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February 21, 1996

IN REPLY REFER TO:

Tallahassee

**BY HAND DELIVERY**

Ms. Blanca S. Bayo, Director  
Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, Florida 32399-0850

Re: Resolution of Petition(s) to establish nondiscriminatory rates, terms and conditions for resale involving local exchange companies and alternative local exchange companies pursuant to Section 364.161, Florida Statutes; Docket No. 950984-TP

Dear Ms. Bayo:

Enclosed for filing are the original and fifteen (15) copies of Sprint United/Centel's Rebuttal Testimony and Exhibit of Sandra A. Khazraee in the above styled docket.

Please acknowledge receipt and filing of the above by stamping the duplicate copy of this letter and returning the same to this writer.

Thank you for your assistance in this matter.

Sincerely,

  
J. Jeffrey Wahlen

RECEIVED & FILED  
*Wahlen*  
DIVISION OF RECORDS & REPORTING

- ACK
- AFA \_\_\_\_\_
- APP \_\_\_\_\_
- CAF \_\_\_\_\_
- CMU *Chase*
- CTR \_\_\_\_\_ JJW/bjm
- EAG \_\_\_\_\_
- LEG 1 Enclosures
- LIN 5 cc: All Parties of Record (w/encls.)
- OPC \_\_\_\_\_
- RCR \_\_\_\_\_
- SEL 4
- WAC \_\_\_\_\_

DOCUMENT NUMBER-DATE

02117 FEB 21 96

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**CERTIFICATE OF SERVICE**  
**Docket No. 950984-TP**

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by U. S. Mail, hand delivery (\*) or express mail (\*\*), this 21st day of February, 1996, to the following:

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UNITED TELEPHONE COMPANY  
OF FLORIDA  
CENTRAL TELEPHONE COMPANY  
OF FLORIDA  
DOCKET NO. 950984-TP  
FILED: FEBRUARY 21, 1996

1                   BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

2                                   REBUTTAL TESTIMONY

3   OF

4                                   SANDRA A. KHAZRAEE

5  
6 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

7  
8 A. My name is Sandra A. Khazraee. My business address is  
9 Sprint/United Telephone of Florida, 555 Lake Border Drive,  
10 Apopka, Florida 32753.

11  
12 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK  
13 EXPERIENCES.

14  
15 A. I received a Bachelor of Science Degree in Mathematics from  
16 McNeese State University, Lake Charles, LA. Over the past  
17 19 years, I have attended numerous industry schools and  
18 seminars covering a variety of technical, economic and  
19 regulatory issues.

20  
21 I was an Outside Plant Engineer with South Central Bell  
22 from May 1977 to August 1981. In 1981, I transferred to  
23 Pacific Bell where I worked as an Outside Plant Engineer,  
24 Planning Engineer and Wire Center Planner (Long Range  
25 Switch Planner).

1 In July 1986 I began working as a Long Range Network  
2 Planner at United Telephone of Florida. Since then, I have  
3 been Technology Planner, Supervising Engineer of Long Range  
4 Planning, Product Evaluation and Pricing Manager, and  
5 Costing Manager.  
6

7 Q. PLEASE DESCRIBE YOUR CURRENT RESPONSIBILITIES.  
8

9 A. My current responsibilities include directing the  
10 activities necessary to develop cost studies for all  
11 business cases and tariff filings.  
12

13 Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?  
14

15 A. No.  
16

17 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?  
18

19 A. I am testifying on behalf of United Telephone Company of  
20 Florida ("Sprint/United") and Central Telephone Company of  
21 Florida ("Sprint/Centel"). These two companies will be  
22 referred to collectively as "Sprint-United/Centel" or the  
23 "Companies."  
24

25 The purpose of my testimony is to respond to points raised

1 in the direct testimony of Mr. Timothy T. Devine filed on  
2 behalf of Metropolitan Fiber Systems of Florida, Inc.  
3 ("MFS") and Dr. Nina W. Cornell on behalf of MCI Metro  
4 Access Transmission Services, Inc. ("MCImetro").  
5

6 Q. HAVE YOU PREPARED AN EXHIBIT TO YOUR REBUTTAL TESTIMONY?  
7

8 A. YES. Exhibit SAK-1 is a composite exhibit consisting of  
9 two documents. The first document has seven pages and the  
10 second has two pages. These documents are described in my  
11 testimony.  
12

13 Q. DO THE COMPANIES SUPPORT LOOP UNBUNDLING?  
14

15 A. Yes. Sprint-United/Centel support unbundling local service  
16 between two components, loop and port.  
17

18 Q. HOW DO THE COMPANIES DEFINE LOOPS AND PORTS?  
19

20 A. A loop consists of an electrical or transmission path  
21 between the network interface located at the customer's  
22 premises and the vertical side of the main distributing  
23 frame (or other designated Company frame) at the serving  
24 central office. Loops are defined by the electrical  
25 interface rather than the type of facility used.

1  
2 The serving central office is comprised of a single central  
3 office switch providing exchange and long distance service  
4 to the general public. A central office switch is designed  
5 for terminating and interconnecting lines and trunks.  
6 Generally restricted to digital hosts, a switching remote  
7 wholly serving an exchange is considered a central office.  
8 Where there are multiple central office switches in a  
9 single location, each switch is a discrete termination hub  
10 which provides call processing, switching, and  
11 interconnection of communication paths for those lines and  
12 trunks terminated on it.

13  
14 A port is the capability derived from the central office  
15 switch hardware and software required to permit customers  
16 to transmit or receive information over the Company's  
17 public switched network. A port provides service enabling  
18 and network features and functionality, such as  
19 translations, a telephone number, network access also  
20 provides access to operator services, E911, usage, and  
21 switched access usage services.

22  
23 Q. ARE THE COMPANIES PREPARED TO OFFER ALL CLASSES OF SERVICE  
24 AS SPECIFIED BY MFS IN ITS PETITION?  
25

1 A. Sprint currently has two wire and four wire analog voice  
2 grade loops as well as data loops available in the Special  
3 Access tariff. These are the unbundled loops Sprint-  
4 United/Centel are currently proposing to offer. It is  
5 appropriate to offer these from the existing special access  
6 tariff because these unbundled facilities do not terminate  
7 at the Companies' switches. Rather, they are provisioned  
8 and maintained in the same way as a dedicated special  
9 access line.

