III. PROPOSALS AND OPTIONS

A. Introduction

54. The above discussion addressed and sought comment on the statutory objectives and constraints that will guide our implementation of Section 629. We now seek comment on specific proposals and options for implementing rules. Any final decision on these proposals is necessarily dependent on the comments and analysis we receive in response to the discussion above.

B. Entities and Equipment Covered by Section 629

55. As is reflected in the discussion above, Section 629 appears by its terms to be broad in its coverage both in terms of the multichannel video programming systems and the types of equipment covered. We propose to consider incorporating those broad definitions of coverage into the rules. In this regard, however, we recognize that as to the types of equipment involved, some equipment, such as basic television receivers, video tape recorders or personal computers, would not seem to be the intended focus of Section 629. Accordingly, we seek comment on methods to narrow the focus of the rulemaking process and the rules we adopt to best accomplish the intended statutory objectives. For purposes of defining affiliation, we propose to use the definition contained in Section 3 of the Communications Act.

C. Commercial Availability

56. Right to Attach The core prerequisite for consumers to have the opportunity to obtain equipment from retail outlets and use it in conjunction with MVPDs is that they have a right to attach it to or make use of it in conjunction with the MVPDs service offering. Thus we propose to incorporate the basic *Carterfone* principle into the rules -- devices that do not adversely affect the network and are privately beneficial without being publicly detrimental, may be attached to the network. In addition, it may be necessary for consumers purchasing equipment to have access to some basic technical information regarding the network to which the equipment will attach sufficient to enable them to make purchasing decisions. If this information is not readily available we would propose to require the MVPD to make it available.

57. In implementing Section 629 we must also be concerned with assuring that CPE does not cause harm to the network to which it is physically attached and that the technical integrity of the network is maintained.[76] There are several different technical issues involved here.

58. Signal Ingress Where there is a physical connection between the network and equipment that is not provided by the network operator it is possible that electrical energy or

[76] This is primarily a concern of wired service providers. Customer premises equipment is not typically directly connected to radio spectrum using MVPD networks such as MMDS or DBS systems.

signals may be introduced into the network and impair its functioning. In order to avoid such harm it will be necessary to have either a method of regulating the functioning of the equipment involved or be assured that there is a technical solution that the service provider can employ to keep out undesired signals. In the telephone field, the Commission has addressed the "harm to the network" issue through the adoption of Part 68 of the rules. These rules include technical standards and review procedures that are applied to CPE before it is available for retail sale. In the cable television field, there has been no significant problem with the attachment of television receivers and video tape recorders. However, these devices are primarily used to receive communications in one direction. The cable industry, and other MVPDs, are quickly moving toward providing two-way communications, where subscribers both receive and send information on their respective MVPD service provider's system. Questions of signal integrity become much more complex in this environment. Two-way capability, allowing for upstream communication, is becoming more prevalent in the design of contemporary cable systems. Signal ingress problems associated with such a capability are exacerbated by the "tree-and-branch" design of cable systems, in contrast to the "star" design of telephone systems that provides telephone customers with separate, individual links to the telephone company switching center.

59. Thus, we may need to develop rules that preclude subscriber owned CPE from causing harm to the system. In this area we see three possible options. First, we could replicate or expand the Part 68 process. Second, we could require network service providers, subject to Commission oversight, to establish and enforce their own standards on what could be attached to the system. Third, we could, either separately or in combination with one of the above options, mandate a technical solution in terms of a network protection device. We seek comment on how best to proceed with this task. It appears likely that any solution reached in this area will require extensive industry technical input and we tentatively conclude that voluntary activities by the affected industries would best promote the goals of the 1996 Act. At this point we seek both interim measures that might prove effective for particular kinds of equipment as well as suggestions as to what type of ongoing process should be employed. Until such time as this issue can be addressed more completely, we believe network service providers must have the ability to establish and enforce their own standards on what can be attached to the system.

60. Signal Leakage Unlike traditional telephone systems, cable systems operate over a broad spectrum of frequencies. As a result, interference with collocated licensed users of spectrum may result if CPE supplied at retail leaks by itself or when attached to a cable system. Because cable systems operate at relatively high power, as compared, for example, with telephone systems, the devices that are attached to cable systems must be designed to operate in the same environment that is occupied by over-the-air spectrum users. In addition, because cable systems operate over a wide frequency band, the potential to interfere with collocated over-the-air spectrum users is a reality, and is especially important when leakage could interfere with safety of life services such as police, fire, and ambulance services. Our regulatory framework makes cable operators responsible for eliminating leakage, including from CPE. For example, Section 76.617 of our rules allows cable operators to discontinue service to a subscriber whose CPE leaks

excessively.[77] Furthermore, Part 15 certification rules currently limit signal leakage on all retail CPE including MVPD CPE.

61. We believe our existing Part 15 certification rules should adequately address signal leakage issues that may arise with navigation devices that may now be available from retail sources rather than from service providers. We seek comment on this conclusion, both with respect to attachments to cable systems and to other MVPDs and on whether any changes in these rules, or alternatives to them may be needed to address the expanded availability of such equipment.

62. Signal Quality. Among the various existing MVPDs, only cable system operators are subject to rules specifically intended to protect the quality of the technical performance (video and sound quality) that they provide to consumers. The Commission has been required to adopt the cable standards by Section 624(e) of the Communications Act. The standards work back from certain assumptions as to signal levels and signal-to-noise ratios that must be provided at the input of a standard television receiver in order for it to display a good quality picture. Thus, they implicitly assume a certain level of CPE performance. Moreover, one of the functions of the equipment supplied by cable operators is to make it possible to use channels on which strong over-the-air signals exist by providing a completely shielded tuner mechanism. If navigation devices are available on a competitive basis, it would seem logical that the marketplace would address quality issues. However, we ask for comment on whether there are situations where this would not be the case or where desirable engineering tradeoffs between CPE and transmission plant would be adversely affected by an absence of standards applicable to such equipment.

