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January 27, 1993

Our File: 04989/002001

HAND DELIVER

Ms. Donna R. Searcy
Office of the Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

Comments of Multiplex Technology, Inc.
MM Docket No. 92-266

Dear Ms. Searcy:

Enclosed for filing on behalf of Multiplex Technology, Inc., please find an original and nine (9) copies of comments in the above-captioned Notice of Proposed Rulemaking proceeding.

If you have any questions with regard to the enclosed please do not hesitate to contact the undersigned.

Very truly yours,

Walter Steimel, Jr.

Enclosures

cc: Multiplex Technology, Inc.

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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In the Matter of Implementation of the Cable Television Consumer Protection and Competition Act of 1992 Rate Regulation	)	MM Docket No. 92-266

COMMENTS OF MULTIPLEX TECHNOLOGY, INC.

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In the Matter of Implementation of the Cable Television Consumer Protection and Competition Act of 1992 Rate Regulation	)	MM Docket No. 92-266

COMMENTS OF MULTIPLEX TECHNOLOGY, INC.

Multiplex Technology, Inc. ("Multiplex"), through its attorneys, hereby submits these comments in the above-captioned Notice of Proposed Rule Making.[1/]

As discussed more fully below, Multiplex favors the adoption of rules which will enhance the competitive market for the provision of inside cabling installation and equipment and protect consumers and competitive suppliers from anti-competitive practices of the monopoly providers of cable television service. Such rules will require fully distributed costing for cable installation and equipment; unbundling of installation and equipment from the provision of basic service; and the prohibition of promotional offerings. Multiplex submits that the Commission's experience with the deregulation of customer premise inside wiring in the telephone

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[1/] Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Rate Regulation, MM Docket No. 92-266, Notice of Proposed Rule Making, FCC 92-544 (released December 24, 1992) ("NPRM").

industry, pricing and provision of access to competitive services and promotion of active competition in the provision of telephone network equipment and enhanced services should provide valuable guidance for the development of rate regulation rules for cable operator-provided offerings, are also consistent with the Commission's statutory mandate.

I. Introduction

Multiplex is the leading manufacturer of residential video distribution products. Multiplex markets a family of video products used to combine multiple video signals on a single coaxial cable for the distribution of custom video services throughout residential environments. Multiplex is a principal supplier of modulators for several "smart house" systems currently being introduced to the U.S. market. With Multiplex products, professional installers are able to distribute signals from all video sources to all of the televisions in a house. Entertainment video sources include satellite, laser disc and VCR, as well as over-the-air and cable TV signals. Other sources include cameras and message generators.

During the past two years, Multiplex has seen a 50% growth in its sales, and a 30% growth in its industry. Multiplex's equipment is currently being installed by over 2,000 independent installers in the U.S. Over the past 10 years, Multiplex has

witnessed substantial growth in products available to consumers and opportunities for the distribution of video signals inside the house. This growth rate is reminiscent of the geometric growth in new consumer products and offerings which accompanied the opening of telephone network equipment and services to competitive, non-monopoly providers.

II. Competitive Market for Installation and Equipment Exists

The Commission requests comment on the feasibility of a competitive market for cable television installation and equipment. As is apparent from the introductory description of Multiplex's operations and growth, competition currently exists for both installation and equipment. In fact, a primary reason that the market is not larger is that current cable television franchises and operating contracts often prohibit the installation of home cable or provision of equipment except by the monopoly provider.

These "adhesion" contracts, often used by cable operators, restrict a consumer's right to connect equipment of its choosing to operator-installed cable home wiring. Moreover, operator threats of service termination for "signal theft" deter many consumers from installing their own video distribution equipment and wiring. Congress may have been aware of this growing

problem when it passed the Cable Act of 1992,[2] as reflected in the broad authorization given to the Commission to address the rights of video consumers to "utilize the cable wiring" installed in their residences.[3] Multiplex believes that the adoption of pro-competitive policies and its recommendations herein will greatly increase the feasibility and viability of competitive market for installations and equipment.

