BELLSOUTH TELECOMMUNICATIONS, INC.

REBUTTAL TESTIMONY OF THOMAS G. WILLIAMS

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 010098-TP

July 18, 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 and Line Splitting for the nine-state BellSouth region. My business address is 3535 Colonnade Parkway, Suite E511, Birmingham, Alabama, 35243.

Q. ARE YOU THE SAME TOMMY WILLIAMS THAT FILED DIRECT TESTIMONY IN THIS DOCKET ON JUNE 8, 2001?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my testimony is to rebut the direct testimony of Florida Digital Network, Inc. (FDN) witness, Mr. Michael P. Gallagher as it relates

to Issue 1.

Q. WHAT IS ISSUE 1?

A. Issue 1, as identified in Appendix A of the June 7, 2001 Order Establishing Procedure, is: For purposes of the new interconnection agreement, should BellSouth be required to provide xDSL service over UNE loops when FDN is providing voice service over that loop?

Q. DOES MR. GALLAGHER'S TESTIMONY RELATE TO ISSUE 1?

A. No, it does not. Instead of addressing whether BellSouth is required to provide its wholesale ADSL service over a UNE loop that FDN is using to provide voice service to its customers, Mr. Gallagher's testimony asks the Commission to create a new UNE or to unbundle packet switching even though, as Mr. Ruscilli explains in his testimony, both the FCC and this Commission have previously declined to do so. FDN's testimony has nothing to do with Issue 1, and BellSouth has filed an Objection and Motion to Strike Mr. Gallagher's direct testimony addressing Issue 1. My testimony is being filed subject to, and without waiver of, that Objection and Motion to Strike.

Q. IS FDN'S POSITION ON ISSUE 1, AS IDENTIFIED IN THE ORDER ON PROCEDURE, REASONABLE?

A. No. In fact, it is the first time anyone has made such a request of BellSouth. Taken literally, what FDN is asking for in the stated Issue is for BellSouth to provide access to BellSouth's wholesale ADSL service on a UNE loop that FDN is using to provide voice service to an FDN customer. This request is contrary to anything currently contained in any FCC orders.

In the Line Sharing Reconsideration Order (*Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order No. FCC 01-26, CC Docket Nos. 98-147, 96-98, January 19, 2001), for instance, the FCC stated, "We deny, however, AT&T's request that the Commission clarify that incumbent LECs must continue to provide xDSL service in the event customers choose to obtain service from a competing carrier on the same line because we find that the *Line Sharing Order* contained no such requirement." *See In Re: Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order No. FCC 01-26 in CC Docket Nos. 98-147, 96-98 (Released January 19, 2001) at ¶26. The FCC then expressly stated that its *Line Sharing Order* "does not require that [LECs] provide xDSL service when they are no longer the voice provider." *Id.*

Additionally, in Order No. PSC-01-0824-FOF-TP that was entered in the MCI WorldCom Arbitration (Docket No. 000649-TP), the Florida Public Service Commission found at section XIII, page 51:

> "While we acknowledge WorldCom's concern regarding the status of the DSL service over a shared loop when WorldCom wins the

voice service from BellSouth, we believe the FCC addressed this situation in its Line Sharing Order." The FCC states that "We note that in the event that the customer terminates its incumbent LEC provided voice service, for whatever reason, the competitive data LEC is required to purchase the full stand-alone loop network element if it wishes to continue providing xDSL service." FCC 98-147 and 96-98 ¶ 72.

We believe the FCC requires BellSouth to provide line sharing only over loops where BellSouth is the voice provider. If an ALEC purchases the UNE-P, the ALEC becomes the voice provider over that loop/port combination. Therefore, BellSouth is no longer required to provide line sharing over that loop/port combination.

Q. PLEASE ADDRESS MR. GALLAGHER'S TESTIMONY, PAGES 4 AND 5, THAT THE COMMISSISON SHOULD ORDER BELLSOUTH TO OFFER UNE AND RESALE PRODUCTS, IN ACCORDANCE WITH APPLICABLE LAW, THAT ARE ESSENTIAL FOR FDN TO OFFER HIGH-SPEED DATA SERVICES ON AN UBIQUITOUS BASIS IN FLORIDA OVER THE SAME CUSTOMER LOOPS THAT IT USES TO PROVIDE ITS VOICE SERVICE.

A. There is no need for any such order, because BellSouth already is doing just what Mr. Gallagher suggests. BellSouth is offering UNE and resale products in accordance with applicable law. More specifically, as will be

shown throughout my rebuttal testimony, BellSouth offers UNE and resale products that allow FDN to offer high-speed data services on a ubiquitous basis in Florida, over the same UNE loops that it uses to provide voice service to its customers. In some cases, BellSouth has gone beyond what is required by the law. For example, although not required to do so, in some situations BellSouth provides splitters to ALECs who want to provide voice and data services over a single loop. FDN, therefore, is requesting the Commission to order BellSouth to do what it is already doing.