63. In this regard, we note that Section 624A, the "Consumer Electronics Equipment Compatibility" provision, does direct the Commission to adopt such regulations as are necessary:

> (A) to specify the technical requirement with which a television receiver or video cassette recorder must comply in order to be sold as "cable compatible" or "cable ready."[78]

Thus, with respect to at least two types of CPE, television receivers and video cassette recorders, the Commission is directed to become involved to protect consumers in the equipment purchases they make. This protection is particularly important with respect to the "tuners" in these devices because if they are not properly designed and shielded they will not function properly when connected to cable television systems. We believe that parallel protection may be appropriate for other kinds of customer premises equipment that become available through retail channels.

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[77] *See Amendment of Parts 15 and 76 Relating to Terminal Devices Connected to Cable Television Systems*, 2 FCC Rcd 3304 (1987).

[78] 47 U.S.C. §544a(C)(2)(A)

D. Practical Availability - Portability and Interoperability

64. As we have previously noted, one major difference between the telephone industry and the MVPD industry is that the telephone industry had a well-developed body of standards that facilitated the development of a competitive CPE market. In contrast to the telephone industry, MVPDs in general have little standardization either between different types of MVPDs or between MVPDs in the same market segment. This lack of standardization creates a potential obstacle to the ability of manufacturers to produce and retailers to sell CPE equipment that can be widely used. We understand that to facilitate the Congressional goal of commercial availability for navigation devices, it might be desirable for service providers to adopt industry-wide standards in certain areas to allow the marketing of these devices as widely as possible. Thus, we seek comment on the extent to which such standardization may be necessary and on the process whereby standards might be developed. We note in this regard that there are active ongoing industry standards bodies addressing a number of related standards issues and that these may independently resolve a number of issues in this area.[79]

65. With respect to the applicable policy to be followed, we recognize that the more fully interoperable and portable that navigation devices become, the more the commercial availability of these devices would be enhanced because of the broadening of the market for the devices. On the other hand, requiring portability or interoperability at this time could impede the development and marketing of devices that are intended to work with one specific MVPD and restrict consumer choice to excessively costly units. In general, costs are directly increased as the scope of interoperability and portability are widened. We seek comment on the incremental cost of additional capabilities and on the extent to which it is desirable for consumers to have the option of purchasing less expensive single purpose types of equipment. To what extent, if any, should navigation devices have to accommodate the full range of frequencies and modulation schemes used by MVPDs. To what extent can issues in this area be addressed through devices that are programmable or modular in design? We seek comment on how we can assure that the optimal degree of interoperability and portability of navigation devices among services and providers can best be brought about without unduly impeding retail availability at the outset. In this regard, we also seek comment on how to prevent navigation equipment from being used as a bottleneck to access of competing MVPD providers. Can input selector switches be utilized to address any concerns in this area?[80]

66. To the extent we determine that commercial availability should be defined to include interoperability and portability, we seek comment as to whether standards are necessary. With regard to the process whereby standards might be developed, the Conference Report states that,

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[79] *See e.g.* CableLabs press release of October 3, 1996 "Cable Industry Agrees on Key Elements of Digital Systems Specification."

[80] We note that Section 614(e) of the Communications Act precludes the Commission from requiring any cable operator to make available an input selector switch or requiring that cable operators provide information to subscribers about input selector switches or comparable devices.

in adopting implementing rules, "the Commission should take cognizance of the current state of the marketplace and consider the results of private standards setting activities."[81] Voluntary private standard setting efforts are ongoing in a number of areas that are related to this proceeding both within the United States and internationally. We seek not to develop standards ourselves, but rather to urge the adoption of voluntary standards by those affected. Recognizing the legislative indication that deference should be given to private standards setting activities, we seek comment on the techniques that should be used by the Commission should standards prove to be a necessary or desirable method to assist in making navigation devices commercially available. We ask whether voluntary standard setting or publication of interface specifications would be a viable alternative to the Commission developing its own standards. We also ask whether a formal advisory committee process or negotiated rulemaking where the Commission is more directly involved would serve to meet Congress' goals. Bearing in mind the desirable goal of minimizing government standard setting, we seek comment on the best approach, or approaches, to carrying out our responsibilities in this area.

67. As an alternative to standard setting, we also ask whether simply setting performance criteria that must be meet by a date certain would be a viable methodology rather than actual governmental standard setting. For example, could we 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. This 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. We seek comment on the utility of this approach to both analog and digital technologies. We also seek comment on whether this approach would be best applied to discrete portions of the CPE marketplace.

68. For example, the cable industry has begun deploying modems to provide high speed internet access and will soon be deploying these nationwide. Industry efforts are in progress to adopt cable modem standards. We seek comment as to whether, in this environment, the type of performance criteria described could be usefully employed to assure the development of a commercial market. We seek comment, too, following this cable modem model, as to whether we should adopt similar requirements for other equipment that does not contain a video tuner function and with respect to which security of the service may not be an issue. We tentatively conclude that this type of rule would suffice with respect to cable modems and similar kinds of devices, and seek comment on this conclusion, including how this proposal would impact network security concerns and over what time frame such a requirement should be phased in.[82]

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[81] S. Conf. Rep. 104-230, 104th Cong., 2d Sess. 181 (1996).

[82] A variant of this process for letting the market develop standards would be to follow a process similar to the approach we have taken with regard to telephone number portability. *See First Report and Order and Further Notice of Proposed Rulemaking in CC Docket 95-116*, 11 FCC Rcd 8352 (1996).

