

1 Bellsouth Telecommunications, Inc.

**ORIGINAL**

2 DIRECT TESTIMONY OF W. Keith Milner

3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

4 DOCKET NO. 990149-TP

5 April 1, 1999

6

7 Q. PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS AND  
8 YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC.

9

10 A. My name is W. Keith Milner. My business address is 675 West  
11 Peachtree Street, Atlanta, Georgia 30375. I am Senior Director -  
12 Interconnection Services for BellSouth Telecommunications, Inc.  
13 ("BellSouth"). I have served in my present role since February 1996,  
14 and have been involved with the management of certain issues related  
15 to local interconnection, resale, and unbundling.

16

17 Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.

18

19 A. My business career spans over 28 years and includes responsibilities in  
20 the areas of network planning, engineering, training, administration, and  
21 operations. I have held positions of responsibility with a local exchange  
22 telephone company, a long distance company, and a research and  
23 development laboratory. I have extensive experience in all phases of  
24 telecommunications network planning, deployment, and operations  
25 (including research and development) in both the domestic and

1 international arenas.

2

3 I graduated from Fayetteville Technical Institute in Fayetteville, North  
4 Carolina, in 1970, with an Associate of Applied Science in Business  
5 Administration degree. I later graduated from Georgia State University  
6 in 1992 with a Master of Business Administration degree.

7

8 Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE ANY STATE PUBLIC  
9 SERVICE COMMISSION, AND IF SO, BRIEFLY DESCRIBE THE  
10 SUBJECT OF YOUR TESTIMONY?

11

12 A. I have testified before the state Public Service Commissions in  
13 Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi and South  
14 Carolina, the Tennessee Regulatory Commission, and the Utilities  
15 Commission in North Carolina on the issues of technical capabilities of  
16 the switching and facilities network regarding the introduction of new  
17 service offerings, expanded calling areas, unbundling, and network  
18 interconnection.

19

20 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY BEING FILED  
21 TODAY?

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23 A. In my testimony, I will address certain unresolved network-related  
24 issues that have been raised for arbitration by MediaOne in this docket.  
25 Those issues, in whole or in part, are issues 5, 6, 10 and 11.

1

2 ***Issue 5: What is the appropriate manner for MediaOne to have access to***  
3 ***network terminating wire (“NTW”) in multiple dwelling units (“MDUs”)?***

4

5 Q. WHAT IS BELLSOUTH’S POSITION ON THESE ISSUES?

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7 A. Neither the 1996 Act nor the FCC requires that access to UNEs by  
8 Alternative Local Exchange Companies (ALECs) be “identical” to  
9 BellSouth’s use of its own facilities. Instead, the FCC specified six (6)  
10 technically feasible interconnection points.<sup>1</sup> The sixth interconnection  
11 point listed covers “the points of access to unbundled elements.”  
12 Neither the 1996 Act nor the FCC specified Network Terminating Wire  
13 (“NTW”) to be an unbundled network element (“UNE”). However, at a  
14 minimum, a technically feasible form of access must be identified.  
15 BellSouth believes the form of access to NTW proposed by MediaOne  
16 cannot be found to be technically feasible as that term is defined by the  
17 FCC.

18

19 Q. HOW DOES THE FEDERAL COMMUNICATIONS COMMISSION  
20 (FCC) DEFINE THE TERM “TECHNICALLY FEASIBLE” AND  
21 ADDRESS NETWORK RELIABILITY AND SECURITY CONCERNS?

22

23 A. In its First Report and Order (CC Docket No. 96-98, released August 8,  
24 1996) at paragraph 198, the FCC included the following statement:

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<sup>1</sup> FCC’s First Report and Order, CC Docket No. 96-325, at ¶ 212)

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“Specific, significant, and demonstrable network reliability concerns associated with providing interconnection or access at particular point, however, will be regarded as relevant evidence that interconnection or access at that point is technically infeasible.”

The FCC elaborated further on this point at paragraph 203 of that same order, by stating:

“We also conclude, however, that legitimate threats to network reliability and security must be considered in evaluating the technical feasibility of interconnection or access to incumbent LEC networks. Negative network reliability effects are necessarily contrary to a finding of technical feasibility. *Each carrier must be able to retain responsibility for the management, control, and performance of its own network.*”

(emphasis added)

Thus, the FCC’s First Report and Order provides clear guidance to find that the access to network terminating wire sought by MediaOne is not technically feasible.

In fact, one important aspect of the FCC’s definition of “technical feasibility” is the recognition that methods of interconnection or access that adversely affect network reliability are “relevant evidence that interconnection or access at that particular point is technically

1           infeasible.” (First Report and Order, ¶¶ 198, 203) Thus, MediaOne’s  
2           proposal must be examined in light of its adverse effect on network  
3           reliability and security.