Q. DO YOU AGREE WITH MR. GALLAGHER'S PREMISE, ON PAGE 4 OF HIS TESTIMONY, THAT "CLECS ARE GENERALLY PRECLUDED FROM OFFERING DSL SERVICE WHERE DLC'S ARE DEPLOYED"?

A. No. ALECs are not precluded from offering DSL service where Digital Loop Carrier ("DLC") is deployed. When BellSouth provides ADSL service where DLC is deployed, BellSouth must locate Digital Subscriber Line Access Multiplexer ("DSLAM") equipment at the DLC location. Through the collocation process, currently offered by BellSouth, an ALEC that wants to provide xDSL where DLC is deployed also can collocate DSLAM equipment at BellSouth DLC remote terminal ("RT") sites. This will allow the ALEC to provide the high speed data access in the same manner as BellSouth. BellSouth will attempt in good faith to accommodate any ALEC requesting such collocation access at a BellSouth DLC RT site that contains a BellSouth DSLAM. In the very unlikely event that BellSouth cannot accommodate collocation at a particular RT, where a BellSouth

DSLAM is located, BellSouth will unbundle the BellSouth packet switching functionality at that RT in accordance with FCC requirements. BellSouth, therefore, provides ALECs the same opportunity to offer DSL service where DLC is deployed as BellSouth provides itself.

Q. DO YOU AGREE WITH MR. GALLAGHER'S STATEMENT, ON PAGE 4 OF HIS TESTIMONY, THAT "BELLSOUTH DOES NOT OFFER ANY RESALE OR UNE PRODUCTS THAT WOULD ENABLE CLECS TO PROVIDE HIGH-SPEED DATA SERVICE TO CONSUMERS WHO ARE SERVED BY DLC LOOPS WHERE THE CLEC IS THE VOICE PROVIDER"?

A. No. There are at least two ways ALECs can use to provide high-speed data service to consumers who are served by DLC loops where the ALEC is the voice provider. One option would be for the ALEC to perform an electronic Loop Make-Up and locate an available 'home-run' copper loop from the demarcation point (end user customer's Network Interface Device) all the way to their collocation space in the CO. Then, they would 'reserve' the loop and issue an order for that 'home-run' copper loop. Another option for ALECs would be to do what BellSouth does for itself. The ALEC could collocate its DSLAM at the BellSouth RT site. To transport the data from the end user to the RT site, the ALEC could either purchase the existing copper sub loop from the demarcation point to the RT or purchase an additional copper sub loop, both of which BellSouth offers as UNEs. To transport the data from the RT site to the ALEC's

collocation area at the Central Office, the ALEC could purchase a sub loop feeder UNE DS1 (DS3 and OC3 sub loop feeder UNEs will be available August 2001). Therefore, once the ALEC collocates its DSLAM at the RT site, all of the parts needed to complete a voice and data combination to serve an end customer that is served by BellSouth DLC facilities are available to the ALEC.

Q. DO YOU AGREE WITH MR. GALLAGHER'S STATEMENT ON PAGE 5 OF HIS TESTIMONY, THAT UNBUNDLING PACKET SWITCHING FUNCTIONALITY "IS OF PARAMOUNT IMPORTANCE FOR FDN TO BE ABLE TO LAUNCH A FACILITIES-BASED COMPETITIVE LOCAL VOICE OPTION FOR RESIDENTIAL SUBSCRIBERS "?

A. No. As I just explained, BellSouth offers UNEs that an ALEC can use in conjunction with its own DSLAM equipment to provide local voice and data service to its customers. Accordingly, rather than asking the Commission to order BellSouth to do something that BellSouth is already doing, FDN would be better served by working with its BellSouth Account Team to use the currently available UNEs to launch its desired facilities-based competitive local voice option for residential subscribers.

Q. IS MR. GALLAGHER CORRECT WHEN HE SAYS, ON PAGE 6 OF HIS TESTIMONY, THAT FDN IS UNABLE TO PROVIDE DSL SERVICE TO APPROXIMATELY 70% OF THESE END-USERS BECAUSE OF THE PRESENCE OF BELLSOUTH DLCs?

A. No. FDN has the same options available to them as BellSouth has for itself, as I previously explained. If FDN wants to provide DSL service to customers served by DLC, FDN has the ability to do so. All of the necessary components are available thorough collocation and UNE offerings that will allow FDN to serve end user customers, regardless of the facilities serving the end user.

Q. DID BELLSOUTH BEGIN DEPLOYING DLC IN FLORIDA BEFORE OR AFTER FDN WAS FOUNDED IN 1998?

A. BellSouth had widely deployed DLC in Florida well before FDN was founded in 1998.

Q. DO YOU AGREE WITH MR. GALLAGHER' S STATEMENT, ON PAGES 6 AND 7 OF HIS TESTIMONY, THAT "FDN AND OTHER CLECs CANNOT COLLOCATE LINE CARDS AT REMOTE TERMINALS. THEREFORE, BELLSOUTH TODAY IS THE ONLY CARRIER IN FLORIDA ABLE TO OFFER DSL SERVICE WHERE ITS DLCs ARE DEPLOYED"?