E. Proprietary Technologies

69. A variety of technologies are implicated by the issues in this proceeding and some of these technologies may be wholly or partially proprietary in nature. In this regard, we are aware that the development and use of proprietary technologies, the integration of electronic devices to achieve efficiencies, the bundling of products and services for marketing purposes, and investments in brand identification, can all be useful competitive tools. However, in order to develop rules that will assure the commercial availability of multichannel video programming access equipment, the Commission will have to consider actions that may impact on various proprietary rights, including commercial patents and copyrights. Section 629(f) states that this section neither "expand[s] nor limit[s] any authority that the Commission may have under law in effect before the date of enactment of the [1996 Act]."[83] We seek comment on what authority the Commission currently has to affect proprietary rights, and on what limitations existing proprietary rights may place on the Commission's authority to mandate commercial availability of multichannel video programming access equipment. For example, may the Commission order a manufacturer to license its proprietary security system to others? Should the Commission mandate that intellectual property rights be protected by a safeguard calling for licensing of such on reasonable and nondiscriminatory terms? May the Commission prohibit an MVPD from entering into an exclusive contract with a manufacturer? Such a prohibition would, for example, allow manufacturers of CPE to include various different MVPDs' technologies in a single device. This is of particular note with respect to proprietary software that MVPDs use to control navigation equipment. Without access to the software that MVPDs use to produce their unique programming guides, for example, manufacturers may not be able to build equipment that can effectively be sold at retail.

70. In light of the above, there appears to be the possibility of a conflict between the "commercial availability" objectives of Section 629 and those policies in the law that seek to "promote the progress of Science and useful Arts"[84] by securing exclusive rights to inventors and authors. We seek comment on the question of whether in this context of this proceeding, proprietary rights involved would necessarily, at least to some extent, have to be subservient to any lawful and reasonable rules adopted. If this were not the case, it is possible that the policies reflected in Section 629 could be frustrated in those situations where a particular service provider also "owns" the CPE technology involved. We are cognizant of the fact that the law generally creates and protects such proprietary rights as a means of promoting the advancement of science and rewarding enterprise. Thus, any rules adopted need to take this into account and reflect the overriding importance of these objectives. Accordingly, we seek comment on what steps may be needed to make sure that the rules adopted achieve their intended objective without creating impediments to technological development or unnecessarily interfering with the competitive mechanisms involved.

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[83] 47 U.S.C. §549(f).

[84] U.S. Const. art. 1, §8.

F. Security Shall Not be Jeopardized

71. Fundamental to the operation of these rules is a requirement that the means and devices by which MVPDs maintain security is protected. Section 633 of the Communications Act, entitled "Unauthorized reception of cable service," makes it a criminal offense to intercept or receive or assist in intercepting or receiving any communications service offered over a cable system, unless specifically authorized to do so by a cable operator "or as may otherwise be specifically authorized by law." Similar restrictions applicable to radio communications more generally appear in Section 705. To protect the legitimate security interests of MVPDs, we would not interpret Section 629, or any of the rules adopted to implement it, as "authorizing" equipment designed to pirate signals to be manufactured, imported, or sold. Further, a subscriber would not be "authorized" to use devices that are legitimately sold, but are capable of decoding or decrypting signals, without the express permission of the subscriber's MVPD. All existing legal restrictions on the use or sale of equipment intended to facilitate service theft would be maintained.

72. As noted above, current analog MVPDs -- cable television and MMDS -- typically control access to their networks and specific communications carried on them through the CPE that the MVPDs distribute. However, this CPE may perform functions in addition to access control, such as program selection. A potential solution to the problem of assuring the commercial availability of navigation equipment while permitting MVPDs to retain control over system security would be to require MVPDs desiring to retain control over the security equipment to provide it to consumers separated or unbundled from other CPE equipment performing non security functions. To facilitate the connection of the unbundled security equipment to commercially available CPE some form of standard interface or publication of interface specifications would appear to be necessary.

73. If such an unbundling is found to be necessary to assure the commercial availability of equipment, our preferred option for developing the necessary framework to accomplish this would be to adopt only a conduct or performance rule mandating the separation involved, leaving to the industry participants involved the task of developing the necessary interface standards. Thus, MVPD service providers would initially develop the most cost effective means of accomplishing the necessary separation of functions, and, in conjunction with manufacturers of equipment for retail sale, would develop the means of connecting CPE to the security device.

74. An alternative means of addressing this matter, particularly with respect to analog transmission systems and analog systems of security control, would be to extrapolate from any standard that may be developed and approved in connection with ET Docket 93-7.[85] Considerable effort has been devoted by the cable industry and the consumer electronics manufacturing industries in connection with ET Docket 93-7 to the development of a standard interface that would permit cable operators to retain control over security equipment while

[85] *See supra* n.37.

moving other functions performed by existing set-top boxes into television receivers. The decoder interface connector and associated rules, rather than dividing descramblers and converter boxes into two parts, would reduce the box only to its access control components while shifting the other parts to the television receiver. The decoder interface connector would also eliminate the need for redundant equipment that is common to both converter boxes and television receivers such as power supplies, remote control and tuners. We seek comment on whether the respective industries could voluntarily adopt and we could approve a variant of the decoder interface connector discussed in our proceedings on equipment compatibility as a solution to the security issues raised by Section 629.[86]

75. We recognize that in the current analog environment there may be significant problems with separating security functions from other functions of convertor boxes. Many convertor boxes serve only to perform access control or security functions. Such a solution, however, may be more promising when digital transmission and digital security systems are involved. For digital systems, we believe that MVPD suppliers are able to construct devices such that an MVPD can retain necessary security while at the same time meeting the commercial availability requirements of Section 629.[87] We seek comment on the feasibility of establishing and implementing such a requirement. At the same time we, recognize that any attempt to either standardize delivery techniques or its associated equipment may hinder the advances of digital delivery systems and seek comment on how such adverse consequences may be avoided.

