

TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| SUMMARY | i |
| I. Introduction. | 3 |
| II. The Ten Year Grace Period Should Be Applied So As To Avoid Unnecessary Costs. | 7 |
| A. The ten year grace period should apply to any system which would be required to incur more than nominal costs to comply. | 8 |
| B. Only fully addressable systems are currently able to comply with anti buy-through. | 12 |
| 1. Overview of signal security techniques. | 13 |
| (a) Trapping devices | 14 |
| (b) Scrambling | 16 |
| (c) Hybrid security techniques | 17 |
| 2. Systems that are not fully addressable are unable to comply without incurring substantial costs | 18 |
| 3. Compliance is impossible where full addressability has not been deployed system-wide | 23 |
| C. Cable operators should not be required to compromise security against theft to comply with anti buy-through | 25 |
| D. The Commission should not prematurely force cable systems to implement obsolete or unproven technology to accommodate anti buy-through | 27 |
| III. Evasions Of The Anti Buy-Through Provisions | 31 |
| IV. The FCC Should Encourage Flexible Marketing Approaches As It Enforces The Rate Nondiscrimination Clause. | 35 |
| V. Conclusion | 38 |

SUMMARY

Time Warner recommends that the FCC apply the tier buy-through prohibition immediately only to cable systems that are able to comply without imposing more than nominal costs, operator's costs and creating an upward pressure on cable rates. In deciding which systems are and are not able to comply, the Commission must be mindful of the tremendous costs that compliance would entail, the motivating factors that go into deploying a hybrid signal security system, and the emerging new technologies that will likely change the meaning of "addressability" to the benefit of both consumers and cable operators. Lastly, the FCC should apply the nondiscrimination requirement of the anti buy-through provisions to allow systems that must comply to continue to offer their subscribers a multitude of service rate options.

The buy-through provision generally prohibits cable operators from requiring subscribers to purchase any "tier" of service, other than the basic tier, as a condition of access to video programming offered on a per channel or per program basis. This would encompass premium channels offered on a "multiplexed" basis.

It is clear that Congress intended for the anti buy-through provisions to apply immediately only to systems that are technically capable of providing their subscribers with easy access to premium and pay-per-view channels. Such systems are those that have made business judgments that addressability should be provided to at least all non-basic subscribers.

Compliance with the tier buy-through for these systems represents no great and unexpected cost outlay. Congress wisely provided in the tier buy-through provision for a ten year compliance period so that systems which had made past business judgments not to invest in the current generation of fully addressable technology would not be faced with immediate and overwhelming costs of compliance.

Cable systems which are not fully addressable have deployed security systems that use non-addressable trapping devices or programmable boxes for at least some of their non-basic subscribers. In many cases, these systems have responded to the local consumer demands by keeping scrambling of signals to a minimum so as to enhance consumer friendliness, keeping costs and rates as low as possible, and awaiting promising new technologies that may solve many consumer electronics compatibility dilemmas. Immediate compliance for the systems that use non-addressable or hybrid security systems is not a feasible option. If compliance were mandated, these systems would face extraordinary costs and be forced to adopt a state of technology that is still developing. The ten year period shelters these systems from such a future and fuels economic incentive to continue to develop more consumer friendly security technology.

Since the buy-through prohibition itself should properly apply only to fully addressable systems, the evasion provision of the 1992 Cable Act should likewise have limited application. Clearly, fully addressable systems should not be allowed to revert to non-addressable technology to avoid the tier-buy

through provision. However, as new security technologies emerge, cable operators should not be forced to make a bad business commitment simply to avoid an evasion penalty. The FCC should enforce the evasion provision only where the evidence is clear that the operator is not implementing addressability solely because it wants to avoid the anti buy-through provision. A more active evasion enforcement policy would force cable operators to commit to emerging addressable technology before it has had an opportunity to develop.

