

digital set-top boxes that are deployed throughout the country, in high, middle, and low-income areas. Second, contrary to the retailers' suggestion, Congress specifically found that giving cable operators the ability to employ equipment averaging "would be a significant advantage for rural and low-income consumers."⁵⁸ In the absence of equipment averaging, Congress found, cable operators would be "forced to recover the costs of digital equipment through higher-priced services," which, in turn, "encourages operators to provide digital boxes in economically upscale areas where they are more likely to be able to recoup their investment through higher service prices"⁵⁹ Essentially, then, the retailers' proposed solution (i.e., to bar equipment averaging) is a call for cable operators to charge higher prices to consumers for digital equipment (a result plainly contrary to the policy adopted by Congress in the 1996 Act), so that the retailers can capture higher profit margins in the set-top box business.

As the foregoing discussion demonstrates, none of the complaints advanced by retailers in an effort to explain why they have refused to place orders for host boxes rings true. In reality, it appears that the retailers want more out of "commercial availability" than merely being able to sell set-top boxes or even integrated DTV sets. In fact, they want to extract from cable operators a portion of the operators' revenues from services provided to subscribers who obtain host devices at retail. As the July 2000 Status Report indicated, at least one major equipment vendor, Motorola, approached several retailers early this year and offered to manufacture digital set-top boxes built to OpenCable specifications for July 2000 delivery. In rejecting Motorola's offer, the retailers indicated that they were not interested in selling "just boxes," a reaction consistent with

⁵⁸ House Report at 107, reprinted in 1996 U.S.C.C.A.N. 75 (emphasis added).

⁵⁹ Id. at 107-108, reprinted in 1996 U.S.C.C.A.N. 75.

trade press articles that describe how certain major national retailers “hope to hold out for a share of on-going service revenues” before agreeing to market digital cable boxes.⁶⁰

The retailers’ desire to extract a share of cable operator service revenues may in part be a function of the fact that the markup on competing operator-provided equipment is limited by rate regulation to 11.25%.⁶¹ The retailers apparently find this profit margin unattractive. Rather than seeking cost efficiencies that would improve their margin, they have chosen instead to manipulate the regulatory process in an effort to force cable operators to give them a share of the operators’ programming service revenues.

Even assuming that the desire of retailers to find a way to force cable operators to share their service revenues was appropriate and reasonable, the retailers’ commercial agenda is (or at least should be) unrelated to the issue of whether cable operators individually or the cable industry collectively have satisfied the legal obligations imposed on them under Section 629 and the Commission’s implementing rules. Cable operators and retailers are, of course, free to negotiate and enter into financial arrangements which they find to be mutually beneficial. However, Section 629 and the Commission’s rules clearly do not give retailers any entitlement

⁶⁰ “MSOs Tread Carefully Into Retail World: Retailers Want Piece of the Profits, Too,” Multichannel News, May 1, 2000 at 121; also see “Scientific Atlanta Readies for Retail of Set-Top Boxes,” The Atlanta Constitution, June 28, 2000, at E-1, 9 (quoting statement of Wachovia Securities Industry Analyst George Hunt that “[t]he first thing Circuit City wanted was a portion of the monthly cable bill”); “Bickering Delays Retail Debut of Set-Top Cable Boxes,” USA Today, July 25, 2000, at B-1 (quoting statement by RadioShack senior executive that “we believe that we deserve a piece of that [cable] revenue stream”).

⁶¹ See In the Matter of Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992, Rate Regulation, 8 FCC Rcd 5631, 5815-16 (¶ 295, n.715) (1993).

or expectation to receive “a share of on-going service revenues” in return for the retailers’ provision of OpenCable-compliant host devices to consumers.

The Commission has asked why cable modems have been made available at retail whereas set-top boxes have not.⁶² There are a number of reasons for this. As an initial matter, consumers have historically purchased telephone modems at retail, so a retail model was well-established and easily replicated for cable modems.⁶³ In contrast, no established retail model existed for cable set-top boxes because cable operators traditionally have marketed cable television services, together with the equipment necessary to receive such services, directly to consumers, rather than through retail outlets.

Cable modems also are much simpler devices than advanced set-top boxes, so they fit more naturally into the traditional retail chain. In addition, to NCTA’s knowledge, retailers have not sought to obtain a percentage of cable operators’ service revenues before agreeing to carry cable modems at their stores. Moreover, cable modems have gone through many years of industry trials and standards-setting through OpenCable’s DOCSIS initiative, and the products therefore are further along in their life cycle.⁶⁴ Finally, it should be noted that the design parameters and deployment plans for cable modems were the product of market forces,

⁶² Notice at ¶ 12.

⁶³ Similarly, because DBS operators have relied heavily on retail outlets to market their services, consumers are accustomed to obtaining the equipment used to receive such services at retail as well.