As noted above, Multiplex currently provides equipment to a number of installers nationwide. As the market for the provision of inside cabling and equipment is opened to further competition by the Commission, the installation demands on equipment and systems suppliers such as Multiplex will cause an increase in independent installers. Current installers of telephone and electrical wiring will be more than able to provide this installation service in competition with the cable companies.

As the Commission notes, homeowners also will be able to install many of these systems and wiring configurations themselves,[4] just as they currently install their own inside telephone wiring. The technical requirements for such installations need be no more than those for the installation of

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[2] Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385 ("Cable Act of 1992" or "Act").

[3] H.R. Rep. No. 628, 102d Cong., 2d. Sess. ("House Report") at 118 (1992).

[4] See NPRM at 39.

telephone wiring and equipment, and can be accomplished pursuant to standards published either by regulatory authorities or the cable companies.

III. If Permitted, The Competitive Market Will Continue To Grow

As the Commission is well aware, user demand for video entertainment and home automation services is on the rise. Over the next decade, the public will witness an explosion of product and service offerings targeted at "smart home" consumers. For these developing technologies to reach their full potential, however, consumers must have access to their in-home video distribution systems. Regulatory policies that tolerate or encourage cable operators to restrict cable home wiring access, whether through pricing or direct restriction, will limit video service competition and burden subscribers with wasteful and redundant video distribution technology.

The in-home wiring systems will not only be available and necessary for the dissemination of traditional cable television programming, but will also become the distribution system for alternative suppliers of cable programming. A number of these alternative systems already exist, and include traditional

broadcast, 2GHz MMDS service, direct satellite and the new 28GHz LMDS redesignation recently released by the Commission.[5]

Cable television companies have no incentives to ease or permit the distribution of these alternative services. The adoption of regulatory policies permitting bundling, cable company control over inside cabling or cost subsidization of cable company installation services will provide the monopoly provider of cable television services the opportunity to restrict the growth, development and in-house distribution of these alternative services.

In addition, the inside cabling which may primarily be used for the dissemination of television programming may soon become the platform for the building of smart building wiring. Smart building wiring capabilities will impose more technical requirements for inside cabling than those necessary for the simple distribution of cable television programming. Among these requirements will be the need to reserve channel bandwidth for the distribution of in-house generated signals. The adoption of a costing methodology which permits cross-subsidization, or bundling which would encourage anti-competitive behavior, will stifle

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[5] Suite 12 Group Petition for Pioneer's Preference, CC Docket No. 92-297, Notice of Proposed Rule Making, Order, Tentative Decision and Order of Reconsideration, FCC 92-538, released January 8, 1993.

competition in the provision and distribution of these services and create non-economic incentives for wasteful duplicate cabling.[6]

As further evidence of the growth which will take place in this market, Multiplex would like to share with the Commission a description of some of the systems it is developing and envisions. Multiplex envisions inside cabling systems which can be used to not only distribute cable television signals within a home, but also to permit the following:

1. Interfacing of infrared relays to enable room to room control of video players and other equipment controlled by infrared (IR) wands;

2. Distribution of audio signals throughout a home, whether such signals originate from the cable system, the homeowner's personal music systems, or created by the homeowners themselves;

3. Interconnection of home security cameras and routing of the signals to television sets for easier and more cost effective monitoring; and

4. Distribution of video signals from VCR's, laserdisk players, satellite receivers, direct broadcast satellites, competitive offerings to cable television (such as the recently authorized 28 GHz service) and computer and telephone generated sources.

5. Display of messages and other information, generated either inside the house or from the outside, on televisions.

6. Playing of video games on any TV in the house without the current jumble of switches, cables and equipment.

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[6] The Commission has consistently adopted policies reducing non-economic incentives.

7. Displaying of up-to-the-minute weather information gathered from temperature, wind, humidity and pressure sensors in or on the house.

There is no reason to limit the usefulness of inside cabling to only the distribution of cable television, and to prevent the innovative use of inside cabling by competitors to provide comprehensive in-house video distribution systems that, using cable television as one of several inputs, delivers video in a more convenient, versatile, non-redundant and cost-effective way.

Multiplex believes that the growth in systems which will occur once competition is permitted and encouraged by the Commission will equal that explosion in equipment and services which has taken place since the Carterphone[7/] decision. The Commission has regularly engaged in rulemakings and adopted rules and regulations to further enhance competition in the market for telecommunications services and equipment, and has witnessed substantial growth in these areas. The Commission should follow the same course in this proceeding.