A. No. I agree that FDN cannot collocate dual-purpose line cards ("combo cards") at remote terminals for the reasons explained below, but I do not agree that this means that BellSouth today is the only carrier in Florida able to offer DSL service where DLSx are deployed. Mr. Gallagher is correct when he states that ALECs cannot collocate combo cards at

remote terminals, but BellSouth itself does not use combo cards in remote terminals. The combo card at issue will, at present, only function in specially equipped Next Generation Digital Loop Carrier ("NGDLC") systems. Approximately seven percent of BellSouth's access lines are served by NGDLC systems. Of these NGDLC systems, only a very small number (which are used for technology testing) are equipped with the necessary functionality to make use of combo cards. As I mentioned above, BellSouth does not use the combo cards for its xDSL service.

Mr. Gallagher is incorrect when he states that BellSouth today is the only carrier in Florida able to offer DSL service where its DLCs are deployed. As I discuss throughout my testimony, BellSouth offers all of the necessary UNEs available for ALECs to be able to offer DSL service in a DLC environment.

Q. PLEASE ADDRESS MR. GALLAGHER'S CLAIM THAT ALECS CANNOT COLLOCATE THEIR DSLAMS AT REMOTE TERMINALS.

A. FDN simply is not correct. If sufficient space exists within a DLC RT, BellSouth will allow an ALEC to collocate its DSLAM in the RT, regardless of whether BellSouth has installed its own DSLAM at that RT. If sufficient space does not exist within the DLC RT and BellSouth has not installed its own DSLAM at that DLC RT location, then BellSouth will file a collocation waiver request with this Commission for that DLC RT site. If sufficient space does not exist within the DLC and BellSouth has installed its own

DSLAM at the DLC RT location, then BellSouth will make good-faith efforts to augment the space at that DLC RT, such that the ALEC can install its own DLSAM at that DLC RT. In the very unlikely event that BellSouth could not accommodate collocation at the particular RT where BellSouth has a DSLAM, BellSouth will unbundle the BellSouth packet switched network at that RT in accordance with FCC requirements.

Regarding FDN's concerns about power and air conditioning, as Mr. Gallagher mentions on page 21 and 22, BellSouth offers various structures to accommodate FDNs specific requirements (cabinets, huts, environmentally controlled vaults ("CEVs"), etc). Huts and CEVs are air conditioned, however the cabinets are not. BellSouth uses "hardened" DLSAM equipment that can withstand extreme temperatures. Assuming FDN selects the appropriate equipment for a DLC environment as BellSouth does, FDN should not experience any difficulties because the DSLAMs BellSouth uses do not require unique power or air conditioning.

Q. ON PAGE 7 OF MR. GALLAGHER's TESTIMONY, HE TALKS ABOUT SBC's AND VERIZON's OFFERINGS, AND HE INDICATES THAT FDN IS SEEKING THE COMMISSION TO REQUIRE BELLSOUTH TO OFFER A SIMILAR UNE OFFERING. IS THIS A REASONABLE REQUEST?

A. No. It is my understanding that SBC and Verizon have chosen not to unbundle their switched packet network, but rather have chosen an architecture that uses a NGDLC system with combo cards. This allows

SBC and Verizon to provide a tariffed end-to-end broadband service to their wholesale customers, which coincidentally uses their switched packet network as a part of the total offering. What they are offering is NOT an unbundling of their switched packet network on a UNE basis.

Additionally, the SBC and Verizon offerings use architectures, technologies, and equipment that are very different from that which BellSouth uses. The fact that the SBC and Verizon decided to use an NGDLC system should have no bearing on BellSouth, as is stated in ¶10 of FCC Third and Fourth Report And Order On Reconsideration,(Line Sharing Reconsideration Order) (January 19, 2001), wherein it says "By using the word "transmission facility" rather than "copper" or "fiber", we specifically intended to ensure that this definition was technology-neutral." (emphasis added)

Q. DO YOU AGREE WITH MR. GALLAGHER'S STATEMENT, ON PAGE 7 OF TESTIMONY, THAT "WITH SUCH A HIGH PERCENTAGE OF THE DSL MARKET CLOSED TO CENTRAL-OFFICE ONLY STRATEGIES, CLEC's WILL NOT BE ABLE TO COMPETE. FURTHERMORE, IF BELLSOUTH IS THE ONLY CARRIER THAT CAN PROVIDE DSL TO A SUBSTANTIAL PERCENTAGE OF CONSUMERS, IT CAN LEVERAGE ITS MARKET POWER TO SUPPRESS COMPETITION FOR VOICE SERVICES ..."?

A. No. In BellSouth's territory, the market is not at all closed to Central-Office

("CO") only strategies. One ALEC in particular, for instance, has been very successful in Florida with their Central Office ("CO") based solutions. Additionally, as of July 2001, ALECs have requested CO-based splitters, to work with their CO-based DSLAMS, in 125 Central Offices throughout Florida. Additionally, BellSouth has, and will continue to remove bridged taps, load coils or repeaters to accommodate RT collocation requests, and correct any other possible factors within its control, to assist ALECs in gaining entry into the xDSL marketplace.