G. Multichannel Video Programming Distribution Without Subsidies

76. It is our tentative view that existing equipment rate rules,[88] that are applicable only to noncompetitive cable television systems, properly address the Section 629(a) requirement that MVPDs may offer CPE to consumers "if the system operator's charges to consumers for such devices and equipment are separately stated and not subsidized by charges for any such service." As indicated above, Section 629(f) establishes limits on the extension of Commission authority and Section 623(b)(3) already specifies that Commission rules shall include standards to establish, on the basis of actual cost, the price or rate for:

> (A) Installation and lease of the equipment used by subscribers to receive the basic service tier, including a converter box and remote control unit and, if requested by the subscriber, such addressable converter box or other equipment as is required to access [basic cable programming]

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[86] Our references to the decoder interface device and variants of it in this proceeding are not meant to prejudge the issues raised in ET Docket 93-7.

[87] *See, e.g.*, Reply Comments of Circuit City Stores, Inc. in *Notice of Inquiry in CS Docket No. 96-133*, 11 FCC Rcd 7413 (1996) (proceeding on the status of competition in the video programming distribution market), filed August 19, 1996

[88] 47 C.F.R. §76.923.

77. An alternative, the adoption of which is dependent on the scope of the Commission's authority as discussed above, would be to apply parallel rules to all other MVPDs .

H. Developmental Waivers

78. Section 629(c) instructs the Commission to adopt a waiver process to be employed when necessary to assist the development or introduction of a new services, technology, or products.[89]

79. Given the goal of this provision to promote technical and service innovation, we seek comment on how to frame the waiver process to accomplish its intended objectives. For example, when should a waiver be required? What kind of information should be filed in conjunction with a waiver request? Should detailed engineering data be require, or would it be adequate to understand the general nature of the service and technology involved? Would it be possible or desirable to use a process whereby waivers not acted on within the prescribed time frame are automatically "deemed approved"? Waivers, according to the statute, "shall be effective for all service providers and products in that category and for all providers of services and products." How should service provider and product categories be defined? While we believe that we can develop policies and standards for such waivers on a case-by-case basis as requests are filed,[90] we seek comment on whether there is a need for us to adopt substantive standards at this time to govern the waiver process. Finally, we seek comment as to whether we need to set guidelines concerning the duration contemplated by the statutory phrase "for a limited time."

80. Assuming an appropriate showing has been made, the Commission is instructed to act within 90 days of the filing of a waiver application.[91] The existing procedures, as reflected in the cable television rules for example, postulate a 20-day period for oppositions or comments to a waiver request after the date of public notice of its filing, followed by a 10-day reply period. This is a total of 30 days from public notice of the filing. The date of public notice is typically several days after filing, so the comment period does not close until more than 30 days from a waiver request's filing. However, the statute requires that waiver requests directed to rules adopted to implement this section be decided within 90 days of the filing of an application for waiver. We seek comment as to what modifications, if any, to our existing waiver procedures[92] are needed. For example, do we need to shorten the filing periods? Should we permit replies as a matter of course?

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[89] 47 U.S.C. §549(c).

[90] We note, for example, that §76.605(b) of our rules allows for a waiver of certain technical standards on "an adequate showing . . . which establishes that the public interest is benefited." This lets cable systems of specialized design to operate, without prescribing any particular showing. 47 C.F.R. §76.605(b).

[91] 47 U.S.C. §549(c).

[92] 47 C.F.R. §76.7.

I. Sunset of Regulation

81. Section 629(e) provides that Commission regulation shall end: (1) when the relevant the market for the multichannel video programming distributors is fully competitive; (2) when the market for converter boxes, and interactive communications equipment, used in conjunction with that service is fully competitive; and (3) when elimination of the regulations would promote competition and the public interest.[92]

82. In order to avoid unnecessary regulation, we believe this provision should be read as flexibly as possible. Thus, consistent with the requirement that regulation only be eliminated where to do so would promote competition and the public interest, we would propose to consider relevant submarkets, both geographic and product, in determining the presence of competition and end regulation or decline to commence regulation accordingly. We seek specific comment on what markets, such as for example the DBS market, would qualify for such treatment and what criteria should be employed in evaluating these and other markets for the purpose of sunsetting regulation.

IV. CONCLUSION

83. We believe that our responsibilities to implement Section 629 incorporate several interdependent public interest goals. First, maximization of consumer choice and flexibility resulting from the competitive availability of equipment. As previously noted, a prime goal of the 1996 Act is that "consumers are not forced to purchase or lease a specific, proprietary converter box, interactive device, or other equipment from the cable system or network operator."[94] A second goal is the stimulation and promotion of equipment innovation, with the expectation that this will result ultimately in lower costs to be borne by consumers. Third, minimizing governmental intrusion in the equipment design and installation process to the extent feasible. Fourth, assuring adequate protection of operators' networks from harm from any device used by consumers. As stated in the House Report, "telecommunications system operators have a valid interest, which the Commission should continue to protect, in system or signal security and in preventing theft of service."[95] In addition, the Conference Committee Report states that "[t]he conferees intend that the Commission avoid actions which could have the effect of freezing or chilling the development of new technologies and services."[96] In submitting comments in response to this *Notice*, parties are advised to bear these goals in mind, to explain how their proposals would further these goals.

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[92] 47 U.S.C. §549(e).

[93] *Id.*

[94] H. R. Rep. No. 104-204, 104th Cong., 1st Sess. 112 (1995).

[95] S. Conf. Rep. 104-230, 104th Cong., 2d Sess. 181 (1996).

84. We believe as well that Section 629 is a pro-competitive section of the 1996 Act which furthers the goal of Section 257 of the 1996 Act, which seeks to eliminate "market entry barriers for entrepreneurs and other small businesses in the provision and ownership of telecommunications services and information services, or in the provision of parts or services to providers of telecommunications services and information services."[97] We believe that implementation of Section 629 will have the positive result of opening up to small entities the market to supply navigation devices directly to MVPD subscribers. In addition, small businesses will have the opportunity to become the manufacturers of navigation devices. In submitting comments in response to this *Notice*, parties are advised to bear the goal of Section 257 in mind and to explain how their proposals would further this goal. We encourage commenters to suggest ways in which any perceived burden upon small entities could be mitigated.