10  
11 Although it would be most appropriate to develop rates  
12 specific to the various grades of unbundled loops based on  
13 grade of service and length of loop, to do so would require  
14 that all potential users of such loops provide forecasts of  
15 required needs to allow accurate determination of cost. In  
16 the absence of such forecasts, the use of the existing  
17 special access tariff rates is most appropriate. These  
18 rates represent an average where contribution will vary  
19 based on the volume and distance associated with individual  
20 customers' services.

21  
22 The Companies also proposes to offer interoffice transport  
23 and multiplexing to the ALECs from the appropriate special  
24 access tariff. Currently, all other carriers (e.g., AAVs)  
25 purchase transport and multiplexing from the special access



1 tariff.

2  
3 Ports are not currently tariffed but the various grades of  
4 ports can be offered after the Companies have developed a  
5 tariff and worked out operational issues. However, Basic  
6 Rate ISDN and Primary Rate ISDN are not ubiquitously  
7 available throughout the Companies' networks and could only  
8 be offered where available to the Companies' own end users  
9 or with additional transport required to extend the service  
10 to other locations.

11  
12 Sprint-United/Centel does not plan to offer sub-loop  
13 unbundling or connection of unbundled loops to unbundled  
14 ports.

15  
16 Q. DO YOU AGREE THAT THE COMPANIES SHOULD BE REQUIRED TO OFFER  
17 COLLOCATION FOR INTERCONNECTION TO UNBUNDLED LINKS?

18  
19 A. At this time our tariff only provides for virtual  
20 collocation as specified in Expanded Interconnection and  
21 this is the preferred collocation arrangement. Virtual  
22 collocation is subject to the availability of space and  
23 facilities. These requests would be handled on a first  
24 come, first serve basis.

1 Q. DO YOU BELIEVE THE PRICE OF THE UNBUNDLED ELEMENTS SHOULD  
2 BE LESS THAN OR EQUAL TO THE PRICE OF THE TARIFFED SERVICES  
3 THEY ARE REPLACING.  
4

5 A. No. See Mr. Poag's direct testimony for a discussion of  
6 the pricing proposals.  
7

8 Q. WILL THE COMPANIES PROVIDE THE LOOP CONCENTRATION EQUIPMENT  
9 REQUESTED BY MFS?  
10

11 A. First, let me explain that the Companies will work with all  
12 local interconnectors to provide unbundled services where  
13 it is reasonable and technologically efficient to do so.  
14 However, as I explain below, there are many technical and  
15 operational issues that need to be addressed relative to  
16 the requested loop concentration unbundling.  
17

18 For example, most of the concentrator devices installed in  
19 our network must be dedicated to one host switch and cannot  
20 be connected to another carrier's switch. Since they are  
21 already connected to one of the Companies' switches, this  
22 means that another concentrator would have to be installed  
23 for an ALEC, like MFS. Many of the Companies'  
24 concentrators are located in cabinets or controlled  
25 environmental vaults ("CEV") that have no spare room for

1 additional equipment to be installed. The cost of  
2 installing additional concentrators can, for those reasons,  
3 be significant.  
4

5 Also, there may be space restrictions in the rights of way  
6 and property owners may resist a pedestal and/or cabinet  
7 graveyard in the right of way or easement. This could  
8 especially be an issue if multiple ALECs wanted  
9 concentration service at the same location.  
10

11 It appears MFS is also requesting concentration between the  
12 ALEC customer's serving wire center and the ALEC's switch.  
13 This is interoffice transport and would be handled via the  
14 existing tariffed rates.  
15

16 Q. PLEASE DESCRIBE YOUR EXHIBIT.  
17

18 A. My exhibit (SAK-1) consists of two documents. The first  
19 document is diagrams that illustrate potential solutions  
20 for providers with unbundled loops, based on a variety of  
21 technologies. This document reflects the Companies'  
22 proposal for the basic technical arrangements necessary to  
23 provide unbundled loops.  
24

25 The second document contains diagrams that document the

1 footprint of a typical CEV and concentrator cabinet (OPM).  
2 This document reflects the technical arrangements under  
3 which the Companies would expect to provide loop  
4 concentration equipment. Provision of loop concentration  
5 equipment would be subject to resolution of the concerns  
6 discussed above.  
7

8 Q. SHOULD THE COMPANIES BE REQUIRED TO "PERMIT ANY CUSTOMER TO  
9 CONVERT ITS BUNDLED SERVICE TO AN UNBUNDLED SERVICE AND  
10 ASSIGN SUCH SERVICE TO MFS-FL, WITH NO PENALTIES,  
11 ROLL-OVER, TERMINATION, OR CONVERSION CHARGES TO MFS-FL OR  
12 THE CUSTOMER" AS SUGGESTED BY MFS?  
13

14 A. No. There are nonrecurring costs involved in making the  
15 changes necessary in the network and the records to change  
16 an end user's service. The Companies are required to  
17 recover that cost from their own end users and should be  
18 allowed to recover direct costs from direct cost causers  
19 including ALECs like MFS.  
20

21 Q. SHOULD THE COMPANIES BE REQUIRED TO PROVIDE "MFS-FL WITH AN  
22 APPROPRIATE ON-LINE ELECTRONIC FILE TRANSFER ARRANGEMENT BY  
23 WHICH MFS-FL MAY PLACE, VERIFY, AND RECEIVE CONFIRMATION ON  
24 ORDERS FOR UNBUNDLED ELEMENTS, AND ISSUE AND TRACK  
25 TROUBLE-TICKET AND REPAIR REQUESTS ASSOCIATED WITH

1 UNBUNDLED ELEMENTS" AS SUGGESTED BY MFS?  
2

3 A. Clearly, the ability to transfer information electronically  
4 between the Companies and all ALECs competing with the  
5 Companies would be beneficial to both Sprint-United/Centel  
6 and the ALECs. However, Sprint-United/Centel should not be  
7 required to develop new systems simply to allow electronic  
8 interconnection in the manner desired by each ALEC. If the  
9 existing systems can be used to effect such transfers of  
10 information or if minor modifications can be made to the  
11 existing systems, then the Companies would be willing to  
12 negotiate such transfers with the ALECs.  
13

