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

DEC 18 1992

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	
)	
Expanded Interconnection with)	CC Docket No. 91-141
Local Telephone Company)	
Facilities)	
)	
Amendment of the Part 69)	
Allocation of General Support)	CC Docket No. 92-222
Facility Costs)	
)	

To: The Commission

PETITION FOR PARTIAL RECONSIDERATION

Penn Access Corporation ("Petitioner"),¹ by and through its undersigned attorneys, and pursuant to Section 1.429 of the Commission's Rules, 47 C.F.R. § 1.429 (1992), hereby petitions the Commission to reconsider in part its Report and Order² in the above-referenced matter. Specifically, the Commission should permit Competitive Access Providers ("CAPs") to interconnect with Local Exchange Carriers ("LECs") using coaxial cable.

¹ Penn Access Corporation provides competitive access services over fiber optic facilities in and around Pittsburgh, Pennsylvania.

² Report and Order and Notice of Proposed Rulemaking, In the Matter of Expanded Interconnection with Local Telephone Company Facilities, CC Dkt. No. 91-141, 57 Fed. Reg. 54323 (Nov. 18, 1992) ("Report and Order").

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List A B C D E

I. INTRODUCTION AND SUMMARY

Petitioner submits that the Commission has, without an adequate basis, determined in its Report and Order that interconnectors should not be entitled to use cable facilities for interconnection with LECs that are not fiber optic. The Commission erroneously concluded in its Report and Order that coaxial interconnection is less space efficient than fiber interconnection and improperly restricted interconnection of non-fiber optic cable by requiring Common Carrier Bureau approval only upon a showing that the non-fiber optic cable interconnection is in the public interest.³

Contrary to the Commission's determination, however, coaxial interconnection is in many cases more space efficient than fiber interconnection and requires less equipment installation and fewer repairs. In addition, this Commission's action, in stark contrast to the overriding objective of the Report and Order, is decidedly anti-competitive, impeding the competitiveness of small and medium-size CAPs to the benefit of the LEC monopolies. The Commission's determination that CAPs must show the public interest benefits of non-fiber cable interconnection also places the burden of making this showing on the party that is least able to bear that burden. LECs, with their access to and knowledge of their interconnection facilities, are in a better position to

³ See Report and Order at ¶ 99 and n. 233.

prove that non-fiber cable interconnection is not in the public interest because, for instance, it will critically restrict riser and conduit space in their facilities.

II. ARGUMENT

A. THE COMMISSION'S CONCLUSION THAT COAXIAL CABLE INTERCONNECTION HAS ADVERSE EFFECTS ON LEC COLLOCATION SPACE IS NOT SUPPORTED BY THE RECORD

The Commission, in its Report and Order, and without proper evaluation, mistakenly accepted LEC arguments and rejected coaxial interconnection based on "the potential adverse effects of such interconnection on the availability of conduit and riser space."⁴ The Commission ruled that fiber optic facilities should be used unless the Common Carrier Bureau rules otherwise, based upon a showing that the non-fiber cable facilities "would serve the public interest in a particular case."⁵ To the contrary, however, and completely at odds with the LECs' assertions and the Commission's findings, coaxial interconnection will increase, not reduce, the available space at LEC interconnection facilities.

Coaxial interconnection requires less overall space on LEC premises than does fiber optic cable interconnection. With fiber

⁴ Report and Order at ¶ 99, n.233.

⁵ Report and Order at ¶ 99.

optic cable interconnection, an optical terminal in the CAP facility is linked by fiber optic cable with an optical terminal and other electronic equipment located in the LEC facility.⁶ This electronic equipment located on the premises of the LEC is then connected by coaxial cable with other LEC electronic equipment and the LEC switch. Thus, direct coaxial interconnection eliminates the need for CAP optical terminals and electronic equipment on LEC premises.⁷ Reduced equipment requirements, in turn, decrease space requirements and increase the interconnection network's cost efficiency resulting in lower prices for end users by reducing the cost of implementing collocation.⁸

The LECs' arguments to the contrary, cited by the Commission, are baseless.⁹ Although it is true that fiber optic cable has a higher capacity overall than coaxial, coaxial of

⁶ See Attachment A hereto.