V. ADMINISTRATIVE MATTERS

85. *Authority*. This *Notice of Proposed Rulemaking* is issued pursuant to authority contained in §§4(i), 4(j), 303(r), and 629 of the Communications Act of 1934, as amended.

86. *Ex parte Rules -- Non-Restricted Proceeding*. This is a non-restricted notice and comment rulemaking proceeding. Ex parte presentations are permitted, except during the Sunshine Agenda period, provided that they are disclosed as provided in the Commission's rules. *See generally* 47 C.F.R. §§1.1202, 1.1203, and 1.1206(a).

87. *Comment Information*. Pursuant to applicable procedures set forth in §§1.415 and 1.419 of the Commission's Rules, 47 C.F.R. §§1.415, 1.419, interested parties may file comments on or before May 16, 1997 and reply comments on or before June 16, 1997. All relevant and timely comments will be considered by the Commission before final action is taken in this proceeding. To file formally in this proceeding, parties must file an original and four copies of all comments, reply comments, and supporting comments. Parties are also asked to submit, if possible, draft rules that reflect their positions. If you want each Commissioner to receive a personal copy of your comments, you must file an original and eleven copies. Comments and reply comments should be sent to the Office of the Secretary, Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554, with a copy to Barrett L. Brick of the Cable Services Bureau, 2033 M Street N.W., Room 703B, Washington, D.C. 20554. Parties should also file one copy of any documents filed in this docket with the Commission's copy contractor, International Transcription Services, Inc., 2100 M Street N.W., Suite 140, Washington, D.C. 20037. Comments and reply comments will be available for public inspection during regular business hours in the FCC Reference Center (Room 239) of the Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554.

88. Parties are also asked to submit comments and reply comments on diskette, where possible. Such diskette submissions would be in addition to and not a substitute for the formal

[97] 47 U.S.C. §257(a).

filing requirements addressed above. Parties submitting diskettes should submit them to Barrett L. Brick of the Cable Services Bureau, 2033 M Street N.W., Room 703B, Washington, D.C. 20554. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible form using MS DOS 5.0 and WordPerfect 5.1 software. The diskette should be submitted in "read only" mode. The diskette should be clearly labelled with the party's name, proceeding, type of pleading (comments or reply comments), and date of submission. The diskette should be accompanied by a cover letter.

89. *Regulatory Flexibility Act.* As required by §603 of the Regulatory Flexibility Act, the FCC has prepared an Initial Regulatory Flexibility Analysis [IRFA] of the expected impact of §629 on small entities. The IRFA is set forth in Appendix A. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the *Notice*, but they must have a separate and distinct heading designating them as responses to the regulatory flexibility analysis. The Secretary shall cause a copy of the *Notice*, including the IRFA, to be sent to the Chief Counsel for Advocacy of the Small Business Administration in accordance with §603(a) of the Regulatory Flexibility Act.[98]

FEDERAL COMMUNICATIONS COMMISSION

William F. Caton

William F. Caton
Acting Secretary

[98] Pub. L. No. 96-354, 94 Stat. 1164, 5 U.S.C. §§601 *et seq.* (1981).

APPENDIX A
INITIAL REGULATORY FLEXIBILITY ANALYSIS

As required by Section 603 of the Regulatory Flexibility Act ("RFA"),[1] the Commission has prepared the following Initial Regulatory Flexibility Analysis ("IRFA") of the expected significant economic impact on small entities by the policies and rules proposed in this *Notice of Proposed Rulemaking*. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the *Notice* but they must be have a separate and distinct heading designating them as responses to the IRFA. The Secretary shall send a copy of this *Notice* to be sent to the Chief Counsel for Advocacy of the Small Business Administration ("SBA") in accordance with 5 U.S.C. § 603(a).

Need for and Objectives of the Proposed Rules: The 1996 Act requires the Commission to promulgate rules designed to promote the commercial availability of navigation devices. The Commission is issuing this *Notice* to seek comment on the proposed rules intended to implement this provision of the 1996 Act, and to provide a record for a Commission decision on issues discussed in the Notice.

Legal Basis: Authority for this proposed rulemaking is contained in Sections 4(i), 4(j), 303(r), and 629 of the Communications Act of 1934 as amended, 47 U.S.C. §§ 154(i), 154(j), 303(r), and §§304 and 549 of the Telecommunications Act of 1996, Pub. L. 104-104, 110 Stat. 56 (1996).

Description and Estimate of Small Entities to Which the Proposed Rules Will Apply: Implementation of Section 304 will have the positive result of opening up to small entities the market to supply navigation devices directly to cable and other subscribers. In addition, small businesses will have the opportunity to become the manufacturers of navigation devices. While any policies or rules developed in this proceeding could have an impact on small businesses that manufacture, distribute, or use converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, this proceeding seeks comment on how this burden, if any, could be mitigated for small entities.

The Regulatory Flexibility Act defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small business concern" under Section 3 of the Small Business Act.[2] A small concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.

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[1] 5 U.S.C. §603. The RFA has been amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996)("CWAAA"). Title II of the CWAAA is the "Small Business Regulatory Enforcement Fairness Act of 1996" ("SBREFA"), codified at 5 U.S.C. §601 *et seq*.

[2] 5 U.S.C. §601(3) (1980).

Small MVPDs: SBA has developed a definition of small entity for cable and other pay television services, which includes all such companies generating less than $11 million in revenue annually. This definition includes cable systems operators, closed circuit television services, direct broadcast satellite services, multipoint distribution systems, satellite master antenna systems and subscription television services. According to the Census Bureau, there were 1,323 such cable and other pay television services generating less than $11 million in revenue that were in operation for at least one year at the end of 1992.[3]

Cable Systems. The Commission has developed its own definition of a small cable system operator for the purposes of rate regulation. Under the Commission's rules, a "small cable company," is one serving fewer than 400,000 subscribers nationwide.[4] Based on our most recent information, we estimate that there were 1,439 cable operators that qualified as small cable system operators at the end of 1995.[5] Since then, some of those companies may have grown to serve over 400,000 subscribers, and others may have been involved in transactions that caused them to be combined with other cable operators. Consequently, we estimate that there are fewer than 1,439 small entity cable system operators that may be affected by the decisions and rules proposed in this Notice.