14 Q. DO YOU AGREE THAT TSLRIC IS THE APPROPRIATE PRICE FOR THE  
15 UNBUNDLED LOOP?  
16

17 A. No. See Mr. Poag's Direct Testimony for a discussion on  
18 appropriate pricing.  
19

20  
21 Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?  
22

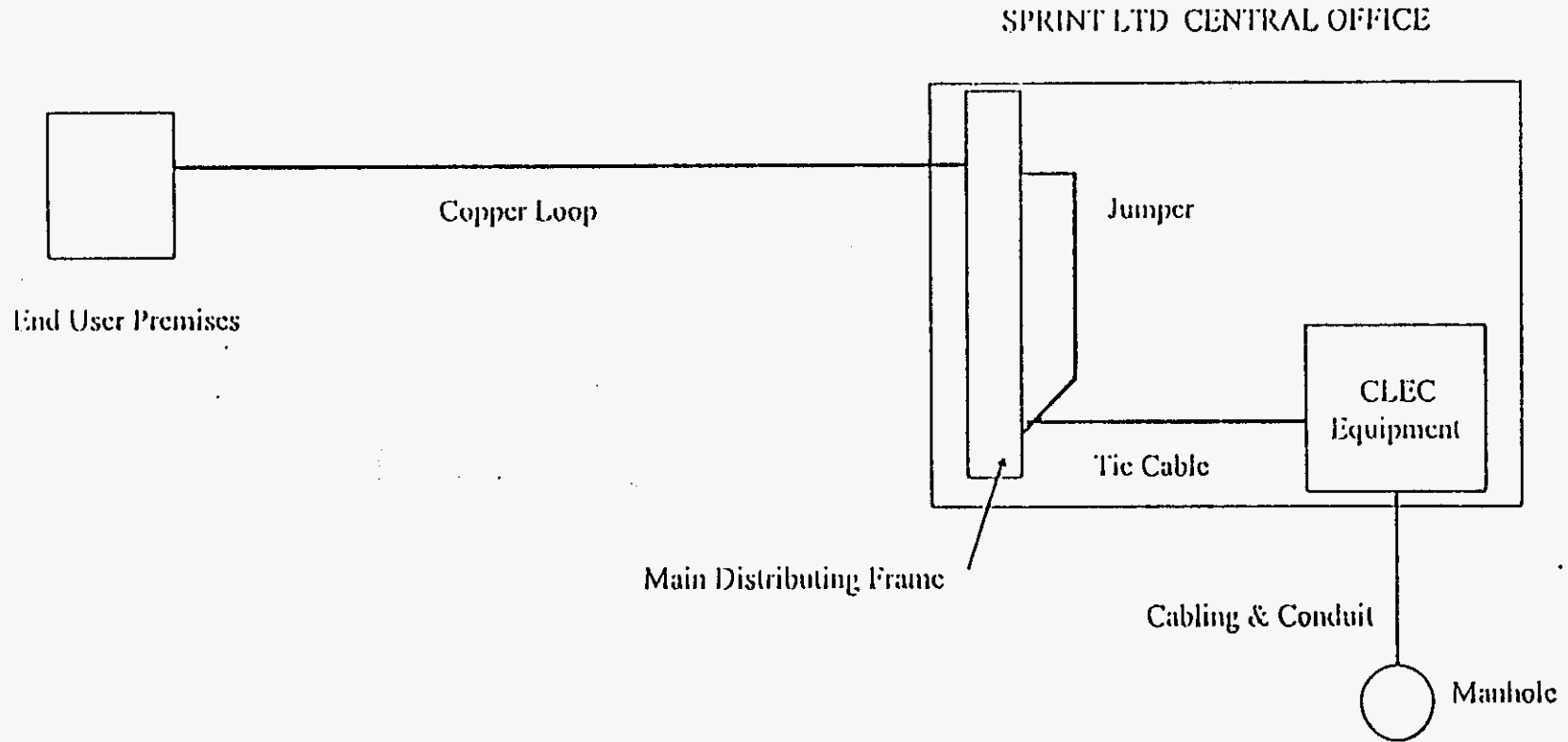
23 A. Yes.  
24  
25

UNITED/CENDEL  
DOCKET NO. 950984-TP  
REBUTTAL TESTIMONY  
SANDRA A. KHAZRAEE

COMPOSITE EXHIBIT OF  
SANDRA A. KHAZRAEE

LOCAL INTERCONNECTION - UNBUNDLED LOOP  
COPPER FACILITY

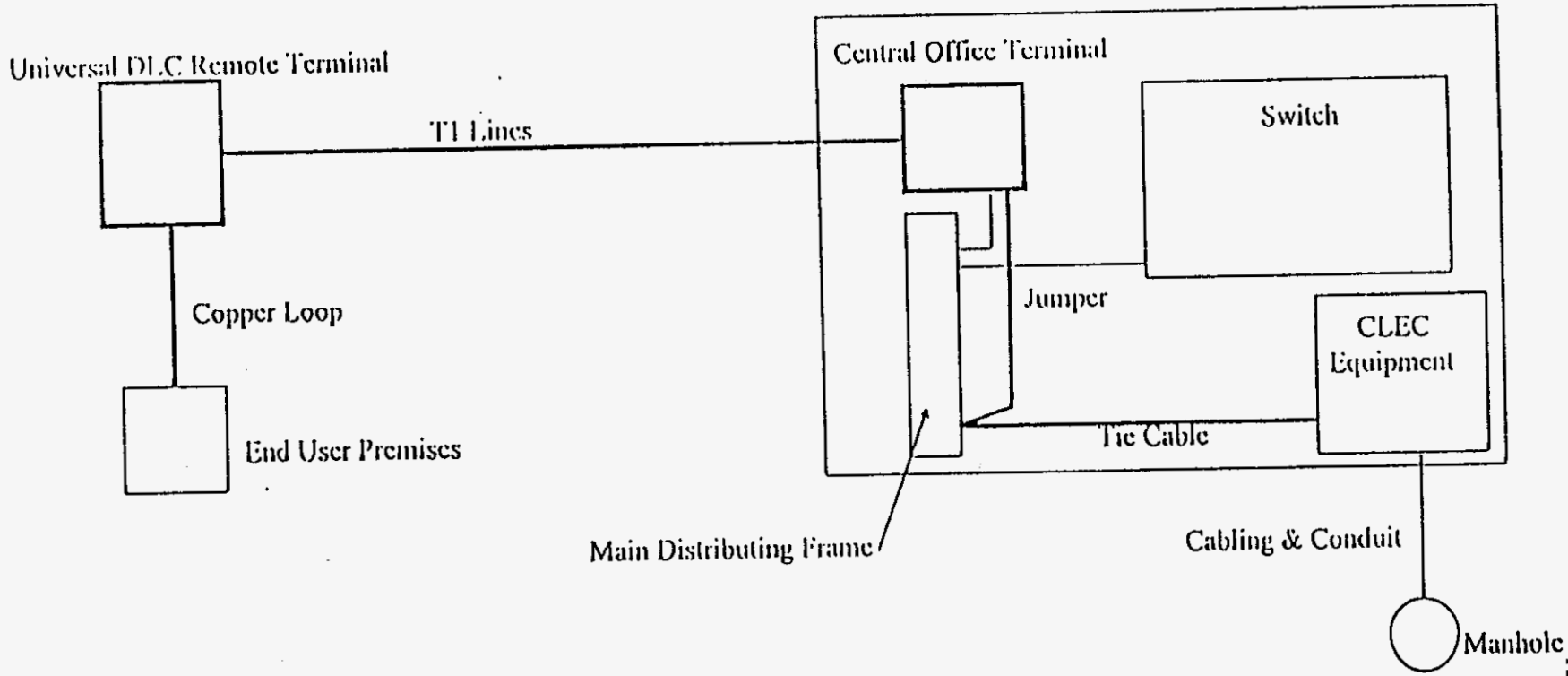
!