4  
5    Q.    WHEN YOU EXAMINE MEDIAONE’S PROPOSAL IN LIGHT OF ITS  
6           ADVERSE EFFECT ON NETWORK RELIABILITY AND SECURITY,  
7           WHAT IMPACT COULD IT PRESENT ON END USER CUSTOMERS?

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9           Closer examination of MediaOne’s proposal immediately reveals that  
10          MediaOne’s technicians could, intentionally or unintentionally, disrupt  
11          the service provided by BellSouth to the end user customers. The FCC  
12          requires that “each carrier must be able to retain responsibility for the  
13          management, control, and performance of its own network.” (First  
14          Report and Order, ¶ 203) MediaOne’s proposal strikes at the heart of  
15          this provision and, if allowed, would render BellSouth incapable of  
16          managing and controlling its network in the provision of service to its  
17          end user customers. Clearly, the adoption of MediaOne’s proposal  
18          could place BellSouth in jeopardy of violating the FCC’s rules.

19  
20    Q.    HOW DOES THE ADOPTION OF MEDIAONE’S PROPOSAL PUT  
21           BELLSOUTH IN JEOPARDY?

22  
23    A.    The “cross-connect facility” that has been referred to by MediaOne is  
24           commonly referred to as a “garden terminal.” The garden terminal is a  
25           junction point between large outside plant cables and the smaller

1 cables that extend to each individual customer premises (e.g.,  
2 apartments or suites). An interior view of a typical garden terminal is  
3 shown on Page 2 of Exhibit WKM-1 that is attached to this testimony.  
4 As can readily be seen, a garden terminal is a relatively small device  
5 with no means of protecting against intentional or unintentional  
6 disruption once access to the interior of the garden terminal has been  
7 made. For reasons of network reliability and security, BellSouth refuses  
8 MediaOne direct access to the network facilities (i.e., the NTW) located  
9 within the garden terminal.

10

11 Q. WHAT DOES BELLSOUTH OFFER?

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13 A. BellSouth offers a reasonable method of access to the NTW in  
14 BellSouth's garden terminal. Using BellSouth's proposed method, the  
15 ALEC installs its own terminal in proximity to the BellSouth garden  
16 terminal. BellSouth installs an access terminal that contains a cross-  
17 connect panel on which BellSouth will extend the ALEC requested NTW  
18 pairs from the garden terminal. The ALEC will then extend a tie cable  
19 from their terminal and connect to the pairs they have requested. The  
20 ALEC would then install its own Network Interface Device ("NID") within  
21 the end-user apartment and connect the ALEC requested pair(s) to this  
22 NID. This manner of access retains network reliability, integrity, and  
23 security for both BellSouth's network and the ALEC's network. This  
24 arrangement is shown schematically on Page 1 of Exhibit WKM-1 which  
25 is attached to this testimony and in a photograph included as Page 3 of

1 Exhibit WKM-1. Note that the arrangement shown is one in actual use  
2 by another ALEC. Thus, other ALECs have agreed to and are using  
3 the form of access discussed above and are compensating BellSouth  
4 for such use.

5

6 At MediaOne's request, BellSouth will pre-wire NTW pairs, which would  
7 obviate the need to have a BellSouth technician dispatched each time  
8 MediaOne wants access to a given end user customer. Additionally, as  
9 an alternative to MediaOne installing its own NID, BellSouth offered the  
10 option to have BellSouth install a NID for MediaOne's use with their  
11 requested NTW pairs instead of MediaOne dispatching a technician to  
12 do the work. To date, MediaOne refuses to pay BellSouth for such pre-  
13 wired connections or to install the NID.

14

15 Q. DOES THE ALTERNATIVE TO HAVE BELLSOUTH INSTALL A NID  
16 ASS OFFERED BY BELLSOUTH REQUIRE THAT A SERVICE  
17 PROVIDER (THAT IS, BELLSOUTH OR MEDIAONE) ENTER THE  
18 CUSTOMER'S PREMISES TO REARRANGE CONNECTIONS TO  
19 THE INSIDE WIRE EACH TIME THE CUSTOMER CHANGES  
20 SERVICE PROVIDER?

