

1 BELL SOUTH TELECOMMUNICATIONS, INC.
2 REBUTTAL TESTIMONY OF W. KEITH MILNER
3 BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
4 DOCKET NO. 990649-TP
5 (PHASE II)
6 AUGUST 21, 2000
7

8 Q. PLEASE STATE YOUR NAME, YOUR BUSINESS ADDRESS, AND
9 YOUR POSITION WITH BELL SOUTH TELECOMMUNICATIONS, INC.
10 (BELL SOUTH).
11

12 A. My name is W. Keith Milner. My business address is 675 West Peachtree
13 Street, Atlanta, Georgia 30375. I am Senior Director - Interconnection
14 Services for BellSouth. I have served in my present role since February
15 1996, and have been involved with the management of certain issues
16 related to local interconnection, resale, and unbundling.
17

18 Q. ARE YOU THE SAME W. KEITH MILNER WHO FILED DIRECT
19 TESTIMONY IN THIS PROCEEDING?
20

21 A. Yes.
22

23 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?
24

25 A. I will respond to portions of the testimony of witnesses Terry Murray,

1 David A. Nilson, John C. Donovan, Brian F. Pitkin, Mark Stacy, Brenda
2 Kahn, and William Barta in regard to certain network technical issues.

3

4 Mark Stacy – “The Coalition”

5 Q. DOES BELLSOUTH 'S PROPOSED METHOD OF SUB-LOOP ACCESS
6 INVOLVE “ENHANCED SECURITY” AS SUGGESTED BY MR. STACY
7 ON PAGE 13 OF HIS TESTIMONY?

8

9 A. No. BellSouth seeks reasonable security measures meant to protect the
10 reliability and security of the service to BellSouth’s end users as well as
11 end users of Alternative Local Exchange Carriers (“ALECs”) using
12 unbundled loops or unbundled sub-loop elements acquired from
13 BellSouth.

14

15 Q. DO YOU BELIEVE THAT THE ALEC IS THE COST CAUSER IN THE
16 PLACEMENT OF ACCESS TERMINALS AS DISCUSSED BY MR.
17 STACY ON PAGE 14 OF HIS TESTIMONY?

18

19 A. Yes, because BellSouth does not benefit from the placement of an access
20 terminal. An access terminal is necessary to prevent intentional or
21 unintentional service disruption caused by ALECs’ technicians and to
22 ensure accurate record keeping and billing. Thus, it is appropriate that
23 requesting ALECs bear those costs.

24

25 Q. ON PAGE 15 OF HIS TESTIMONY, IN DISCUSSING INTRABUILDING

1 NETWORK CABLE ("INC"), MR. STACY STATES " IF ONE WEEK
2 LATER ANOTHER CUSTOMER WANTS TO SWITCH ITS SERVICE TO
3 AN ALEC, BELLSOUTH WOULD CHARGE THAT ALEC AS IF
4 BELLSOUTH NEED TO PROVISION A NEW 25-PAIR PANEL (\$402.70
5 AND \$158.23) AND AS IF THE ALEC WAS ORDERING ITS FIRST PAIR
6 (\$135.45)." DO YOU AGREE?
7

8 A. No. BellSouth assesses the charges associated with the installation of an
9 access terminal only once and only at the first request for access. Such
10 charges would not be assessed again until the ALEC requests an
11 additional 25-pair panel, presumably when the first 25-pair panel is fully
12 utilized.
13

14 Q. ON PAGE 15 OF HIS TESTIMONY, MR. STACY STATES THAT FOR
15 EACH NEW ALEC CUSTOMER, "BELLSOUTH WILL NEED TO
16 DISPATCH A TECHNICIAN TO MAKE A CROSS CONNECTION". IS
17 HE CORRECT?
18

19 A. No. BellSouth will pre-wire all Network Terminating Wire (NTW) pairs to
20 the access terminal. By terminating such pairs on separate connecting
21 blocks serving as an access terminal for the ALEC, the need for
22 dispatches of a BellSouth technician on all such pre-wired pairs is
23 eliminated. For example, BellSouth currently has its own terminal in each
24 garden apartment arrangement. For each garden terminal, BellSouth will
25 create a separate access terminal and will pre-wire to the access terminal

1 all the pairs necessary to serve each facility. Therefore, for garden
2 apartments, this means that each cable pair available to serve customers
3 in that garden apartment building will appear both on BellSouth's terminal
4 and on the access terminal. An ALEC wanting to serve a customer in the
5 garden apartment situation would build its terminal at that location and
6 then wire its cable pair to the appropriate pre-wired location on the access
7 terminal.

8
9 The treatment for Intrabuilding Network Cable ("INC") in high-rise buildings
10 will be different. BellSouth will still build an access terminal to
11 complement BellSouth's own terminal located in the high-rise building.

12 The ALEC wanting to access those facilities will still have to build its own
13 terminal for its cable pairs. However, rather than pre-wiring the access
14 terminal, when BellSouth receives an order for INC from the ALEC,
15 BellSouth will then wire the particular INC pairs requested from
16 BellSouth's terminal to the ALEC's access terminal.

17
18 Q. PLEASE FURTHER DISCUSS WHY BELLSOUTH DOES NOT
19 PROPOSE TO PRE-WIRE EACH INC PAIR TO THE ACCESS
20 TERMINAL.

21
22 A. BellSouth does not propose to pre-wire each INC pair to the access
23 terminal in high-rise buildings because it is simply impractical to do so.
24 The garden apartment terminal I discussed above might have 20 to 25
25 loops terminated on it, thus making pre-wiring each NTW pair to the

1 access terminal something that can be done with a reasonable effort. On
2 the other hand, high-rise buildings may have hundreds or even thousand
3 of pairs, which would make pre-wiring the access terminal impractical.

4
5 Further, maintenance of INC cable records is more problematic than
6 maintenance of NTW records because, unlike NTW records, INC cable
7 records are mechanized records not available at the access terminal.
8 Keeping accurate records of what pairs are spare, working, or defective is
9 critical to ensuring high quality service, both in provisioning new or
10 additional customer lines and in repairing existing customers' service.

11 NTW records consist generally as paper tags on each pair of wires that
12 are present at the NTW garden terminal. A technician can usually
13 determine the use to which a particular pair is being put while on-site
14 either via the tag or by electrically testing the NTW. However, such
15 "intrusive testing" by electrically testing the NTW is not recommended
16 because such testing cannot be done without interrupting existing line
17 transmissions. Of course, such disturbances could quickly lead to end
18 user dissatisfaction.

19
20 Regarding INC cable records, because such records are mechanically
21 inventoried records, individual assignments of INC pairs are made as
22 orders for service are processed. Should specific INC pairs become
23 unusable, a notation is made in the records system so that the pairs are
24 not assigned as the need arises for additional pairs. Thus, a field
25 technician has no way of knowing whether a specific INC pair is usable

1 and available without risking disruption of service to existing end users.
2 Using a test set to determine whether the cable pair is in use would disrupt
3 an in-progress transmission. Utilizing INC pairs at random could result in
4 taking an existing end user out of service, or in having the new end user's
5 service be inoperable because of a faulty INC pair. Should a technician
6 by chance choose a spare INC pair and successfully install the end user's
7 service, there is no means of protecting that service from potential
8 disruptions resulting from the next technician entering that work area, no
9 matter whether that technician is employed by BellSouth or an ALEC. As
10 subsequent technicians enter the work scene, the existing cable pair INC
11 records would progressively deteriorate, creating an immediate and
12 significant service problem that would be extremely costly and difficult to
13 correct. The bottom line is that allowing an ALEC's technician to try to
14 locate spare facilities to provide service would inevitably result in service
15 degradation and chaotic service provisioning by all carriers.

16
17 Indeed, utilizing INC pairs at random could result in taking an existing end
18 user out of service, or in having the new end user's service be inoperable
19 because of a faulty INC pair. Should a technician by chance choose a
20 spare INC pair and successfully install the end user's service, there is no
21 means of protecting that service from potential disruptions resulting from
22 the next technician entering that work area, no matter whether that
23 technician is employed by BellSouth or an ALEC. As subsequent
24 technicians enter the work scene, the existing cable pair INC records
25 would progressively deteriorate, creating an immediate and significant

1 service problem that would be extremely costly and difficult to correct.

2
3 Q. IN DISCUSSING NTW ON PAGE 16 OF HIS TESTIMONY, MR. STACY
4 STATES "THAT BUILDING AN ACCESS TERMINAL IS
5 UNNECESSARY..." . DO YOU AGREE?
6

7 A. No, and apparently this Commission doesn't agree either, based on its
8 Order No. PSC-99-2009-FOF-TP dated October 14, 1999 in Docket No.
9 990149-TP ("MediaOne Order"). In that Order, this Commission
10 determined that MediaOne and others could gain access to unbundled
11 NTW (UNTW) without reducing network security and reliability by adopting
12 BellSouth's proposed form of access. Clearly, the access terminal
13 provides a useful function. In the MediaOne Order, at page 17, the
14 Commission stated:

15
16 The record does not contain evidence of any case which
17 would support a proposal where one party is seeking to use
18 its own personnel to, in effect, modify the configuration of
19 another party's network without the owning party being
20 present. We find that MediaOne's proposal to physically
21 separate BellSouth's NTW cross-connect facility from
22 BellSouth's outside distribution cross-connect facilities is an
23 unrealistic approach for meeting its objectives. Therefore,
24 BellSouth is perfectly within its rights to not allow MediaOne
25 technicians to modify BellSouth's network.

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Further, the Commission stated:

...Based on the evidence presented at the hearing, we believe that it is in the best interests of the parties that the physical interconnection of MediaOne's network be achieved as proposed by BellSouth.

Q. HAVE OTHER COMMISSIONS IN BELLSOUTH'S REGION REACHED THE SAME CONCLUSION THAT USE OF ACCESS TERMINALS IS APPROPRIATE FOR ACCESS TO NTW?