1. This scenario applies to all copper loops, including those provisioned with cross connect devices.
2. The CLEC collocates in the Sprint central office via expanded interconnection.
3. A tie cable, installed by Sprint, extends from the CLEC space to a section on the MDF dedicated to CLEC interconnection.
4. When a loop is requested, Sprint runs a jumper from where the end user loop terminates on the vertical side of the MDF to the tie cable connected to the CLEC equipment.

LOCAL INTERCONNECTION - UNBUNDLED LOOP  
 UNIVERSAL DIGITAL LOOP CARRIER

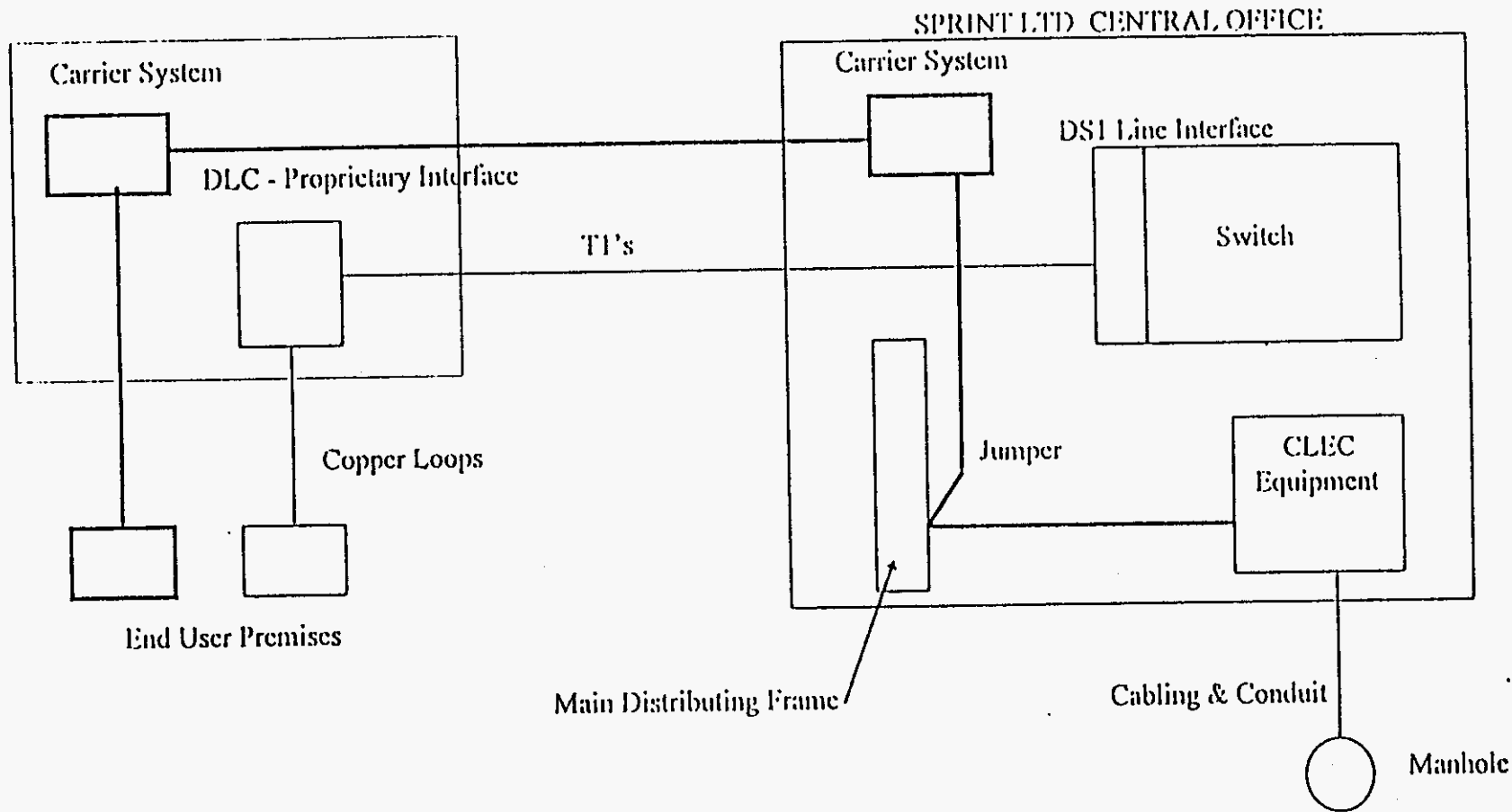
SPRINT LTD CENTRAL OFFICE



1. This scenario applies to loops provisioned with a universal digital loop carrier.
2. Under normal circumstances DS0 lines run from the central office terminal directly to the Sprint switch.
3. The CLEC collocates in the Sprint central office via expanded interconnection.
4. A tie cable, installed by Sprint, extends from the CLEC space to a section on the MDF dedicated to CLEC interconnection.
5. When a loop is requested, Sprint runs a jumper from the DS0 line exiting the Central Office Terminal to the CLEC tie cable termination on the main distributing frame.

