00-01130

BELLSOUTH

BellSouth Telecommunications, Inc.
333 Commerce Street, Suite 2101
Nashville, TN 37201-3300

guy.hicks@bellsouth.com

Guy M. Hicks
General Counsel

615 214 6301
Fax 615 214 7406

July 20, 2001

VIA HAND DELIVERY

David Waddell, Executive Secretary
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37238

Dear Mr. Waddell:

Enclosed are the original and thirteen copies of the Direct Testimony of Thomas G. Williams on behalf of BellSouth. Copies of the enclosed are being provided to counsel for Covad.

Very truly yours,

Guy M. Hicks

GMH:ch
Enclosure

410459

CERTIFICATE OF SERVICE

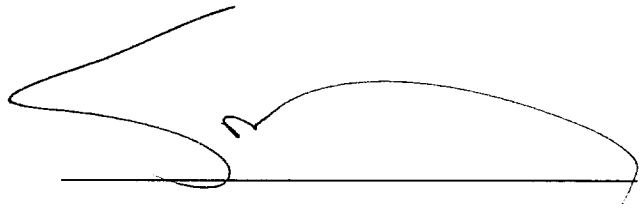
I hereby certify that on July 20, 2001, a copy of the foregoing document was served on the parties of record, via the method indicated:

[ ] Hand
[✓] Mail
[ ] Facsimile
[ ] Overnight

Henry Walker, Esquire
Boult, Cummings, et al.
P. O. Box 198062
Nashville, TN 37219-8062

[ ] Hand
[✓] Mail
[ ] Facsimile
[ ] Overnight

Catherine F. Boone, Esq.
Covad Communications Company
10 Glenlake Parkway, Suite 650
Atlanta, GA 30328



160562

BELLSOUTH TELECOMMUNICATIONS, INC.

TESTIMONY OF THOMAS G. WILLIAMS

BEFORE THE TENNESSEE REGULATORY AUTHORITY

DOCKET NO. 00 - 01130

JULY 20, 2001

Q. PLEASE STATE YOUR NAME, YOUR POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC. ("BELLSOUTH") AND YOUR BUSINESS ADDRESS.

A. My name is Thomas G. Williams. I am employed by BellSouth as Product Manager for Line Sharing for the nine-state BellSouth region. My business address is 3535 Colonnade Parkway, Suite E511, Birmingham, Alabama, 35243.

Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE AND EDUCATIONAL BACKGROUND?

A. My career at BellSouth spans over 14 years and includes positions in various product management positions. I also have seventeen years service with AT&T and Southern Bell, during which I held various positions in sales, marketing, and operations. I have a bachelor's degree in Marketing.

Q. HAVE YOU TESTIFIED PREVIOUSLY?

A. Yes. I previously testified before the Georgia, Alabama, Florida, and Louisiana Public Service Commissions and the Public Service Commission of South Carolina, and filed testimony with the Alabama,

and Florida Public Service Commissions and the Public Utility Commission of North Carolina.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to present BellSouth's position on some of the unresolved line sharing issues between BellSouth and Covad. Specifically, my testimony addresses Issues 16, 18, 21, 22, and 23.

Issue 16: Where should the splitter be located in the central office?

Q. WHAT IS YOUR UNDERSTANDING OF COVAD'S POSITION ON THIS ISSUE?

A. Covad believes it is best to place the line sharing splitter on BellSouth's frame or with 25 feet of the main distributing frame ("MDF").

Q. WHAT IS BELLSOUTH'S POSITION CONCERNING THE BEST LOCATION FOR A LINE SHARING SPLITTER?

A. The most efficient architecture to deploy line sharing when BellSouth owns the splitter is to place the splitter in a rack either in the common area close to the collocation area or in a rack in the BellSouth lineup. While BellSouth recognizes that locating splitters on a central office frame is technically feasible, splitters are better located in a relay rack in the competitive local exchange carrier ("CLEC") common area or in the BellSouth line up of equipment, for the reasons explained later in my testimony. A frame located splitter arrangement requires six frame-

mountable splitter blocks, each of which is capable of serving sixteen end user lines. This is inefficient due to the frame space that this approach requires. This architecture requires 6 blocks to serve 96 end user lines.

BellSouth's more efficient rack-mounted architecture requires four frame mounted blocks, or 89 type blocks, that serve 96 end user lines. The rack-mounted architecture is one third more efficient than mounting the splitter on the frame. The frame-mounted architecture proposed by Covad would cause BellSouth to prematurely exhaust its frame and is, therefore, much less efficient than the rack-mounted approach.