A. Yes. In its Order in Docket Number 10418-U, the Georgia Commission found that MediaOne should have access to BellSouth's facilities through the use of an access terminal but that at the time of providing service to a particular end user, no BellSouth technician need be involved in the process. At page 10 of its Order, the Georgia Commission stated:

As stated in the prior section, to the extent there is not currently a single point of interconnection that can be feasibly accessed by MediaOne, consistent with the FCC's Third Report and Order, BellSouth must construct a single point of interconnection that will be fully accessible and suitable for use by multiple carriers. Such single points of interconnection shall be constructed consistent with

1 MediaOne's proposal such that MediaOne shall provide its
2 own cross connect (CSX) facility in the wiring closet to
3 connect from the building back to its network. MediaOne
4 would then be able to connect its customers within the MDU
5 by means of an "access CSX".
6

7 Q. ON PAGE 16 OF HIS TESTIMONY, MR. STACY STATES THAT
8 "THE COALITION WOULD PREFER TO HAVE ITS OWN
9 TECHNICIAN PROVISION THE CROSS-CONNECT IN THE
10 FIRST PLACE." DIDN'T THE FLORIDA COMMISSION REJECT
11 THIS APPROACH IN THE MEDIAONE CASE?
12

13 A. Yes. The quotation from this Commission's Order in my earlier
14 response clearly rejects such an approach.
15

16 Q. ON PAGE 16 OF HIS TESTIMONY, MR. STACY STATES "IT IS
17 BELL SOUTH'S OWN SECURITY CONCERNS, HOWEVER, THAT
18 NECESSITATE THESE COSTS [THAT IS, THE ACCESS
19 TERMINAL AND ASSOCIATED COSTS]" FOR UNTW. DO YOU
20 AGREE?
21

22 A. No. Mr. Stacy's position is untenable. The Telecommunications
23 Act of 1996 and related FCC and state commission proceedings
24 have established that BellSouth must cooperate with competitors to
25 foster competition. However, nothing in those proceedings requires

1 BellSouth to finance competitive entry into the telecommunications
2 market or to sacrifice network reliability or security. BellSouth
3 would have no reason to construct access terminals if not for the
4 ALECs' desire to gain access to BellSouth's sub-loop facilities.
5 Regulatory authorities, as I will discuss below, have clearly
6 established that BellSouth has a responsibility to safeguard its
7 network and facilities as various means of interconnection are
8 identified. The access terminal at issue here has been determined
9 to be a reasonable method of interconnection which addresses
10 ALEC needs while providing adequate security for BellSouth's
11 network. Therefore, if an ALEC desires to interconnect, that ALEC
12 should bear the cost of doing so.

13
14 As to the regulatory basis of BellSouth's position, in its First Report and
15 Order (CC Docket No. 96-98, released August 8, 1996) at paragraph 198,
16 the FCC included the following statement:

17
18 Specific, significant, and demonstrable network reliability concerns
19 associated with providing interconnection or access at a particular
20 point, however, will be regarded as relevant evidence that
21 interconnection or access at that point is technically infeasible.

22
23 The FCC elaborated further on this point at paragraph 203 of that same
24 Order, by stating:

1 We also conclude, however, that legitimate threats to network
2 reliability and security must be considered in evaluating the
3 technical feasibility of interconnection or access to incumbent LEC
4 networks. Negative network reliability effects are necessarily
5 contrary to a finding of technical feasibility. Each carrier must be
6 able to retain responsibility for the management, control, and
7 performance of its own network. (Emphasis added.)
8

9 Thus, the FCC's First Report and Order clearly supports a finding that the
10 form of direct access to unbundled sub-loop elements sought by the
11 Coalition is not technically feasible. As discussed earlier, the Florida
12 Commission has adopted this same view in the MediaOne arbitration
13 docket.

14
15 Q. ON PAGE 17 OF HIS TESTIMONY, MR. STACY STATES "THE
16 COALITION URGES THE FPSC TO REQUIRE BELLSOUTH TO
17 AT LEAST ASSIST IN RECOVERING THE COSTS ASSOCIATED
18 WITH THE ADDED SECURITY." [EMPHASIS ADDED]. SHOULD
19 BELLSOUTH SHARE IN COSTS TO PROTECT BELLSOUTH'S
20 NETWORK THAT ARE NECESSITATED SOLELY BY ALECS'
21 USE OF BELLSOUTH'S NETWORK?
22

23 A. No. BellSouth does not need to protect its network from its own
24 technicians. BellSouth is entitled to recover its costs for reasonable
25 security measures as determined by the FCC and as discussed in

1 the preceding answer. This Commission has already found
2 BellSouth's proposed methods of access to be reasonable and
3 therefore subject to appropriate cost recovery.
4

5 Q. FURTHER ON PAGE 17, MR. STACY STATES "SHOCKINGLY,
6 BELLSOUTH PROPOSES NOT ONLY CHARGING THE FIRST
7 CLEC THAT REQUIRES ACCESS TO INC, BUT ALSO
8 CHARGING EACH SUBSEQUENT ALEC REQUEST FOR A
9 LOOP THE FULL COSTS ASSOCIATED WITH THE
10 INSTALLATION OF AN ACCESS TERMINAL." IS BELLSOUTH'S
11 POSITION "SHOCKING"?

12
13 A. No. Again, in its MediaOne Order, this Commission found appropriate
14 BellSouth's position that MediaOne and others could gain access to
15 unbundled NTW via BellSouth's proposed form of access without reducing
16 network security and reliability, stating on page 17 that:

17
18 We also conclude that the BellSouth-installed access
19 terminal should be reserved for exclusive use by MediaOne.
20 If other ALECs are permitted access to the terminal installed
21 for MediaOne, MediaOne would be subject to the same
22 network security and control problems that BellSouth uses in
23 its arguments. In addition, because MediaOne is required to
24 pay BellSouth for the access terminal and the labor to install
25 it, we believe it would be inappropriate for BellSouth to offer

1 other ALECs a sharing arrangement on this terminal, without
2 MediaOne's approval.

3
4 The Commission's Order addressed access to NTW; however, this
5 same reasoning applies to ALECs' access to INC and supports
6 BellSouth's position. Finally, let me reiterate that BellSouth
7 assesses the charges associated with the installation of an access
8 terminal only once and only as the first request for access. Such
9 charges would not be assessed again to the same ALEC until that
10 ALEC requests an additional 25-pair panel, presumably when the
11 first 25-pair panel is fully utilized.

12

13 Q. IN CONNECTION WITH MR. STACY'S CONCERNS AS STATED
14 ON PAGE 17 OF HIS TESTIMONY ABOUT THE UP-FRONT
15 COSTS OF ACCESS TERMINAL CONSTRUCTION, IS
16 BELLSOUTH WILLING TO ALLOW SHARING OF AN ACCESS
17 TERMINAL BY MULTIPLE CARRIERS?

18

19 A. Yes, if that is determined to be acceptable by this Commission.
20 However, based on my understanding of BellSouth's cost study, if
21 the Commission were to find ALEC sharing of the access terminal
22 to be acceptable, there may need to be adjustments made to
23 BellSouth's study for the affected rate elements.

24

25 Q. ON PAGE 18 OF HIS TESTIMONY, MR. STACY INDICATES

1 THAT BELLSOUTH SHOULD PLACE A SEPARATE ACCESS
2 TERMINAL INTO A MDU TO WHICH IT WOULD CROSS-
3 CONNECT ALL AVAILABLE PAIRS WITHIN THE MDU." IS
4 BELLSOUTH WILLING TO DO SO?

5
6 A. Yes, as I stated earlier, this is what BellSouth proposes for access
7 to NTW. However, for reasons I discussed earlier, this is not
8 possible in the case of the hundreds or even thousands of INC
9 pairs present in many multi-story buildings.

10
11 Q. AT THE TOP OF PAGE 19, MR. STACY DISCUSSES THE
12 DIRECT CONNECTION OF ALEC EQUIPMENT TO ILEC INC.
13 DOES BELLSOUTH AGREE THAT ALECS SHOULD BE ABLE TO
14 DIRECTLY CONNECT ITS EQUIPMENT TO BELLSOUTH'S INC?

15
16 A. No, and if some of the instances Mr. Stacy cites occurred in Florida, then
17 that ALEC has violated this Commission's rules. I am startled that the
18 Coalition apparently has ignored this Commission's applicable rules as
19 well as the tariffs of other telephone companies with whom they must
20 interconnect. The ownership of NTW and INC is well established in
21 Chapter 25 of the Commission's rules for telephone companies, which
22 read as follows:

23
24 25-4.0345 Customer Premises Equipment and Inside Wire.

25 (1) Definitions: For purposes of this chapter, the definition to

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the following terms apply:

(a)....

(b) "Demarcation Point." The point of physical interconnection (connecting block, terminal strip, jack, protector, optical network interface, or remote isolation device) between the telephone network and the customer's premises wiring. Unless otherwise ordered by the Commission for good cause shown, the location of this point is:

1. Single Line/Single Customer Building – Either at the point of physical entry to the building or a junction point as close as practicable to the point of entry.
2. Single Line/Multi Customer Building – within the customer's premises at a point easily accessed by the customer.
3. Multi Line Systems/Single or Multi Customer Building - - At a point within the same room and within 25 feet of the FCC registered terminal equipment or cross connect field.
....
4. Network facilities up to and including the demarcation point are part of the telephone network, provided and maintained by the telecommunications company under tariff.

1 In addition, BellSouth's tariffs are very clear about the ownership of its
2 equipment and facilities. For example, BellSouth's General Subscriber
3 Service Tariff contains the following statements in A2. General
4 Regulations:

5
6 A2.3.10 Provision and Ownership of Equipment and Facilities

7 A. Equipment and facilities furnished by the Company on the
8 premises of a subscriber or authorized user of the Company
9 are the property of the Company and are provided upon the
10 condition that such equipment and facilities, except as
11 expressly provided in this tariff, must be installed, relocated
12 and maintained by the Company....

13 B. Subscribers may not disconnect or remove or permit others to
14 disconnect or remove any apparatus installed by the Company,
15 except as expressly provided in this tariff or upon the written
16 consent of the Company.

17
18 Further, in that same section of the General Subscriber Services
19 Tariff, the following language appears at A2.3.13 Maintenance and
20 Repairs:

21
22 In case of damage, loss, theft, or destruction of any of the
23 Company's property due to the negligence or willful act of the
24 subscriber or other persons authorized to use the service ...the
25 subscriber shall be required to pay the expense incurred by the

1 Company in connection with the replacement of the property
2 damaged, lost, stolen, or destroyed, or the expense incurred in
3 restoring it to its original condition.
4

5 Finally, if the practice of members of the Coalition is as Mr. Stacy
6 describes, this Commission should consider a show cause proceeding to
7 identify those ALECs that have appropriated BellSouth's property without
8 BellSouth's knowledge or consent.
9

10 Q. ON PAGE 19 OF HIS TESTIMONY, MR. STACY CITES THE
11 ADVANTAGE OF HAVING A BELLSOUTH TECHNICIAN PRE-WIRE
12 THE ACCESS TERMINAL TO AVOID COSTS AND DELAYS. DO YOU
13 AGREE?
14

15 A. Yes, as the concept applies to NTW; however, I do not agree in the case
16 of INC for reasons discussed earlier in my testimony.
17

18 Q. ON PAGE 21 OF HIS TESTIMONY, MR. STACY STATES "THE FCC
19 STATED THAT AN INCUMBENT LEC MUST DEVELOP A SYSTEM OF
20 DISTRIBUTING THE COST BY COMPARING THE AMOUNT OF
21 FACILITIES ACTUALLY USED BY A NEW ENTRANT WITH THE
22 OVERALL EXPENSES INCURRED IN PROVIDING THAT FACILITY."
23 WHAT IS YOUR RESPONSE?
24

25 A. Mr. Stacy is mistaken. First, he relies upon the FCC's collocation rulings,

1 which apply to interconnection, and not to unbundled network elements.
2 Second, there is no cost to be distributed. Consistent with this
3 Commission's order in the MediaOne arbitration, BellSouth will provide
4 each ALEC its own access terminal and will recover the cost of that
5 access terminal from the requesting ALEC.
6

7 Q. ON PAGE 22 OF HIS TESTIMONY, MR. STACY STATES "FDI
8 TERMINALS PROVIDE ENHANCED NETWORK FLEXIBILITY AND
9 MAINTENANCE OPPORTUNITIES THAT ARE SIMILAR (IF NOT
10 IDENTICAL) TO THE ENHANCED SECURITY AND NETWORK
11 RELIABILITY ADVANTAGES ESPOUSED BY BELLSOUTH WITH
12 RESPECT TO THE CONSTRUCTION OF A SEPARATE TERMINAL TO
13 BE USED FOR ACCESS TO INC. PLEASE COMMENT.