⁶⁴ In this regard, it should be noted that CableLabs’ DOCSIS development project was initiated in 1996, and a significant portion of the DOCSIS Specification set was adopted by the International Telecommunications Union as an official international standard (J112-B) in early 1998. See CableLabs, A Decade of Innovation: The History of CableLabs, 1988-1998 (1998) at 48-52.

unaffected by government regulations. In short, the circumstances surrounding retail sale of cable modems are readily distinguishable from those involving set-top boxes.

* * *

In its Reconsideration Order, the Commission correctly observed that “[f]or [navigation devices] to become effectively available through retail outlets, a confluence of events must take place that are not within the control of any of the market participants: service suppliers (MVPDs), equipment manufacturers, or retail sales outlets.”⁶⁵ As the discussion above indicates, cable operators and equipment manufacturers have done their part. The cable industry developed a solid technological foundation for the manufacture of host devices, and there are today a number of manufacturers prepared to make such devices available to retailers for sale to consumers.

Retailers, however, generally have declined to make any commitment whatsoever to purchase host devices built to OpenCable specifications, in a transparent attempt to manipulate the regulatory environment to further their own commercial agenda, *i.e.*, the accelerated phase-out of competition from operator-provided integrated devices, and the extraction of a portion of cable-operator revenues for services provided to subscribers who obtain their host devices at retail. The Commission should not “reward” this approach to commercial availability of set-top boxes by acceding to baseless requests by retailers for additional regulations in this area. Rather, for the reasons discussed in the following sections, the Commission should refuse to accelerate the ban on integrated devices, and, in fact, should consider eliminating the ban.

⁶⁵ Reconsideration Order at 7601 (¶ 12).

III. ACCELERATION OF THE BAN ON INTEGRATED DEVICES IS UNNECESSARY, AND WOULD ONLY LIMIT, RATHER THAN ENHANCE, THE COMMERCIAL AVAILABILITY OF NAVIGATION DEVICES.

In their recent submissions to the Commission and Congress, retailers have urged that the implementation date for the current ban on MVPD deployment of integrated navigation devices incorporating embedded security should be advanced in order to create a “level playing field” and provide “marketplace incentives” for the development of a retail market for navigation devices.⁶⁶ However, acceleration of the ban on integrated devices is plainly unnecessary, given the cable industry’s substantial ongoing commitment to the OpenCable POD-host initiative and the strong marketplace incentives (arising from the increasingly intense competitive pressure from DBS and other competitors described below) which already are driving cable operators to support the development of retail distribution channels for set-top boxes and other navigation devices.⁶⁷

Moreover, instead of advancing the commercial availability of navigation devices and expanding consumer choice, as the statute contemplates, acceleration of the ban would have precisely the opposite effect, limiting the equipment options available to consumers and

⁶⁶ See CERC Response at 15; CERC Testimony at 7.

⁶⁷ In addition to the recent AT&T agreements described in Section IV below, other cable operators also are beginning to forge relationships with major CE manufacturers which reflect a recognition of the growing importance of retail distribution channels to their business. See, e.g., Martin Levine, “Eager To Find Second Sources, MSOs Tap CE Bigs For Boxes,” *Multichannel News*, July 24, 2000, at 59 (noting that “the eventual shift to retail distribution is believed to be largely responsible for a contract Time Warner signed with Panasonic in April to deliver at least 600,000 ‘Pegasus’ digital set-tops over the next three years” and adding that other recent MSO-CE manufacturer agreements reflect a “belief that brand-name vendors will become increasingly important as a portion of digital-box distribution shifts from leasing to a retail-based consumer-sales model”).

disrupting operator plans for the deployment of advanced digital services, which were formulated on the basis of the current implementation schedule.

A. It is Not Necessary to Accelerate the Ban in Order to Ensure Commercial Availability of Navigation Devices through Retail Outlets.

As the discussion in Section II demonstrates, the cable industry has already complied with the requirement that separate security modules be made available to cable subscribers, and has laid a solid technological foundation for the development of a retail market for host devices designed to work in conjunction with OpenCable-compliant PODs. Indeed, as noted, there are already a number of manufacturers who have designed POD and host products, based on the OpenCable specifications, who are currently engaged in the OpenCable testing and review process.⁶⁸

The cable industry's commitment to the OpenCable process is both substantial and ongoing, and reflects the industry's recognition of the need to facilitate the development of a strong retail presence, offering a diverse menu of equipment options tailored to meet the needs of individual consumers. The competitive pressures which are driving the industry in this direction are clear and unabating, as DBS and other alternative service providers continue to increase their subscriber base and enhance their product offerings.