Q. THROUGHOUT HIS TESTIMONY, MR. GALLAGHER CONTINUALLY IMPLIES THAT BELLSOUTH IS RESPONSIBLE FOR FDN's INABILITY TO OFFER VOICE AND HIGH SPEED DATA ON THE SAME TELEPHONE LINE. DO YOU AGREE THIS IMPLICATION?

A. No. BellSouth has done nothing to thwart FDN's ability to offer voice and high-speed data on the same line. The fact of the matter is that BellSouth has not only complied with applicable laws, but it also has worked with ALECs to facilitate their success. One of BellSouth's established 'Collaboratives' (discussed in greater detail later in my rebuttal) is specifically designed for the offering of voice and data, over the same line, where BellSouth is not the voice provider. During the numerous meetings of this Collaborative, the ALECs discussed the various options they desired, and together with BellSouth, the Collaborative agreed on the prioritized direction they desired BellSouth to pursue. FDN did not participate in this collaborative, and the specific option that FDN is raising

in their testimony was never requested by any other ALEC.

Q. ON PAGE 9 OF MR. GALLAGHER'S TESTIMONY, HE STATES "SECOND, FDN IS IMPAIRED IN ITS ABILITY TO SELL LOCAL EXCHANGE VOICE SERVICES BY BELLSOUTH'S UNNECESSARY AND ANTICOMPETITIVE PRACTICE OF LEVERAGING ITS CONTROL OF THE DSL MARKET IN FLORIDA TO INJURE COMPETITORS IN THE VOICE MARKET. DOES THIS STATEMENT HAVE ANY VALIDITY?

A. No. According to Scott C. Cleland of Precursor Group, a leading independent research group, of existing residential households that have broadband, 73% of those households have cable modems and 26% have DSL. *Precursor Group Newsletter*, February 22, 2001. (see TGW-1). In addition to the cable modem option, customers may choose from the data offerings of numerous data ALECs, such as Covad, Rhythms, etc. In addition to the 125 offices where ALECs have requested Bellsouth to deploy line sharing splitters, BellSouth completed 892 line sharing orders in Florida, as of the end of June 2001. Customer choice is prevalent.

Q. DO YOU AGREE WITH MR. GALLAGHER, ON PAGE 18, THAT IF THE COMMISSION DOES NOT PROVIDE THE PROPOSED "BROADBAND LOOP" AS A UNE, THERE ARE NO OTHER ALTERNATIVES AVAILABLE?

A. No. As previously mentioned throughout this testimony, there are other

alternatives available to Florida end users and accordingly, the Commission should not consider FDN's proposed new UNE, the 'broadband loop'. In addition to the RT collocation solution I have previously mentioned, an alternative for FDN would be to enter into a Line Splitting agreement with another data-ALEC, or FDN could pursue an available 'home-run' loop. Additionally, end users have a choice regarding obtaining broadband services. Broadband competition has flourished over the past several years.

Q. ON PAGE 19 OF HIS TESTIMONY, MR. GALLAGHER STATES THAT PROVIDING UBIQUITOUS SERVICE THROUGHOUT THE STATE OF FLORIDA BY COLLOCATING DSLAMS AT REMOTE TERMINALS WOULD BE TANTAMOUNT TO DUPLICATION OF A SIGNIFICANT PORTION OF BELLSOUTH'S MONOPOLY-BUILT LAST MILE DISTRIBUTION NETWORK". DO YOU AGREE?

A. No. Placing DSLAMs at remote terminals has nothing to do with the 'last mile distribution network' as defined by the FCC. The "last mile distribution network" consists of the distribution sub-loop from the RT cross box to the loop demarcation point at an end-user customer premises. It does not include equipment at the RT. In its 3rd Report and Order (Third report and Order and Fourth Further Notice of Proposed Rulemaking – CC Docket No. 96-98) the FCC stated at ¶ 262:

> "Requesting carriers require collocation because they have not yet duplicated the incumbent LEC's loop plant to provide "last mile"

connectivity to end users. Obtaining unbundled loops and connecting these loops to collocated equipment is therefore the only reasonable and economically rational manner by which requesting carriers can provide connectivity to their end users."

As I mentioned above, BellSouth currently provides UNEs necessary to allow ALECs like FDN to connect an und user served by DLC to their DSLAM collocated at a remote terminal, and to have the voice and data travel to FDN's collocation space in the CO.

Q. WHEN ASKED "WHAT FACTORS PRECLUDE CLEC COLLOCATION AT INDIVIDUAL REMOTE TERMINALS", MR. GALLAGHER, ON PAGES 19 AND 20, REPLIES "... FDN COULD ONLY USE A REMOTELY-COLLOCATED DSLAM IF IT WERE TO CONSTRUCT ITS OWN FIBER-OPTIC TRANSPORT BETWEEN THE REMOTE TERMINAL AND FDN'S FACILITIES". DO YOU AGREE THAT THIS IS THE ONLY WAY FDN WOULD BE ABLE TO USE A REMOTELY-COLLOCATED DSLAM?