Lastly, the FCC should bear in mind that discrimination should be exactly, and no more, than a rate difference for a la carte premium or pay-per-view service options charged to a basic-only subscriber as compared to any other subscriber for the same option. This provision should not act to dampen marketing options in fully-addressable systems. On the contrary, fully addressable systems, which have the technology to provide programming on demand, should be given as much freedom to invent new options for their consumers as is consistent with the 1992 Cable Act. In addition, the FCC should promulgate an enforcement scheme that avoids interference in operator/subscriber relationships until a tier buy-through dispute cannot be resolved at the local level. The FCC's enforcement role should be limited to those cases where it can function as an ultimate dispute resolution forum.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of:)

Implementation of Section 3 of)
the Cable Television Consumer)
Protection and Competition Act)
of 1992)

MM Docket No. 92-262

Tier Buy-Through Prohibitions)
)

**COMMENTS OF
TIME WARNER ENTERTAINMENT COMPANY, L.P.**

Time Warner Entertainment Company, L.P., ("Time Warner") hereby respectfully submits these comments in response to the above-captioned Notice of Proposed Rule Making¹ ("Notice") regarding the tier buy-through prohibitions contained in Section 3 of the Cable Television Consumer Protection and Competition Act of 1992 ("1992 Cable Act").² Time Warner is a partnership, which is primarily owned (through subsidiaries) and fully managed by Time Warner Inc., a publicly traded Delaware

¹Notice of Proposed Rule Making, in MM Docket No. 92-262, FCC 92-540, ___ FCC Rcd ___ (adopted December 10, 1992).

²Pub. L. 102-385, 106 Stat. 1460 (1992). Section 3 of the 1992 Cable Act amends Section 623(b)(8) of the Communications Act of 1934 (the "Act"), 47 U.S.C. §543(b)(8).

corporation. Time Warner is comprised principally of three unincorporated divisions: Time Warner Cable, the second largest operator of cable systems nationwide; Home Box Office, which operates pay television programming services; and Warner Bros., which is a major producer of theatrical motion pictures and television programs.

In pending litigation, Time Warner Entertainment Company, L.P. v. FCC, Civil Action No. 92-2494 (D.D.C. filed Nov. 5, 1992), Time Warner is challenging the constitutionality of various provisions of the 1992 Cable Act including the rate regulation provisions found in Section 3, which contains the tier buy-through restriction at issue here. Among other things, these provisions unconstitutionally compel Time Warner to speak in a manner that it might not otherwise choose, in violation of Time Warner's rights as a First Amendment speaker. The tier buy-through restriction, which prohibits cable operators from structuring their rates for their premium and pay-per-view services in relation to the non-premium services that a subscriber purchases, interferes with the cable operator's editorial judgment in valuing different forms of speech. Such a restriction also places cable operators, including Time Warner, at a competitive disadvantage as against the non-cable distributors of news, information and entertainment with whom they compete.

In submitting these comments, Time Warner specifically reserves, and does not waive, its constitutional rights, and these comments are filed without prejudice to Time Warner's

constitutional challenges. Notwithstanding Time Warner's position regarding the unconstitutionality of the provisions which are addressed in the Notice, Time Warner nevertheless offers the following comments in response to the issues raised therein.

I. Introduction.

Although these comments will address many issues raised in the Notice, Time Warner has three overriding concerns. First, the ten-year grace period for compliance with the tier buy-through prohibition should be applicable to any cable system not presently technically able to comply without more than nominal expenditures of time or money, so as to avoid the unintended consequence of forcing upward pressure on cable rates. Second, the anti buy-through requirement must not be implemented in a manner that prematurely mandates a particular existing technology at the expense of superior newly emerging technologies and which might lock the industry in to a specific technology which is unable to achieve the goals of consumer friendliness embodied in section 17 of the 1992 Cable Act. Third, the FCC's non-discrimination rules relating to the tier buy-through prohibition should be designed to promote marketing flexibility so as not to inhibit consumer choice.

Section 623(b)(8)(A) of the 1992 Cable Act prohibits cable operators from requiring subscription to any tier of service, other than basic service, in order to obtain access to

programming offered on a per channel or per program basis.³ As a preliminary matter, it must be recognized that the perceived need for an anti buy-through requirement is largely an outgrowth of a potential problem Congress itself created in the 1992 Cable Act. As the Commission has recognized, prior to deregulation under the Cable Communications Policy Act of 1984 ("1984 Cable Act"),⁴ only basic cable service was subject to rate regulation.⁵ Pre-1984, basic cable service was essentially defined as the lowest-priced service level containing local broadcast signals, a definition substantially similar to that developed under the 1992 Cable Act. Optional tiers of service, offered over and above the basic level, were immune from rate regulation.⁶

As might be expected, this regulatory regime led to the practice of tiering, whereby video programming offerings other than local broadcast signals were typically marketed as a

³The Commission should note that premium services offered on a per-channel basis, such as HBO or Showtime, must be made available to basic-only subscribers pursuant to Sec. 623(b)(8) of the Act even if such premium services are offered on a "multiplexed" basis. H.R. REP. No. 628, 102d Cong., 2d Sess. 80 (1992) ("The Committee intends for these 'multiplexed' premium services to be exempt from rate regulation to the same extent as traditional single channel premium services when they are offered as a separate tier or as a stand-alone purchase option."). While the foregoing statement was made in the context of rate regulation, there is no logical reason why the tier buy-through requirement should not also apply to multiplexed premium services.