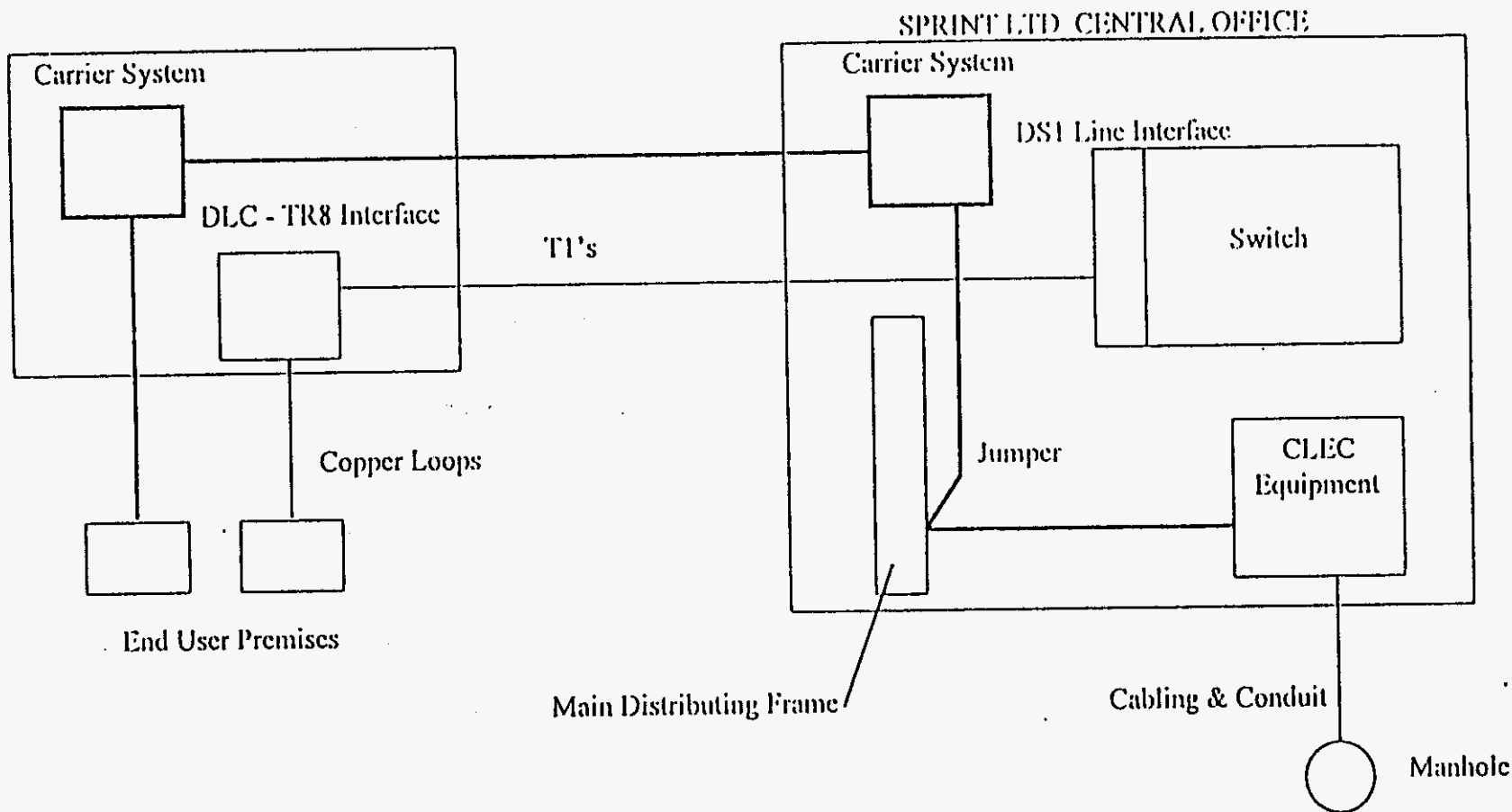


LOCAL INTERCONNECTION - UNBUNDLED LOOP  
 DIGITAL LOOP CARRIER - Proprietary Direct Interface