A. No. While that would be one method available to FDN, BellSouth offers several sub-loop feeder UNEs that allow ALECs to connect from the RT to the CO. To the extent that it is available, BellSouth offers dark fiber feeder to connect the ALECs optical equipment collocated at the remote site to the CO. Regardless of whether dark fiber feeder is available, BellSouth also offers a DS1 sub-loop feeder UNE that allows ALECS to connect from the RT to the CO. Beginning in August 2001, BellSouth will offer a

DS3 and OC3 feeder UNE.

Q. BY THE STATEMENTS MADE ON PAGES 20 AND 21 OF HIS TESTIMONY, IT APPEARS MR. GALLAGHER BELIEVES THAT BELLSOUTH IS TRYING TO PREVENT FDN FROM BEING ABLE TO GET ITS END-USER DATA BACK TO THE CO. IS THIS CORRECT?

A. No. As I previously stated, BellSouth is willing to provide sub-loop feeder UNEs to FDN to connect its equipment at a BellSouth RT to the CO. Contrary to Mr. Gallagher's statements, therefore, FDN will not be required to provide its own fiber-optic transmission facilities.

Q. DO YOU AGREE WITH MR. GALLAGHER'S STATEMENT ON PAGE 21 THAT EVEN IF DARK FIBER WAS AVAILABLE, FDN WOULD NOT BE ABLE TO COLLOCATE DSLAMS AT BELLSOUTH'S DLCs, IN MANY CASES BECAUSE IT MAY NOT BE PHYSICALLY POSSIBLE?

A. No. As stated above, if sufficient space exists within a DLC RT, BellSouth will allow an ALEC to collocate its DSLAM in the RT regardless of whether BellSouth has installed its own DSLAM at that RT. I am unaware that FDN has ever applied to collocate a DSLAM at a BellSouth RT, which is the means that the FCC specified that ALECs provide its end users xDSL service in a DLC environment. As I mentioned earlier, if FDN asks to collocate a DSLAM at a specific RT where BellSouth has a DSLAM, and for some reason BellSouth cannot accommodate that request, BellSouth

will provide unbundled packet switching functionality at that terminal pursuant to the FCC's requirements.

Q. PLEASE COMMENT ON MR. GALLAGHER'S DISCUSSION, ON PAGES 22 AND 23, THAT COLLOCATION OF A DSLAM AT BELLSOUTH'S RTs WOULD BE TIME-CONSUMING FOR FDN AND THAT FDN COULD NOT COST-JUSTIFY THE RT EXPENSES FOR THE PURPOSES OF OFFERING DSL.

A. Obviously, that is FDN's decision. However, it is no more expensive or time-consuming for FDN to collocate a DSLAM at an RT than it would be for BellSouth to accomplish the same thing. FDN is trying to shift the burden and risks associated with providing DSLAM equipment to provide highly competitive xDSL service from itself to BellSouth.

Q. IS BELLSOUTH UNDER ANY OBLIGATION TO PROVIDE THE LIT FIBER TO CLECS THAT BELLSOUTH UTILIZES FOR BELLSOUTH'S DSL TRANSPORT TO THE CO AS MR. GALLAGHER STATES ON PAGE 24 OF HIS TESTIMONY?

A. No. However, as I previously testified, BellSouth does offer FDN dark fiber if it is available. If dark fiber is not available, FDN can order various sub-loop feeder UNE products from BellSouth to connect its equipment at the RT to the CO.

Q. DO YOU AGREE WITH MR. GALLAGHER'S STATEMENT ON PAGE 24 THAT CLECs WILL BE SEVERELY DISADVANTAGED WHEREVER BELLSOUTH DEPLOYS NEXT GENERATION DIGITAL LOOP CARRIER ("NGDLC") SYSTEMS?

A. No. As I noted earlier, BellSouth does not deploy NGDLC on a wide-spread basis. Should BellSouth opt to do so in the future, it should have no impact on FDN or other ALECs. Mr. Gallagher is concerned that BellSouth will not allow ALECs to install combo cards into DSLAM-capable BellSouth remote terminals to facilitate remote site line sharing. The combo card not only provides voice functions but DSLAM functions as well. The FCC has defined the DSLAM as part of the packet switching network. Thus, what Mr. Gallagher really wants is to impose an obligation that BellSouth provide unbundled packet switching despite the fact that the FCC has already addressed this very situation and declined to impose such a duty except in limited situations.