In its recent comments in response to the Commission's Video Competition Notice Of Inquiry, NCTA noted that in the past year alone, DBS subscribership increased by almost 30 percent, from just over 10 million to just under 13 million, the largest increase in subscribers in a

⁶⁸ See discussion at 9-10, supra.

single year since DBS launched in 1994.⁶⁹ Indeed, more than 80% of the growth in total MVPD subscribership over the past year was captured by DBS.⁷⁰ In the past several years, DBS increasingly has introduced marketing campaigns and promotional packages specifically targeting cable subscribers.⁷¹ Moreover, in 1999, Congress enacted the Satellite Home Viewing Improvements Act (“SHVIA”), which authorizes DBS companies to retransmit local stations, thereby further enhancing the ability of DBS to compete for existing MVPD subscribers, as well as new customers.⁷² DBS providers have relied heavily (and quite successfully) on retail outlets in marketing their services and related customer equipment to consumers. Thus, cable operators have strong economic incentives not to take any action which would inhibit the development of retail distribution channels for equipment that facilitates their ability to market their services to consumers.

As the discussion in Section IV below indicates, one major MSO recently has announced plans to make advanced integrated digital set-top devices that incorporate embedded security, as well as an OpenCable-compliant POD slot, available to its subscribers both directly and through retail outlets.⁷³ The prospect that these integrated devices also will be made available at retail

⁶⁹ Comments of the National Cable Television Association, CS Docket No. 00-132 (Sept. 8, 2000) at 7.

⁷⁰ Id. at 10.

⁷¹ Id. at 12-13.

⁷² Id. at 12. The cable industry also faces increased competition from other new competitors, e.g., new local broadband overbuilders such as RCN, as well as telephone companies and non-telco utilities. Id. at 15, 22-26.

⁷³ See discussion at 38-40, infra.

underscores the reality that cable operators – whose core business is the sale of an increasingly wide array of services, not the sale or lease of navigation devices or other equipment – have every incentive to maximize, not to limit, the range of equipment options and distribution outlets for devices which will enable consumers to access their services. Moreover, to the extent that retailers themselves have the opportunity to provide integrated set-tops that include embedded security, as well as the opportunity to integrate navigation device functions into other consumer electronics products, as described below, any integration advantage cable operators purportedly have is eliminated.⁷⁴

B. Acceleration of the Ban Would Limit Consumer Choice and Impede the Deployment of Advanced Digital Cable Services.

Acceleration of the January 1, 2005 phase-out date for integrated devices is not only unnecessary, it in fact would reduce competition and consumer choice, by forcing consumers to forego even sooner the opportunity to select equipment that may be more cost-effective and better-suited to meet their particular needs. In this regard, the D.C. Circuit has recognized that consumers may choose not to purchase navigation devices from retail outlets for “perfectly sensible economic reasons -- because, for instance, there are efficiency gains captured in the manufacture of an integrated box that lead it to cost less than the combined cost of a separate security module and a retail device, or because consumers view as too high the transaction costs

⁷⁴ See discussion at 32-33, infra. As Commissioner Powell recognized, any purported risk to competition arising from the cable operator’s provision of integrated devices is at best “very speculative,” and is adequately addressed under other FCC rules. Statement of Commissioner Michael K. Powell Dissenting in Part, Report and Order at 14847-14848 (“Powell Statement”).

of seeking a separate ancillary device at retail.”⁷⁵ As the Court observed, “[i]f this is the case, the integration ban does nothing more than deny the most cost-effective product choice for consumers -- an ironic outcome for an order implementing ‘one of the most pro-consumer, pro-competitive provisions of the Telecom Act.’”⁷⁶

Cost information previously submitted for the record in this proceeding indicated that in fact there is a substantial (i.e., at least \$75) cost differential between an integrated digital set-top device incorporating embedded security and a stand-alone POD-host combination.⁷⁷ To the extent an operator-provided integrated device offers a better combination of price, quality, and functionality to particular consumers, the effect of banning such devices is directly contrary to the fundamental purpose of Section 629, which was adopted to expand consumer choice.

As Commissioner Powell has observed, Section 629 does not direct the Commission to “ensure that consumers switch to devices that become available through retail, only that they have that choice.”⁷⁸ Moreover, as the D.C. Circuit’s opinion indicates, there are a number of

⁷⁵ General Instrument Corp. v. FCC, 213 F. 3d 724, 731 (D.C. Cir. 2000) (“General Instrument”).

⁷⁶ Id. at 731-732 (emphasis added). Commissioner Powell already has expressed similar concern with regard to the adverse impact of the ban on consumer interests. See Report and Order at 14848 (Powell Statement) (expressing concern that the ban on integrated devices “denies a cost-effective choice for consumers”); Statement of Commissioner Michael K. Powell Dissenting in Part, Reconsideration Order at 7632 (“Powell Reconsideration Statement”) (noting that it is “contrary to good public policy to remove from the market a potentially cost-effective choice for consumers.”).

⁷⁷ See General Instrument Comments/Opposition in Response to Petitions for Reconsideration, CS Docket No. 97-80 (filed Sept. 23, 1998) at 14, n.42.

⁷⁸ Report and Order at 14847 (Powell Statement). In this regard, Commissioner Powell went on to note that “[i]t is quite plausible to me that the ‘impediment’ to switching to
(Footnote Continued)

specific reasons why consumers might prefer operator-provided integrated boxes (e.g., convenience or a preference for lease over purchase, in light of rapidly changing technology).

