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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, DC 20554

In the Matter of	)	
	)	
Implementation of Section 17 of the Cable Television Consumer Protection and Competition Act of 1992	)	ET Docket No. 93-7
	)	
Compatibility Between Cable Systems and Consumer Electronics Equipment	)	

REPLY COMMENTS OF THE SATELLITE BROADCASTING

AND COMMUNICATIONS ASSOCIATION OF AMERICA

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REPLY COMMENTS OF THE SATELLITE BROADCASTING

AND COMMUNICATIONS ASSOCIATION OF AMERICA

The Satellite Broadcasting and Communications Association of America (SBCA) is pleased to submit to the Commission its views in the above-referenced proceeding. Because the primary thrust of this NPRM is compatibility between cable and consumer equipment, SBCA elected to file in the Reply Comment period so as to have the more complete views of the parties affected by the proceeding.

As the national trade organization which represents every facet of the direct-to-home broadcasting industry, SBCA is vitally interested in the matter of consumer equipment compatibility in the context of how it is being treated by the Commission pursuant to the 1992 Cable Act. This Notice of Proposed Rulemaking has implications which go beyond the

equipment compatibility concerns which Congress expressed in the 1992 Act, and we will attempt to delineate them as they apply specifically to the DTH industry.

As we will discuss below, retention of decryption integrity is a major concern of the DTH industry. The current decryption technology utilized in the C-Band has proved to be very successful in deterring signal theft and thus helping the industry to become increasingly popular among both programmers and consumers. The result has been a thriving distribution technology which has become a viable competitor in the video market place.

INTRODUCTION

SBCA represents virtually every sector of the DTH broadcast industry. Its members are the manufacturers, owners, and lessees of both C-band and Ku-Band satellites; the new Direct Broadcast Satellite services which are scheduled to go on line later this year; manufacturers of home receiving equipment including satellite television sets; the diverse array of program services which offer subscription programming to home subscribers; and the distributors and retail satellite dealers who are the point of contact with the public for the sale and installation of DTH systems and associated television programming.

Home consumers are purchasing more DTH systems than ever before since the onset of encrypted (scrambled) programming in 1986. SBCA attributes this rise in system sales primarily to an increased awareness on the part of television consumers, brought on in some

respects by the enactment of the 1992 law, of the high quality of DTH video reception and the enormous diversity of programming available both on a subscription basis and in-the-clear. We believe sales will burgeon even further when the high-powered DBS services begin their operations in the very near future.

THE RULEMAKING COULD HAVE COMPETITIVE EFFECTS ON OTHER TECHNOLOGIES

Whatever else video competitors have in common -- whether they be cable operators, DTH, MMDS, or even telco's in the future -- the single characteristic they share as part of their consumer hardware systems is the television set itself. It is the video screen which acts as the medium through which home consumers view the program product to which they have subscribed or receive free off-air.

The ability of the television set to accept the input of the video distribution system at a quality which is acceptable to the consumer constitutes an important factor in the competition mix within the video market place. While obviously the set itself is not the sole determinant of how well one technology stacks up against another, clearly the TV receiver a) is patently necessary for consumers to watch programming, and b) is manifestly implicated in the quality of the display of a particular technology when what goes into the "guts" of the receiving and display equipment is taken into consideration. And therein lies the dilemma which the DTH industry faces in the singular role of acting as a leading competitor to cable.

Congress had every good intention in attempting to insure that consumer receiving equipment was compatible with the various converter schemes utilized by the thousands of individual cable operators around the country. It has asked the Commission to develop, through this NPRM, a system of guarantees to consumers that the expensive and sometimes complex television equipment they purchase interfaces well with the converter and decoding equipment supplied by the cable operator.

The SBCA strongly favors improvements in the video distribution-receiving-display interface but at the same time urges the Commission to consider the potential impact of this proceeding in the broader market place. The Commission is the guardian of a balanced telecommunications policy and the promulgator of a video market place which engenders competition. This NPRM has broader implications, particularly as they relate to the ability of non-cable technologies to access "improved" consumer equipment. Thus the Commission should insure that the new consumer equipment format it is fostering does not "tilt" the technology of consumer equipment to such a degree that those units become technically more suitable to a single technology, at the expense of its competitors.

The SBCA recognizes the intent of the Congress in advancing compatibility requirements in order to optimize utilization of video technology in the viewing of cable signals. They are necessary, and in the long run will enable viewers to enjoy even further state-of-the-art features which are being offered today in both TV receivers and VCR's. What concerns us, however, is the potential for the Commission to approach this matter by focussing all the

technological changes only on enabling more facile access to consumer equipment by cable operators simply because that is what the Act has called for.

The satellite industry is concerned that so perfecting the cable-TV interface process could confer on TV receivers an inherent "cable bias." In other words, as the cable-TV interface on all levels is facilitated by government mandate, it is important that the advantages and technical quality of that access are also conferred on non-cable technologies which will also utilize that same receiving equipment. We would suggest that the Commission protect access by all video distribution technologies so as not to disadvantage technically any single competitor.

In order to address this issue properly, it is useful for the Commission to look briefly at the mechanics of receiving a satellite signal in the home. DTH reception is a "closed loop," that is, the system is unique and self-contained. Systems offering reception in the C-Band require set-top units in order to a) decrypt scrambled signals to which a home viewer would subscribe and b) "steer" the receiving antenna to the appropriate satellite in order to tune in the program-carrying transponder (there are over 20 C-Band satellites for subscribers to choose from -- a major attraction for owners of DTH systems). In addition, the newer DBS systems will utilize external units for tuning, decryption, decompression, and other state-of-the-art techniques which will continue to evolve as the technology matures.