⁷ See Attachment A, which shows the simplicity and space efficiency of coaxial interconnection. Significantly, equipment at points C, E and F are unnecessary with a direct coaxial connection between the CAP and LEC, saving not only the CAP some space (C), but also the LEC (E and F).

⁸ Additionally, by eliminating the need for CAP interconnection equipment on LEC premises, repair and maintenance visits to LEC facilities by CAP personnel will be unnecessary.

⁹ Although not cited by the Commission in support of its holding, it should be noted that characteristics that may be applicable to non-fiber cable interconnection such as an increase in the variety of equipment or additional training of LEC personnel do not apply to coaxial cable.

similar diameter has more than sufficient capacity for a small, growing CAP.¹⁰ For example, LECs, such as Bell Telephone Company of Pennsylvania, require that "innerduct," an insulator, be used to house fiber optic cable used for interconnection. A coaxial bundle that can accommodate small to medium-sized CAPs such as Petitioner for many years has a diameter comparable to standard innerduct.¹¹ When that capacity is reached, Petitioner can switch to fiber optic cable.

B. COAXIAL INTERCONNECTION WILL INCREASE TELECOMMUNICATIONS COMPETITION, ONE OF THE COMMISSION'S PRIMARY GOALS IN THE EXPANDED INTERCONNECTION RULEMAKING

The Commission, in this rulemaking, has strongly and correctly emphasized the benefits of increased competition in the

¹⁰ It is possible, of course, that even large CAPs may only require coaxial cable in those instances where they do not have sufficient capacity needs to justify fiber optic facilities.

¹¹ See Attachment B which demonstrates the difference in diameter of high capacity coaxial with fiber optic cable interduct in the two examples on the right of the illustration. The 1.75 inch "37 Coax" contains 37 coaxial cables running together. The 1.5 inch Fiber Innerduct on the far right of the chart can contain multiple fiber optic cables. Even if LECs have limited space, an increase of one quarter of an inch in diameter will certainly not overly congest their conduits and risers. Moreover, and as discussed above, the direct coaxial connection will obviate equipment that would be necessary with a fiber optic cable connection, saving LECs much space.

interstate access market.¹² By mandating fiber optic interconnection, the Commission limits the ability of small and medium-sized CAPs to provide such competition.¹³ On the other hand, allowing CAPs to use coaxial cable will provide them with additional flexibility in structuring interconnection and will increase competition for access services.

While fiber optic interconnection requires the installation of equipment, which can often take weeks to accomplish, coaxial interconnection can be accomplished as easily and rapidly as laying cable. Furthermore, although fiber optic cable is efficient in transmitting a high volume of communications, such means of interconnection are prohibitively expensive when compared to coaxial cable, because it requires duplicative optical terminals and additional electronic equipment, as well as more frequent repairs.¹⁴ Consequently, large CAPs that transmit high volumes of communications signals may prefer fiber

¹² Report and Order at ¶¶ 1-2. The Commission found that "[t]his growing competition will expand service choices for telecommunications users, heighten incentives for efficiency, speed technological innovation, and increase pressure for cost-based prices." Id. at ¶ 2.

¹³ Excluding coaxial interconnection might also violate the equal protection component of the Fifth Amendment of the U.S. Constitution. See, e.g., Beach Communications, Inc. v. F.C.C., 965 F.2d 1103 (D.C. Cir.), cert. granted, F.C.C. v. Beach Communications, 61 U.S.L.W. 3400 (1992).

¹⁴ Petitioner estimates that the initial investment for it to provide fiber optic interconnection in Pittsburgh would be \$200,000-250,000. Coaxial interconnection would cost less than \$20,000.

optic interconnection because of the fiber optic cable's efficiencies at high capacities but small and medium-sized CAPs may have no need for such excess capacity, especially at their early stages of development. Yet, under the Commission's determination in the Report and Order, they must nevertheless pay for this unnecessary capability. In short, permitting CAPs to use coaxial cable for interconnection will allow them to evaluate and select the most efficient means of interconnection possible.