At the same time, consumer electronics manufacturers and retailers enjoy similar advantages that may make their offerings more appealing to particular consumers, which may well offset whatever advantages might be associated with the integrated devices provided by cable operators. For example, consumer electronics manufacturers and retailers also have the ability to achieve integration efficiencies. In this proceeding and in other fora, consumer electronics manufacturers and retailers have announced their intention to develop and market products which integrate host navigation device functions in other consumer electronics equipment (e.g., TVs, DVDs, VCRs, etc.) in ways that may be appealing to consumers, and they are free to reap the benefits of any economies of scale and/or scope achieved through such integration.⁷⁹ In addition, the POD-host combination offers consumers “plug-and-play” flexibility, enabling them to use the host device on various OpenCable-compliant cable systems

retail may in fact be a consumer preference for distributor supplied integrated boxes! I see no reason to attempt to control consumer preferences.” Id. at 14848.

⁷⁹ See e.g., Letter of Robert S. Schwartz to Magalie Roman Salas, Secretary, FCC, CS Docket No. 97-80, April 2, 1998 (noting that navigation functions can be integrated into TVs, VCRs, PCs, DVDs, and indicating that while Circuit City wants the right to offer cable set-top boxes competitively, “its overall goal is to be able to offer navigation functionality to consumers, in CE and computer devices, in whatever physical form the marketplace demands.”); also see “Microsoft, Philips Semiconductor and SCM Microsystems Team to Support OpenCable,” Microsoft Press Release, <www.microsoft.com/press/pass/press/1999/Dec99/opencablepr.asp> (Dec. 14, 1999) (describing demonstration of OpenCable PC Receiver designed to accommodate an OpenCable-compliant POD module which enables a personal computer to receive premium cable service).

without having to obtain new equipment.⁸⁰ Retailers also have the opportunity to enhance the commercial viability of their product offerings through various other means (e.g., joint marketing and bundled pricing).⁸¹

While some consumers may prefer the particular features in the integrated box that the cable operator offers, others may well prefer the different features offered by CE manufacturers and retailers. The best public policy is to ensure that consumers have the ability to choose the option that best fits their needs and preferences. As Commissioner Powell has suggested, “[t]he market should be allowed to play this out.”⁸²

⁸⁰ Moreover, the ongoing OpenCable middleware initiative, which is designed to enhance the portability of OpenCable-compliant host devices, should further alleviate concerns with regard to the ability of such devices to compete with operator-provided integrated equipment offerings.

⁸¹ Attached hereto are several examples of recent promotional offers by major retailers, which include among other things offers of free equipment or other merchandise as an incentive to purchase particular consumer electronics products and services (e.g., offering a free DVD player as an inducement to purchase digital projection TV sets), as well as special discounts and rebates, bundled pricing of home electronics systems comprised of selected component products, free installation, and “no interest” financing. See Appendix B.

In this regard, it should be noted that retailers are subject to fewer limitations on their ability to price and market their products than are cable operators, many of whom remain subject to significant regulatory constraints on the pricing of their services and related customer equipment. See e.g., 47 U.S.C. § 549(a); 47 C.F.R. § 76.1206, 76.923; Report and Order at 14810-14 (¶¶ 85-98) (requiring that equipment charges be separately stated and imposing constraints barring subsidization by rate-regulated cable operators of basic tier equipment offerings through charges for regulated services).

⁸² Report and Order at 14848 (Powell Statement). This approach is even more appropriate now that certain operators have made it clear that they will support the retail sale of the very same integrated set-top boxes that the operators themselves offer to customers. See discussion at 38-39, infra.

Acceleration of the ban also would cause significant disruption to current cable operator equipment procurement and deployment plans, which have been formulated on the basis of the current phase-in schedule. As a result, cable operators may be forced to cancel or significantly delay or curtail their rollout of new advanced digital services that have been designed to operate in conjunction with integrated digital set-top devices. Commissioner Powell previously noted the disruptive impact of the ban on cable operators' procurement and digital deployment plans, as well as the "potential for stranded investment" arising from the current ban.⁸³ Clearly, the

⁸³ Reconsideration Order at 7632 (Powell Reconsideration Statement). In its Notice, the Commission requests information on the equipment procurement and deployment activities and plans of cable operators, particularly with respect to integrated set-top boxes. See Notice at ¶ 11. Much of this information is proprietary to individual cable MSOs and would create significant competitive concerns if made publicly available on an individual operator basis. There are, of course, publicly available sources of information addressing the set-top market. See, e.g., Paul Kagan Associates, Inc., The Cable TV Financial Databook 2000, at 10 (setting out table of actual and projected shipments of digital and advanced analog set-top boxes in the United States for the period 1999-2010); Paul Kagan Associates, Inc., Broadband Technology, June 28, 2000, at 1 (discussing worldwide and North American shipments of digital and analog set-top boxes for the period 1998 through 2001); Jon Peddie Associates, "Set-Top Box Market Study," Oct. 2000, summary available at http://www.jpa.com/about/pr_stb2000.html (discussing worldwide digital and analog set-top box shipments for the period 1999 through 2006); Paul Palumbo, "Stacking Boxes," Hollywood Reporter, Vol. 362, Issue 27 (April 7, 2000), 2000 WL 20101106 (2000) (setting out table of individual MSO deployments of digital set-top boxes as of April 2000).