⁴47 U.S.C. §§521 *et. seq.* as amended by 1992 Cable Act.

⁵In re Community Cable TV, Inc., 95 FCC 2d 1204 (1983), *recon. denied*, 98 FCC 2d 1180 (1984).

⁶Id.

separately available tier of service,⁷ over and above the basic level, so that such services could be made available at an appropriate marketplace price, rather than the below-market rates for basic service which generally prevailed under the system of standardless local regulation prior to the 1984 Cable Act.⁸ Before 1984, cable operators offering such tiers almost universally required subscription to the tier before a customer could purchase programming offered on a per-program or per-channel basis, generally referred to as "premium" programming, such as HBO or Showtime.

With the advent of deregulation at the end of 1986, many cable operators "collapsed" their tiers into a single basic level, consisting of local and distant broadcast signals as well as various cable networks.⁹ By collapsing their tiers, cable operators were able to deliver a broader cross-section of potential viewers, which has facilitated the growth of advertiser-supported cable networks. Moreover, deregulation has

⁷Prior to the 1984 Cable Act, services offered on such tiers consisted primarily of either distant broadcast "superstations" such as WTBS, WOR or WGN, or "general audience" cable networks such as ESPN, USA or CNN.

⁸See, Cable Franchise Policy and Communications Act of 1984, H.R. REP. No. 9431, 98th Cong., 2d Sess. 24 (1984); In the Matter of Reexamination of the Effective Competition Standard for the Regulation of Cable Television Basic Service Rates, Notice of Proposed Rulemaking, MM Docket No. 90-4, 5 FCC Rcd 259 at ¶36 (1990); Remarks of Commissioner Sherrie P. Marshall before the Federal Communications Bar Association, Washington, D.C., March 7, 1990 ("[L]ocal political pressures should not be allowed to limit consumer viewing choices.").

⁹In the Matter of Reexamination of the Effective Competition Standard for the Regulation of Cable Television Basic Service Rates, *supra*, at ¶16 (1990).

allowed the so-called "niche" networks to flourish: networks which target a more specialized audience than the general audience cable networks which predominated pre-1984. Among the "niche" networks which have been able to fulfill cable's promise of programming diversity are Court TV, E!, Discovery, Black Entertainment Television, Lifetime, A&E, The Nashville Network, VH-1 and American Movie Classics.

By offering all such services in a single package provided to all subscribers, cable operators have been able to maximize consumer choice, spread costs across a wider base, and provide a multiplicity of channels for just pennies a day. If offered on lower penetration tiers, advertising revenues would be severely impacted, and such services would have to be offered at monthly rates analogous to premium channels, assuming that highly specialized niche services could survive at all in such an environment.

Cable systems which have collapsed their tiers obviously did not cause any concerns regarding buy-through. Since there was only one level of basic service, premium channels were readily available to all subscribers -- there were no tiers to buy through in order to obtain premium channels. The 1992 Cable Act seeks to reimpose the rigid tiered structure which prevailed pre-1984 by establishing dramatically different levels of scrutiny applicable to basic service rates (Sec. 623(b) of the Act) and cable service tier rates (Sec. 623(c) of the Act). Mindful that most cable operators will again segregate their basic service levels from one or more optional tiers, in accordance with the

new statutory scheme, Congress has adopted Sec. 623(b)(8) of the Act in an effort to force cable operators to offer premium or pay-per-view services to subscribers declining such tiered offerings.