14
15 A. Consistent with access to NTW and INC, BellSouth proposes the same
16 form of access to unbundled loop distribution facilities and unbundled loop
17 feeder facilities accessed at the Feeder Distribution Interface ("FDI"). That
18 is, BellSouth will install an access terminal for the requesting ALEC.
19 Direct, unencumbered access by ALECs to BellSouth's FDI should be
20 rejected for the same reasons this Commission rejected direct,
21 unencumbered access to BellSouth's garden terminals and the NTW
22 inside them. Direct, unencumbered access is unnecessarily invasive and
23 significantly reduces network reliability and security. Given the large
24 quantity of network facilities housed inside the FDI, direct access would
25 cause a serious risk of service interruption to a very large geographic

1 area. Such a potential risk should not be condoned.

2
3 Q. MR. STACY GOES ON TO STATE "IN REQUIRING THE FIRST AND
4 EACH ADDITIONAL ALEC THAT REQUESTS COLLOCATION IN A MDU
5 TO BEAR ALL OF THE EXPENSES WITH THAT COLLOCATION, AND
6 NOT JUST THE PRO-RATA EXPENSES OF THE FACILITIES IT WILL
7 USE, BELLSOUTH'S PROPOSAL EXPRESSLY CONFLICTS WITH
8 FEDERAL LAW." DO YOU AGREE?
9

10 A. No. First, the issue at hand is about access to unbundled network
11 elements rather than collocation. Second, this Commission decided in the
12 MediaOne arbitration case that each ALEC should have its own access
13 terminal for access to NTW. Third, this Commission has latitude to decide
14 questions of technical feasibility and has found BellSouth's proposed form
15 of access to be technically feasible. BellSouth complies with this
16 Commission's order, and thus is simultaneously compliant with the FCC's
17 order.
18

19 Q. FURTHER ON PAGE 23, MR. STACY STATES "DATA ALECS SUCH AS
20 CLEARTEL ALREADY HAVE ENTERED INTO AGREEMENTS WITH
21 AND PAY MDU OWNERS TO GAIN ACCESS TO THE WIRING
22 CONTAINED IN THE MDU." WHAT KIND OF "WIRING CONTAINED IN
23 THE MDU" DOES HE REFER TO?
24

25 I cannot tell. If he is referring to inside wire on the customer's side of the

1 demarcation point, Mr. Stacy's statement is irrelevant since BellSouth is
2 not seeking to recover the cost of "inside wiring". If the wiring is on the
3 network side of the demarcation point, the "wiring" belongs to BellSouth,
4 so BellSouth, not the MDU owner, should be paid for its use.

5
6 Q. ON PAGE 24 OF HIS TESTIMONY, MR. STACY STATES "IN FLORIDA,
7 CLEARTEL ALREADY PAYS BELLSOUTH SIGNIFICANT AMOUNTS OF
8 MONEY FOR T1 ACCESS." IS THIS RELEVANT TO THE ISSUE AT
9 HAND?

10
11 A. No. BellSouth appreciates Cleartel's business for BellSouth's DS1
12 services. However, those rates are not at issue here. What is at issue is
13 ALECs' access to unbundled sub-loop elements. The rates Cleartel pays
14 BellSouth for DS1 services are appropriate, as are BellSouth's proposed
15 rates for access to unbundled sub-loop elements.

16
17 Q. ON PAGE 24, MR. STACY STATES "AS REQUIRED BY FEDERAL LAW,
18 THE PROPER RATES ASSOCIATED WITH INC SHOULD BE BASED
19 UPON THE ACTUAL FACILITIES USED BY AN ALEC WHICH, IN THIS
20 CASE, WOULD BE ON A PER-LINE BASIS." DO YOU AGREE?

21
22 A. No. The access terminal provided by BellSouth for which BellSouth is
23 entitled to recover its costs is dedicated to the requesting ALEC. Thus,
24 there is no other ALEC from which BellSouth would be able to recover its
25 costs. Further, this Commission ordered BellSouth to provide a separate

1 access terminal for ALEC access to unbundled sub-loop elements. Thus,
2 contrary to Mr. Stacy's suggestion, pro-rating the cost of the access
3 terminal based on the capacity of the terminal (expressed in quantity of
4 pairs) is not appropriate. Indeed, if Mr. Stacy's proposal were adopted,
5 BellSouth would be denied the recovery of its costs.

6
7 Brenda Kahn – AT&T & MCI Worldcom

8 Q. DO YOU AGREE WITH MS. KAHN'S DEFINITION OF NETWORK
9 TERMINATING WIRE (NTW) AS DISCUSSED ON PAGE 7 OF HER
10 TESTIMONY?

11
12 A. What Ms. Kahn describes is typical of the use of NTW in garden
13 apartment settings. However, NTW may be used alone or in conjunction
14 with INC. In garden apartments, there is no INC and, thus, the NTW
15 connects directly to BellSouth's loop distribution facilities. In this sense,
16 NTW is the "last" component of BellSouth's loop on the network side of the
17 demarcation point. Conversely, in multi-story buildings, NTW is connected
18 to the INC at cross-connect terminals usually on each floor of the building
19 and "fans out" the cable pairs to individual customer suites or rooms on
20 each floor. Depending on the ALEC's network needs, NTW can be
21 purchased from BellSouth as a separate unbundled sub-loop offering, or
22 as a component of unbundled INC.

23
24 Q. WHAT IS MS. KAHN'S BASIS FOR HER STATEMENT ON PAGE 9 OF
25 HER TESTIMONY THAT "AN ADDITIONAL PANEL FLATLY CONFLICTS

1 WITH THE FCC'S UNE REMAND ORDER...”?

2
3 A. I am not sure. She seems to suggest that the basis of her belief is that
4 BellSouth has direct access to its own facilities while ALECs gain access
5 through the access terminal. However, her assumption is incorrect. The
6 FCC did not require an incumbent LEC such as BellSouth to share a
7 single point of interconnection, constructed for use by ALECs.

8
9 Q. WHY DOES BELLSOUTH BELIEVE THE ACCESS TERMINAL IS AN
10 APPROPRIATE MEANS OF PROVIDING ALECS ACCESS TO SUB-
11 LOOP ELEMENTS?

12
13 A. As I previously explained, BellSouth's method provides the ALEC with the
14 requested access while retaining network reliability, integrity, and security
15 for both BellSouth's network and the ALEC's network.

16
17 Q. DO YOU AGREE THAT BELLSOUTH'S PROPOSED FORM OF ACCESS
18 "IS NOT COMPETITIVELY NEUTRAL" AS STATED BY MS. KAHN ON
19 PAGE 10 OF HER TESTIMONY?

20
21 A. No, I do not. The use of the access terminal strikes a reasonable balance
22 between giving ALECs the access they want while preserving the
23 reliability and security of BellSouth's network. Ms. Kahn's views were
24 thoroughly presented on behalf of MediaOne by its witness, Mr. Greg
25 Beveridge, in the case I mentioned earlier. I note that MediaOne has

1 recently been acquired by AT&T. The Commission should reject Ms.
2 Kahn's proposals for the same reasons it rejected those of Mr. Beveridge
3 in its MediaOne Order.

4
5 Q. MS. KAHN SUGGESTS THAT ACCESS TO INC BE AS SET OUT IN
6 HER EXHIBIT BK-2. WHAT IS WRONG WITH SUCH AN APPROACH?

7
8 A. Her approach is unnecessarily invasive and introduces substantial risk to
9 BellSouth's network. For example, even in a simple residential garden
10 apartment situation, bridging the working BellSouth pairs over to the
11 access terminal could, in fact, disturb working customers' services. In a
12 commercial high-rise building involving business customers with high-
13 speed digital data services operating 24 hours per day, the problem is
14 even more acute. Any disturbance of a working circuit would cause
15 irreparable harm to existing services and subject BellSouth and this
16 Commission to numerous customer complaints. Furthermore, such
17 interruptions could and would be considered by some customers as a
18 serious breach of security.

19
20 Further, and while I am in no way disparaging any ALEC's technicians,
21 with direct access it is very possible for an ALEC's technician to
22 unintentionally disrupt end user service (provided by either BellSouth or
23 the ALEC). Such activity simply presents an unnecessary risk for all
24 involved parties - end users, BellSouth, and other ALECs (i.e., because
25 such actions by one ALEC could have the same disrupting effect on

1 existing sub-loop elements that another party is utilizing.)

2
3 Direct access also would place BellSouth at the ALECs' mercy to tell
4 BellSouth how, when, where, and the amount of BellSouth's facilities that
5 were being used. I previously addressed the record-keeping issues
6 inherently involved with access to INC. The bottom line is that such
7 uncontrolled access to these sub-loop elements would have a totally
8 debilitating effect on BellSouth's ability to maintain accurate cable
9 inventory records.

10
11 Obviously, it would be impossible for BellSouth to ever have an accurate
12 record of its facilities if every ALEC in the state had direct access to these
13 facilities. Of course, the lack of accurate inventory information would
14 result in imminent failure of BellSouth's (and ALECs using sub-loop
15 elements acquired from BellSouth) service provisioning, maintenance and
16 repair processes. I want to be perfectly clear about this. What we are
17 talking about here is allowing technicians from any and every ALEC in
18 Florida to walk into an equipment room in a high-rise building and start
19 appropriating pairs and facilities for its own use, without consulting with
20 anyone and without any obligation to keep appropriate records so that the
21 next person in the room knows what belongs to whom. It doesn't take
22 much imagination to know what a disaster this would end up being for
23 BellSouth and for the customers in the building in question. It should be
24 noted that *any* mechanized cable management system (CMS) available in
25 the telecommunications market today has at its core the fundamental

1 requirement that the manager of the CMS maintain absolute and full
2 control over cable pair assignment. To do otherwise would result in
3 chaotic failure of the telecommunications systems for service delivery and
4 maintenance.

5
6 Q. WHAT DO YOU BELIEVE MS. KAHN REFERS TO ON PAGE 11 OF
7 HER TESTIMONY REGARDING "APPROPRIATE PROCEDURES THAT
8 COULD BE IMPLEMENTED"?

9
10 A. I believe Ms. Kahn refers to the fact that BellSouth's technicians need not
11 be present at the time an ALEC makes use of NTW through an access
12 terminal. BellSouth agrees, which is why BellSouth is pre-wiring all NTW
13 pairs to eliminate the need for the presence of a BellSouth technician.

14
15 Q. CAN AT&T AND MCI WORLDCOM ADEQUATELY INDEMNIFY
16 BELL SOUTH FOR "ADVERSE CONSEQUENCES" AS SUGGESTED BY
17 MS. KAHN ON PAGE 11 OF HER TESTIMONY?