The Communications Act also contains a definition of a small cable system operator, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1% of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed $250,000,000."[6] The Commission has determined that there are 61,700,000 subscribers in the United States. Therefore, we found that an operator serving fewer than 617,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all of its affiliates, do not exceed $250 million in the aggregate.[7] Based on available data, we find that the number of cable operators serving 617,000 subscribers or less totals 1,450.[8] Although it seems certain that some of these cable system operators are affiliated with entities whose gross annual revenues exceed $250,000,000, we are unable at this time to estimate with greater precision the number of cable system operators

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[3] U.S. Census Bureau, 1992 Economic Census, 1992 Census of Transportation, Communications and Utilities at Firm Size 1-123.

[4] 47 C.F.R. §76.901(e). The Commission developed this definition based on its determinations that a small cable system operator is one with annual revenues of $100 million or less. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393 (1995).

[5] Paul Kagan Associates, Inc., *Cable TV Investor*, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

[6] 47 U.S.C. §543(m)(2).

[7] 47 C.F.R. §76.1403(b).

[8] Paul Kagan Associates, Inc., *Cable TV Investor*, Feb. 29, 1996 (based on figures for Dec. 30, 1995).

that would qualify as small cable operators under the definition in the Communications Act.

MMDS: The Commission refined the definition of "small entity" for the auction of MMDS as an entity that together with its affiliates has average gross annual revenues that are not more than $40 million for the preceding three calendar years.[9] This definition of a small entity in the context of the Commission's *Report and Order* concerning MMDS auctions that has been approved by the SBA.[10]

The Commission completed its MMDS auction in March 1996 for authorizations in 493 basic trading areas ("BTAs"). Of 67 winning bidders, 61 qualified as small entities. Five bidders indicated that they were minority-owned and four winners indicated that they were women-owned businesses. MMDS is an especially competitive service, with approximately 1573 previously authorized and proposed MMDS facilities. Information available to us indicates that no MDS facility generates revenue in excess of $11 million annually. We tentatively conclude that for purposes of this IRFA, there are approximately 1634 small MMDS providers as defined by the SBA and the Commission's auction rules.

ITFS: There are presently 2032 ITFS licensees. All but one hundred of these licenses are held by educational institutions. Educational institutions are included in the definition of a small business.[11] However, we do not collect annual revenue data for ITFS licensees and are not able to ascertain how many of the 100 non-educational licensees would be categorized as small under the SBA definition. Thus, we tentatively conclude that at least 1932 licensees are small businesses.

DBS: As of December 1996, there were eight DBS licensees. However, the Commission does not collect annual revenue data for DBS and, therefore, is unable to ascertain the number of small DBS licensees that could be impacted by these proposed rules. Although DBS service requires a great investment of capital for operation, we acknowledge that there are several new entrants in this field that may not yet have generated $11 million in annual receipts, and therefore may be categorized as a small business, if independently owned and operated.

HSD: The market for HSD service is difficult to quantify. Indeed, the service itself bears little resemblance to other MVPDs. HSD owners have access to more than 265 channels of

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[9] 47 C.F.R. §21.961(b)(1).

[10] *See Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act - Competitive Bidding*, MM Docket No. 94-31 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589 (1995).

[11] SBREFA also applies to nonprofit organizations and governmental organizations such as cities, counties, towns, townships, villages, school districts, or special districts, with populations of less than 50,000. 5 U.S.C. §601(5).

programming placed on C-band satellites by programmers for receipt and distribution by MVPDs, of which 115 channels are scrambled and approximately 150 are unscrambled.[12] HSD owners can watch unscrambled channels without paying a subscription fee. To receive scrambled channels, however, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and pay a subscription fee to an HSD programming packager. Thus, HSD users include: (1) viewers who subscribe to a packaged programming service, which affords them access to most of the same programming provided to subscribers of other MVPDs; (2) viewers who receive only non-subscription programming, and (3) viewers who receive satellite programming services illegally without subscribing. Because scrambled packages of programming are most specifically intended for retail consumers, these are the services most relevant to this discussion.

According to the most recently available information, there are approximately 30 program packagers nationwide offering packages of scrambled programming to retail consumers.[14] These program packagers provide subscriptions to approximately 2,314,900 subscribers nationwide.[15] This is an average of about 77,163 subscribers per program packager. This is substantially smaller than the 400,000 subscribers used in the Commission's definition of a small MSO. Furthermore, because this an average, it is likely that some program packagers may be substantially smaller. We seek comment on these tentative conclusions.

SMATVs. Industry sources estimate that approximately 5200 SMATV operators were providing service as of December 1995.[16] Other estimates indicate that SMATV operators serve approximately 1.05 million residential subscribers as of September 1996.[17] The ten largest SMATV operators together pass 815,740 units.[18] If we assume that these SMATV operators serve 50% of the units passed, the ten largest SMATV operators serve approximately 40% of the total number of SMATV subscribers. Because these operators are not rate regulated, they are not required to file financial data with the Commission. Furthermore, we are not aware of any privately published financial information regarding these operators. Based on the estimated number of operators and the estimated number of units served by the largest ten SMATVs, we tentatively conclude that a substantial number of SMATV operators qualify as small entities.

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[12] *Report in CS Docket No. 96-133* ("*1996 Competition Report*"), FCC 96-496 at ¶49 (released January 2, 1997).