C. LECS, NOT CAPS, SHOULD REQUEST WAIVER OF COLLOCATION REQUIREMENTS IN THE EVENT THEY HAVE INSUFFICIENT SPACE

The procedure for Bureau approval places the burden of proof as to the desirability of coaxial interconnection upon the wrong party. The Commission should place the burden of proof upon the party best able to meet that burden, namely the LECs. In particular, only upon a showing that a specific coaxial interconnection would dangerously limit conduit or riser space should the LECs be permitted to limit coaxial interconnection. Absent such a showing, the Commission should allow CAPs to implement all coaxial interconnections.

The Commission's implementation of expanded interconnection in this Docket has allowed CAPs to more easily compete in the interstate access market. LECs, however, as monopoly service providers, still have every incentive to limit competition. Small and medium-sized CAPs do not have the resources, nor are

they appropriately situated for making showings that particular interconnections are in the public interest. LECs, as the owners and overseers of the physical space to be occupied by interconnection facilities, are uniquely positioned to determine whether particular interconnections will strain their space resources. Logically, then, it is the LECs that should make the showing that a particular coaxial interconnection is not feasible or in the public interest.

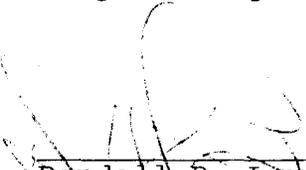
III. CONCLUSION

The Commission's ruling against coaxial interconnection was not based upon sufficient evidence in the record of this proceeding. In fact, coaxial interconnection will in many cases save space in LEC facilities and promote competition in the interstate access market. In addition, CAPs should not be required to make a showing to the Common Carrier Bureau that a particular coaxial interconnection is in the public interest; because of their spatial efficiencies and their competitive benefits, coaxial interconnections should presumptively be considered to be in the public interest.

Petitioner respectfully requests, therefore, that the Commission revisit its previous determination regarding non-fiber cable interconnection, permit coaxial interconnection as a matter of course, and place the burden upon the LECs to show that a

particular coaxial interconnection will unduly restrict space in LEC facilities against the public interest.

Respectfully submitted,



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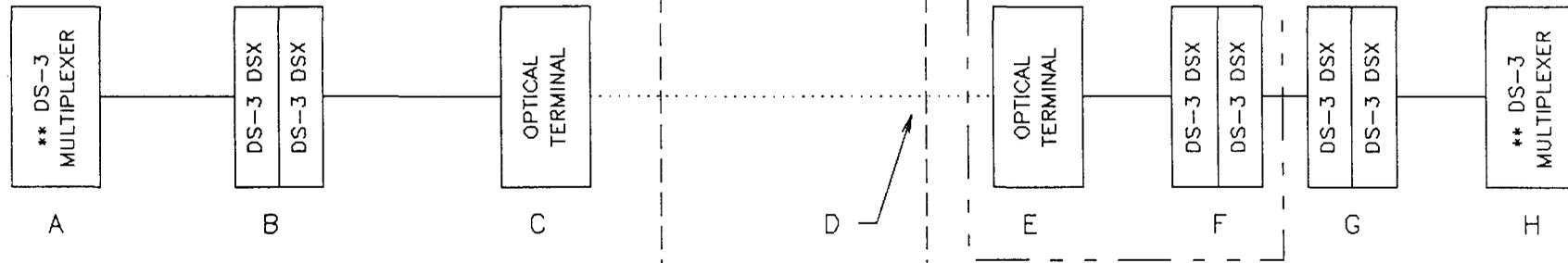
Attorneys for Penn Access
Corporation