18
19 A. No, not given the severe service risks created by Ms. Kahn's proposal.
20 Under her proposal, it would be difficult, if not impossible, for AT&T and
21 MCI to indemnify BellSouth for the risk to BellSouth's end users and end
22 users of any ALECs using loops or sub-loops acquired from BellSouth.
23 Further, it causes me great concern that her entire testimony on the issue
24 of indemnification to BellSouth for adverse consequences resulting from
25 an ALEC's actions consists of the statement "in principle, we could

1 support such a notion".

2

3 Q. IS IT APPROPRIATE TO "CORRECT BELLSOUTH'S COST STUDY BY
4 REMOVING THE INVESTMENT ASSOCIATED WITH ADDITIONAL
5 EQUIPMENT AND CROSS CONNECTIONS THAT BELLSOUTH DOES
6 NOT INCUR WHEN IT PROVIDED ACCESS TO RISER CABLE FOR
7 ITSELF" AS PROPOSED BY MS. KAHN ON PAGE 14 OF HER
8 TESTIMONY?

9

10 A. Absolutely not. BellSouth is not required by the FCC's rules to provide
11 identical access to that it uses for itself. Rather, BellSouth must provide
12 nondiscriminatory access, which is consistent with BellSouth's proposed
13 architecture and related costs.

14

15 Q. DO YOU AGREE THAT BELLSOUTH'S METHOD CREATES A
16 SITUATION WHERE "ALECS PAY FOR FULLY DUPLICATIVE,
17 EXTREMELY UNDERUTILIZED EQUIPMENT ..." AS ALLEGED BY MS.
18 KAHN ON PAGE 15 OF HER TESTIMONY?

19

20 A. No. Further, I note that MediaOne's witness Beveridge advocated use of
21 access terminals in both the Florida and Georgia arbitration proceedings,
22 which is what both Commissions ordered. Now MediaOne's new owner,
23 AT&T, is advocating an entirely different approach, for reasons that are
24 not readily apparent.

25

1 Q. ON PAGE 18 OF MS. KAHN'S TESTIMONY, SHE STATES THAT "A
2 BELLSOUTH TECHNICIAN MUST CONNECT AND PERFORM A TURN-
3 UP TEST FOR ALL CROSS CONNECTIONS AT A BUILDING
4 EQUIPMENT TERMINAL INCLUDING THOSE CROSS CONNECTIONS
5 ASSOCIATED WITH ALEC CUSTOMERS. THIS IS UNNECESSARY
6 AND DUPLICATIVE." IS THIS STATEMENT ACCURATE?
7

8 A. No, for the reasons I have already stated.
9

10 Q. MS. KAHN CONTINUES BY SAYING THAT "THE ALEC TECHNICIAN
11 CAN MAKE THE CONNECTIONS AND PERFORM A TURN-UP TEST
12 JUST AS READILY AS A BELLSOUTH TECHNICIAN. " DO YOU
13 AGREE?
14

15 A. No. Again, this is the sort of invasive practice explicitly rejected by this
16 Commission in its MediaOne Order when it found that MediaOne had no
17 right to alter BellSouth's network without BellSouth's technicians being
18 present.
19

20 Terry Murray –BlueStar, Covad, Rhythm Links

21 John C. Donovan and Brian F. Pitkin – AT&T and MCI WorldCom

22 Q. PAGE 29 OF HER TESTIMONY, MS. MURRAY CONTENDS THAT
23 BELLSOUTH INFLATES COSTS BY USE OF UNIVERSAL DIGITAL
24 LOOP CARRIER (UDLC) RATHER THAN USING INTEGRATED DIGITAL
25 LOOP CARRIER (IDLC). SIMILARLY, ON PAGES 13-15, MR. DONOVAN

1 AND MR. PITKIN CONTEND THAT USE OF A MODEL USING UDLC IS
2 INCORRECT. IS THE USE OF UDLC A REASONABLE METHOD OF
3 PROVIDING UNBUNDLED LOOPS ON A STAND-ALONE BASIS (THAT
4 IS, A LOOP NOT IN COMBINATION WITH AN UNBUNDLED SWITCH
5 PORT)?

6
7 A. Yes. One issue in this proceeding is the cost to BellSouth of providing a
8 stand-alone unbundled loop. It is not technically feasible for BellSouth to
9 provide that loop using IDLC at less than a DS-1 level (that is, 24
10 unbundled loops at a time). Consequently, in order to reflect the cost of
11 providing an unbundled at the DS-0 level (that is, a single unbundled loop)
12 it is necessary to reflect the cost of the UDLC system.

13
14 Q. MR. PITKIN AND MR. DONOVAN DISCUSS IDLC SYSTEMS WITH A
15 GR-303 INTERFACE. DOES THIS DISCUSSION CHANGE YOUR
16 CONCLUSION?

17
18 A. No. A GR-303 compliant IDLC system would allow BellSouth to provide
19 IDLC functionality, but at the DS-1 level. The ALEC could choose to
20 acquire a single unbundled loop from a given IDLC remote terminal and
21 that single unbundled loop would require BellSouth to establish an entire
22 DS-1 for its transport. Thus, when we are talking about a single
23 unbundled loop at the DS-0 level, Mr. Pitkin's and Mr. Donovan's solution
24 to use GR-303 compliant IDLC is no solution at all. Furthermore, they
25 conveniently ignore the inefficiencies and limitations inherent in their

1 proposal. As Mr. Pitkin and Mr. Donovan acknowledge, existing GR-303
2 compliant IDLC systems can only be integrated with a very limited number
3 of different switches. Since these IDLC systems must be used in
4 conjunction with BellSouth's systems, only one or two ALECs could even
5 stand to benefit from the arrangement they propose. Under their proposal,
6 for example, as few as one or two individual unbundled loops, provided to
7 one or two different ALECs, would exhaust the capability of the IDLC
8 system to be integrated with different switches.

9
10 Q. ON PAGE 46 OF HER TESTIMONY, MS. MURRAY DISCUSSES SBC'S
11 "PROJECT PRONTO" AND STATES HER BELIEF THAT "...THE NEW
12 NETWORK ARCHITECTURE WILL ELIMINATE ANY NEED (AND COST)
13 TO 'QUALIFY' LOOPS AS SUITABLE FOR DSL-BASED SERVICES
14 BECAUSE ALL LOOPS WILL BE 'PRE-CONDITIONED' TO BE DSL-
15 CAPABLE." DO YOU AGREE?

16
17 A. No. First of all, it is obvious that Ms. Murray has ignored the fact that
18 neither SBC's network nor BellSouth's network has the attributes that SBC
19 has claimed it may have at some point in the future. It is also obvious that
20 some transition period (such as the three years announced by SBC) is
21 required to get from the current network to that future state.

22
23 Second, it is not clear to me from reading SBC's press release when SBC
24 will complete its Project Pronto such that every one of its loops will be
25 xDSL capable as Ms. Murray implies. For example, SBC's press release

1 only discusses high speed services for those customers within 12,000 feet
2 of its central offices but is silent for what services it will make available to
3 customers located farther than 12,000 feet from its central offices.

4
5 Third, her contention that loop makeup activities will never be required
6 once SBC completes its Project Pronto is based on a theoretical
7 assumption that no loop served by digital loop carrier would ever exceed
8 Carrier Service Area (CSA) guidelines. This is not realistic because the
9 placement of outside plant facilities is not an exact science. For example,
10 consider that SBC has planned and constructed its network consistent
11 with CSA guidelines. Further assume that a real estate developer extends
12 a subdivision beyond the originally contemplated geographic scope.

13 SBC's serving arrangement would meet CSA guidelines for most
14 customers but may not meet CSA guidelines for the added section. If that
15 is the case, which is very likely since SBC does not have perfect
16 knowledge of the future (nor does any telecommunications service
17 provider), some customers will likely be served over loops that are not
18 DSL capable notwithstanding the intent of Project Pronto.

19
20 Q. ON PAGES 50-52 OF HER TESTIMONY, MS. MURRAY ARGUES THAT
21 BELL SOUTH'S LACK OF OPERATION SUPPORT SYSTEMS ("OSS")
22 TO FULLY SUPPORT NEXT GENERATION DIGIAL LOOP CARRIER
23 ("NGDLC") SYSTEMS SHOULD NEGATE THE RECOVERY OF ANY
24 COSTS ASSOCIATED WITH THE MANUAL SUPPORT OF NGDLC
25 SINCE THESE ARE NOT "FORWARD-LOOKING". WHAT ARE THE

1 MAJOR TYPES OF OSS THAT YOU BELIEVE ARE AT ISSUE HERE?

2
3 A. In general, I believe the ALECs are discussing BellSouth's provisioning
4 and maintenance systems in the context of NGDLC systems. While
5 NGDLC offers some advantages in the provisioning and maintenance
6 processes, as I will describe below, NGDLC will never eliminate the need
7 to dispatch technicians in any number of scenarios. Any attempt to
8 portray NGDLC as a mechanism by which BellSouth can provision and
9 maintain its network with the single push of a button and without a
10 technician ever visiting the field is pure fantasy.

11
12 Q. PLEASE DISCUSS BELLSOUTH'S PROVISIONING SYSTEMS AS THEY
13 RELATE TO NGDLC.

14
15 A. On the issue of service provisioning via BellSouth's NGDLC systems,
16 there are mechanized interfaces for making the cross connect between
17 the Time Slot Interchanger (TSI) and individual metallic drops at the
18 NGDLC remote terminal. BellSouth presently uses two vendor-specific
19 NGDLC systems, Alcatel Light Span 2000 and Marconi DISC*S. In
20 some areas of BellSouth, software has been loaded in the Alcatel
21 LightSpan 2000 that allows an interface to BellSouth's Operations
22 Systems for Intelligent Network Elements ("OPSINE") support system.
23 Over the interface, OPSINE uses information from the service order to
24 map the cross-connect between the TSI and the subscriber metallic loop
25 distribution pair for Plain Old Telephone Service ("POTS"). In other

1 locations where Alcatel LightSpan 2000 and Marconi DISC*S systems
2 are deployed, the BellSouth service technician uses a technician interface
3 and a laptop computer to provision the cross-connect on either NGDLC
4 system using information from the service order residing on the laptop
5 computer.

6
7 A third procedure that BellSouth uses to reduce dispatches for POTS
8 service (for both BellSouth's end users and ALECs' end users) is the
9 Connect -Through (CT) process. In the CT process for NGDLC systems,
10 once a TSI and metallic loop are assigned to a specific physical address,
11 the assignment records are designated as CT. The CT process allows the
12 loop assignment records to dedicate NGDLC TSI and metallic loop
13 distribution pairs to physical addresses. The CT procedure reduces the
14 need for a dispatch to the NGDLC remote terminal when there are both
15 disconnect and reconnect service orders for the same physical address
16 (for example, when one customer vacates the premises and disconnects
17 service and another customer moves in and requests a service that is
18 compatible with the existing loop makeup).

19
20 However, none of the above procedures will reduce the need for
21 dispatching a technician when a customer's POTS line is changed to a
22 special service or data service. The reason a technician is needed in
23 these situations is to change the line interface card at the NGDLC remote
24 terminal to an integrated or broadband card that is necessary to provide
25 the special/data service to the customer.