Also, to use the frame-mountable splitter would ignore the experience gained in the Line Sharing trial pilot. BellSouth found during the Line Sharing pilot in Atlanta, Georgia that main distributing frame-mounted splitters could not accommodate the manual test access jacks (the so-called "bantam jacks") that BellSouth provides to each CLEC. These bantam jacks provide the CLEC with direct access to the outside plant cable pair for testing. In BellSouth's proposed architecture, the bantam jacks are located adjacent to the rack-mounted splitter shelves in the CLECs' common area. CLECs who attended the Collaborative did not object to the rack-mounted splitters and bantam jacks allowed more room for testing and eliminated the possibility of accidentally loosening other cross-connections on the frame.

Covad should not be allowed to dictate to BellSouth where central office equipment should be placed. BellSouth should be allowed to make an engineering decision on a central office by central office basis where to

place their equipment. There are differences in central offices. Additionally, Covad has the option of owning the splitter and can place it in their collocation space. Exhibit TGW-1 shows the Line Sharing with a BellSouth provided splitter architecture in a typical central office with a COSMOS frame and MDF.

Q. COVAD HAS EXPRESSED A CONCERN THAT BELLSOUTH'S PROPOSED PLACEMENT OF THE SPLITTER WILL INCREASE CABLING COSTS. PLEASE DISCUSS.

A. There is little cost difference incurred by varying the length of the hard-wired cabling between the splitters and the distributing frame. When compared to the material and installation costs of the splitter shelf, incremental changes in cable length are not significant. Moreover, the primary focus of BellSouth's splitter placement was to avoid unnecessarily using additional frame blocks while accommodating the CLEC's need to test the cable pair.

What has to be considered when discussing tie cable lengths are the locations of the CLEC's collocation termination pairs. Because CLEC collocation pairs terminate on a conventional distribution frame, BellSouth chose to also terminate the splitter cross-connect appearances there. This minimizes the length of the cross-connect between the CLEC data signal and the splitter.

Issue 18: What should the provisioning interval be for the line sharing unbundled network element?

Q. WHAT IS YOUR UNDERSTANDING OF WHAT COVAD REGARDS AS REASONABLE INTERVAL?

A. Covad is proposing a phase-in approach to reduce intervals to 24 hours.

Q. WHAT IS THE APPROPRIATE INTERVAL FOR LINE SHARING END USER SERVICE?

A. The appropriate comparison for line sharing provisioning intervals is to BellSouth's ADSL service provided to its customers. This is the analog proposed in Tennessee Performance Measurement Docket No. 01-00193. BellSouth's planned interval for ADSL service is four days. BellSouth's plan for line sharing is to return to the CLEC a firm order confirmation no later than the next day for an electronic order, and eighteen hours for manual orders. The planned provisioning interval is three days after the firm order confirmation.

It may be possible to provision line sharing orders in some cases in less than three days if all information flows correctly through all of BellSouth's provisioning systems. However, when orders fall out for manual handling, three days will be required. Therefore, to be sure all parties, including the end user, have appropriate expectations; three days after the return of the firm order confirmation is the appropriate interval. This interval places line sharing at parity with BellSouth's own ADSL offering.

When a BellSouth technician receives a line sharing installation work order, collocation cross-connections are used to connect the loop carrying the shared voice and data traffic to the splitter termination on the frame. A second cross-connection carries the voice traffic from the splitter termination to the BellSouth voice switch. The data traffic is then carried to the CLEC collocation space by a cross connection.

When the wiring is completed the technician tests to insure voice service is wired correctly. BellSouth also tests the cross-connections necessary to provide end user data service. In order to verify that the data cross-connections are correct, BellSouth recently completed work with a supplier who developed a Line-sharing Verification Transmitter test set. BellSouth technicians use this Test Set to ensure that the data portion of the circuit is wired correctly for the end user service. When the technician is satisfied that both portions of the circuit are correct, the work order is closed in COSMOS/SWITCH.

Issue 21: Should BellSouth provide accurate service order competition notifications for line sharing orders?

Q. WHAT IS BELLSOUTH'S POSITION ON ISSUE 21?

A. BellSouth agrees that it must provide accurate information to the CLECs when line sharing orders are completed. BellSouth's CLEC Service Order Tracking System (CSOTS) provides DLECs the status of its line sharing billing order. BellSouth recently implemented an enhancement to allow DLECs to view the status of its line sharing

provisioning order. BellSouth currently provides CLECs with a "line sharing COSMOS/SWITCH report" that provides the status of the BellSouth line sharing work order. This report is updated seven (7) days a week. The CLEC simply has to check that report on a web site and it will be advised as to the current status of its order.