II. The Ten Year Grace Period Should Be Applied So As To Avoid Unnecessary Costs.

As shall be discussed in detail below, compliance with the tier buy-through restrictions will impose substantial technical problems and other costs on the cable operator. Congress was obviously mindful of such costs. Section 623(b)(8)(B) of the Act provides a ten year grace period for compliance with the anti buy-through requirement for any "cable system that, by reason of the lack of addressable descrambler boxes or other technical limitations, does not permit the operator to offer programming on a per channel or per program basis in the same manner required by subparagraph (A)".¹⁰ Moreover, Sec. 623(b)(8)(C) of the Act allows the FCC to grant additional waivers of the ten year grace period if it determines "that compliance with the requirements of subparagraph (A) would require the cable operator to increase its rates."¹¹ Accordingly, Time Warner urges the Commission to implement the anti buy-through provisions cautiously, making every effort to avoid imposition of unnecessary additional costs which will adversely affect cable rates and to avoid mandatory

¹⁰47 U.S.C. §543(b)(8)(B). Such ten year grace period could expire sooner if the "technology utilized by the cable system is modified or improved in a way that eliminates such technological limitations. 47 U.S.C. §543(b)(8)(B)(i).

¹¹47 U.S.C. §543(b)(8)(C).

technologies which may exacerbate consumer unfriendliness and adversely affect customer satisfaction.

- A. The ten year grace period should apply to any system which would be required to incur more than nominal costs to comply.**

The threshold question which the Commission must address is to define those systems which are presently unable to comply with the anti buy-through prohibition.¹² Time Warner submits that any cable system which would be required to incur more than nominal costs to comply with anti buy-through should be afforded the full ten year grace period. This position is entirely consistent with the Commission's tentative conclusion stated in the Notice: "[w]e believe that, under the Act, cable systems which were not designed and built with (or upgraded to incorporate) addressable technology are by definition within the scope of the Act's 10-year exemption."¹³

The legislative history of the anti buy-through prohibition reveals that Congress was well aware that most systems would fall within the ten year transition period given the need for adequate time to install the necessary technology.¹⁴ There is much evidence that Congress did not intend to prematurely force cable systems to accelerate the development of addressable technology beyond a ten year compliance timetable.

¹²See Notice at ¶¶ 4-5.

¹³See Notice at ¶6.

¹⁴S. REP. No. 92, 102d Cong., 1st Sess. 77 (1991).

First, the buy-through prohibition is part of a larger basic rate regulation scheme of §3 of the 1992 Cable Act. This scheme is intended to promote reasonable basic rates.¹⁵ However, any FCC rules that force systems to either immediately install expensive equipment or incur other unnecessary costs will surely result in increases to basic rates.¹⁶

Second, it is significant to note that the Joint Conference Committee amended the House of Representatives' version of the buy-through exception to extend the transition period from five to ten years.¹⁷ The Joint Conference Committee also changed the standard on waivers after the ten year period from the House provision of a two-year maximum waiver to a flexible waiver¹⁸ if "compliance . . . would require the cable operator to increase its rates."¹⁹ Clearly, the Conference Committee's reason for

¹⁵See, 47 U.S.C. §543(b)(1) ("The Commission shall, by regulation, ensure that the rates for the basic service tier are reasonable."); see, also H.R. REP. No. 628, 102d Cong., 2d Sess. 79 (1992) ("The Act provides a new Section 623 in the Communications Act to ensure that consumers have the opportunity to purchase basic service at reasonable rates.").

¹⁶Under the regulatory scheme of 47 U.S.C. §543(b)(2)(C), as amended by the 1992 Cable Act, the FCC's basic rate regulation standards must take into account both the direct costs of transmitting services carried on the basic level as well as an appropriate portion of joint and common costs.

¹⁷See, H.R. 4850, 102d Cong., 2d Sess. §3 (1992) (amending §623(b)(3) of the Act), and, H. R. CONF. REP. NO. 862, 102d Cong., 2d Sess. 64 (1992).

¹⁸H.R. CONF. REP. NO. 862, 102d Cong., 2d Sess. 64 (1992).

