem transmissions susceptible to eavesdropping. See David Lieberman, "Cable Modems Hit Snags," USA Today, Apr. 24, 1996, at 1B ("Cable is shared," says David Fellows, Continental Cablevision's senior vice president for engineering and technology. "That makes cable modem technology cheap but easy to eavesdrop on.").

standard-setting efforts in the cable modem area (described in Section III.D.3., supra) are at a fairly advanced stage of development minimizes the potential for marketplace disruption. Third, applying a performance rule to cable modems at a time when "a significant embedded base of equipment does not yet exist"¹¹⁷ will help to ensure that a retail market for this equipment develops in the early stages of its deployment.

The performance rule for cable modem equipment should require compliance with the commercial availability standard in two years. This amount of time is necessary for the industry to: (1) finalize the transmission standards for cable modems;¹¹⁸ (2) ensure that adequate privacy and security techniques are adopted to protect cable modem communications;¹¹⁹ (3) conduct sufficient testing of the cable modems on MVPD networks to ensure interoperability; and (4) ensure that a sufficient number of modems are available and deployed, and that a sufficient number of cable systems are upgraded, to determine whether a retail market for modems will be

¹¹⁷ Notice at ¶ 19.

¹¹⁸ While the MCNS specification for cable modems have developed to a fairly mature state, another standard by the IEEE 802.14 Committee, as well as several individual company proprietary solutions, are still vying to be the industry de facto standard.

¹¹⁹ The cable industry is developing industry-wide security standards that will use packet encryption to prevent privacy invasions to resolve the complex cable modem security dilemma. Despite the considerable industry efforts, "it will be considerably longer before real products that incorporate security reach the market." See Michael Surkan, "MCNS Untangles Cable Modem Standards," PC Week, Mar. 10, 1997, at 88.

sustainable.¹²⁰ Finally, MVPDs have stated their intention to transition to the MCNS standard when it becomes final, which would enhance the portability and interoperability of this equipment. If the Commission were to force commercial availability prematurely with respect to cable modems, it may significantly delay the widespread deployment of (and the consumer benefits associated with) such portable and interoperable equipment.¹²¹

During this two-year period, the Commission could conduct a periodic assessment of the status of this initial application of the rules. This would provide a dual benefit of keeping the Commission informed and applying pressure on the industry to meet the performance rule.

In addition, as noted above, MVPDs would be encouraged to make other types of equipment commercially available during this phase-in period through regulatory incentives established by the Commission (such as the deregulation of currently rate-regulated equipment if that equipment achieves commercial availability).

Upon completion of the two-year period, the Commission would examine the effects of its performance rule and incentive mechanisms on the commercial availability of cable modems and other

¹²⁰ As the Commission correctly points out, it may be "difficult to find retail vendors to sell equipment needed to receive or navigate through a new service before the service proves itself in the market." Notice at ¶ 47.

¹²¹ See also Section VII.C., infra, for a discussion of waivers for new equipment which raises many of the same issues discussed here with respect to deployment of cable modems.

MVPD navigation devices. For example, the Commission would analyze the following: (1) what level of commercial availability had developed for cable modems and other MVPD equipment; (2) what models of retail distribution manufacturers and MVPDs were pursuing and the relative success or failure of each; (3) consumer demand to obtain such MVPD navigation devices at retail; and (4) any consumer education, installation, maintenance, or other issues that arose with respect to the retail offering of the equipment. The Commission would then use the results of this analysis to determine whether any adjustments to its rules are required and to decide what options or alternative proposals for applying its commercial availability requirements should be used in the next phase of the implementation.