[13] *Id.*

[14] *Id.*

[15] *Id.*

[16] *1996 Competition Report* at ¶81.

[17] *Id.*

[18] *Id.*

LMDS: Unlike the above pay television services, LMDS technology and spectrum allocation will allow licensees to provide wireless telephony, data, and/or video services. A LMDS provider is not limited in the number of potential applications that will be available for this service. Therefore, the definition of a small LMDS entity may be applicable to both cable and other pay television (SIC 4841) and/or radiotelephone communications companies (SIC 4812). A small radiotelephone entity is one with 1500 employees or less.[19] However, for the purposes of this *Notice*, we include only an estimate of LMDS video service providers.

LMDS is a service that is expected to be auctioned by the FCC in 1997. The vast majority of LMDS entities providing video distribution could be small businesses under the SBA's definition of cable and pay television (SIC 4841). However, in the *Third NPRM*, we proposed to define a small LMDS provider as an entity that, together with affiliates and attributable investors, has average gross revenues for the three preceding calendar years of less than $40 million.[20] We have not yet received approval by the SBA for this definition.

There is only one company, CellularVision, that is currently providing LMDS video services. Although the Commission does not collect data on annual receipts, we assume that CellularVision is a small business under both the SBA definition and our proposed auction rules. We tentatively conclude that a majority of the potential LMDS licensees will be small entities, as that term is defined by the SBA and the Commission's proposed definition.

OVS: The Commission has certified four open video system (OVS) operators. Because these services have been introduced so recently, financial information regarding them is not available. Two of the four OVS licensees, Bell Atlantic and Metropolitan Fiber Systems, however, have sufficient revenues so that they do not qualify as small business entities. Accordingly, we tentatively conclude that at most two OVS licensees qualify as small business concerns.

Small Manufacturers: The SBA has developed definitions of small entity for manufacturers of household audio and video equipment (SIC 3651) and for radio and television broadcasting and communications equipment (SIC 3663). In each case, the definition includes all such companies employing 750 or fewer employees.

Electronic Equipment Manufacturers: The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment. Therefore, we will utilize the SBA definition of manufacturers of Radio and Television Broadcasting and Communications

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[19] 13 C.F.R. §121.201.

[20] *In the Matter of Rulemaking to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, to Reallocate the 29.5-30.0 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services and Suite 12 Group Petition for Pioneer's Preference* ("*Third NPRM*"), CC Docket No. 92-297, 11 FCC Rcd 53 (1995), at ¶188.

Equipment.[21] According to the SBA's regulations, a TV equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.[22] Census Bureau data indicates that there are 858 U.S. firms that manufacture radio and television broadcasting and communications equipment, and that 778 of these firms have fewer than 750 employees and would be classified as small entities.[23] The Census Bureau category is very broad, and specific figures are not available as to how many of these firms are exclusive manufacturers of television equipment or how many are independently owned and operated. We conclude that there are approximately 778 small manufacturers of radio and television equipment.

Electronic Household/Consumer Equipment: The Commission has not developed a definition of small entities applicable to manufacturers of electronic equipment used by consumers, as compared to industrial use by television licensees and related businesses. Therefore, we will utilize the SBA definition applicable to manufacturers of Household Audio and Visual Equipment. According to the SBA's regulations, a household audio and visual equipment manufacturer must have 750 or fewer employees in order to qualify as a small business concern.[24] Census Bureau data indicates that there are 410 U.S. firms that manufacture radio and television broadcasting and communications equipment, and that 386 of these firms have fewer than 500 employees and would be classified as small entities.[25] The remaining 24 firms have 500 or more employees; however, we are unable to determine how many of those have fewer than 750 employees and therefore, also qualify as small entities under the SBA definition. Furthermore, the Census Bureau category is very broad, and specific figures are not available as to how many of these firms are exclusive manufacturers of television equipment for consumers or how many are independently owned and operated. We conclude that there are approximately 386 small manufacturers of television equipment for consumer/household use.

Computer Manufacturers: The Commission has not developed a definition of small entities applicable to computer manufacturers. Therefore, we will utilize the SBA definition of Electronic Computers. According to SBA regulations, a computer manufacturer must have 1,000 or fewer employees in order to qualify as a small entity.[26] Census Bureau data indicates that there are 716

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[21] This category excludes establishments primarily engaged in the manufacturing of household audio and visual equipment which is categorized as SIC 3651. *See infra* for SIC 3651 data.

[22] 13 C.F.R. §121.201, (SIC) Code 3663.

[23] U.S. Dept. of Commerce, 1992 Census of Transportation, Communications and Utilities, Table 1D, (issued May 1995), SIC category 3663.

[24] 13 C.F.R. §121.201, (SIC) Code 3651.

[25] U.S. Small Business Administration 1995 Economic Census Industry and Enterprise Report, Table 3, SIC Code 3651, (Bureau of the Census data adapted by the Office of Advocacy of the U.S. Small Business Administration).

[26] 13 C.F.R. §121.201, (SIC) Code 3571.

firms that manufacture electronic computers and of those, 659 have fewer than 500 employees and qualify as small entities.[27] The remaining 57 firms have 500 or more employees; however, we are unable to determine how many of those have fewer than 1,000 employees and therefore also qualify as small entities under the SBA definition. We conclude that there are approximately 659 small computer manufacturers.

Small Retailers: The Commission has not developed a definition of small entities applicable to navigation retail devices. Therefore, we will utilize the SBA definition. The 1992 Bureau of the Census data indicates: there were 9,663 U.S. firms classified as Radio, TV & electronic stores (SIC 5731), and that 9,385 of these firms had $4.999 million or less in annual receipts and 9,473 of these firms had $7.499 million or less in annual receipts.[28] Consequently, we tentatively conclude that there are approximately 9,663 small entities that produce and distribute radio, television, and electronic stores that may be affected by the decisions and rules proposed in this Notice.