However, it is clear that data describing the number of set-top boxes ordered, deployed, and projected to be deployed by cable operators alone cannot provide a clear picture of the current or future state of the emerging retail market for set-top boxes. For example, focusing solely on the number of integrated boxes deployed or expected to be deployed will not account for the fact that some of those boxes will actually be distributed at retail. As the discussion below indicates, certain cable operators have announced plans to support the retail distribution of integrated set-top boxes, including integrated devices that incorporate embedded security and an OpenCable-compliant POD-host interface. Similarly, a growing percentage of the set-top boxes being ordered by cable operators are from consumer electronics manufacturers with strong retail brands, again highlighting the fact that many of these set-top boxes -- including integrated boxes -- may be targeted for

(Footnote Continued)

magnitude of the disruption to cable operators and consumers caused by implementation of the ban would be significantly greater were the Commission to advance the date on which the ban takes effect.

At the very least, it is premature for the Commission to accelerate the ban, given the extensive efforts OpenCable has made and continues to make in good faith to advance the POD-host option, including the ongoing middleware initiative, the fact that it is so soon after the July 1, 2000 POD availability date, and the absence of any evidence that this framework will not work for reasons other than the retailers' calculated refusal to date to pursue this option.

IV. RATHER THAN ACCELERATING THE BAN AND REDUCING CONSUMER CHOICE, THE COMMISSION SHOULD ELIMINATE THE BAN, IN LIGHT OF CHANGED CIRCUMSTANCES, IN ORDER TO ENSURE THAT CONSUMERS HAVE A FULL RANGE OF NAVIGATION DEVICE OPTIONS.

As the discussion in Section III indicates, the concerns cited by the Commission in imposing the current ban on integrated devices, which were speculative at best at the time the rules were adopted, effectively have been eliminated. The OpenCable project has successfully developed a solid technological foundation for the manufacture and deployment of operator-provided separate security devices and compatible OpenCable-compliant host devices, which can be made available to consumers at retail outlets. This foundation, which already has made it

retail distribution. See, e.g., CableFax, November 1, 2000 (summarizing TechTrends study predicting that consumer electronics vendors such as Panasonic, Philips, Pioneer, and Sony will increase their penetration of digital set-top sales from 5% to 25%, and that set-tops from these consumer electronics companies will make up 83% of Cablevision's deployments, 42% of Cox's, 29% of Time Warner Cable's, 27% of AT&T Broadband's, and 19% of Videotron's); "Eager to Find Second Sources, MSOs Tap CE Bigs for Boxes," Multichannel News, July 24, 2000, at 59 (noting MSOs' desire to create more competition in the supply of such equipment, as well as their "belief that brand-name vendors will become increasingly important as a portion of digital-box distribution shifts from leasing to a retail-based consumer sales model.").

possible to build devices for retail distribution that are comparable in features and functions to the set-top boxes currently provided by cable operators, is being further strengthened by OpenCable's ongoing middleware initiative.

The substantial progress already achieved by the OpenCable initiative, together with recently-announced MSO agreements with leading consumer electronics manufacturers and retailers,⁸⁴ clearly demonstrates the cable industry's strong commitment to the establishment of new retail distribution channels. As the discussion in Section III.A. demonstrates, one of the driving forces behind this commitment to retail distribution is the increasing competitive pressure on cable operators from DBS and other alternative MVPDs, who are themselves relying heavily on retail outlets in marketing their services and related equipment. This pressure, which has increased steadily since the navigation rules were first adopted, gives cable operators substantial economic incentives to open new retail distribution channels and to take steps to ensure that consumers have a broad range of attractive options for obtaining equipment which enables them to receive video programming and other services offered over an operator's system. These powerful marketplace incentives, which serve to reinforce the cable industry's already strong commitment to the OpenCable process, should serve to alleviate substantially the concerns which led the Commission to impose the current ban on integrated devices. In light of these developments, there is simply no persuasive policy reason for the Commission to maintain the ban.

⁸⁴ See discussion at 27 n. 67, supra, and 38-39 n. 89, 90, infra.