Issue 22: Should BellSouth test for data continuity as well as voice continuity both when provisioning and repairing line shared loops?

Q. WHAT IS IN DISPUTE IN ISSUE 22?

A. It is my understanding that Covad feels that BellSouth central office technicians should test Covad's data signal from the Covad DSLAM.

Q. WHAT IS BELLSOUTH'S POSITION ON ISSUE 22?

A. BellSouth is responsible for correctly wiring its line sharing orders. BellSouth is willing to test continuity of wiring for both the voice spectrum as well as the data circuit wiring. BellSouth has made it clear that it is testing the wiring of the high frequency spectrum. In January 2001, BellSouth announced to the line sharing collaborative that it would begin using the new Line Sharing Verification Transmitter (LSVT), to test the wiring of the loops for line sharing. The device has been deployed in BellSouth central office with Line Sharing splitters. Use of the LSVT has been included in procedures for installation and maintenance of line sharing loops.

BellSouth has no responsibility to test Covad's data signal. BellSouth may or may not have test equipment that could test Covad's data signal. CLECs use different data equipment that require different test equipment. Obviously, BellSouth must perform nondiscriminatory testing of line sharing orders. It would be unreasonable to expect BellSouth to have several test sets compatible with the various CLECs involved with line sharing.

Issue 23: Should Covad have access to all points on the line shared loop?

Q. WHAT IS YOUR UNDERSTANDING OF COVAD'S POSITION ON ISSUE 23?

A. Covad believes it should be allowed to test the loop at any point of interconnection within BellSouth's central office, even in places that Covad currently does not have access.

Q. WHAT IS BELLSOUTH'S POSITION ON ISSUE 23?

A. BellSouth agrees that Covad should be allowed to test the loop it uses for line sharing. But, we see no need for Covad to have access to all points of interconnection within the central office. BellSouth believes that the use of the bantam-type test jack is a better solution to provide CLECs direct access to the loop for testing for line sharing. Current interconnection agreements preclude CLECs from direct testing from the frame but the bantam jack solution offers the same electrical

equivalent. The bantam jack allows the CLEC to test the loop from the splitter to the NID. For each line sharing end user, BellSouth offers the CLECs a bantam-type test access jack located in the same rack as the splitter shelf. This bantam jack is made to accept a test cord. When the cord is inserted, the voice and data signals and associated central office wiring are isolated from the outside plant copper loop. This leaves the loop ready for unobstructed wideband testing by the CLEC technician, with no central office battery or DC blocking capacitors to interfere with the test results.

BellSouth also provide CLECs access to DLEC TAFI, an OSS that allows the CLEC to report troubles, check the status of trouble reports, and also, perform Mechanized Loops Tests (MLT). MLT allows the CLEC to tests the continuity of the entire circuit. If MLT reveals a problem with the loop or central office wiring the CLEC should report the trouble to BellSouth for resolution. MLT was also enhanced so that the CLEC can see an electronic "signature" of the splitter to insure that the wiring to the splitter has been completed.

If these testing methods are not adequate for the CLECs, it could choose to own the splitter. With a CLEC owned splitter, testing from the collocation space allows the CLEC to view the entire loop from the loop side of the splitter.

BellSouth is responsible for the quality of wiring at their frame. There is a process for CLECs to report troubles on UNE services and for BellSouth to respond to and repair the troubles. There is no question of

the party responsible for the wiring of service on the BellSouth frame. BellSouth feels that to allow individuals not employed by BellSouth to perform work at its frame is a potential risk to service and potentially costly for BellSouth to remedy errors caused by CLEC technicians.

To insure quality service is delivered to its customers, BellSouth tracks all wiring changes performed on their central office frames. This tracking includes all wiring and diagnostic work performed, the date and time of the activity, and the technician performing the work. This information is used to locate wiring problems and to identify training needs. BellSouth technicians are held accountable for the quality of their work through this system.