Reporting, Recordkeeping, and Other Compliance Requirements: The proposed actions may require MVPDs to obtain security modules for sale to subscribers. They may also prohibit MVPDs from providing CPE which is not commercially available. In addition, the proposed actions may require MVPDs to make available to consumers basic technical information concerning the network to which a navigation device is to be attached (paragraph 56). This latter proposal, if adopted, would not necessitate any additional professional, engineering, or customer service skills beyond those already utilized in the ordinary course of business by MVPDs. Any costs to the MVPD would be justified by the competitive benefits: MVPDs and consumers will benefit from an increased, more innovative, and more competitive market for navigation devices. We seek comment on this.

Any Significant Alternatives Minimizing the Impact On Small Entities Consistent With the Stated Objectives: We believe that our proposals will have the positive result of opening up to small entities the market to supply navigation devices directly to cable and other subscribers (see discussion at paragraph 84). In addition, small businesses will have the opportunity to become the manufacturers of navigation devices. (see discussion at paragraph 84) While small businesses would experience costs associated with maintaining for sale navigation devices, should we adopt rules that would require such, we believe such businesses are capable of doing so. Should

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[27] U.S. Small Business Administration 1995 Economic Census Industry and Enterprise Report, Table 3, SIC Code 3571, (Bureau of the Census data adapted by the Office of Advocacy of the U.S. Small Business Administration).

[28] U.S. Small Business Administration 1992 Economic Census Industry and Enterprise Report, Table 2D, SIC 7812, (Bureau of the Census data adapted by the Office of Advocacy of the U.S. Small Business Administration)(SBA 1992 Census Report). The Census data does not include a category for $6.5 million therefore, we have reported the closest increment below and above the $6.5 million threshold. There is a difference of 88 firms between the $4.999 and $7.499 million annual receipt categories. It is possible that these 88 firms could have annual receipts of $6.5 million or less and therefore, would be classified as small businesses.

commenters disagree with this conclusion, we welcome comments suggesting ways in which any perceived burden upon small entities could be mitigated.

Federal Rules Which Overlap, Duplicate or Conflict with Proposed Rules: None.

APPENDIX B

SEC. 629. COMPETITIVE AVAILABILITY OF NAVIGATION DEVICES.

(a) Commercial Consumer Availability of Equipment Used To Access Services Provided by Multichannel Video Programming Distributors.--The Commission shall, in consultation with appropriate industry standard-setting organizations, adopt regulations to assure the commercial availability, to consumers of multichannel video programming and other services offered over multichannel video programming systems, of converter boxes, interactive communications equipment, and other equipment used by consumers 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. Such regulations shall not prohibit any multichannel video programming distributor from also offering converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, to consumers, if the system operator's charges to consumers for such devices and equipment are separately stated and not subsidized by charges for any such service.

(b) Protection of System Security --The Commission shall not prescribe regulations under subsection (a) which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems, or impede the legal rights of a provider of such services to prevent theft of service.

(c) Waiver.--The Commission shall waive a regulation adopted under subsection (a) for a limited time on an appropriate showing by a provider of multichannel video programming and other services offered over multichannel video programming systems, or an equipment provider, that such waiver is necessary to assist the development or introduction of a new or improved multichannel video programming or other service offered over multichannel video programming systems, technology, or products. Upon an appropriate showing, the Commission shall grant any such waiver request within 90 days of any application filed under this subsection, and such waiver shall be effective for all service providers and products in that category and for all providers of services and products.

(d) Avoidance of Redundant Regulations.--

(1) Commercial availability determinations.--Determinations made or regulations prescribed by the Commission with respect to commercial availability to consumers of converter boxes, interactive communications equipment, and other equipment used by consumers to access multichannel video programming and other services offered over multichannel video programming systems, before the date of enactment of the Telecommunications Act of 1996 shall fulfill the requirements of this section.

(2) Regulations.--Nothing in this section affects section 64.702(e) of the Commission's regulations (47 C.F.R. 64.702(e)) or other Commission regulations governing interconnection and competitive provision of customer premises equipment used in connection with basic common carrier communications services.

(e) Sunset.--The regulations adopted under this section shall cease to apply when the

Commission determines that--

(1) the market for the multichannel video programming distributors is fully competitive;

(2) the market for converter boxes, and interactive communications equipment, used in conjunction with that service is fully competitive; and

(3) elimination of the regulations would promote competition and the public interest.

(f) Commission's Authority.--Nothing in this section shall be construed as expanding or limiting any authority that the Commission may have under law in effect before the date of enactment of the Telecommunications Act of 1996.

SEC. 633. UNAUTHORIZED RECEPTION OF CABLE SERVICE.

(a)(1) No person shall intercept or receive or assist in intercepting or receiving any communications service offered over a cable system, unless specifically authorized to do so by a cable operator or as may otherwise be specifically authorized by law.

(2) For the purpose of this section, the term "assist in intercepting or receiving" shall include the manufacture or distribution of equipment intended by the manufacturer or distributor (as the case may be) for unauthorized reception of any communications service offered over a cable system in violation of subparagraph (1).

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SEC. 705. UNAUTHORIZED PUBLICATION OF COMMUNICATIONS.

(a) * * * * * No person not being entitled thereto shall receive or assist in receiving any interstate or foreign communication by radio and use such communication (or any information therein contained) for his own benefit or for the benefit of another not entitled thereto.

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(e) * * * * *

(4) Any person who manufactures, assembles, modifies, imports, exports, sells or distributes any electronic, mechanical, or other device or equipment, knowing or having reason to know that the device or equipment is primarily of assistance in the unauthorized decryption of satellite cable programming, or is intended for any other activity prohibited by subsection (a) of this section, shall be fined not more than $500,000 for each violation, or imprisoned for not more than 5 years for each violation, or both. For purposes of all penalties and remedies established for violations of this paragraph, the prohibited activity established herein as it applies to each such device shall be deemed a separate violation.

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