21

22 A. No; only an initial entry to a customer's premises would be required to  
23 install the NID. BellSouth has discussed with MediaOne and other  
24 ALECs the use of a new style of Network Interface Device (NID) that  
25 allows the end user customer to connect the inside wire to the loop

1 facilities or either or both of two service providers. One such device is  
2 the Siecor INI 200 device manufactured by Siecor Corporation. Interior  
3 and exterior views of this device are shown on pages 4 and 5 of Exhibit  
4 WKM-1. The use of a device such as the INI 200 allows wiring flexibility  
5 such that the end user could have one line provided by BellSouth and a  
6 second line provided by an ALEC such as MediaOne. Alternatively, the  
7 Siecor INI 200 may be wired such that both first and second lines are  
8 both provided by either BellSouth or by an ALEC such as MediaOne.  
9 As can be noted on the photographs in Exhibit WKM-1, the jacks may  
10 be labeled as "BellSouth" and "MediaOne" for example such that the  
11 end user customer need only plug the modular connector into the  
12 appropriate jack and thus connect the inside wire to the chosen service  
13 provider's loop facilities. Doing so would obviate the need for a service  
14 provider to visit the end user customer's premises after the initial  
15 installation of this type of jack.

16  
17 Q. IS BELLSOUTH'S POSITION COMPLIANT WITH THIS  
18 COMMISSION'S RULES REGARDING DEMARCATION POINTS?

19  
20 A. Yes. BellSouth's position is totally compliant with the rules created by  
21 this Commission. Clearly, NTW is part of BellSouth's facilities as it is  
22 on the network side of the demarcation point. MediaOne wants the  
23 Commission to set aside its rules and re-define NTW as inside wire.  
24 MediaOne's request that the Commission redefine the demarcation  
25 point would create a morass of issues including jurisdiction, confiscation



1 of property, and customer confusion. BellSouth submits that the  
2 Commission simply must not allow MediaOne's self interests to prevail  
3 over the interests of BellSouth, other service providers who have  
4 installed their NTW, building owners, and end user customers.

5  
6 ***Issue 6: What is the appropriate demarcation point for BellSouth's***  
7 ***network facilities serving multiple dwelling units?***

8  
9 Q. WHAT IS BELLSOUTH'S BASIC POSITION REGARDING HOW THE  
10 DEMARCATION POINT SHOULD BE ESTABLISHED FOR  
11 BUILDINGS SERVED BY BELLSOUTH?

12  
13 A. The demarcation point should be established consistent with this  
14 Commission's rule 25-4.0345-1B.

15  
16 Q. WHAT IS YOUR UNDERSTANDING OF WHAT MEDIAONE IS  
17 REQUESTING REGARDING ESTABLISHMENT OF THE  
18 DEMARCATION POINT?

19  
20 A. First of all, it is not clear to me from reading MediaOne's Petition For  
21 Arbitration exactly what it wants this Commission to decide relative to  
22 this issue. However, MediaOne apparently wants this Commission to  
23 find that BellSouth's network terminating wire is not part of BellSouth's  
24 network but rather inside wire such that MediaOne would not have to  
25 compensate BellSouth for access to and use of network terminating

1 wire. MediaOne would have this Commission believe that network  
2 terminating wire is not a sub-loop element belonging to BellSouth.

3

4 Q. IS NETWORK TERMINATING WIRE CLASSIFIED AS INSIDE WIRE  
5 AS MEDIAONE SEEMS TO IMPLY?

6

7 A. No. Wiring which is on the customer's side of the network demarcation  
8 point is classified as inside wire. Since network terminating wire is not  
9 located on the customer's side of the network demarcation point, it is  
10 not, by definition, "inside wire." BellSouth does not in any way restrict  
11 the use of "inside wire"; that is, wiring on the customer's side of the  
12 demarcation point.

13

14 BellSouth has not asserted that BellSouth owns, or controls, inside  
15 wire. Inside wire is simply not the issue. BellSouth expects to be, and  
16 is entitled to be, compensated for the parts of BellSouth's loop used by  
17 an ALEC, including network terminating wire. Network terminating wire  
18 is a part of the loop. The loop is on one side of the demarcation point  
19 or NID. The inside wire is on the customer side of that demarcation  
20 point. The demarcation point has clearly been established by rules set  
21 forth by this Commission. MediaOne apparently believes that by  
22 confusing the status of network terminating wire as being inside wire, it  
23 can avoid having to pay BellSouth for its use. The Commission should  
24 not condone MediaOne's attempt to use BellSouth's facilities without  
25 paying for them.

1

2 Q. WHAT ARE SUB-LOOP ELEMENTS?

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4 A. Sub-loop elements are the piece parts that make up the entire loop that  
5 extends from the BellSouth central office to the demarcation point  
6 between BellSouth's network and the inside wire at the end user  
7 customer's premises. Network terminating wire and riser cables are not  
8 classified as inside wire. Rather, since network terminating wire is on  
9 the network side of the demarcation point, it is part of BellSouth's loop  
10 facilities.

11

12 Q. WAS THE ISSUE OF UNBUNDLING OF NETWORK TERMINATING  
13 WIRE THE SUBJECT OF ARBITRATION PROCEEDINGS BEFORE  
14 THIS AUTHORITY?