There can be no serious dispute that FCC rules do not require BellSouth to provide ALECs with the right to specify the type of line cards to be placed in BellSouth's DLC systems. Requiring BellSouth to provide ALECs with the opportunity to utilize dual-purpose line cards would result in BellSouth providing unbundled packet switching, because this line card provides the functionality of a DSLAM. The FCC has defined the DSLAM as one element in a packet switching network. The FCC has also said that incumbents are not required, unless four conditions are met, to provide

unbundled packet switching. (FCC Rule 51.319). The use of the dual-purpose DLC line card would require BellSouth to provide unbundled packet switching even in cases where it has no such obligation under the FCC's rules

BellSouth will continue to allow ALECs to collocate their DSLAM at the RT and, BellSouth will continue to provide the necessary UNEs for transport back to their collocation area in the CO. Accordingly, BellSouth's possible future deployment of NGDLC should have no impact on ALECs.

Q. PLEASE COMMENT ON MR. GALLAGHER'S ASSERTION THAT BELLSOUTH WILL DENY ALECS THE ABILITY TO PLACE DSLAMS AT THE RT.

A. On page 24, Mr. Gallagher makes an unsubstantiated statement that "...from BellSouth 's statements in other proceedings that it has opposed collocation by CLECs of line cards at BellSouth NGDLCs. Therefore, BellSouth would deny the ability of CLECs to place DSLAMs at the remote terminal on the same terms and conditions that it affords to its own operations." First, it is BellSouth's position, and the position of the FCC, that the requirements of collocation do not include placement of combo cards at an NGDLC system. In other words, combo cards are not an item to be considered for collocation. Second, as I have discussed earlier in this testimony, the placement of a combo card does not provide xDSL functionality to an end customer. Third, and most importantly, BST will

fully support ALECs in their efforts to place remote DSLAMS at BST sites, as BellSouth does for itself.

Q. ON PAGES 24 AND 25, MR. GALLAGHER STATES THAT IF FDN WANTED TO COLLOCATE DSLAMS AT THE RT, IT WOULD REQUIRE WELL MORE THAN ONE YEAR BEFORE FDN COULD START TO PROVIDE SERVICE. DO YOU AGREE WITH HIS ASSUMPTION THAT THIS WOULD IMPAIR FDN'S ABILITY TO PROVIDE HIGH-SPEED DATA SERVICE?

A. No. FDN has never yet applied for collocation at an RT, and accordingly his statement must be based solely on speculation. While the time will often be much shorter, BellSouth should be able to accommodate most RT collocation requests well within six months. Mr. Gallagher appears to base this statement on his assumption that FDN would have to install its own loop facilities and, as I have stated above, this assumption is simply wrong.

Q. PLEASE COMMENT ON MR. GALLAGHER'S STATEMENT, ON PAGE 25 OF HIS TESTIMONY, "THAT IN ONE OF THE FEW INSTANCES WHERE A CLEC ATTEMPTED TO COLLOCATE A DSLAM AT AN ILEC REMOTE TERMINAL, CROSS-CONNECTION AND CONSTRUCTION ISSUES REMAINED UNRESOLVED MORE THAN ONE YEAR AFTER THE INITIAL COLLOCATION REQUEST WAS MADE."

A. It is difficult to comment on this assertion because Mr. Gallagher provides

nothing to substantiate this statement or to identify either the ILEC or the CLEC involved. I am unaware, however, of any situation in which an ALEC attempted to collocate a DSLAM at an RT where cross-connection and construction issues remained unresolved more than one year after the initial collocation request was made.

Q. ON PAGE 26 OF HIS TESTIMONY, MR. GALLAGHER STATES THAT FDN COULD NOT OFFER DSL OVER HOME RUN COPPER LOOPS. IS IT POSSIBLE FOR FDN TO OFFER DSL OVER HOME RUN COPPER LOOPS THAT DO NOT PASS THROUGH THE BELLSOUTH DLC'S?

A. Yes. If FDN does not want to use home run copper loops in this situation, that is their business decision. Based on distance limitations, the data speed may be lower than that of a DLC collocated DSLAM fed xDSL, and if that is the case, FDN can obtain higher data speeds by collocating a DSLAM at the BellSouth RT DLC site.

Q. ON PAGE 27, MR. GALLAGHER STATES THAT FDN CANNOT SELF-PROVISION DSL TRANSPORT TO END-USERS WHO ARE SERVED BY BELLSOUTH DLC FACILITIES. PLEASE COMMENT.

A. Mr. Gallagher is incorrect. FDN can place its own distribution facilities to end users, should it choose to do so. As I explained above, however, FDN simply is not required to self-provision DSL transport to its end users. Instead, it can order transport facilities from BellSouth as UNEs.

Q. ON PAGE 27, MR. GALLAGHER QUESTIONS WHETHER FDN CAN OBTAIN DSL TRANSPORT TO END-USERS SERVED BY BELLSOUTH DLCs FROM A THIRD-PARTY PROVIDER? PLEASE COMMENT ON THIS TESTIMONY.

A. It is unclear what point Mr. Gallagher is attempting to make. Even if no third-party providers would provide distribution facilities to end users, these facilities are available from BellSouth as UNEs.