¹⁹*Id.* Even the House provision, however, manifested concern for the costs of premature compliance. Under the House buy-through prohibition scheme the compliance period was only five years but the FCC was to conduct a hearing to consider whether to extend this period by two years if compliance would impose

making these modifications was to prevent the premature, non-marketplace implementation of the buy-through prohibition from exerting upward pressure on consumer rates. The Conference Committee obviously intended to allow cable systems that are not able to comply to have a significant period of time - at least ten years - to spread out the cost of installing the necessary technology and, if appropriate, even more time if compliance after ten years would threaten to raise rates. This view of the intent of the Conference Committee is also supported by statements of Senator Daniel Inouye, a member of the Joint Conference Committee, during the Senate debate on the Conference Report. Senator Inouye pointed out that: "[i]n response to the concerns about costs expressed by some cable operators, however, the conferees on S.12 gave cable operators ten years to comply ... for those cable systems that cannot offer this service because the cost of installing addressable technology would force cable rates up, the conference report allows the FCC to grant waivers."²⁰

For the foregoing reasons, Time Warner submits that the test for whether a system is technically capable of compliance with the anti buy-through requirement should be the same as the test for whether a system can impose more than a nominal fee for a service downgrade. Section 623(b)(5)(C) of the Act directs the FCC to adopt regulations to insure that charges for changing the

"unreasonable costs on cable subscribers or cable operator[s]." H.R. REP. NO. 628, 102d Cong., 2d Sess. 86 (1992).

²⁰138 Cong. Rec. S. 14608-09 (daily ed. Sept. 22, 1992).

service tier selected by the subscriber shall be based on the actual cost of such change and "shall not exceed nominal amounts when the system's configuration permits changes in service tier selection to be effected solely by coded entry on a computer terminal or other similarly simple method."²¹ The House Report recognized that "the technical configuration of [some] cable systems will be such that the selection back and forth between basic service and tiers offering cable programming may require equipment and labor costs to be incurred by cable operators," but that ". . . for fully addressable systems the Committee expects that the costs involved in consumer selection will be nominal."²²

In other words, Congress has recognized that some systems are capable of adding or deleting any services delivered to individual subscribers by simply changing an entry code on a computer terminal located at the system office or headend. As shall be explained more fully below, such systems are typically referred to as "addressable." Other systems, however, cannot add or delete services without incurring far more substantial costs, e.g., sending a technician to the subscriber's premises (a "truck roll"), removing or installing additional devices located in or near the subscriber's premises, etc.

These are precisely the same considerations which govern whether a cable operator is technically able to comply with the anti buy-through requirement without the imposition of

²¹47 U.S.C. §543(b)(5)(C).

²²H.R. REP. No. 4850, 102d Cong., 2d Sess. 84 (1992) (emphasis added).

extraordinary costs which would adversely affect cable rates. Accordingly, the ten year grace period should apply to any cable systems which are currently unable to comply without incurring more than nominal costs, such as changing an entry code on a computer terminal in the case of a fully addressable cable system.

B. Only fully addressable systems are currently technically able to comply with anti buy-through.

Time Warner concurs with the Notice that, based on current generally accepted technology used in the cable industry, only those systems that are "fully addressable" are presently capable of complying with the tier buy-through requirement without incurring substantial costs that would drive up rates and/or require a redesign of existing signal security methods.²³ "Fully addressable" systems are those which scramble all video programming delivered by the system other than the basic service level (as defined pursuant to Section 623(b)(7) of the Act)²⁴ and have addressable descrambler boxes available for all subscribers desiring such scrambled services²⁵, or which utilize addressable

²³Notice at ¶6; 47 U.S.C. §543(b)(8)(B).

²⁴47 U.S.C. §543(b)(7).

²⁵This would not necessarily require cable operators to actually install addressable boxes for all subscribers. A basic-only subscriber in a fully addressable system who does not elect to purchase tiered, premium or pay-per-view channels has no need for an addressable box when basic service channels are unscrambled. In such a case, FCC rules should not require that the cable operator provide the basic subscriber with an addressable box, since each box typically costs anywhere from \$110.00 to \$160.00. Ultimately, such added costs would raise consumer rates with no corresponding benefit to the public.

traps and are presently configured to allow selective access to all premium and pay-per-view services without compromising the security of non-basic cable services. Systems that are not fully addressable are those that rely entirely on non-addressable security technology or those that use some combination of non-addressable and addressable technology to provide signal security. Non-addressable and partially addressable systems are both unable to immediately comply with the tier buy-through provisions without substantial cost, subscriber confusion, and system reconfiguration.²⁶

1. Overview of signal security techniques.

In order to fully appreciate the technical problems and costs involved in rebuilding a cable system so that it is technically capable of compliance with the tier buy-through requirement, it is necessary to understand the principal signal security techniques which are used to insure that only those services which have been ordered and paid for are actually delivered to the appropriate individual subscribers. Generally speaking, there are two principal broad categories of security techniques currently used by the cable industry: traps and scrambling.