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Q. PLEASE DISCUSS BELLSOUTH'S MAINTENANCE SYSTEMS AS THEY RELATE TO NGDLC.

A. BellSouth has deployed two remote testing architectures. One remote testing architecture is for maintenance of POTS. The second remote testing architecture is for installation and maintenance of designed special services and data services.

Loop Maintenance Operation System (LMOS) is BellSouth's OSS for the POTS remote testing architecture. The LMOS database uses the customer's telephone number to originate a test of the metallic loop serving the end user associated with the telephone number. The actual access to the metallic loop is made through the central office switch. The central office switch is capable of connecting the remote test head directly to the copper loop leaving the central office. If the end user's serving loop is served on a Digital Loop Carrier ("DLC") or NGDLC, the central office switch can access a remote test head in the DLC/NGDLC remote terminal. The remote test head at the remote terminal location will be able to test the metallic end user's loop for possible faults. The results of the test are then fed back up stream to be recorded in the LMOS database.

Integrated Test System ("ITS") is BellSouth's OSS for special services and data services remote testing. ITS is used to test installation and maintenance requirements on special services and data services circuits

1 using various remote test units, and ITS is able to test for analog rates
2 (voice and data) and digital rates (DDS, DS-0, DS-1). The various test
3 centers in BellSouth use ITS to remotely access the test points placed at
4 various points along the special/data circuit. For this remote testing
5 architecture, BellSouth's Trunks Information Record Keeping System
6 ("TIRKS") is the database record keeper. Services inventoried within
7 TIRKS can have both a telephone number format and a circuit number
8 format. However, the telephone number format in TIRKS is different from
9 the standard 10-digit format used for POTS service. TIRKS is used to
10 help design and strategically place test access points on the special
11 service or data service circuits.

12
13 In 1995, BellSouth went through an RFI (Request For Information)
14 process to determine the cost of placing a special services test head at
15 each NGDLC remote terminal location. The projected penetration rate of
16 special/data services at NGDLC remote terminal locations failed to
17 produce unit per line costs at an economically acceptable level.
18 Therefore, the result of the RFI process was that BellSouth could not
19 support, from a business case perspective, the deployment of special
20 services test heads at remote terminal locations. Without the special
21 services test head at the NGDLC remote terminal locations, certain
22 installation and maintenance processes for special services and data
23 services still require manual intervention. ITS is not capable of using the
24 POTS remote testing architecture at DLC/NGDLC remote terminal
25 locations because there is no interface between the two testing

1 architectures.

2
3 Q. WHAT FUTURE ENHANCEMENTS DOES BELLSOUTH PLAN FOR ITS
4 NGDLC OSS?

5
6 A. BellSouth continually explores ways to enhance its OSS through such
7 means as reviewing technical literature and meeting with equipment
8 vendors. At present, BellSouth has not identified any system
9 enhancements beyond those already discussed. At such time as any
10 enhancements are determined to be cost effective, they will be
11 incorporated into BellSouth's existing testing architecture for the benefit of
12 both BellSouth and ALECs. However, in order for BellSouth to deploy
13 NGDLC and enjoy the benefits in the manner contemplated by the ALECs,
14 it would be necessary for BellSouth to build loop distribution and loop
15 feeder facilities such that each and every customer loop was "connected
16 through" to BellSouth's central offices at the time of the original
17 construction. Such a scenario would be cost prohibitive and, therefore, is
18 unlikely to exist any time soon.

19
20 Miscellaneous Issues

21 Q. SEVERAL OF THE ALEC WITNESSES COMPLAIN ABOUT WHAT
22 THEY VIEW AS UNDUE AMOUNTS OF COORDINATION TIME IN
23 VARIOUS NON-RECURRING COSTS. IN PARTICULAR, THE WORK
24 GROUPS "UNEC" AND "WMC" WERE MENTIONED. HOW DO YOU
25 RESPOND?

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A. As substantiated by the sheer number of issues in this docket and the volume of documentation submitted about those issues, modern day telecommunications is a complicated process. Extremely close coordination is necessary to ensure that the multitude of activities required are completed. This is essential to ensure the proper ordering, provisioning, billing, and maintenance of the various systems involved, particularly when dealing with integrating the systems of multiple companies. The two BellSouth work centers cited by the ALECs are good examples of the nature of such coordination work.

The Unbundled Network Element Center (“UNEC”) is the center responsible for coordinating the conversion of an end user’s service from BellSouth to an ALEC. Obviously, such coordination involves various groups internal to BellSouth as well as the ALEC. Coordination includes:

- Ensuring that the service as ordered by the ALEC is correct.
- Verifying the conversion time with the ALEC.
- Ensuring that BellSouth’s central office and field forces are able to perform the conversion at the time ordered by the ALEC.
- Performing pre-service testing to ensure that dialtone is received from the ALEC.
- Ensuring that wiring is completed by BellSouth’s central office personnel.
- Coordinating the start of the conversion with the central office and field personnel.

- 1 • Testing with central office or field personnel to ensure that the
- 2 conversion is complete.
- 3 • Performing any cooperative acceptance testing with the ALEC.
- 4 • Providing the completion notification to the ALEC that the conversion
- 5 is complete for any number porting activities, which are required of the
- 6 ALEC.

7

8 The Work Management Center ("WMC") pre-assigns work to a technician
9 in order to ensure that the technician is at the conversion site at a time
10 that ensures the conversion will be completed as ordered. On the cutover
11 date, the WMC monitors the progress of the technician to ensure that the
12 technician arrives at the designated time.

13

14 Q. SEVERAL ALECS HAVE SUGGESTED THAT BELLSOUTH SHOULD
15 HAVE A SYSTEM WHICH COULD ELECTRONICALLY SWITCH END
16 USERS FROM A BELLSOUTH SWITCH TO AN ALEC'S SWITCH
17 WITHOUT ANY PHYSICAL WORK, THUS ELIMINATING A COST
18 FACTOR. IS SUCH A VIEW REALISTIC?

19

20 A. Absolutely not. I am not aware of any such system anywhere in the
21 telecommunications industry that could perform such a task, either at
22 present or on a "forward-looking" basis. To the contrary, the cutover
23 process for facility-based ALECs is complex and work intensive.

24

25 Q. WHAT IS INVOLVED IN PERFORMING A LOOP CUTOVER?

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A. I have provided Exhibit WKM-2 that shows, pictorially and with a brief narrative, the various work steps involved in a typical loop cutover. These photographs were taken in BellSouth's Norcross, Georgia, central office; however, the work steps are identical in all nine states in BellSouth's region. Briefly, the work steps involved are as follows:

- The BellSouth central office technician receives a call to begin cutover and asks for the cable pair number of the loop to be cutover. This is shown on page 1 of Exhibit WKM-2.
- The technician types the cable pair number into a database to find the loop cutover work order number. This is shown on page 2 of Exhibit WKM-2.
- The technician retrieves a copy of the work order for the unbundled loop. This is shown on page 3 of Exhibit WKM-2.
- The technician in the BellSouth central office responds to the BellSouth UNE Center's request to initiate coordination of the overall cutover of service from BellSouth to the ALEC. This is shown on page 4 of Exhibit WKM-2.
- The technician then verifies that the correct loop has been identified for cutover. This is done using a capability referred to as Automatic Number Announcement Circuit ("ANAC"). The technician plugs a test set onto the loop and dials a special code. The telephone number associated with that loop is played audibly. This is shown on page 5 of Exhibit WKM-2.
- Next, the technician locates the existing jumper on the BellSouth Main

1 Distributing Frame (“MDF”) running between the loop and the
2 BellSouth switch port. This is shown on pages 6-7 of Exhibit WKM-2.

- 3 • The technician locates and removes the end of the jumper connected
4 to the BellSouth cable pair. This is shown on page 8 of Exhibit WKM-
5 2.
- 6 • The technician then locates and removes the end of the jumper
7 connected to the BellSouth switching equipment. This is shown on
8 page 9 of Exhibit WKM-2.
- 9 • The technician then connects the one end of a new jumper between
10 the loop and a connector block on a cable rack with tie cables to the
11 ALEC’s collocation arrangement. This is shown on page 10 of Exhibit
12 WKM-2.
- 13 • The technician then weaves the new jumper wire through the cable
14 rack to reach the tie cables to the ALEC’s collocation arrangement.
15 This is shown on page 11 of Exhibit WKM-2.
- 16 • The technician connects the second end of the new jumper to the
17 connector block and thus the tie cable to the ALEC’s collocation
18 equipment. This is shown on page 12 of Exhibit WKM-2.
- 19 • The technician next verifies that the loop is connected to the expected
20 switch port and telephone number in the ALEC’s switch, again using
21 ANAC capabilities. This is shown on page 13 of Exhibit WKM-2
- 22 • Upon successful completion of the loop cutover, the technician verifies
23 with the ALEC that the order was correctly worked, closes the work
24 order, and notifies the UNE Center. This is shown on page 14 of
25 Exhibit WKM-2.

1977-A

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2

Naturally, any errors (both BellSouth's errors and the ALEC's errors) slow the process while corrections are identified and made.

3

4

5

Q. IS BELLSOUTH IN TOTAL CONTROL OF THE LOOP CUTOVER PROCESS?

6

7

8

A. No. As discussed above, loop cutovers require high levels of coordination between BellSouth and the ALEC to which the unbundled loop is being provided. If an ALEC fails to perform a function in a timely fashion, the delay directly impacts the overall cutover time. For example, one step in the process occurs after the loop is removed from BellSouth's switch and is connected to the ALEC's switch. At this point in the cutover, tests are performed to verify that the loop is connected to the expected switch port and telephone number in the ALEC's switch. However, if the ALEC has a defective switch port, or has provided an invalid switch port number, or any of a number of other possible errors occurs, BellSouth is powerless to move forward until the ALEC takes appropriate corrective steps. While the ALEC is doing so, the total cutover time clock is still running. Clearly, BellSouth's cost involved in performing such cutovers are legitimate, should be appropriately recovered in BellSouth's UNE rates, and should not be summarily dismissed because of dreams of non-existent future systems.

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1 William J. Barta – Florida Cable Telecommunications Association

2 Q. ON PAGES 24-25 OF HIS TESTIMONY, MR. BARTA STATES THAT
3 THE COPPER/FIBER CROSSOVER POINT SHOULD BE ADJUSTED
4 FROM 12,000 FEET AS USED IN BELLSOUTH'S COST STUDIES TO
5 18,000 FEET. HOW DO YOU RESPOND?
6

7 A. Mr. Barta fails to support his recommendation. My understanding of the
8 forward-looking cost study methodology is that it requires the use of the
9 most economic architecture for the service for which costs are being
10 developed. In the development of loop costs, the consideration was for
11 narrowband services. Costs were developed for loops of increasing
12 length using both copper cable and fiber-fed digital loop carrier.
13 Depending on the type of construction (aerial versus buried cable) and the
14 volume of demand (cable size or NGDLC size), the economics of
15 provisioning begin to dictate the use of fiber fed NGDLC rather than
16 copper cable at approximately 10,000 feet of total loop length. Fiber fed
17 NGDLC is almost always the most economic alternative for loops longer
18 than 12,500 feet. Therefore, the economic crossover distance for loop
19 studies for voice grade services is approximately 12,000 feet.
20

21 David A. Nilson - Supra

22 Q. ON PAGE 6 OF HIS TESTIMONY, MR. DAVID NILSON OF SUPRA
23 PROPOSES THAT ALECS ONLY PAY A PRO-RATA RECURRING
24 COST FOR LINES INVOLVING LINE-SHARING, SOMETHING HE
25 REFERS TO AS DIGITALLY ADDED MAIN LINES ("DAML"). PLEASE

1 RESPOND.

2

3 A. First, line-sharing is not provisioned using DAMLs, as Mr. Nilson
4 statement implies. Second, DAMLs are normally used in BellSouth's
5 network only as a temporary device to secure additional pairs in highly
6 congested areas. Third, the cost study models that Ms. Caldwell used in
7 BellSouth's cost filing are based upon a forward-looking network which
8 assumes that sufficient pairs will be provisioned to meet forecasted
9 demand without the use of DAMLs or other temporary measures.
10 Therefore, DAMLs have no place in a forward-looking cost study.