Q. ON PAGE 28, MR. GALLAGHER DISCUSSES THE FCC'S PROJECT PRONTO ORDER. SHOULD THE COMMISSION CONSIDER REQUIRING BELLSOUTH TO MAKE AVAILABLE AN OFFERING SIMILAR TO PROJECT PRONTO, WHICH INCLUDES THE PACKET SWITCHING FUNCTIONALITY?

A. No. The SBC Project Pronto provides ALECs a packet-based service. The fact that SBC chooses to use NGDLC and allow ALECs to place a combo card in that equipment does not obligate BellSouth to do the same. As previously stated, BellSouth uses a totally different architecture, different systems and equipment. Thus, what Mr. Gallagher really wants is to impose an obligation that BellSouth provide unbundled packet switching despite the fact that the FCC has already addressed this very situation and declined to impose such a duty except in limited situations.

Q. IN THE NEXT PARGRAPH ON PAGE 29 AND 30, MR. GALLAGHER

IMPLIES THAT DSLAM FUNCITIONALITY IS FULLY SUPPORTED BY LINE CARDS. COULD YOU COMMENT ON THAT TESTIMONY?

A. Mr. Gallagher is wrong when he implies that DSLAM functionality is fully supported by line cards. As an example, one version of the Marconi system requires an entire separate shelf that aggregates the packets supplied by the line cards for transport back to the ATM switch. Without this shelf, the line cards are useless. Other Marconi solutions require specific common cards that supply the data aggregation.

The few NGDLC systems that BellSouth has deployed do use line cards, however they are 'voice only' line cards and not capable of supporting xDSL services. Also, BellSouth is testing the systems being considered for deployment and has determined that they require additional equipment, other than the line card, in order to operate and supply xDSL services.

Q. PLEASE COMMENT ON MR. GALLAGHER'S REFERENCES, ON PAGE 31 OF HIS TESTIMONY, TO OTHER STATE COMMISSIONS THAT HAVE REQUIRED ILECs TO UNBUNDLE THEIR PACKET SWITCHING.

A. Mr. Gallagher mentions Illinois (referencing 'Project Pronto") and New York (referencing Verizon). In both of those cases, the ILEC used technology, architecture and equipment that are significantly different from that which BellSouth uses. Neither the FCC, the Act, nor any subsequent

order require the ILEC to deploy a new technology, or build facilities upon request of an ALEC. The Act only requires that unbundling of existing facilities. With respect to advanced services, in its Line Sharing Order (Third Report and Order In CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, December 9, 1999) the FCC at Para 26 states, "We affirm our tentative conclusion that any rules we adopt should not mandate a particular technological approach to the use of a line for multiple services." Thus, there is no requirement for BellSouth to provide this technology upon FDN's request.

Q. PLEASE COMMENT ON MR. GALLAGHER'S DISCUSSION, ON PAGE 38 AND 39, OF THE FCC'S *LINE SHARING RECONSIDERATION ORDER.*

A. In the Line Sharing Reconsideration Order referenced above, the FCC stated, "We deny, however, AT&T's request that the Commission clarify that incumbent LECs must continue to provide xDSL service in the event customers choose to obtain service from a competing carrier on the same line because we find that the *Line Sharing Order* contained no such requirement." *See In Re: Deployment of Wireline Services Offering Advanced Telecommunications Capability*, Order No. FCC 01-26 in CC Docket Nos. 98-147, 96-98 (Released January 19, 2001) at ¶26. The FCC then expressly stated that its *Line Sharing Order* "does not require that [LECs] provide xDSL service when they are no longer the voice provider." *Id.* As clearly stated by the FCC, there is no requirement for

BellSouth to provide its DSL service when it is no longer the voice carrier. Mr. Gallagher is incorrect in his conclusion.

Q. PLEASE COMMENT ON MR. GALLAGHER'S OPINION ON PAGES 37 AND 38, THAT FDN' S PROPOSED BROADBAND UNE LOOP INCLUDING SPLITTER FUNCTIONALITY AT THE RT IS NOT INCONSISTENT WITH PRIOR COMMISSION DECISIONS WHICH HAVE REJECTED ARGUMENTS THAT BELLSOUTH SHOULD BE REQUIRED TO PROVIDE SPLITTERS TO ALECS.

A. What FDN is requesting in their new proposed broadband UNE is inconsistent with prior FCC and this Commission's findings. As previously stated, FDN's proposed new broadband UNE is not recognized by the FCC, nor the industry, and includes functionality which the FCC and this Commission have been very clear in their intent not to require ILECs to provide on a UNE basis. Accordingly, as previously discussed, FDN's proposed new broadband UNE should not be given any consideration.

Q. IS THERE ANYTHING ELSE THAT MR. GALLAGHER MENTIONED IN HIS TESTIMONY THAT YOU WISH TO DISCUSS?

A. Yes. Many of the areas and issues Mr. Gallagher mentions have been discussed and resolved in the various Line Sharing and Line Splitting industry collaboratives that were established by BellSouth. These various collaborative were established by BellSouth, for the benefit of interested

ALECs, to be the forum for discussion regarding all issues concerning Line Sharing and Line Splitting.