15

16 A. No, not directly. However, network terminating wire and/or riser cable  
17 are properly thought of as "sub-sub-loop element unbundling" in that  
18 network terminating wire is part of the sub-loop element Loop  
19 Distribution.

20

21 Q. PLEASE GIVE A BRIEF DESCRIPTION OF THE TECHNOLOGY  
22 BELL SOUTH USES IN PROVIDING CUSTOMER LOOPS.

23

24 A. Today, BellSouth uses many types of facilities and technologies to  
25 provision loops to its customers. In some cases, the facility may be a

1 basic architecture consisting of a pair of copper wires that extend from  
2 the Main Distributing Frame (MDF) of the central office (CO) to the NID  
3 at the end user's premises. In other cases, BellSouth may use a  
4 mixture of fiber optic cables, pairs of copper wires and sophisticated  
5 electronics to provision a circuit from the CO to the customer. By  
6 offering these different types of provisioning options, BellSouth is able  
7 to provide optimum flexibility and cost-effectiveness during its service  
8 processes. As an example, Digital Loop Carrier ("DLC") is one such  
9 technology that uses a mixture of facilities and equipment to provide  
10 loops to end users.

11

12 Q. PLEASE DESCRIBE THE NETWORK INTERFACE DEVICE (NID)

13

14 A. Simply stated, the NID provides a demarcation point between  
15 BellSouth's facilities (that is, the loop) and the customer's facilities (that  
16 is, the inside wire). Thus, the NID provides a way to connect the loop to  
17 the inside wire.

18

19 Q. WHAT IS RISER CABLE?

20

21 A. *In multi-story buildings, riser cable is that part of BellSouth's loop*  
22 *facilities extending from the building's cable entrance (often in the*  
23 *basement or on the first floor) and rising to each floor served by that*  
24 *cable. Here again, riser cable is a part of that sub-loop element*  
25 *referred to as loop distribution and is located on the network side of the*

1 demarcation point between BellSouth's loop facilities and the inside  
2 wire at an end user customer's premises.

3

4 Q. WHAT IS NETWORK TERMINATING WIRE?

5

6 A. Network terminating wire is another part of the BellSouth loop facilities  
7 referred to as the sub-loop element loop distribution. In multi-story  
8 buildings, network terminating wire is connected to the riser cable and  
9 "fans out" the cable pairs to individual customer suites or rooms on a  
10 given floor within that building. Where riser cable is not used, network  
11 terminating wire is attached directly to BellSouth's loop distribution  
12 cables. In this sense, network terminating wire is the "last" part of the  
13 loop on the network side of the demarcation point. Thus, the NID  
14 establishes the demarcation point between BellSouth's network and the  
15 inside wire at the end user customer's premises with network  
16 terminating wire being located on BellSouth's side of the demarcation  
17 point and, thus, comprising part of BellSouth's network.

18

19 ***Issue 10: In implementing Local Number Portability ("LNP"), should***  
20 ***BellSouth and/or MediaOne be required to notify the Number Portability***  
21 ***Administration Center ("NPAC") of the date upon which BellSouth will***  
22 ***cut-over MediaOne customer numbers at the MediaOne requested time***  
23 ***concurrent with BellSouth's return of a Firm Order Commitment ("FOC")***  
24 ***to MediaOne?***

25

1 Q. WHAT IS BELLSOUTH'S POSITION ON THIS ISSUE?  
2  
3 A. The local number portability ("LNP") provisioning flows that BellSouth  
4 uses are those adopted by the North American Numbering Council  
5 ("NANC"), which was appointed by the FCC. In accordance with the  
6 FCC's Telephone Number Portability Order (CC Docket No. 95-116),  
7 Lockheed Martin was appointed by the FCC as a neutral third party who  
8 administers, staffs, and operates the Number Portability Administration  
9 Center ("NPAC"). The provisioning flow is such that when a BellSouth  
10 end-user agrees to change service to MediaOne, MediaOne notifies  
11 BellSouth of the change using a Local Service Request ("LSR").  
12 BellSouth then provides a Firm Order Confirmation ("FOC") to  
13 MediaOne at which time both BellSouth and MediaOne will create and  
14 process service orders. At this time, MediaOne sends a create  
15 message to the NPAC who in turn notifies BellSouth of the proposed  
16 porting activity. BellSouth will then send a concurrence message to  
17 NPAC and provisioning subsequently proceeds under the control of  
18 MediaOne until completion. Since BellSouth allows MediaOne to send  
19 the create message to NPAC – as opposed to BellSouth -- MediaOne is  
20 in control of when provisioning will begin and thus an 18 hour window is  
21 not an issue.