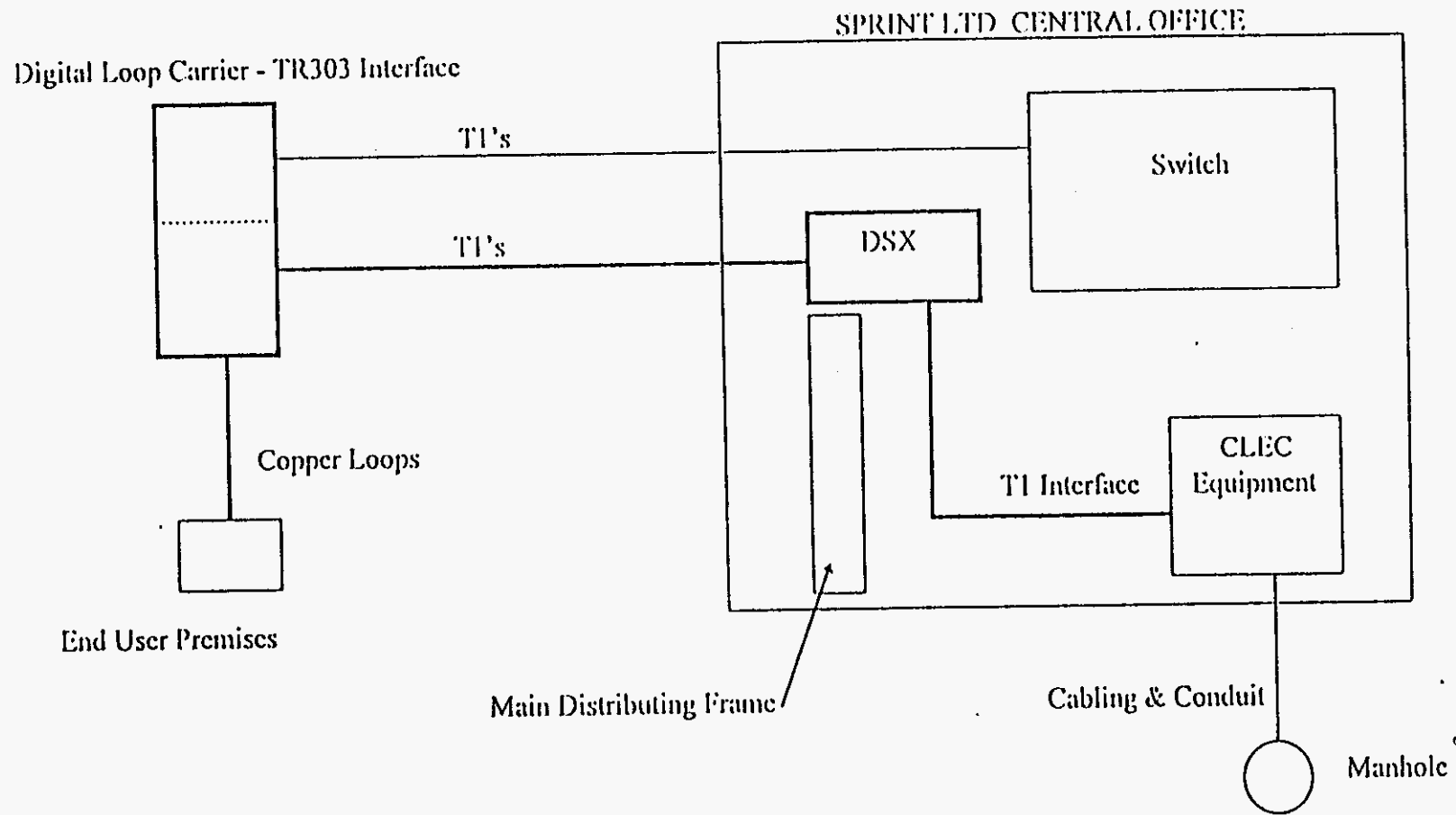
1. This scenario applies to loops provisioned with digital loop carriers utilizing proprietary interfaces.
2. Under normal circumstances T1 lines run from the remote switch directly into the switch via a DS1 line interface.
3. The CLEC collocates in the Sprint central office via expanded interconnection.
4. A tie cable, installed by Sprint, extends from the CLEC space to a section on the MDF dedicated to CLEC interconnection.
5. Sprint must install carrier equipment, at the location of the DLC, to provide a DS0 at the central office.
6. When a loop is requested, Sprint runs a jumper from the DS0 line exiting the carrier equipment to the CLEC tie cable termination on the main distributing frame. A technician must be dispatched to move the loop from the DLC to the carrier system.
7. The service can be provisioned via copper, if spare capacity exists in the copper cable feeding the DLC.

LOCAL INTERCONNECTION - UNBUNDLED LOOP  
DIGITAL LOOP CARRIER - TR8 Interface



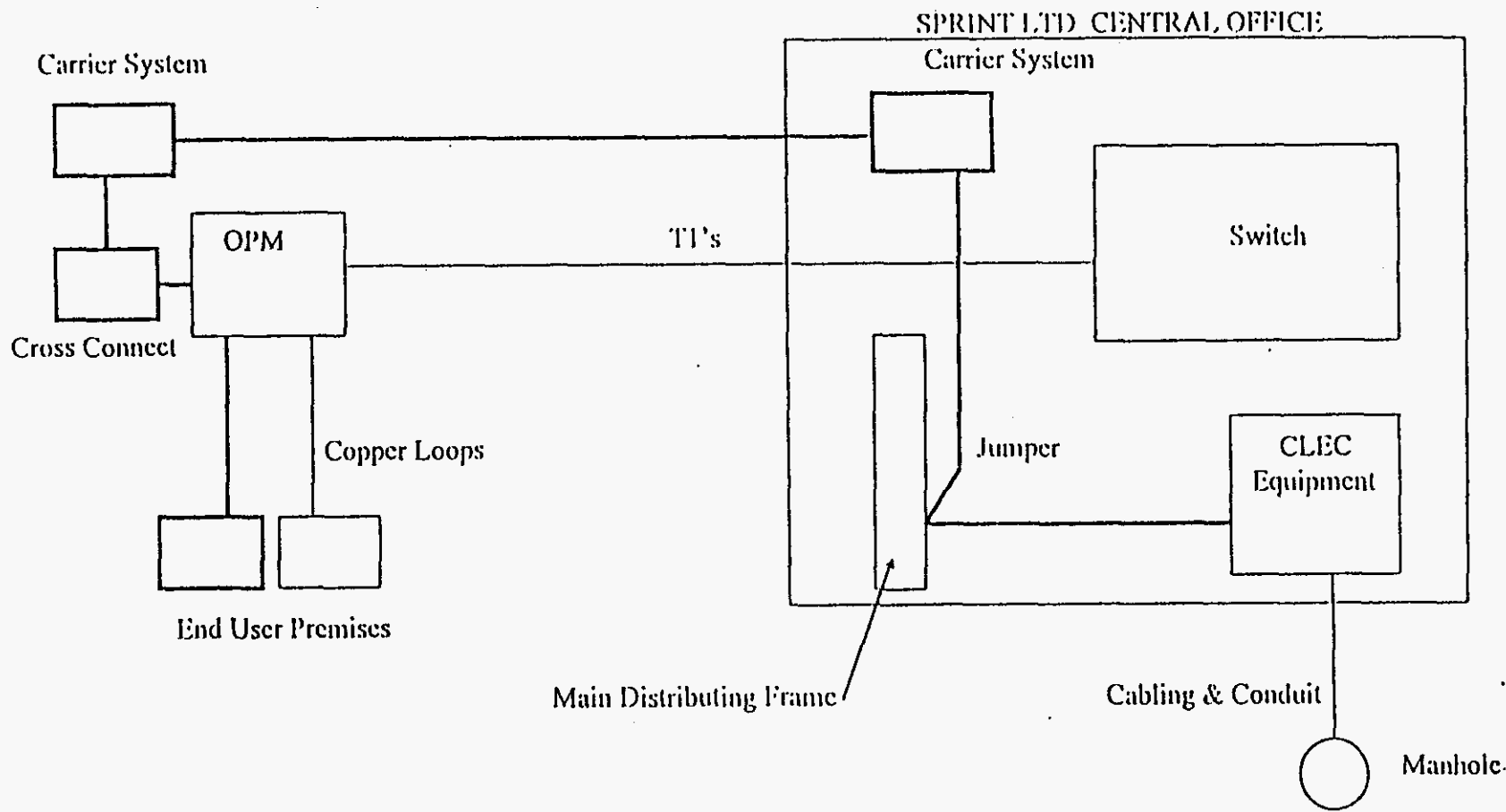
1. This scenario applies to loops provisioned with digital loop carriers utilizing a TR8 interface (SLC96, SLC5, DSC\*S).
2. Under normal circumstances T1 lines run from the DLC directly into the switch via a DS1 line interface.
3. The CLEC collocates in the Sprint central office via expanded interconnection.
4. A tie cable, installed by Sprint, extends from the CLEC space to a section on the MDF dedicated to CLEC interconnection.
5. Sprint must install carrier equipment, at the location of the DLC, to provide a DS0 at the central office.
6. When a loop is requested, Sprint runs a jumper from the DS0 line exiting the carrier equipment to the CLEC tie cable termination on the main distributing frame. A technician must be dispatched to move the loop from the DLC to the carrier system.
7. The service can be provisioned via copper, if spare capacity exists in the copper cable feeding the DLC.