Indeed, as the discussion in Section III demonstrates, it is “contrary to good public policy to remove from the market one potentially cost-effective choice for consumers.”⁸⁵ Rather, “it would be more practical to allow operators to deploy integrated boxes that may well be less costly and provide greater security for the system.”⁸⁶ As noted above, some consumers may prefer the particular features in the integrated box that the cable operator offers, while others may well prefer the different features offered by consumer electronics manufacturers and retailers. Neither retailers nor consumer electronics manufacturers will be disadvantaged by the continued provision of integrated devices by cable operators, given their ability to achieve their own

⁸⁵ Reconsideration Order at 7632 (Powell Reconsideration Statement). Providing consumers with an integrated box option is also consistent with the Commission’s prior determination in the Equipment Compatibility proceeding that there was “no need to preclude cable operators from also incorporating signal access control functions in multi-function component devices [i.e., integrated devices].” Equipment Compatibility Reconsideration Order, 11 FCC Rcd 4121, 4127 (¶ 38) (1996). As Commissioner Powell said, “[a]t bottom, the point of that prior decision was that ensuring customers have choice and then letting those choices govern the market is the sound way to go. It was there, it is here.” Report and Order at 14847 (Powell Statement).

⁸⁶ Reconsideration Order at 7632 (Powell Reconsideration Statement). Record evidence submitted in the initial rulemaking demonstrated that embedded security contained in integrated devices provides a superior method of preventing signal piracy than split or separate security systems. See GI Comments, CS Docket No. 97-80 (filed May 16, 1997) at 60, Appendix B (“Primer on Security Methods and Physical Implementation of Security”) (providing a technical description of the various types of analog and digital security technologies), Appendix D (GI white paper discussing the technical and security problems with smart card technology and the superiority of embedded systems). GI also brought in to the Commission security experts who conducted a seminar for Commission staff on why embedded security is superior to separated security in protecting intellectual property distributed over MVPD networks. See GI ex parte submission, CS Docket No. 97-80 (filed May 22, 1998).

integration efficiencies and enhance the commercial viability of their product offerings through various means such as joint marketing and bundled pricing.⁸⁷

Accordingly, the Commission should eliminate the integration ban imposed in Section 76.1204(a)(1) of its rules⁸⁸ and allow consumers the option of obtaining integrated devices from their cable operator after January 1, 2005, so long as the cable operator advises its customers that they have the option to obtain navigation devices from retailers or other vendors that are unaffiliated with the operator and continues to make PODs available for use by subscribers who choose to obtain OpenCable-compliant host devices at retail.

To the extent the Commission chooses to retain a general ban on cable operator provision of integrated devices, it should, at a minimum, make it clear that a cable operator will not be prohibited from making integrated devices available to its subscribers if the devices are also available at retail and the operator continues to make PODs available to consumers who choose instead to obtain OpenCable-compliant host devices at retail. At least some cable operators already have indicated that they are now prepared to support a retail sale option for integrated devices containing embedded security as well.

In this regard, one MSO, AT&T Broadband, recently announced agreements with several leading consumer electronics manufacturers for the production of advanced integrated digital set-top boxes that will be offered to consumers at retail.⁸⁹ In addition, AT&T recently announced a

⁸⁷ See discussion at 32-33, *supra*.

⁸⁸ 47 C.F.R. § 76.1204(a)(1).

⁸⁹ “AT&T Broadband Selects Philips Electronics for Advanced Digital Set Top Boxes,” AT&T News Release <www.att.com/press/item/0,1354,3206,00.html> (Aug. 14, 2000) (“AT&T-Philips News Release”); “Panasonic Announces Alliance With AT&T

(Footnote Continued)

non-exclusive agreement with Best Buy which encompasses the marketing of AT&T digital cable and high-speed Internet services.⁹⁰ While initially the arrangement will involve the lease of AT&T-owned digital set-top boxes, ultimately it is expected that Best Buy itself will offer integrated set-top boxes and other consumer electronic devices for purchase at retail that will operate on AT&T's cable networks.⁹¹

The rationale for the current ban on integrated devices was based on the assumption that such devices would continue to be available only through the cable operator.⁹² However, this rationale collapses once the integrated devices are available at retail as well.⁹³ In its

Broadband to Drive Advanced Cable Set-Top Boxes in Retail Marketplace,” AT&T News Release (Sept. 26, 2000) <www.att.com./press/item/0,1354,3354,00.html> (“AT&T-Panasonic News Release).

⁹⁰ “Best Buy to Sell AT&T Broadband Services,” Reuters <www.reuters.com/news_article.jhtml?type=technology&Repository=TECHNOLOGY_REP&RepositoryStory10/11/2000> (Oct. 11, 2000).

⁹¹ Id.

⁹² In its Report and Order adopting the prohibition on integrated devices, the Commission specifically noted the assertion made by Consumer Electronics Manufacturers Association (now “CEA”) that “it is highly improbable that devices with embedded security functionality could be made available from any source other than the cable operator.” Report and Order at 14803 (¶ 68).