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***Issue 11: Should BellSouth be required to provide a point of contact to intervene in the execution of LNP orders when changes or supplements are necessary for customer-related reasons, and, if so, what charge, if any, should apply?***

Q. WHAT IS BELL SOUTH'S POSITION ON THIS ISSUE?

A. It is BellSouth's position that a point of contact is not necessary because MediaOne, as the new service provider, is in control of when end-user calls are routed to MediaOne's switch. MediaOne, as a facilities-based carrier, does not purchase unbundled loops. Therefore, if MediaOne does not send the NPAC activate message, then the end-user calls will continue to route through BellSouth's switch. Should changes or supplements become necessary for customer-related reasons, MediaOne is required to send a supplemental LSR to BellSouth.

To the extent MediaOne desires a dedicated point of contact provided by BellSouth, the Local Carrier Service Center (LCSC) is available 24 hours a day, 7 days a week to provide assistance as necessary. The LCSC is dedicated to handling CLEC service requests and transactions along with associated expedite requests and escalations. However, what BellSouth does not provide is a dedicated individual, (available 24 hours a day, seven days a week for each of the hundreds of ALECs

1 with whom BellSouth does business), who would wait for a phone call  
2 from the ALEC "just in case" assistance is required during an LNP  
3 transition.

4

5 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

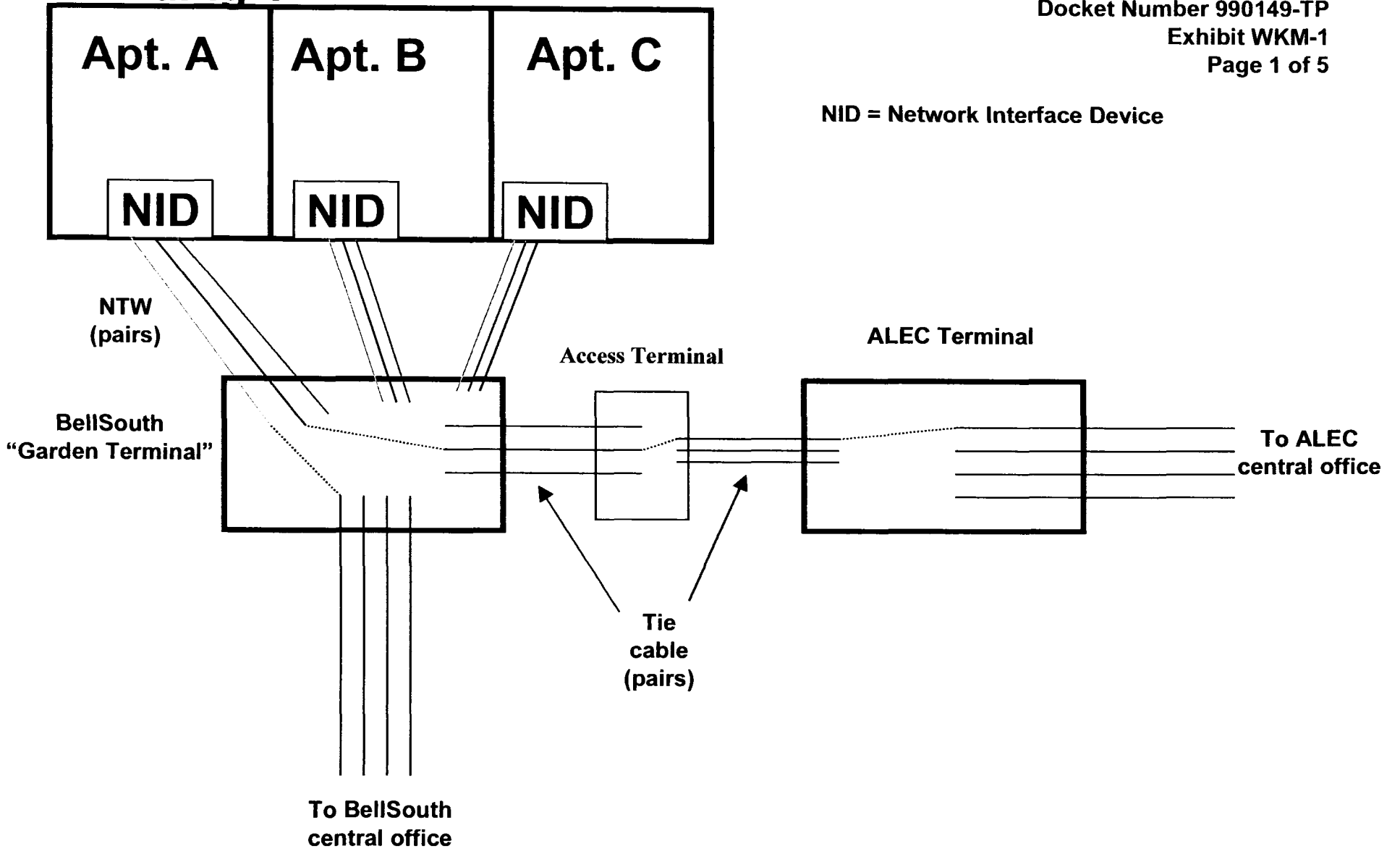
6

7 A. YES.



# Access to Network Terminating Wire

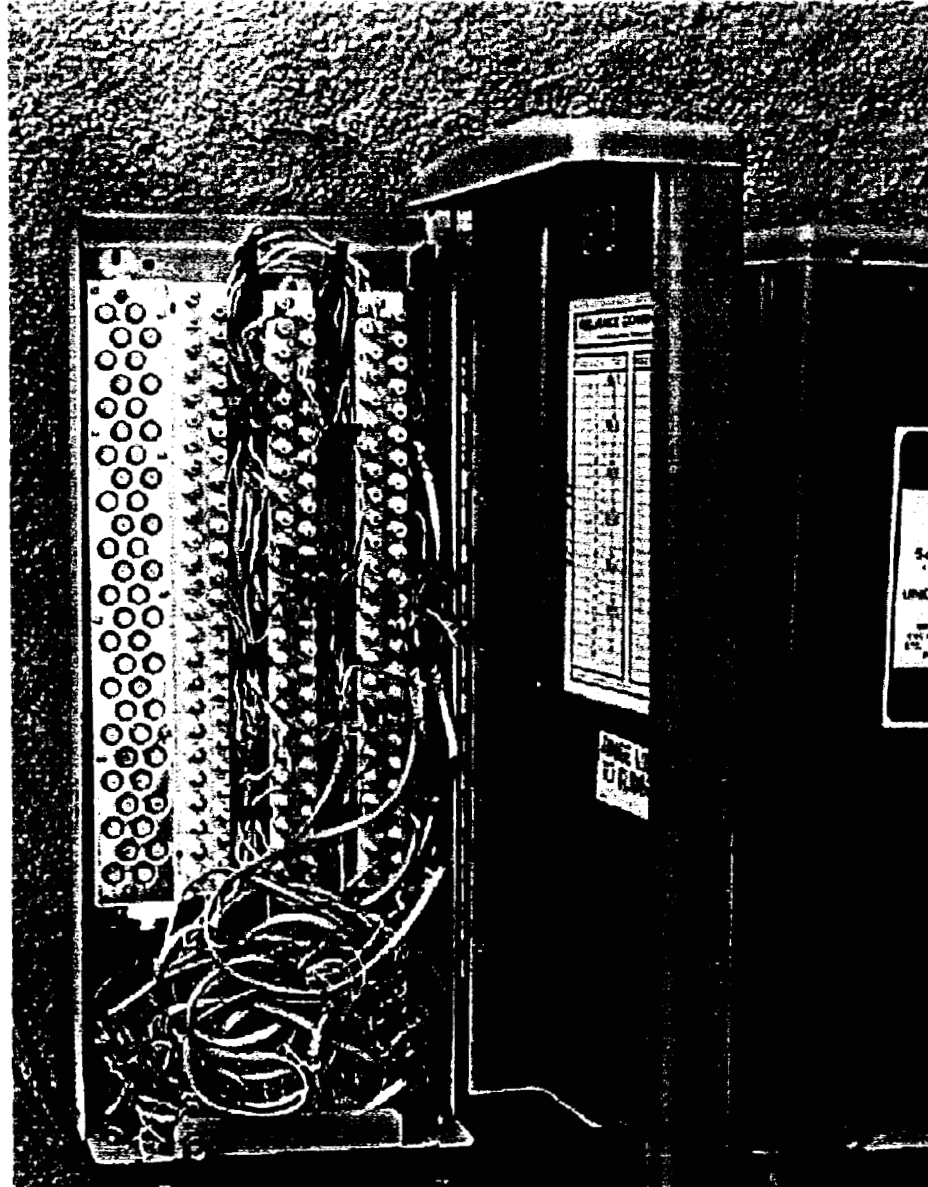
## Building 1

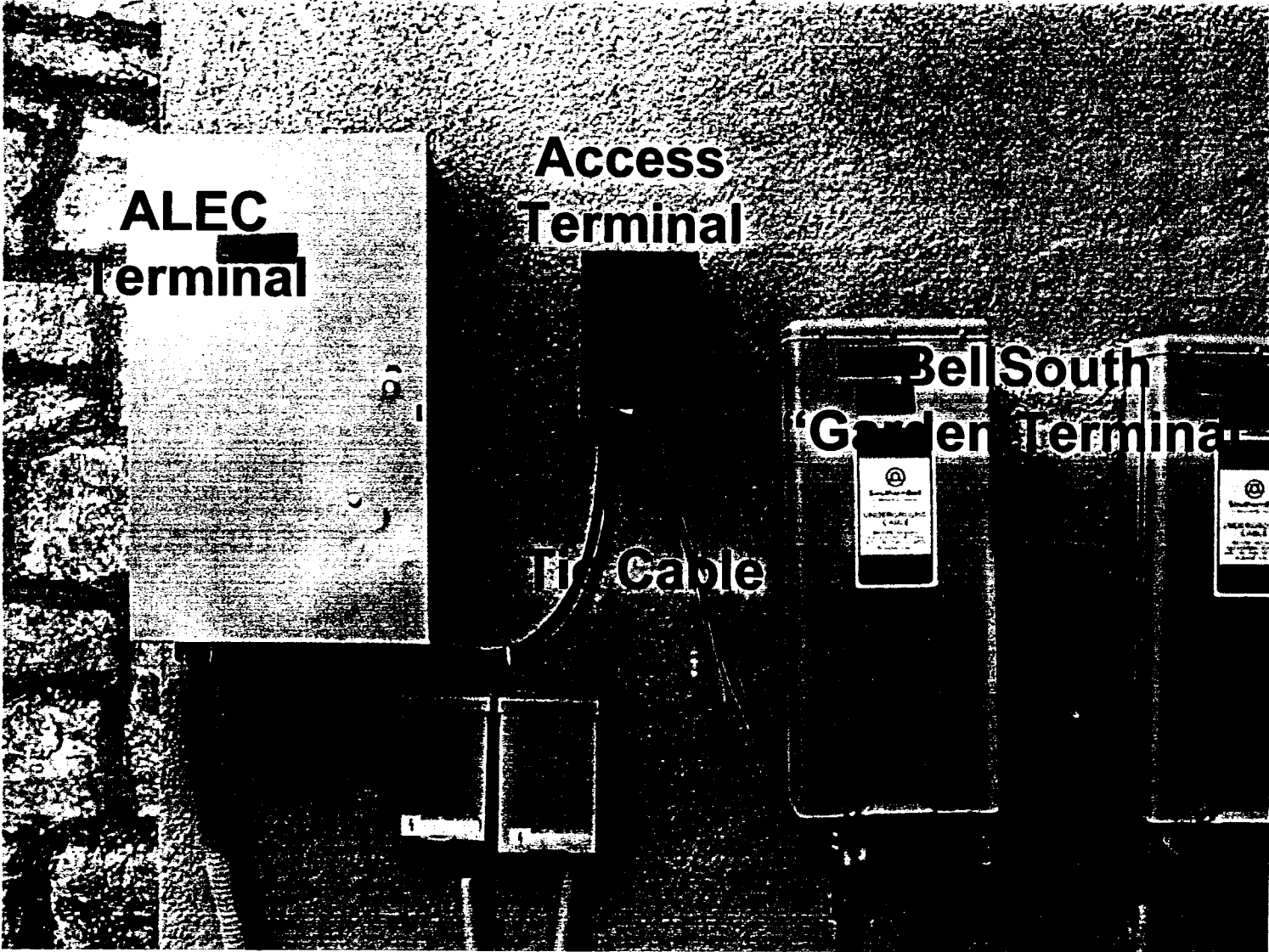


BellSouth Telecommunications, Inc.  
Florida Public Service Commission  
Docket Number 990149-TP  
Exhibit WKM-1  
Page 1 of 5