[7/] Use of the Carterphone Device in Message Toll Telephone Service, Docket No. 16942, Carter v. American Telephone and Telegraph Co., et. al., Docket No. 17073, Decision, 13 FCC 2d 420 (1968).

IV. Rate Regulation, Unbundling and Other Issues Considered in This Proceeding Are Essential To The Support And Development Of Competition In This Market

Multiplex has demonstrated that a fully competitive market for cable television, video equipment and inside cabling installation currently exists, and is on the verge of even more rapid expansion, subject to the adoption of pro-competitive policies by the Commission. Multiplex believes that the Commission must recognize the impact of rate regulation on the growth and continuation of a competitive service industry in cable television provision to the home.

The Commission has recognized the importance of unbundling and cost controls in the promotion and protection of competitive markets with respect to telephone regulation. The Commission's concerns and desire to foster competitive markets has led to the unbundling and detariffing of telephone equipment,[8/] and the detariffing of inside wire for telephone companies.[9/]

[8/] See Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 FCC 2d 384 (1980) (Final Decision), reconsideration, 84 FCC 2d 50 (1980), further reconsideration, 88 FCC 2d 512 (1981), aff'd sub. nom., Computer and Communications Industry Association v. FCC, 693 F. 2d 198 (D.C. Cir. 1982).

[9/] See Detariffing the Installation and Maintenance of Inside Wiring, CC Docket No. 79-105, Second Further Notice of Proposed Rule Making, 5 FCC Rcd 3407 (1990).

Congress has also recognized the importance of competition in this arena, and has placed in the hands of the Commission the tools necessary to foster competition in the delivery of cable television services, equipment and installation. These tools include items discussed in the NPRM, including fully distributed costing methodologies, and restrictions on promotional offerings and the unbundling of services.

Rate regulation, and the rates charged by the monopoly provider of cable television services, will have a great impact on the ability of a competitive industry for the provision of installation and equipment to exist. While the Commission must be concerned that the monopoly provider of services, equipment and installation does not extract monopoly profits from its customers, the Commission must be equally concerned about the opportunity for subsidization of the cable companies' competitive equipment and installation offerings.[10/] The Act requires the Commission to consider competitive offerings, and to adopt rules which encourage competition.

When determining costs for purposes of installation and equipment sales, the Commission must follow a costing methodology

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[10/] This concern led to the Commission's adoption of a fully distributed costing methodology in a similar situation for common carriers. See Detariffing the Installation and Maintenance of Inside Wiring, CC Docket No. 79-105, Third Report and Order, 7 FCC Rcd 1334 (1992) ("Third Report and Order").

parallel to that used by non-monopoly enterprises.[11] To consider only direct costs would be absurd, as both competitors and monopoly providers are required to recover overhead and profits from sales. The Commission must be careful to adopt rules which do not permit the subsidization of these competitive services by failure to allocate the costs of installation teams, trucks and other common or shared costs to the competitive functions.

If the Commission does not desire to adopt an allocation methodology at this time, Multiplex urges the adoption of a regional benchmark to prevent such subsidization from taking place. Simple reliance on an affirmative showing to rate making jurisdictions may not be sufficient, as it is unlikely that cable television companies have kept their books in a manner to permit proper allocations.

An essential element of the costing discussion contained in the NPRM is whether to permit cable operators to engage in promotional offerings of installation or equipment in order to increase market penetration of cable service. Multiplex submits that the high costs and unregulated nature of cable television today, and the failure of the cable industry to provide quality service and service innovations, are key reasons behind the lack of penetration into some service areas. Multiplex believes that

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[11] As noted above, the Commission requires fully distributed costing for monopoly telephone service providers. Id.

permitting the cable companies to offer promotions involving installation or equipment will give the monopoly providers a tool with which to suppress its competition under the guise of promotions, but would not address the underlying cause of lack of market penetration.

Furthermore, the Commission should not permit these promotional offerings as any below cost offering would be underwritten by the revenues from the cable company's monopoly operations, especially in the absence of a regulated and established costing system. The offering of promotions and the resulting stifling of competitive and market driven services delivery may actually acerbate market penetration problems.