11

12 Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

13

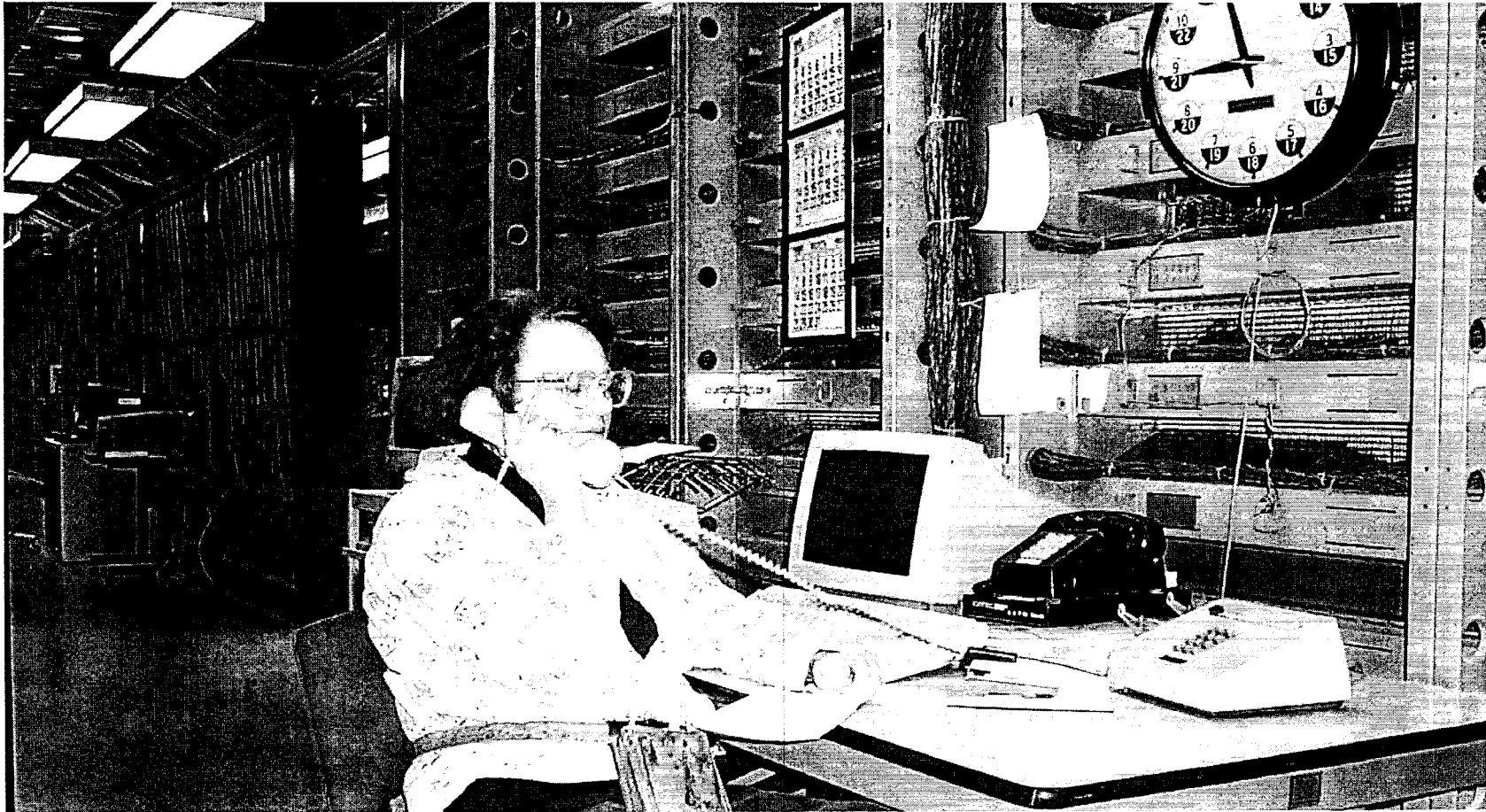
14 A. Yes.

15

16 PC DOCS #225386

LOOP CUTOVER PROCESS

Step 1: Technician gets call to begin cutover. Asks for cable pair information.



LOOP CUTOVER PROCESS

Step 2: Technician types in cable pair number to obtain order number.



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LOOP CUTOVER PROCESS

Step 3: Technician retrieves copy of work order.



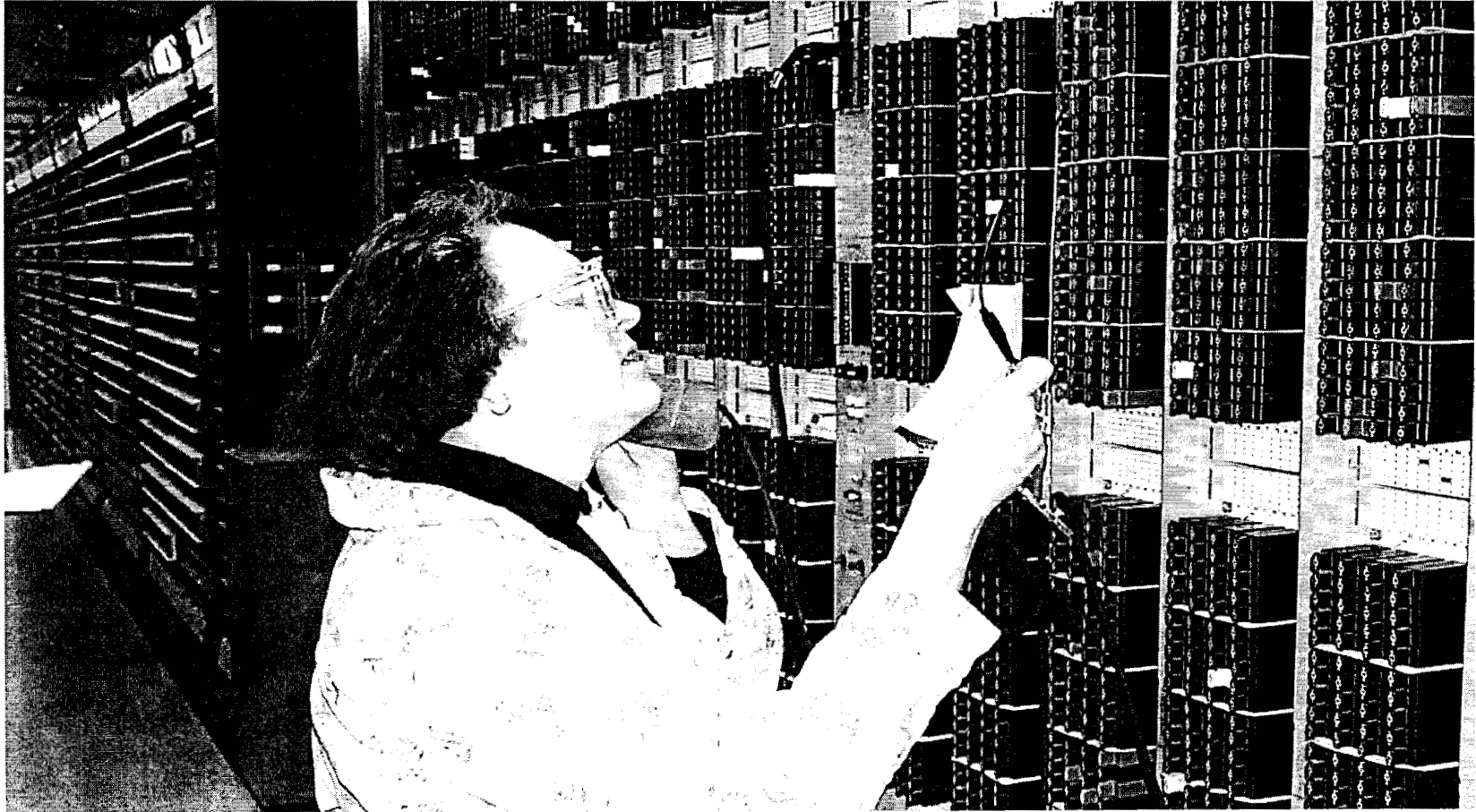
LOOP CUTOVER PROCESS

Step 4: Technician responds to UNE Center request to initiate overall cutover of service from BellSouth to ALEC.



LOOP CUTOVER PROCESS

Step 5: Technician conducts ANAC test to verify that correct loop is being cutover.