²⁶The FCC must be particularly sensitive of the cost burdens that immediate compliance would have on small systems, defined as those systems with 1,000 or fewer subscribers. 47 U.S.C. §543(i). Legislative intent is clear that these systems should not be forced to incur significant costs to comply. See, 138 Cong. Rec. S. 14608-09 (1992) (statement of Senator Inouye) ("It is my intention that the FCC should take particular account of the problems that small cable systems may have in complying with the anti-buythrough provision.").

(a) Trapping devices. With a security system that uses frequency selective filtering devices ("traps"), the cable operator installs traps that permit only the requested channels to pass to the television set. Traps are most often passive devices which cannot be programmed remotely to implement changes requested by a subscriber to add or delete programming services. Rather, the cable operator normally must make an individual service call, for example, to satisfy a basic-only subscriber's request for non-basic channels. The old trap must be removed or replaced with a new trap with a different configuration, and this requires additional expense both in material and labor. There are systems which use a technology called addressable traps. This technology allows a trap to be electronically bypassed from the system headend. Due to the inherent limits of trapping technology, however, a system which is not currently configured to selectively allow access to all premium and pay-per-view services would still have to incur substantial costs in reconfiguring its trapping scheme and channel lineup to implement the statutory anti buy-through provisions.

There are two general types of traps that are used to secure the cable signal. Negative traps filter out particular signals transmitted from the headend, preventing such signals from passing through to the subscriber's television set. Negative traps are typically used for premium channels that have high penetration and stable subscribership because fewer traps need to

be installed and removed.²⁷ Such traps are normally installed outside the home at secure locations. Negative traps may cause some audio degradation on the lower adjacent channel and this problem tends to increase with traps for higher frequency channels. To use positive traps, the cable operator inserts a jamming signal at the headend along with the desired signal. The positive trap removes the jamming signal and allows the desired signal to pass to the television set without interference. Positive traps typically are installed for premium services with relatively low penetration rates, since only those customers need an installation. Positive traps tend to produce a softened television picture and create cable theft problems since such traps are often installed inside the home and anyone who possesses the trap can gain access to the jammed programming.

There are some limits to the use of traps. First, other than in systems which utilize addressable traps, traps are not a feasible method of providing pay-per-view programming, since the costs would be prohibitive, including the necessity of a truck roll to each customer requesting the event to either remove a negative trap or install a positive trap. Second, practical considerations require that a maximum of only three traps be used in any single cable drop. More than three traps in a single drop tends to increase mechanical problems such as breakage of tap connectors, violation of the National Electric Safety Code distance limit to the telephone line, as well as requiring the

²⁷For example, if more than 50% of the subscribers request HBO, then less than 50% of the homes need a negative trap.

use of special mounting structures. There are electronic problems associated with the use of traps as well, such as signal ingress and leakage as well as picture degradation which becomes more severe as the number of traps utilized increases. While the mechanical problems are not as severe with addressable traps, the electronic problems are the same.

(b) Scrambling. The other current principal signal security technique generally used in the cable industry is scrambling. Under this approach, the signals to be secured are scrambled (encrypted) at the headend. A descrambling device is then installed at the subscriber's premises so that all services which have been ordered and paid for by that subscriber can be descrambled and passed to the television set. Such descramblers may be either addressable or non-addressable.

If a system utilizing scrambling is non-addressable, then a "programmable" descrambler might be connected to the subscriber's television set. With a programmable box, the signals to be unscrambled are preset in the box itself; the cable operator cannot change the subscriber's access to various programming services remotely at the headend. A programmable box must be replaced by the cable operator in order to change the available channels, which entails significant service costs. This is in contrast to a fully addressable system in which the operator can change a subscriber's access to programming at the headend with nominal cost, e.g., by changing an entry code on a computer terminal which sends a message to the affected descrambler to either scramble or descramble the desired channels. Programmable

boxes are generally considered to be an obsolete technology because they are easily tampered with and the resulting cable theft is difficult to detect in the subscriber's home. In addition, programmable boxes are not feasible for pay-per-view programming since each request would entail switching one box for another for a single programming event. Accordingly, most modern cable systems which utilize scrambling deploy addressable descramblers.