In order to have a viable competitive industry for cable installation and equipment, the Commission must adopt three other principles in this rulemaking: (1) installation and equipment must be unbundled from basic service; (2) additional connections must be permitted without any additional charge by the cable television company; and (3) ownership of all inside cabling must vest entirely in the homeowner, with the right to rewire and connect equipment as the homeowner desires.

The Commission has previously recognized, in the context of common carrier regulation, the anti-competitive effect and

potential for redundancy and waste caused by bundling.[12] Multiplex submits that the same incentives and policies are at work in the instant docket, and that a policy of complete unbundling should be adopted.

Multiplex also believes that customers should only have to pay for the basic service and signal delivered to a demarcation point, equivalent to a telephone network interface, and not have to pay the cable company for additional connections within the home. The primary costs related to the establishment and operation of additional cable connections in the home arise from additional cabling and splitting, and amplification when required. These costs are caused by the homeowner's use of the signal, and do not impact a cable company's delivery of the signal. As no costs are imposed on the cable company, no additional charges should be levied for use of the signal.

Finally, as is apparent from these remarks and observations, the adoption and encouragement of a fully competitive market for installation and equipment will require the ownership of the cabling and equipment by the homeowner, when desired. The homeowner must have the freedom to rewire and reconfigure without any artificial restrictions on the ability to choose the competitive supplier of services or equipment.

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[12] See Third Report and Order, 7 FCC Rcd at 1335; see text and discussion at note 8, supra.

V. Other Concerns Of The Commission -- Signal Leakage And Theft Of Service

Regarding signal leakage,[13] the Commission raises concerns over subscriber home wiring ownership and whether it might increase the risks that operators will experience excess leakage from their systems. Multiplex believes, for several reasons, that such concern is unfounded. First, virtually all subscriber-owned equipment containing active components is governed by strict Commission technical standards controlling interference potential.[14] Second, cable operators are only responsible for signal leakage from their systems and not from subscriber equipment unless such equipment emanates into the cable distribution network and causes the system to exceed Commission signal leakage limits outside the subscriber's home. Third and finally, if a problem should arise, cable operators have sufficient authority under Commission rules to discontinue service or force the disconnection of the offending equipment.[15]

With respect to theft of service and other concerns related to the risks of customer access, the Commission has previously recognized that the benefit of end user access to

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[13] NPRM at 6.

[14] See 47 CFR Part 15 governing signal enumeration from home electronic devices.

[15] See 47 CFR § 76.617.

company installed wiring outweighs any risks.[16] The Commission has more recently recognized that customer connection of cable ready equipment to the distribution network can be accomplished without impairment of cable service or risk of signal misappropriation.[17] Promotion of competition and the introduction of new installation services and equipment will not increase these non-existent risks.

VI. Conclusion

Based on the foregoing, Multiplex urges the Commission to adopt rules that require the offering of equipment and installation services at fully distributed costs, and the unbundling of cable services from inside cabling. In addition, the Commission should prohibit promotional offerings of installation and equipment, and permit additional connections for no extra charge. These rules are necessary to promote competition among video services and to provide the environment necessary to foster healthy competition and

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[16] See Review of Sections 68.104 and 68.213 of the Commission's Rules Concerning Connection of Simple Inside Wiring to the Telephone Network, CC Docket No. 88-57, Order, 5 FCC Rcd 5228, 5229 (1990), noting that fears of network harm and service disruption had been rejected by the Commission.

[17] See Cable Television Technical and Operational Requirements, MM Docket No. 91-169, Revision of the Technical and Operational Requirements of Part 76, Cable Television, MM Docket No. 85-38, Report and Order, 7 FCC Rcd 2021 (1992). In this docket the Commission observed that various cable installations do not utilize a "subscriber terminal" and that subscribers, in many cases, provide their own wiring and splitters. Accordingly the Commission adopted rules requiring certain technical measurements to be made at a 100 foot distance from the subscriber's "tap."

incentives to provide new equipment and services at least cost for the consumer.

January 27, 1993

Respectfully submitted,

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