B. A Phased Implementation Approach Is Consistent With Commission Precedent and Congressional Objectives.

It is well within the Commission's legal authority to adopt a phased implementation of its commercial availability rules. Unlike other provisions of the 1996 Act, Congress did not impose any deadline for achieving commercial availability.¹²² Instead, Congress intentionally gave the Commission the discretion to use its expertise to determine how, and how quickly, to implement commercial availability regulations. The use of such discretion is

¹²² Compare 47 U.S.C. § 549 (no deadline for implementation) with 47 U.S.C. § 573(b)(1) (requiring implementation of final OVS rules within six months of enactment of 1996 Act); and 47 U.S.C. § 543(a)(7)(B) (requiring final rule revisions for equipment averaging process within four months of enactment of the 1996 Act).

especially appropriate here because a transition period would "allow sufficient time to permit an orderly industry-wide transition."¹²³

The Commission has in the past used its discretion to adopt similar phased implementation plans in order to allow both consumers and industry to adjust to new standards for customer equipment and service. For instance, in detariffing customer premises equipment and enhanced services for the telephone industry, the Commission implemented a bifurcated transition plan, despite the fact that the statute did not specifically require a transition period. The Commission believed that a phased implementation would "avoid potential significant dislocations caused by an abrupt transition ... and would allow steady progress towards a more competitive environment."¹²⁴ More recently, the Commission adopted an 8-year phased-in plan for DTV "in order to give broadcasters the ability to experiment with program and service offerings" without unnecessary regulations which might "limit the broadcasters' ability to experiment with the full range

¹²³ Industrial Union v. Hodgson, 499 F.2d 467, 479 (D.C. Cir. 1974).

¹²⁴ Procedures for Implementing the Detariffing of Customer Premises Equipment and Enhanced Services (Second Computer Inquiry), Report and Order, 95 F.C.C.2d 1276, at ¶ 4 (1983) (citation omitted). See also Second Rate Reconsideration Order, 9 F.C.C.R. 4119, at ¶¶ 117-122 (1994) (adopting a similar phased-in approach to rate regulation for cable systems owned by small operators).

of digital capabilities."¹²⁵ For these same reasons, the Commission should adopt a phased implementation of its commercial availability requirements.

Finally, a phased implementation approach is necessary to achieve Congress' objectives in adopting Section 629. As noted above, Congress required that the Commission's implementation of Section 629 balance a highly complex set of competing policy goals. In such situations, noted economists have agreed that a phased implementation approach is "probably the approach adopted most frequently to deal with significant changes in government policy including regulatory policy."¹²⁶ Rapid transitions are not preferred when the changes would be "distressing were they to occur in a short period of time."¹²⁷ Given the extremely high degree of dynamism present in the current MVPD marketplace, the Commission cannot insure that the competing interests underlying Section 629 are protected unless it adopts an incremental approach which phases in regulatory requirements over time and only as necessary to achieve Congress' objectives.

¹²⁵ Advanced Television Systems and Their Impact Upon The Existing Television Broadcast Service, Fifth Report and Order, MM Docket No. 87-268, FCC 97-116, at ¶ 55 (released April 21, 1997).

¹²⁶ Darius W. Gaskins, Jr. and James M. Voytko, "Managing the Transition to Deregulation," 44 Law and Contemporary Problems (Winter 1981), at 20.

¹²⁷ Id. at 30.

VII. OTHER ISSUES

A. Consumer Right to Attach Equipment and Preventing Harm to the Network.

1. Consumers Should Have a Right to Attach, but It Must Be Qualified by the MVPD's Right to Establish and Enforce Standards as to What May be Attached.

GI supports the Commission's proposal that consumers have a right to attach to an MVPD's network equipment obtained from retail outlets, provided the equipment does not adversely affect the network and is "privately beneficial without being publicly detrimental."¹²⁸ However, GI also strongly supports the Notice's tentative conclusion that any consumer right must coincide with network service providers' right to establish and enforce their own standards as to what may be attached to their system (subject to Commission oversight).¹²⁹

The Notice accurately describes the fundamental differences between the embedded telephone network facilities and MVPD facilities and correctly concludes that these differences "preclude a literal translation of [the telephone] model into the MVPD context."¹³⁰

¹²⁸ Notice at ¶ 56 (citing the Commission's seminal Carterfone decision).

¹²⁹ Id. at ¶ 59 (tentatively concluding that "voluntary activities by the affected industries would best promote the goals of the 1996 Act"). For the reasons discussed in Section VII.F., infra, a consumer's right to attach to an MVPD network in no way provides a basis for invalidating the intellectual property rights of manufacturers or network operators.

¹³⁰ Notice at ¶ 10.