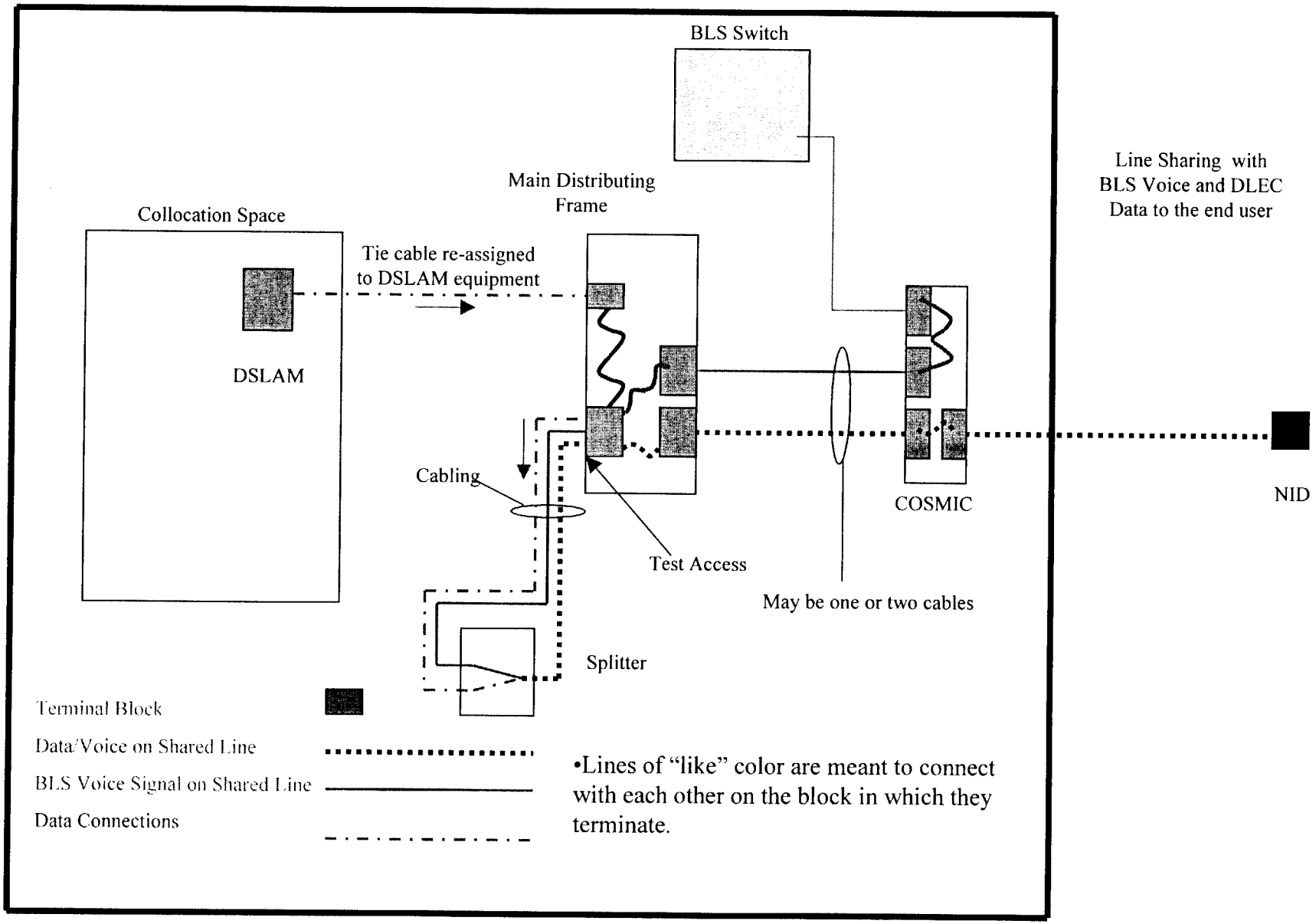
BellSouth has no control over the training of CLEC technicians nor their experience levels. When work is performed at the frame, mishaps or accidents can occur that could affect service. Unauthorized wiring changes could be made without supporting systems to track the changes. If CLEC technicians perform work at the frame, BellSouth tracking information is incomplete or inaccurate. It may be impossible to re-create changes performed by a technician unfamiliar with BellSouth's equipment and procedures. BellSouth believes allowing CLEC technicians to perform work at BellSouth's frame is extremely risky to service.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

CO-Based Line Sharing Functional Block Diagram

Exhibit TGW-1



AFFIDAVIT

STATE OF: Alabama
COUNTY OF: Jefferson

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Thomas G. Williams –Product Manager- Line Sharing, BellSouth Telecommunications Inc., who, being by me first duly sworn deposed and said that:

He is appearing as a witness before the Tennessee Regulatory Authority in Docket No. 00-01130 on behalf of BellSouth Telecommunications, Inc., and if present before the Authority and duly sworn, his testimony would be set forth in the annexed testimony consisting of 10 pages and 1 exhibit(s).

Thomas G. Williams

Sworn to and subscribed
before me on July 20, 2001

NOTARY PUBLIC

Notary Public, Gwinnett County, Georgia
My Commission Expires June 27, 2005