NID = Network Interface Device

**“Garden terminal”  
Interior view**

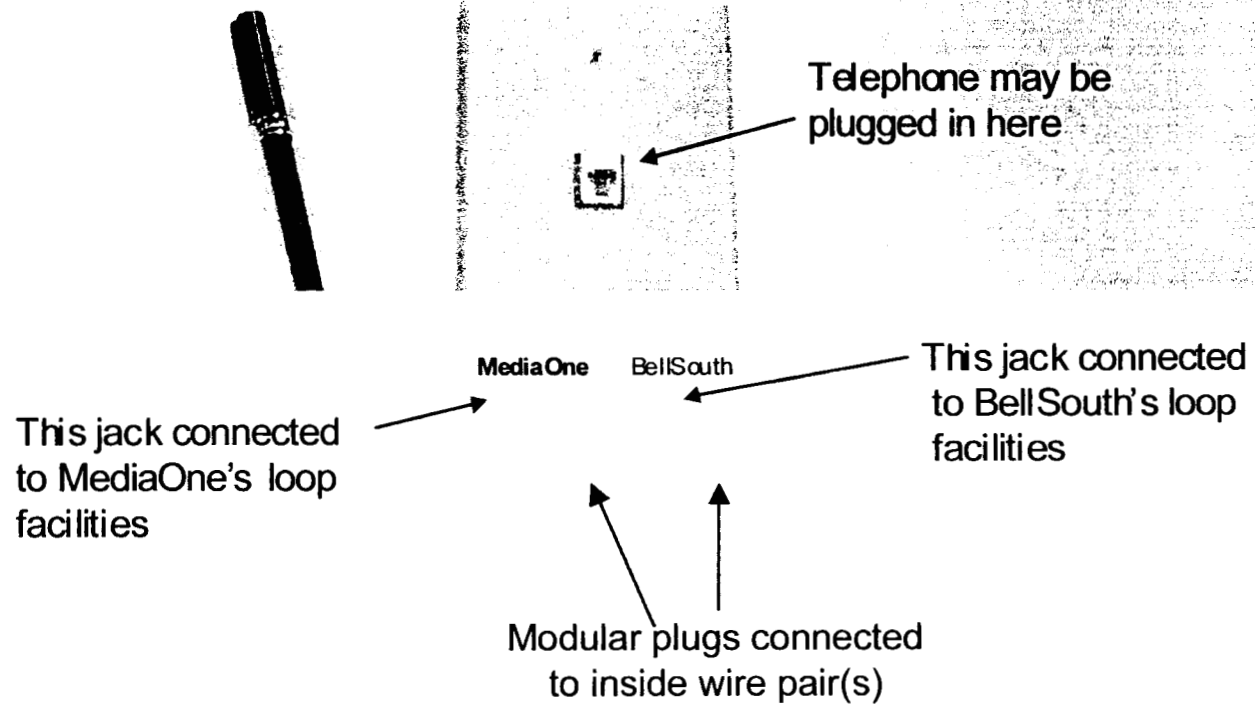


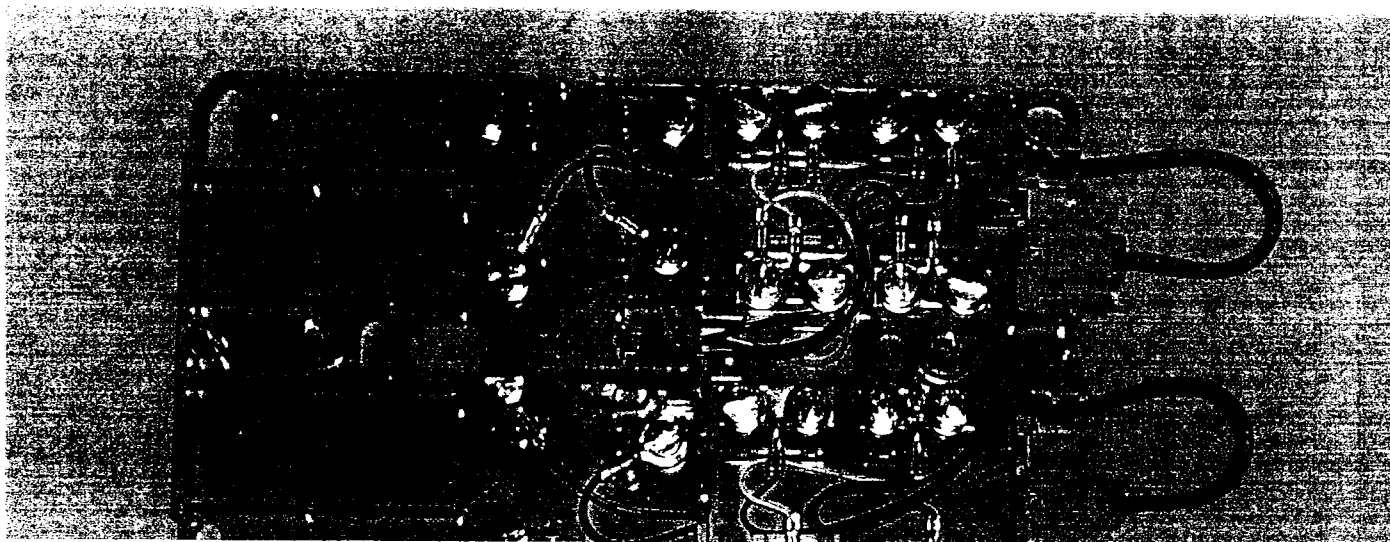


# Siecor INI-200 Network Interface Device (exterior view)

BellSouth Telecommunications, Inc.  
Florida Public Service Commission  
Docket Number 990149-TP  
Exhibit WKM-1  
Page 4 of 5

Siecor INI-200 configured for end user customer having one line provided by BellSouth and one line provided by MediaOne.





Siecor INI-200 Network Interface Device (interior view)