⁹³ NCTA recognizes that the Commission’s assumption that integrated devices could not be made available at retail may have been based in part on the cable industry’s prior submissions in this proceeding. Indeed, in the initial rulemaking proceeding, the industry had raised concerns about offering integrated set-top boxes with embedded security at retail. In particular, cable operators were concerned that analog conditional access technology, which was then the predominant technology in the industry, was particularly vulnerable to piracy, and that making integrated devices available at retail therefore presented an unacceptable risk of signal theft. See, e.g., NCTA Comments, filed in CS Docket No. 97-80, at 10 (May 16, 1997). However, on reconsideration, the Commission exempted analog set-top boxes from the separate security requirement and, subsequently, compliance with the “analog POD” requirement for hybrid boxes has been achieved.

(Footnote Continued)

Reconsideration Order, the Commission explicitly justified its decision to ban integrated devices on the basis that “[a]llowing MVPDs the advantage of being the only entity offering bundled boxes [i.e., integrated boxes with embedded security] could adversely affect the development of this equipment market,” and that accordingly “the prohibition on integrated boxes allows for equal competition in the marketplace.”⁹⁴ Applying the Commission’s own reasoning then, where the cable operator is willing to allow such devices to be made available to consumers through independent retail outlets, the prohibition can no longer stand.

In addition, where integrated devices which include embedded security as well as a POD-host interface (i.e., a POD slot) are available not only from an MSO but also at independent retail outlets, the Commission should clarify that such devices are not subject to the post-1/1/2005 prohibition on cable operator provision of integrated boxes.⁹⁵ To the extent that such devices are (1) designed to operate on any OpenCable-compliant cable system throughout the continental U.S., and (2) are available from retail outlets and other vendors that are unaffiliated with the MVPD, they qualify for the Section 76.1204(a)(2) exemption.⁹⁶ In fact, such devices are more

Digital technology was always more secure than analog technology and it has enabled the development of more secure encryption methods such that, as noted above, certain MSOs are now willing to support the retail deployment of integrated digital devices.

⁹⁴ Reconsideration Order at 7610 (¶ 30) (emphasis added).

⁹⁵ AT&T has indicated that the integrated digital set-top boxes which are to be manufactured pursuant to its recent agreements with Philips and Panasonic also will include a POD slot, capable of accommodating an OpenCable-compliant POD module, which will provide both back-up security and enhanced portability. See AT&T-Philips News Release; AT&T-Panasonic News Release, supra, n. 89.

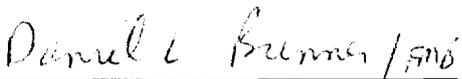
⁹⁶ 47 C.F.R. § 76.1204(a)(2).

portable than previously exempted DBS and C-band set-top boxes, which work only with one provider's system.

V. CONCLUSION

For the foregoing reasons, the Commission should take action to ensure that the navigation device rules adopted pursuant to Section 629 of the Communications Act serve their intended purpose of expanding the range of equipment options available to MVPD subscribers, by revising and/or clarifying the rules in the manner described herein.

Respectfully submitted,


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APPENDIX A

Appendix A

OpenCable List of Participants (As of October 10, 2000)

1	3C Ltd
2	Absolute Video Inc
3	acActive LLC
4	Acer Inc
5	ACTV Inc
6	ActZero Inc
7	Adelphia
8	Agilent
9	Airborn Connectors
10	Alert Systems Technology Inc
11	Alopa Networks
12	Altima Corp
13	America Online
14	Amlogic Inc
15	Amphenol
16	Amstrad PLC
17	Analog Devices
18	Anigma
19	Apler Int'l Sales & Mktng
20	Applied Protocol Engines Inc
21	Ashley Laurent Inc
22	Askey Computer Corp
23	Asustek Computer Inc
24	AT&T Broadband
25	ATI Research Inc
26	Aurora Communications Ltd
27	Axcess Technology Inc
28	AZ Technology Co Ltd
29	Bachman Technologies Inc
30	Barco Communication Systems
31	BBC
32	Bellcore
33	BellSouth Entertainment
34	Best Data Products Inc
35	Bitstream Inc
36	Boston Acoustics
37	Botticelli Interactive
38	Broadband Access Systems Inc
39	Broadbus Technologies
40	Broadcom Corp

41 BSquare Corp
42 Cable Wireless Optus
43 Cabledata Inc - USCS Int'l
44 Cablevision Systems Corp
45 Cadant
46 Canal + US Technologies
47 Canon Information Systems
48 Castlenet Technology Inc
49 C-COR Electronics Inc
50 C-Cube Microsystems
51 CH2M Hill
52 ChannelPro
53 Charter Communications
54 Chinook Advanced Television Corp
55 CICS Ball State University
56 Circuit City Stores Inc
57 Cirrus Logic
58 Cisco Systems Inc
59 Coax Corp
60 Cogency Semiconductor Inc
61 Com21 Inc
62 CoManage Corp
63 Comcast
64 Communications Strategies and Planning, Inc.
65 Compaq Computer Corp
66 Computer & Communications Research Labs
67 Computing Machines Corp
68 Comsat Government Systems Inc
69 Concero (formerly PSW Technologies)
70 Concorde Group Ltd
71 Concurrent Computer Corp
72 Conexant Systems Inc
73 Consumer Electronic Industries Assoc
74 Contec Ltd Partnership
75 Core Networks Inc
76 Cox
77 Criterion Software Ltd
78 Cyber Storage Systems
79 D - Link Systems Inc
80 Dacom Corp
81 Daewoo Electronics Co Ltd
82 Dell Computer
83 DFI Int'l
84 Digital Mediacom Inc
85 Digital Video Assoc Corp
86 Discovery Communications Inc