LOCAL INTERCONNECTION - UNBUNDLED LOOP  
DIGITAL LOOP CARRIER - TR303 Interface



1. This scenario applies to loops provisioned with digital loop carriers utilizing a TR303 interface (SLC2000, DSC\*S, Access Node).
2. Under normal circumstances T1 lines run from the DLC directly into the switch .
3. The CLEC collocates in the Sprint central office via expanded interconnection.
4. The new TR303 interface allows devices to be directly connected to at least 2 hosts. Untested software may allow up to 4 hosts to be connected. A minimum of 2 T1's are required to allow this type of interconnection. The CLEC would therefore have to lease a minimum of 2 T1's plus some charge for the DLC in addition to the copper loops. Sprint LTD could move the copper loops from the Sprint side of the DLC to the CLEC side remotely via the software.

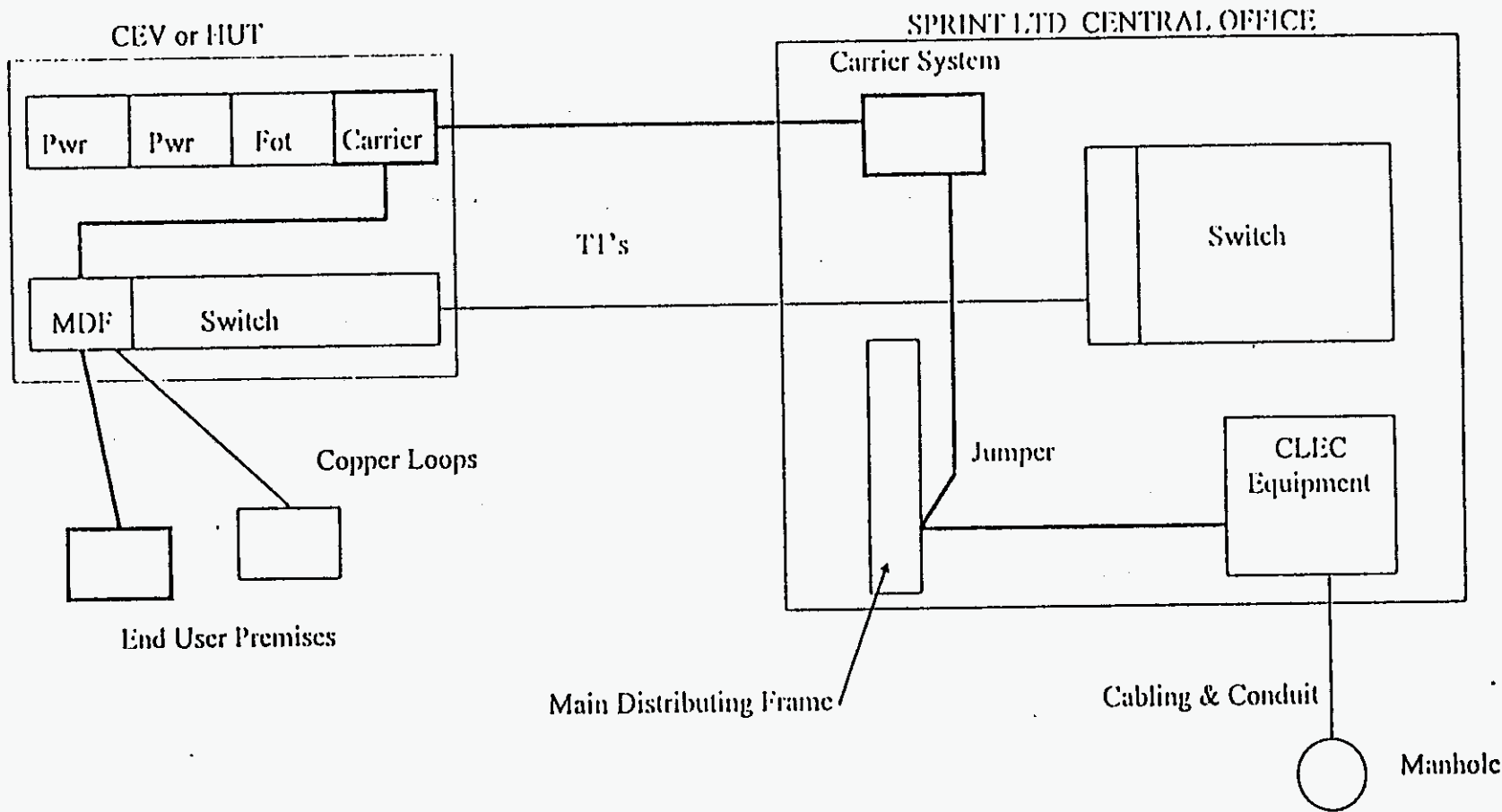
LOCAL INTERCONNECTION - UNBUNDLED LOOP  
 REMOTE SWITCH in an EXTERNAL CABINET - OPM



1. This scenario applies to loops provisioned through remote switches installed in external cabinets.
2. Under normal circumstances T1 lines run from the remote switch directly into the host switch.
3. The CLEC collocates in the Sprint central office via expanded interconnection.
4. A tie cable, installed by Sprint, extends from the CLEC space to a section on the MDF dedicated to CLEC interconnection.
5. Sprint must install carrier equipment, at the location of the OPM, in another cabinet, to provide a DS0 at the central office.
6. When a loop is requested, Sprint runs a jumper from the DS0 line exiting the carrier equipment to the CLEC tie cable termination on the main distributing frame. A technician must be dispatched to move the loop from the OPM to the carrier system.
7. The service can be provisioned via copper, if spare capacity exists in the copper cable feeding the DLC.