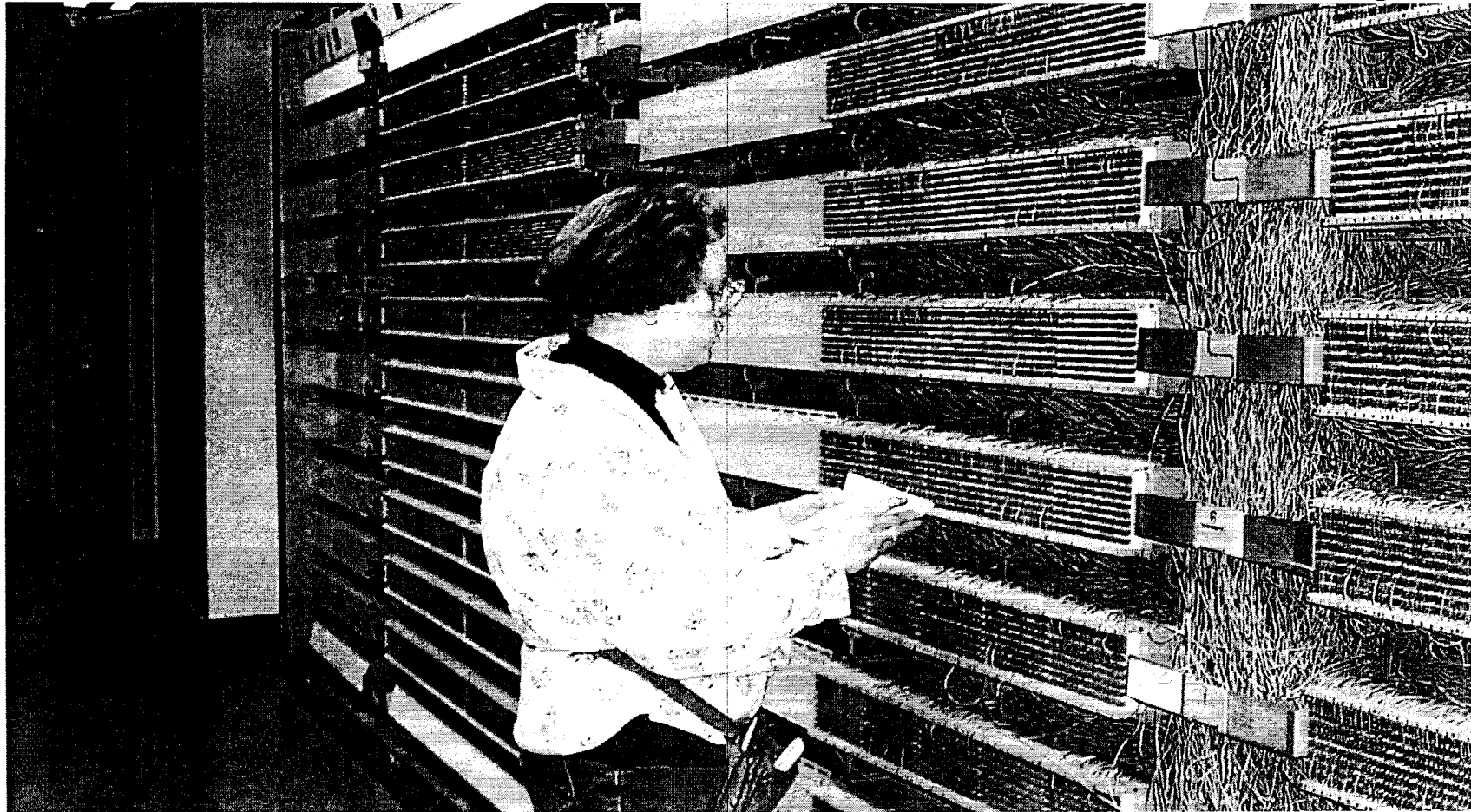
LOOP CUTOVER PROCESS

Step 6: Technician walks along Main Distributing Frame to locate both ends of jumper to be cut.



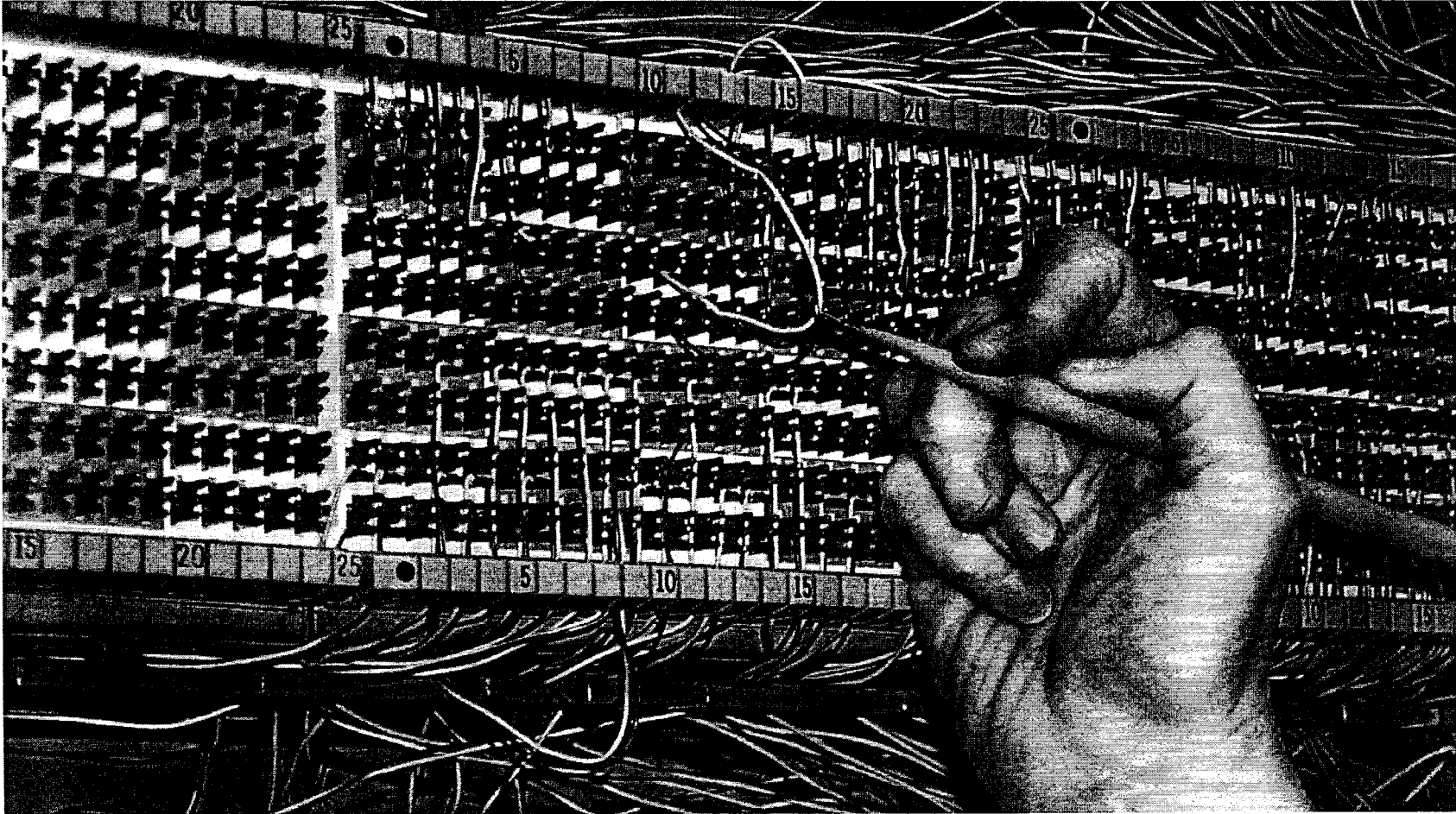
LOOP CUTOVER PROCESS

Step 7: Technician locates precise location of jumper.



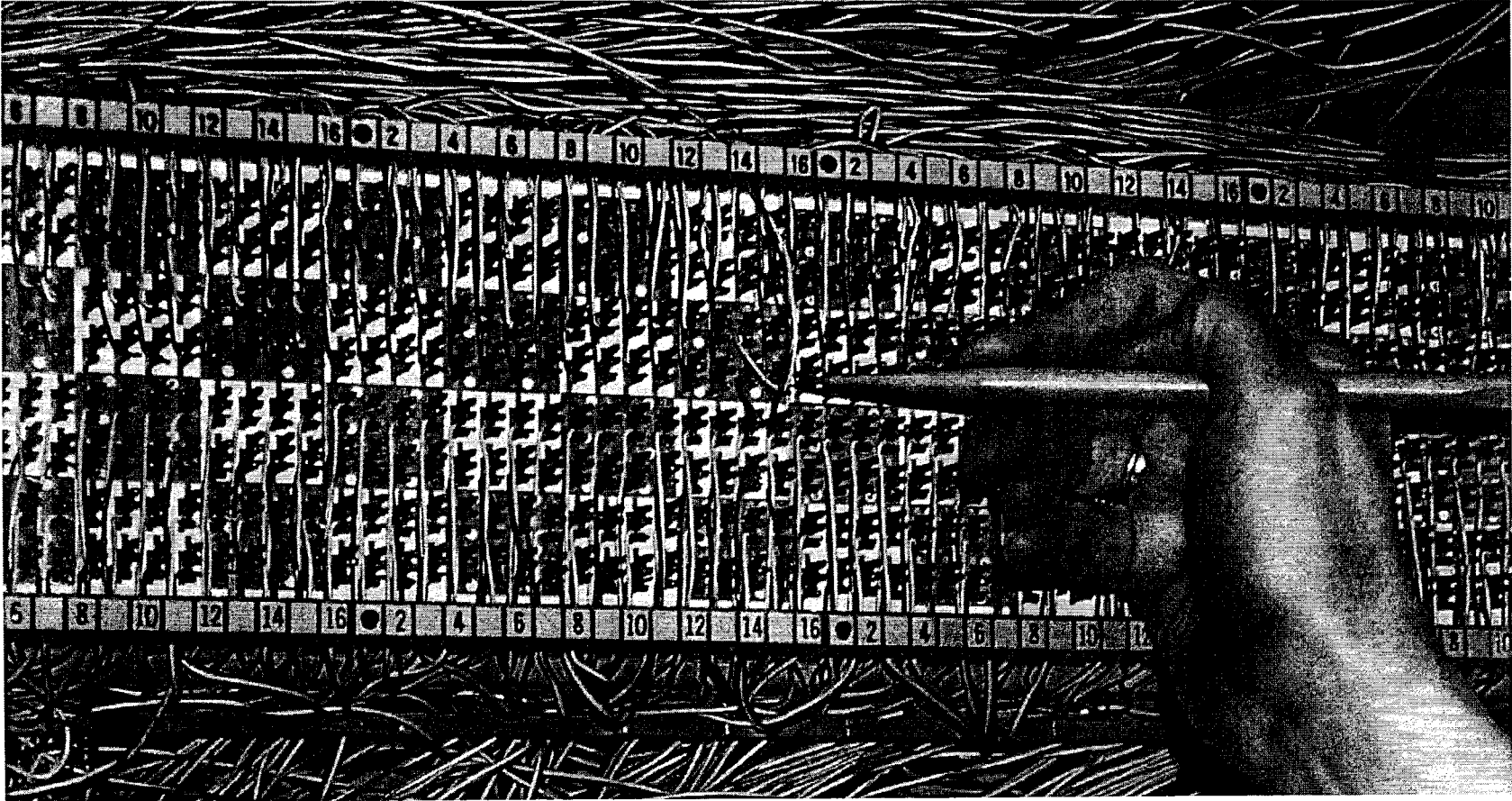
LOOP CUTOVER PROCESS

Step 8: Technician locates and removes end of jumper connected to the BellSouth cable pair.