(c) Hybrid security techniques. Many cable systems deploy a hybrid of scrambling with either an addressable or non-addressable descrambler in conjunction with traps. Such systems are usually configured to trap out all expanded tiers above the basic service level. Basic services are not usually scrambled so that basic only customers normally do not need a descrambler. Access to cable service tiers is provided by removing the trap. Normally, some or all of the cable services will also be unscrambled so that subscribers with cable-ready televisions who do not subscribe to premium or pay-per-view services will also not need a descrambler. Only the highest tiers of cable service (if there are more than two tiers), premium services and pay-per-view services are typically scrambled and require a descrambler, although certain high penetration, low churn premium services might be trapped rather than scrambled. The combination of trapping and scrambling represents an attempt to provide a low-cost reasonably secure signal security system that is as compatible as possible with existing television sets and VCRs.

2. Systems that are not fully addressable are unable to comply with incurring substantial costs.

There are two primary reasons why systems that scramble with programmable boxes or use traps are not technically able to comply with the tier buy-through prohibitions. Underlying both of these reasons is that technical limits of systems which are not fully addressable do not allow the cable operator, without incurring substantial costs, to offer premium and pay-per-view programming access to the basic subscriber while preventing those subscribers from receiving any expanded tiers of programming which they have neither requested nor paid for.

Many non-addressable and partially addressable systems have positioned their channels along the frequency spectrum such that the programming services offered on the basic level are at the low end of the spectrum, the tiered cable programming services are higher on the spectrum, and the premium and pay-per-view channels are at the highest end of the spectrum. Basic subscribers receive only the low end basic tier because non-basic service tiers and premium services have been trapped and/or scrambled.

In cases where a non-addressable system uses scrambling to secure its cable service tiers and premium services, implementation of the anti buy-through will require a service call and the installation or removal of a device at the subscriber's premises in order to allow a basic subscriber access

to premium services.²⁸ Furthermore, as noted above, security provided by non-addressable descrambling is considered obsolete and is easily defeatable. By placing those descramblers in the home of the basic subscribers, the cable operator has substantially magnified its potential theft of service problem by making its cable service tiers vulnerable to such theft in addition to its premium services. Finally, such basic subscribers still could not be provided with access to pay-per-view services, and thus the tier buy-through requirement would not be fully satisfied.

Similar problems exist for systems which employ traps. Once the trap is either physically removed or electronically bypassed to implement the tier buy-through requirement and allow the basic subscriber to have access to premium services, the subscriber automatically has access to all tiered cable services as well. In order to secure those channels, the cable operator must incur the expense of additional scrambling equipment at approximately \$2,000 per channel per headend. More significantly, in order to satisfy anti buy-through, the cable operator must also now provide a descrambler box not only to the basic subscribers who desire premium services, but also to the expected majority of subscribers who desire the expanded tier (which now must be scrambled) and who do not already have a descrambler (e.g.,

²⁸See Notice at ¶2. This is not a one time proposition but will require a service call every time a subscriber decides to add or delete a service.

because they do not subscribe to a scrambled premium or pay-per-view service).

There are several reasons why the operator of a partially addressable system would choose to use traps for tier security and scrambling to secure some or all premium and pay-per-view channels. First, the costs of scrambling are reduced if the operator does not have to scramble the channels on the tiered services. Equipment costs are also reduced because the cable operator does not need to provide addressable boxes to subscribers who purchase any unscrambled cable programming and/or premium services.²⁹ Second, and perhaps more importantly, scrambled signals are potentially incompatible with the use of VCR recording and some television set features.³⁰ The use of traps rather than scrambling to secure the basic tier allows all subscribers who do not subscribe to a service which is scrambled to fully utilize the built-in functions of their VCRs and cable-ready television sets. Third, as explained in greater detail in Section II.D., infra, cable operators may be concerned about the

²⁹As discussed above, a negative trapping device could be used to trap out the signal for non-requesting subscribers of a high penetration pay service with stable subscribership. In this way, the cable operator does not need to incur the cost to install an addressable box to provide access to a popular pay service.

³⁰Congressional concern for scrambling and compatibility with consumer electronics products is evidenced in §17 of the 1992 Cable Act. As the FCC acknowledges, there is a serious tension between equipment compatibility and premature requirements to employ scrambling technology that may exacerbate consumer unfriendliness. See, Notice at ¶6, n.6.