SBCA has not studied the economic feasibility of integrating these functions into a consumer

TV set. That is a decision which market forces will determine. The "steering" and transponder tuning circuitry in an integrated receiver-decoder is complex, and we would look to the demand for such units as being the primary determinant at this time as to whether they would achieve any market place success. Eventually "fixed look" DTH systems may be able to be integrated into the TV set. It will be the consumer manufacturers which are engaged in the satellite business who will make that call.

ENCRYPTION IS THE KEY

More importantly, the decryption technology constitutes the major element in program security. SBCA has had extensive experience in fighting signal theft, and the industry has committed vast resources to achieve the program security it enjoys today. This anti-piracy program, coupled with the introduction of new, state-of-the-art decryption technology has enabled the DTH industry to stabilize itself and prosper as a viable competitor in the video market place.

While the experience of defeating satellite signal theft was not a pleasant one, it was valuable in that it demonstrated both the benefits and the vulnerability of utilizing technological means to protect program signals. The lessons the DTH industry has learned in this regard have merit in the context of the issues the Commission is considering in this NPRM.

In the supply and demand program market place which characterizes the DTH industry, the

drive to protect encrypted programming from compromise emanates from the programmers. The requirement to rectify any compromise in decoding technology becomes urgent, and the response to "breaks" in encryption technology must be immediate. If "necessity is the mother of invention," then flexibility, creativity and technology innovation enable that invention to protect the delivery of programming to DTH subscribers.

The current satellite decryption system is "unilateral," that is, only a single element is required to decrypt a signal. Future systems could well be "bilateral," or even "trilateral," utilizing two or more intersecting processes for decryption (e.g. a decoder and a "smart card" and a telephone line), depending on marketplace conditions and the need for more advanced security measures. Thus it is important to create an environment where "standards" or "mandated" requirements do not hobble the ability of the market place to react in security-threatening situations.

We would caution the FCC regarding protection standards which could in the end become a lowest common technological denominator and even a "clog in the wheels of innovation," thus defeating the purpose for which they were originally intended, not to mention the market place innovation which would be stifled. As a result, we would resist strongly any attempts to either standardize decryption techniques or to make actual decryption circuitry part of the TV set.

Because satellite reception comprises a unique and "closed" system, the industry will be

reliant on an interface connector which has compatibility with satellite set-top units. Possibly the connector will have commonality with all video transport technologies so that unique decryption systems (such as DTH) can retain technological integrity. But as we have stated, it is important for the satellite industry, as well as other distribution technologies which utilize encryption to protect program signals, to retain total control over both the encryption and decryption process in order to assure a rapid market place response to any breaks in security.

A NEW TECHNOLOGY POLICY

There is another, equally compelling aspect to the NPRM which deserves satellite industry comment. The Commission appears to be proposing technology policy which encourages cable operators to abandon set-top units in favor of security interdiction by providing decryption at the pedestal and distribution from pedestal-to-home in the clear. The Commission proposes to use its rate-setting powers to deny cable operators the ability of recouping set-top costs, thus encouraging interdiction techniques which would lead to distribution direct to consumer receiving equipment from the pedestal.

It will be the cable industry which will have the most substantial comments to offer on the feasibility of utilizing interdiction. However, our view is that it contains two factors which we suggest the Commission examine: a) The line from pedestal-to-home which carries decrypted programming could be vulnerable to signal theft techniques, and b) By utilizing its rate-setting powers to encourage interdiction, is the Commission de facto creating an

industrial policy which favors a particular mode of decryption when such decisions have always been market-driven?

The satellite industry, by the same token, also sees some possible competitive ramifications to interdiction not related to the technical aspects being considered by the NPRM. Interdiction implies that the non-decryption functions of the cable set-top unit - namely the cable tuning functions - would henceforth be contained in the TV set. While this would be the logical outcome because of the interdiction technique, it could provide the TV set with the unique advantage of technically favoring cable reception over that of other technologies.

So from a competitive standpoint, it is possible that other, non-cable technologies could be technically disadvantaged by a "cable friendly" consumer unit resulting from the rules. The DTH industry would like to discuss with the Commission how TV receivers currently receive input from DTH receivers and decrypt signals, and the issues involved in maintaining signal quality under possible new technological arrangements implemented through this NPRM. Until then the Commission should be on guard against unwittingly creating a competitive obstacle by providing for superior video circuitry for the cable side of the equipment while relegating non-cable distribution to a secondary (and possibly technically inferior) priority.

RECOMMENDATIONS

In order to create a balanced environment for the distribution of video programming to the home by all technologies, SBCA makes the following recommendations to the Commission:

1. The physical interface between a consumer unit and a distribution technology should not favor one technology over another, nor be "tilted" toward a "lowest common denominator" with regard to decryption techniques.

2. The rules should attempt to encourage the creation of a consumer television receiving unit which accords to all technologies comparable access to that unit's display function, i.e. the TV screen, which is the principal graphic indicator of the quality of the video service being subscribed to.

3. Television circuitry within a consumer unit must be of the same technical quality for each of the technologies which interface with the unit so as not to accord a single technology technical superiority within the set over any other mode of distribution.

4. As a general matter, standards for decryption should be avoided. In SBCA's experience, decryption techniques have evolved well through market place forces. Again, a "lowest common denominator" approach will only lead to increased signal theft in the name of a "universal" security standard.

CONCLUSION

These recommendations do not defeat the intent for which this NPRM has been promulgated. Our suggestions reach further than the scope of the rulemaking, however, because there may be competitive ramifications which go beyond the function of cable

access to consumer equipment. Our recommendations take into account the broader ramifications of the NPRM in the event that the Commission's policies concerning TV set design are implemented.

Andrew R. Paul
Senior Vice President

February 7, 1994