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Before the
Federal Communications Commission
Washington, D.C. 20554

AUG 14 1998

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
)	
Implementation of Section 304 of the Telecommunications Act of 1996)	CS Docket No. 97-80
)	
Commercial Availability of Navigation Devices)	
)	

Petition for Reconsideration

The Telecommunications Industry Association (TIA) seeks reconsideration of several aspects of the Commission's decision on the Commercial Availability of Navigation Devices.

Specifically, TIA recommends, on reconsideration, that the Commission find that the rules for equipment providing conditional access do not:

- apply to analog devices;
- require phase out of integrated devices by January 1, 2005.

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List A B C D E

I. The New Rule Should Not Apply to Analog Devices

The Commission, in its Order¹, requires the separation of security from non-security functions and appears to apply this separation requirement to analog devices.² Despite the fundamental differences between analog and digital technology, the Commission does not address how this requirement will be applied to the analog environment. The Commission made this determination notwithstanding the general agreement among commenters in this proceeding, including both cable operators and manufacturers, that these analog devices should not be subject to the commercial availability requirements.³ The Commission addresses at some length the legal status of regulations concerning the compatibility between the cable television and consumer electronics industries,⁴ but does not address many of the logistical, technical and economic issues.

Logistical. The cable industry has developed its analog infrastructure over the past forty years. The key functions of that infrastructure were to provide a broadband, television broadcast wire to the home and to provide security for that wire. During this period, different approaches were adopted by each of the major suppliers as a means of product differentiation and improved security. There are now 10,000 headends, seventy million subscribers and over fifteen scrambling methods, with some of the headends having multiple scrambling methods.⁵ As these figures demonstrate, analog technology and services have been available for a long time and it would be very difficult to retroactively impose a regulatory regime to apply to analog devices. Congress

¹ *Commercial Availability of Navigation Devices*, CS Docket No. 97-80, FCC 98-116 (rel. June 24, 1998) Report and Order. ¶¶ 47-81, “Rules for Equipment Providing Conditional Access”.

² ¶ 62. The Order does not specifically assert that analog is covered, but states: “As of July 1, 2000, therefore, MVPDs covered by Section 629 who wish to distribute devices using integrated security may do so only if they also make available the security modules separately.”

³ Reply comments of TIA, CS Docket No. 95-184, at 1-2. Comments of National Cable Television Association (NCTA), CS Docket 95-184, p. 8; TIA, CS Docket 95-184, p. 14; General Instrument, CS Docket, 95-184, p. 39; Scientific-Atlanta, CS Docket 95-184, p. 12.

⁴ ¶¶ 51-57.

⁵ Comments of Scientific-Atlanta, p. 12.

recognized the problems of retroactively applying these provisions to the forty year legacy of analog equipment and the fact that the Commission rejected a proposal to require cable operators to make analog descrambling equipment available through retail outlets.⁶ It included as part of the statute a provision that Commission determinations made prior to February 8, 1996 “with respect to commercial availability to consumers of converter boxes...and other equipment...shall fulfill the requirements of this section.”⁷ This is a clear indication that the Commission should not try to retroactively apply this provision to the forty year legacy of cable television equipment and infrastructure.

Technical. Separation of security was not either a regulatory requirement or design objective during the development of these cable systems over the past forty years. It is not clear what the Commission means technically by the separation of security. Currently available televisions and VCRs meet the commercial availability goal of the statute and the regulation. In the first instance, most standard televisions are able to receive basic and enhanced cable services without any additional equipment. In effect, the consumer can already purchase the non-security equipment at retail. It is only when a subscriber desires to purchase premium cable services that a decoder is required. Secondly, in some of these latter cases, an infrared remote control device or a simple set of wires could result in the separation of security from non-security functions. There is a third set of instances where the separation of security from non-security functions would require the engineering and design of a separate security device which, while generally technically possible, would be a complex, expensive and difficult undertaking. Further, there has not been any testing done of these devices in real life situations, so it is not certain what technical and interoperability barriers manufacturers will confront.

The FCC does not address what would be technical compliance with its requirements.⁸ As the above analysis indicates, there are a variety of potential solutions, some simple and others complex. There is likely to be a wide variety of solutions

⁶ Equipment Compatibility Order, 9 F.C.C.R. 1981 at ¶ 29.

⁷ Comments of General Instrument, p. 39; see 47 U.S.C. § 549(d)(1).

⁸ The Commission regulations require only that these devices be “designed to connect to and function with other navigation devices available through the use of a commonly used interface or an interface that conforms to appropriate technical standards promulgated by a national standards organization.” 47 C.F.R. 76.1204(b).

deployed, which will confuse the consumer. Some of these solutions will probably not work well, if at all, in some cable environments, given that there are so many different types of equipment.

Economic. The third and perhaps most difficult barrier is economic. There are over a dozen scrambling methods and dozens of combinations of these methods. The cost of designing and developing devices to separate security from non-security functions for these myriad different combinations could be considerable. This could have a particularly adverse effect on smaller suppliers who would have to supply such devices for a much smaller universe of customers or be forced to stop deploying analog devices on July 1, 2000. For new entrants, an additional requirement would be imposed, often requiring the development of two devices. This would constitute an entry barrier and reduce competition, directly contrary to the thrust of the commercial availability provisions.

A second related economic concern would be that these devices would be developed for a non-existent market. Some cable operators are already phasing out analog devices, while others intend to continue provide analog services and devices for some time. These devices would be designed and developed for a shrinking market, one that is in its twilight, but which may also be around for some time. Further, the market for cable television and consumer electronics compatibility equipment is minuscule even under healthy conditions. Previously, prior to the development of digital devices, the Commission required dual tuner devices to remedy various watch and record and picture-in-picture problems. There was little or no demand for such devices, with one major manufacturer reporting no demand at all. From the perspective of manufacturers who are in the marketplace, little interest has been demonstrated for the manufacture or selling of the non-security element of the navigation device.