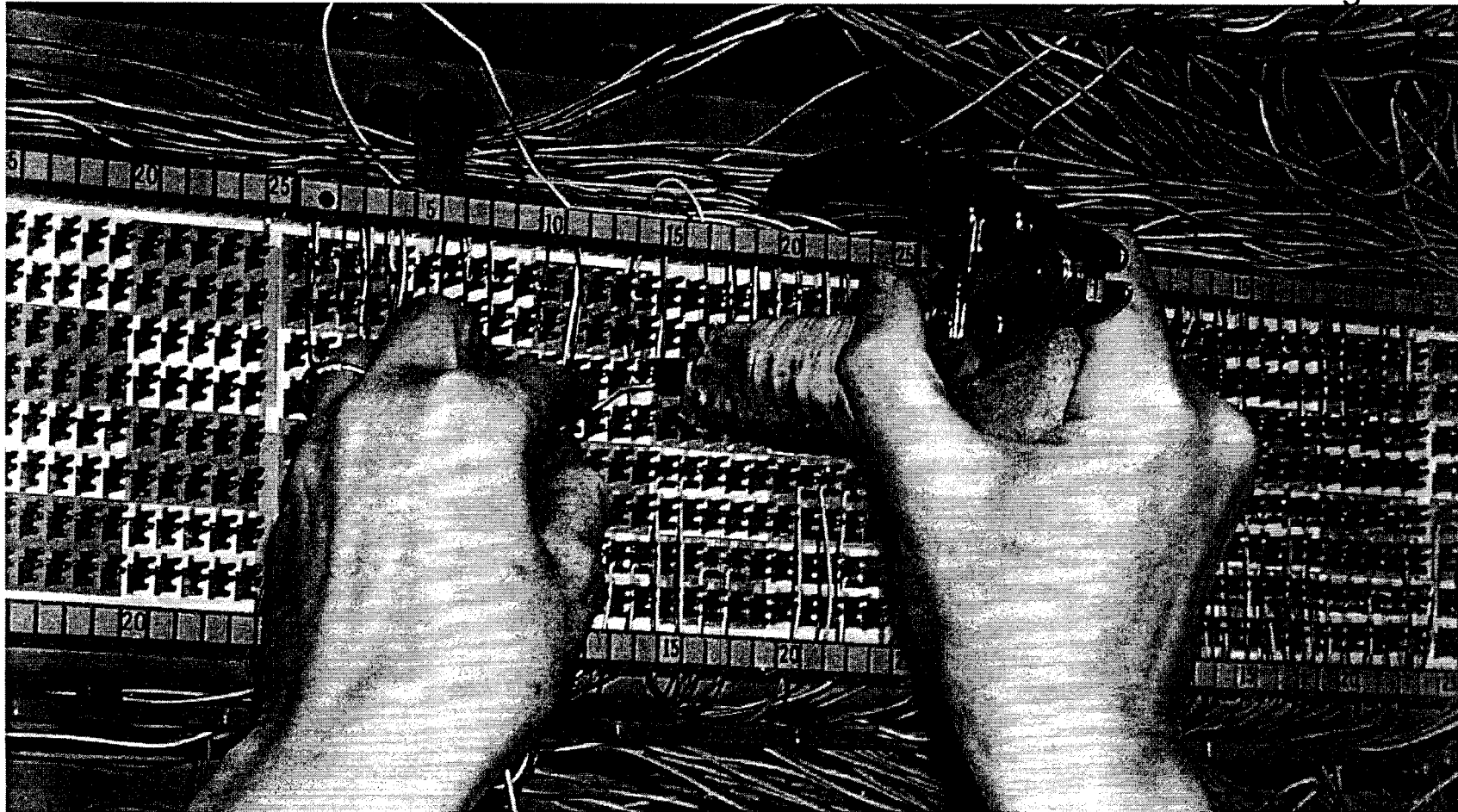
LOOP CUTOVER PROCESS

Step 9: Technician locates and removes end of jumper connected to the switching equipment.



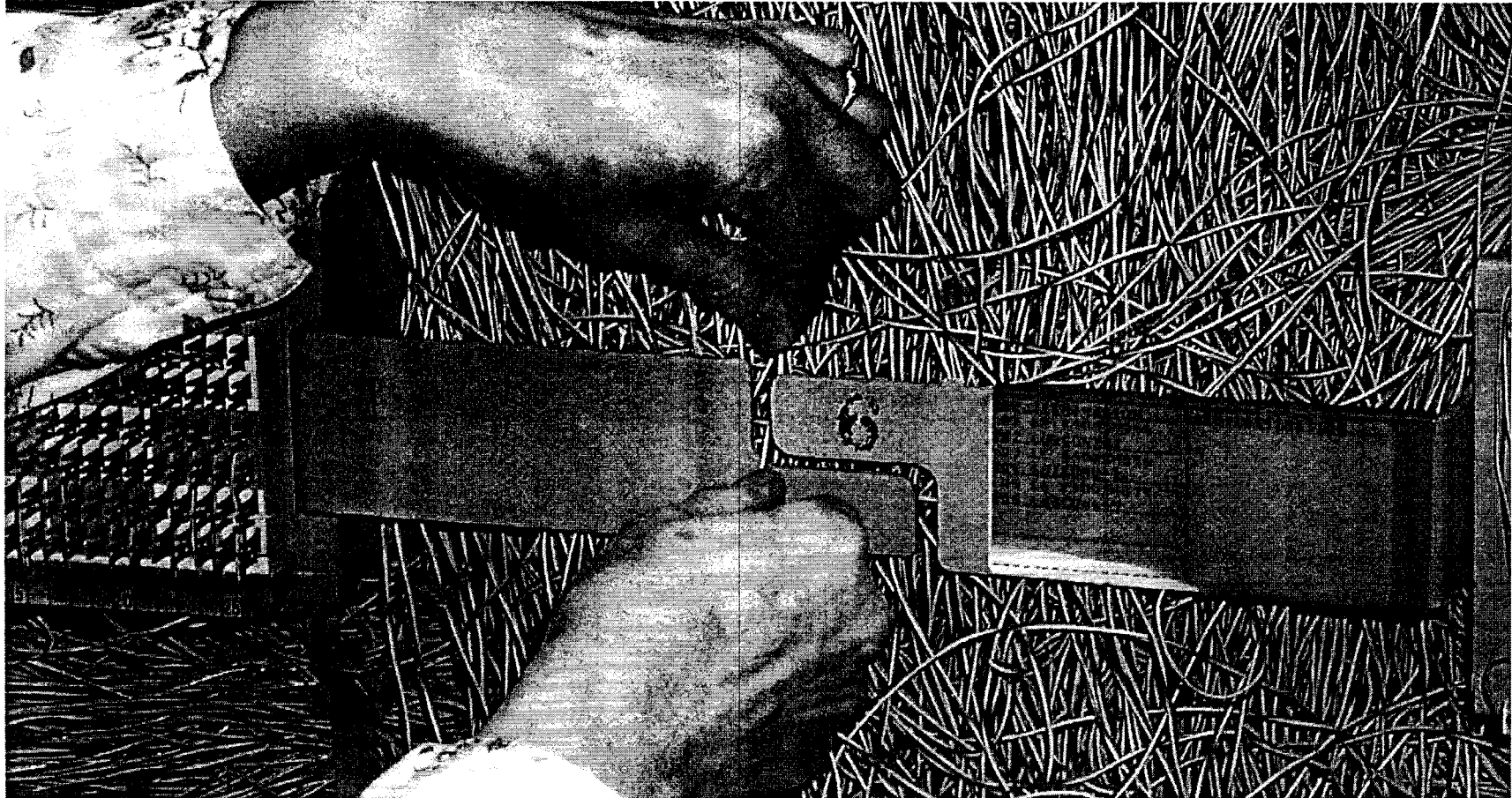
LOOP CUTOVER PROCESS

Step 10: Technician places new jumper on MDF.



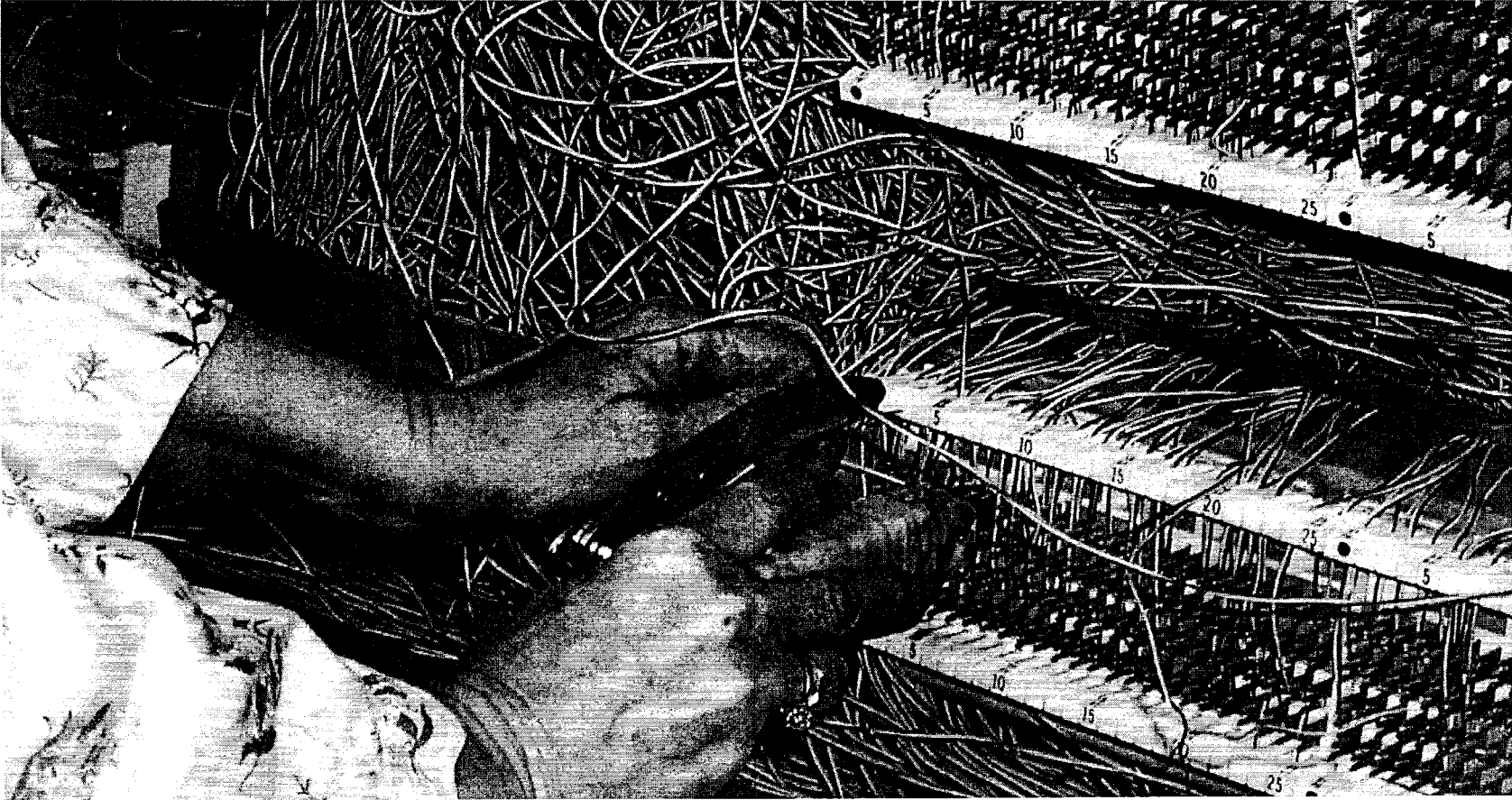
LOOP CUTOVER PROCESS

Step 11: Technician weaves wire through cable rack to reach tie cable to ALEC's collocation equipment.



LOOP CUTOVER PROCESS

Step 12: Technician connects new jumper on frame to tie cables to ALEC equipment.



LOOP CUTOVER PROCESS

Step 13: Technician conducts ANAC test to verify that loop has been cut to correct ALEC switch port.



LOOP CUTOVER PROCESS

Step 14: Technician verifies cutover with ALEC, closes order, and notifies the UNE Center.