December 18, 1992

LEC COLLOCATION INTERCONNECTION COAXIAL CABLE VS. FIBER COMPARISON

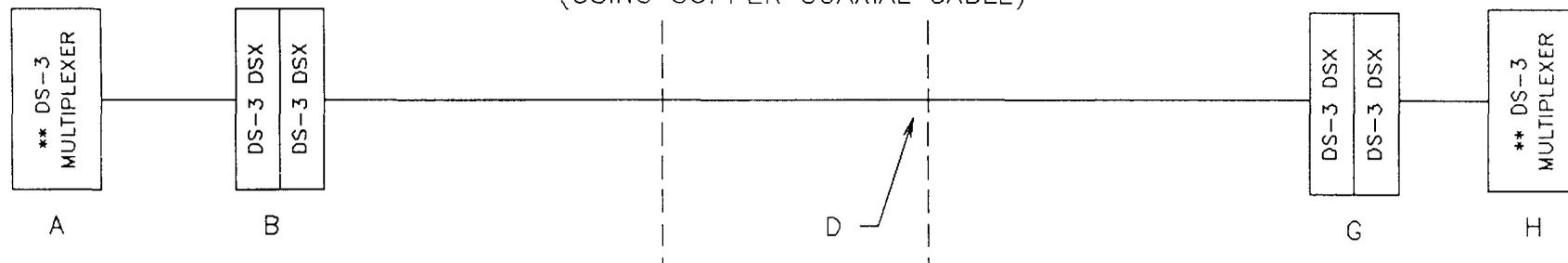
COLLOCATOR BUILDING

LEC BUILDING



COLLOCATION CONFIGURATION APPROVED BY FCC ORDER
(USING FIBER OPTIC CABLE & ELECTRONICS)

ALTERNATE COLLOCATION CONFIGURATION
(USING COPPER COAXIAL CABLE)



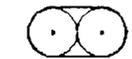
..... FIBER OPTIC CABLE

———— COAXIAL CABLE

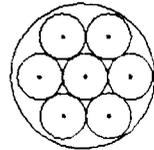
** ALTERNATE COLLOCATION CONFIGURATION IS VIABLE PROVIDED THE DISTANCE FROM THE OPTICAL EQUIPMENT AT POINT 'A' TO THE DSX EQUIPMENT AT POINT 'G' IS 450' OR LESS. PER NORTHERN TELECOM DMT-300 PRACTICE 368-4311-180, SECTION 9-1, MEETING BELLCORE TR-TSY-00499 SPECIFICATION FOR DS-3 DSX INTERCONNECTION.

** CHANGES WITHIN THE LEC BUILDING INVOLVE THE REPLACEMENT OF THE FIBER CABLE FROM POINT 'D' TO POINT 'E' WITH COAXIAL CABLE AND THE ELIMINATION OF ALL EQUIPMENT IN THE COLLOCATION SPACE.

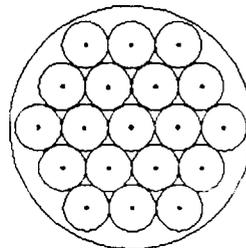
RELATIVE SIZES OF COAXIAL CABLES
TO MEET BELLCORE SPECIFICATION:TR-TSY-00499
FOR DS-3 INTERCONNECTION



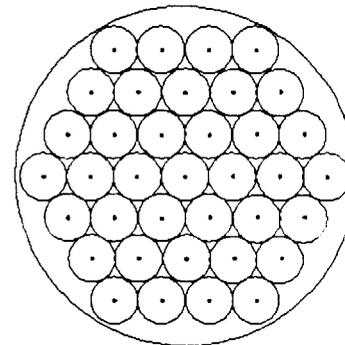
2 COAX
CABLES
.25"X.5"
1 DS-3



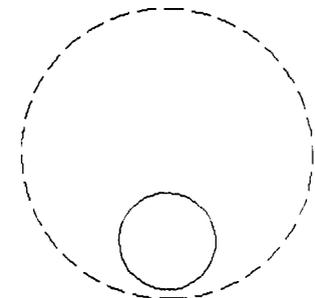
7 COAX
CABLES
.75"
3 DS-3s +
1 SPARE COAX



19 COAX
CABLES
1.25"
9 DS-3s +
1 SPARE COAX



37 COAX
CABLES
1.75"
18 DS-3s +
1 SPARE COAX



** 4-48
FIBERS
.50"
INNERDUCT
1.5" O.D.
MULTIPLE DS-3s

CABLE CROSS SECTIONS ARE SHOWN ACTUAL SIZE

** NOTE: CABLES WITH A FIBER COUNT BETWEEN 4 AND 48 FIBERS HAVE THE SAME OUTSIDE DIAMETER SIZE DUE TO CABLE CONSTRUCTION.

COAX SIZE BASED ON AT&T 734A CABLE. EQUIVALENT CABLES: NORTHERN TELECOM NE-728A OR BELDEN 9231.
FIBER SIZE BASED ON SEICOR 4-48 FIBER NON-METALIC CABLE. EQUIVALENT CABLE: AT&T LXE NON-METALIC.