There is a demand for the security portion of these devices, but that is due to piracy and theft of service, a problem which the Commission readily concedes.⁹ This problem is estimated to cost the cable industry in the billions of dollars a year. The standardization of the interface required to accomplish a separation of security from non-security functions would impose a restriction on the development of security

improvements, further exacerbating this problem. If this were to occur, the Commission's decision to cover analog devices would cause it to run afoul of the statutory requirement that security not be jeopardized. It was pointed out in the initial comments that any effort to separate out the security functions could conflict with the statutory requirement that the Commission not jeopardize security.¹⁰

Finally, as also mentioned in the original round of comments, "regulations requiring separation of security and other functions could inadvertently impact the design and cost of today's semiconductor technology and integrated circuits (ICs), which allows manufacturers to provide multiple functions on a given IC, saving cost and miniaturizing products. If the Commission requires separation of these functions, it could prevent manufacturers of navigation devices from taking advantage of current and future advances in semiconductor and integrated circuit technology. The result would be higher cost and less desirable features for the consumer."¹¹

In summary, the retail sale or commercial availability of analog devices is not feasible logistically, technically or economically.

II. The New Rule Should Not Require the Phase Out of Integrated Devices

The Commission ruling provides that "the phase out of devices that have security and non-security functions combined must occur by January 1, 2005."¹² This ban on so-called integrated devices has no basis in the statute or legislative history and is directly in conflict with the statutory requirement that Commission "regulations shall not prohibit any multichannel video programming distributor from also offering converter boxes."¹³ This ban is not feasible technically and will result in considerable inconvenience to the consumer, reduce consumer choice and increase costs to consumers.

⁹ ¶ 43.

¹⁰ Comments of Scientific-Atlanta, p. 25.

¹¹ Comments of TIA, p. 17.

¹² ¶ 3, 69.

¹³ 47 U.S.C. § 549(a). See also Statement of Commissioner Michael K. Powell - Dissenting in Part.

This ban conflicts not just with the statutory provision allowing cable operators to offer their own converter devices, but also with the statutory requirement that the Commission not jeopardize the security of multichannel video program distributors. In the comments in this proceeding, there was ample discussion about the risks of piracy, particularly in the digital domain where financial transactions can be involved.¹⁴ If the problem of security has become so serious in the analog world that there have been armed robberies of cable warehouses and trucks, it is difficult to imagine the scope of the problem if pirates and thieves can gain access to financial transactions. The ban on integrated boxes “ignores an important principle in preventing piracy and theft: at higher levels of hardware integration, security becomes harder to compromise. To the extent that security functions are a mixture of hardware and software, the challenge to the pirate and thief is heightened... This is particularly true as hackers and pirates gain access to faster and more powerful computers and networks of computers with the capability of compromising more of the currently available security technology.”¹⁵

The ban on integrated devices is not feasible technically and may reduce competition. As cable and other networks converge, cable or set-top converters increasingly resemble network computers with an operating system, software package, one or more chips or integrated circuits, a display and other similar characteristics. Indeed, it is entirely possible that a network computer and set-top box may be virtually indistinguishable by the year 2005. It is also possible that these boxes will closely resemble personal computers. As cable networks become increasingly two-way and have network and personal computers attached to them, conditional access and security features for the cable system may become incorporated into these boxes. Thus, the FCC ban on integrated navigation devices could result in a ban on the attachment to the cable network of network and personal computers with conditional access functions. Alternatively, these computers would have to be offered with separate conditional access or security functions, adding to their cost and complexity.

When combined with the application of this rule to the analog environment, the FCC rulemaking could impose a significant entry barrier to new competitors. In order to

¹⁴ TIA Comments, p. 17.

¹⁵ Scientific-Atlanta Comments, p. 25.

compete against existing cable suppliers, these competitors would be required to offer four rather than one device: an analog box, an analog POD or security device, a digital box and a digital POD or security device. This result would be directly contrary to the intent of the commercial availability provision - increased competition.

The phase out of integrated devices will also seriously inconvenience the consumer. Much of the compatibility problem between cable television and consumer electronics equipment is due to the requirements for coordinating between three devices - televisions, VCRs and set-top boxes. The phase out of integrated devices would result in the consumer being required to have four devices instead of three. This would probably result in even more consumer confusion and more difficulties coordinating between four instead of three devices.

The phase out of integrated devices would also reduce consumer choice. Consumers would no longer have the option of purchasing the integrated device, but would be forced to obtain two devices instead of one. Consumer choice was one of the goals of the Telecommunications Act of 1996.

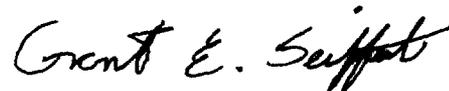
Limiting consumer choice to separate devices for security and non-security functions would also result in increased costs to consumers. It would be more expensive to manufacture two separate devices and there would, in some instances, be more costs associated with distributing multiple devices. This is also contrary to the goals of the Telecommunications Act of 1996 which sought to reduce costs to consumers.

The Commission should overturn its ban on the provision of integrated devices, a proposal which will penalize consumers and is fraught with unforeseen difficulties and complications.

Conclusion

The Commission should grant reconsideration of its decisions to require the separation of security from non-security functions for analog devices and to ban integrated navigation devices for the reasons cited in this petition.

Respectfully submitted,



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