87 Distributed Devices Ltd
88 Dito
89 DIVA Systems Corp
90 DotCom
91 Dream Logic Inc
92 DSP Center Institute of Acoustics CAS
93 Dunelm Services Ltd
94 Eastern Electronics
95 E-Concept Inc
96 Electronic Commerce Assoc
97 Electronic Industries Assoc Japan
98 Electronic System Products (ESP)
99 Electronics & Telecommunications Research Institute
100 ELRON Telesoft
101 EnReach Technology Inc
102 Ensid Corp
103 Environmental Protection Agency (EPA)
104 Equator Technologies
105 Ericsson Home Communications
106 Escient Inc / OpenGlobe Inc
107 E-Tech Research Inc
108 Evolve Products Inc
109 Excite Simon Fraser University
110 Excite@Home Network
111 Eye 2 Buy Technology Company
112 Faroudja Laboratories Inc
113 Fast Bit Technologies
114 FCI Electronics
115 FOCI Fiber Optic Communications Inc
116 FORE Systems Inc
117 France Telecom R & D
118 Fujitsu Business Communication Systems
119 Fujitsu Microelectronics Inc
120 Funai Electric Co Ltd
121 Galaxis Vertriebsgesellschaft mbH
122 GEMPLUS Corp
123 GIST
124 Global Net Information Co
125 Greyfox Systems Inc
126 Grundig Digital Systems
127 GTE Laboratories Inc
128 GVC Co
129 Hamilton Technologies Inc
130 Handan Broadinfocom
131 Harmonic Lightwaves
132 Harmonic Technologies

133 Hewlett - Packard
134 Hitachi America Ltd
135 Hitachi, Ltd; Digital Media System Division
136 Home Director, Inc.
137 Hughes Network Systems
138 Humax Co Ltd
139 IBM
140 IBOPE
141 ICable System Co
142 iCompression Inc
143 ICTV Inc
144 iDTV Inc
145 IMAKE Software & Services
146 Impresstek Corp
147 Infineer Inc
148 Infomedia Network Inc
149 Information Resources Inc
150 Innovative Semiconductors Inc
151 Innovision Labs
152 Institute for Communications Technology
153 Instream TV
154 Integra Telecom Co LTD
155 Integrated Device Technology Inc
156 Intel Corp
157 Intellibyte Inc
158 Intellocity
159 Interact - TV
160 Interactive Channel
161 Interactive Channel / Source Media
162 Interlink Electronics Inc
163 IntoNetworks Inc
164 Intoto Inc
165 ISCTE Instituto Superior de Ciencias
166 ISP Cable
167 ITA
168 Italtel Spa
169 ITE Inc
170 ITOCHU Corp
171 IVEX Corp
172 IXMICRO
173 Japan Electronics Bureau
174 Jones International
175 Joohong Information & Communications
176 JVC Laboratory of America
177 Korea Cablenet Inc
178 Korean Cable TV Assoc

179 KPMG LLP
180 KRON Inc
181 Kuo Feng Corp
182 Liberate
183 Livewire Inc
184 Lomasoft Corp
185 LSI Logic Corp
186 Lucent - VTC
187 Lucent Cable Communications
188 Lucent Technologies Canada Inc
189 Macrovision Corp
190 Magis Networks Inc
191 Maspro Denkoh Corp
192 Master Integrated Appliances Co Ltd
193 Matsushita Television & Network Systems
194 MAXIM Integrated Products
195 McDermott Will & Emery
196 Media Management Services Inc
197 Media Station
198 Mediagluce Corp
199 MediaOne (prior to AT&T acquisition)
200 Mercury Computer Systems
201 Merdan Group Inc
202 Micron Semiconductor Products Inc
203 Micronas Semiconductors
204 Microsoft Corp
205 Microtune Inc
206 Microware Systems Corp
207 Millennium Digital Inc
208 Mindport Inc
209 Mitel Semiconductor
210 Mitsubishi Digital Electronics America
211 Mitsubishi Digital Electronics America, Inc.
212 Mitsubishi Electric - Imaging Systems Lab
213 Molex Inc
214 MoreCom Inc (acquired by Liberate)
215 Motorola
216 Multimedia Technology Ctr
217 National Association of Broadcasters
218 National Cable Television Association
219 National Semiconductor
220 Navic Systems Inc
221 nCUBE
222 NDS Ltd
223 NDS Technologies
224 NEC America