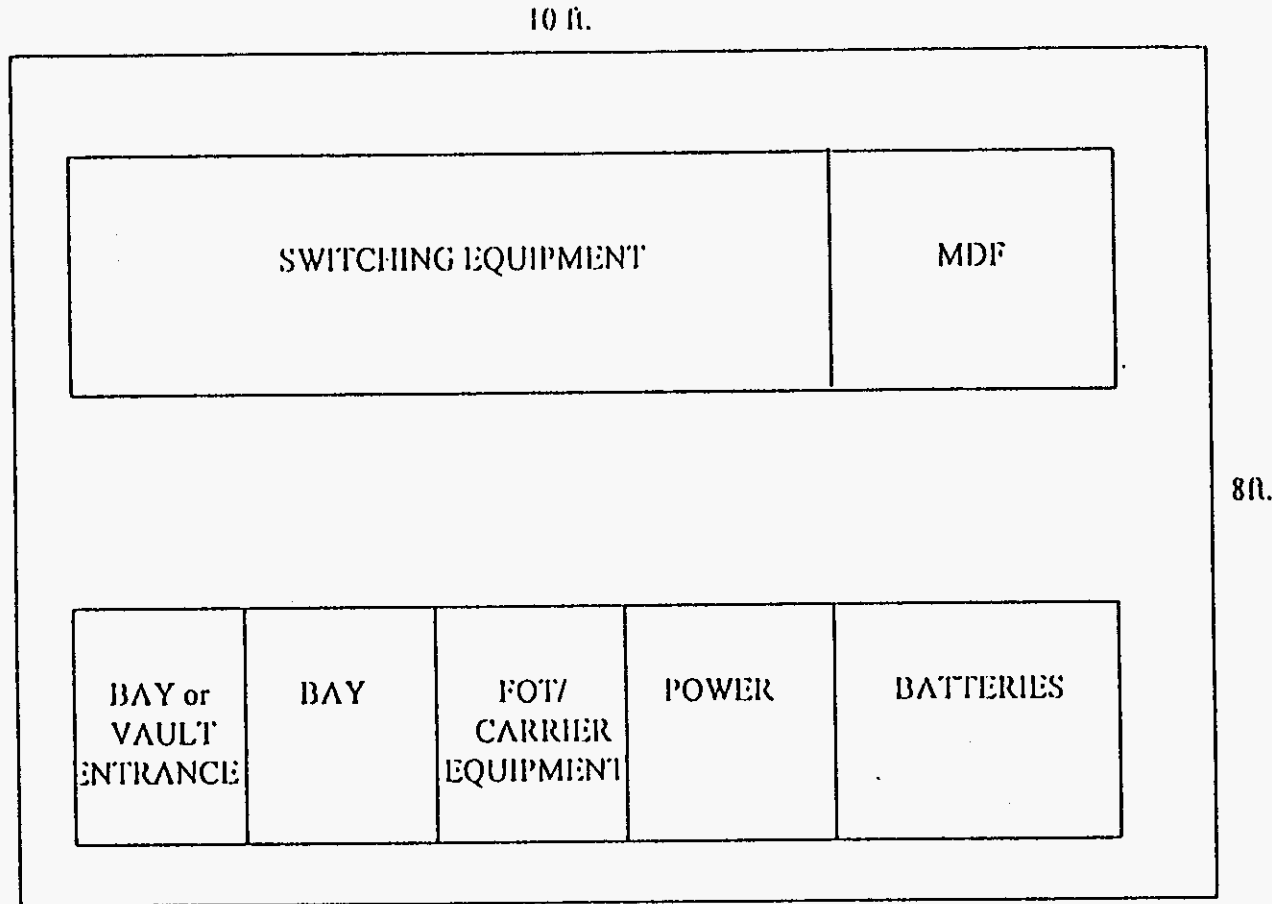
UNITED/CENTEL  
 DOCKET NO. 950984-TP  
 SANDRA A. KHAZRAEE  
 EXHIBIT SAK-1  
 DOCUMENT 1  
 Page 6 of 7

LOCAL INTERCONNECTION - UNBUNDLED LOOP  
 REMOTE SWITCH in an CEV or Hut



1. This scenario applies to loops provisioned through remote switches installed in a hut or controlled environmental vault.
2. Under normal circumstances TI lines run from the remote switch directly into the host switch.
3. The CLEC collocates in the Sprint central office via expanded interconnection.
4. A tie cable, installed by Sprint, extends from the CLEC space to a section on the MDF dedicated to CLEC interconnection.
5. Sprint must install carrier equipment, at the location of the remote, to provide a DS0 at the central office.
6. When a loop is requested, Sprint runs a jumper from the DS0 line exiting the carrier equipment to the CLEC tie cable termination on the main distributing frame. A technician must be dispatched to move the loop to the carrier system.
7. The service can be provisioned via copper, if spare capacity exists in the copper cable feeding the D.L.C.

REMOTE SWITCH IN A HUT OR ENVIRONMENTAL VAULT (RSC, RLCM, RSM)  
TYPICAL LAYOUT



Huts or controlled environmental vaults have limited space to allow additional equipment for CLÉC interconnection. There are one to two bays available, depending upon the services being offered. These switches serve from approximately 2000-4500 customers, making it impossible to add enough additional equipment to serve a substantial number of customers that transfer to a CLÉC.

REMOTE SWITCH IN AN EXTERNAL CABINET (OPM)  
TYPICAL LAYOUT

|              |            |
|--------------|------------|
| POWER        | LINE CARDS |
| POWER        | LINE CARDS |
| REPEATERS    | LINE CARDS |
| FIBER OPTICS | LINE CARDS |
| LINE CARDS   | LINE CARDS |
| BATTERIES    |            |

Remote Switches installed in external cabinets (OPM's) do not have any space available to allow CLEC interconnection. Any interconnection at these locations would have to be accommodated by installing additional cabinets and equipment.