On February 19, 2001, BellSouth hosted a line splitting collaborative 'kick-off' meeting for all interested ALECs, for the express purpose of hearing from the ALECs what they wanted and needed from BellSouth in order for them to be successful. During this meeting, and subsequent weekly collaborative meetings, no ALEC every indicated an interest or desire regarding what FDN is proposing

Exhibit TGW2 to my testimony is the charter for the RT collaborative team. The stated goal of this collaborative "is to support the development of, with the mutual agreement to, the processes and procedures required to jointly implement line-sharing utilizing splitters located in the RT as one of the options to meet the requirements of the FCC line-sharing order." BellSouth has developed the RT Line-sharing option and performed internal testing. Because no ALEC had collocated a DSLAM in a RT, nor demonstrated interest in ordering the RT line sharing option, the RT line sharing development effort has been suspended.

Q. HOW ACTIVE HAS FDN BEEN IN THESE COLLABORATIVES?

A. FDN has not participated in the Line Sharing – Remote Site collaborative, or any other of the Collaboratives hosted by BellSouth.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

EXHIBIT TGW-1

PRECURSOR GROUP NEWSLETTER
FEBRUARY 22, 2001
Consisting of Two (2) Pages

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Scott C. Cleland
February 22, 2001

How Broadband Deployment Skews Economic/Business Growth

Summary: Precursor believes many do not appreciate the **broad investment and economic implications of the highly skewed nature of current broadband deployment.** While nearly all large businesses in the U.S. *already have* broadband service, only around 6.5 million or roughly 6% of residential households have broadband—73% cable modem and 26% DSL (see attached chart). More importantly, **investors are missing entirely the broad implications of meager broadband deployment to small and medium enterprises (SMEs)** that employ less than 100 employees. Investors should care because **SMEs comprise roughly 85% of U.S. business firms, 40% of employment, and one-third of the nation's economic output.** The broadband deployment contrast between large businesses and SMEs is stark. Only about **6% of SMEs have broadband** and this segment is almost exclusively DSL (~90% see attached chart). Precursor has discovered that the SMEs, which need broadband most, are also the least likely to get broadband deployment. That's because distance from network hubs increases the business need for broadband at the same time distance increases cost of deployment. Precursor believes this **broadband skew has broad under appreciated implications for productivity and earnings growth.** If large companies, which enjoy broadband productivity gains, are experiencing slower growth, this signals relatively greater trouble for SMEs, which are not enjoying broadband productivity gains. This could be a **hidden negative precursor for economic growth because SMEs are the primary driver of national job and economic growth** and productivity is a key driver of earnings growth.

Implications of Skewed Broadband Deployment: **(1) Distance Matters Much More for Broadband Than Dial-up: (A) Cost:** Unlike narrowband dial-up which requires minor modification of the telecom network, DSL and cable modems require an expensive re-engineering of their respective networks. Thus **the key broadband cost variable is density/distance**: how far away and how far apart the customers are, because density/distance drives average cost. Customer density matters to DSL specifically because speed directly correlates to the distance from the central office. Customer density matters to both DSL and cable because it creates breakeven efficiencies in marketing, engineering, installation, and service. **(B) Revenues:** Customer ability to pay drives average revenues. Relative customer ability to pay is also important because it drives the priority sequence of deployment and also whether deployment can ever reach breakeven in a given area. These cost and revenue realities heavily skew broadband deployment to the biggest cities with the most concentrated business districts and the most affluent, concentrated neighborhoods. Moreover, because cable's entertainment-driven infrastructure almost exclusively serves the residential market, cable modem deployment is unlikely to be a factor for SMEs. Given the financial difficulties that CLECs are experiencing, it looks like the SME market will increasingly become the exclusive domain of DSL. **(2) Broadband Deployment Paradox:** Ironically, the **geographic areas that make the least business sense to deploy to are precisely the businesses that most need broadband to grow.** A substantial portion of U.S. employment is generated by SMEs, and most employment tends not to be located in the densest, highest rent areas where it makes most business sense to deploy broadband. Precursor suggests a *surprising correlation*: those SMEs that require lots of physical space and low rent also tend to have the most mission critical need for broadband. For example: engineering, manufacturing and construction firms that regularly use computer-aided design (CAD) need broadband to transmit schematics/blueprints efficiently; yet only about 10% have broadband. Farmers and construction companies that need equipment parts have a mission critical need for broadband to efficiently scan schematics and participate in auctions for spare parts; yet only about 10% have broadband. Some other small businesses, which need broadband, but tend to be dispersed from where broadband is being deployed include: residential rural doctors (which need bandwidth to view x-rays and CAT scans from hospitals and specialists), travel agents, and printing companies – to name some of the more obvious industries with largely unmet broadband needs. This suggests a **broadband investment cleave that could advantage: large/mid cap over small/micro cap companies;** concentrated/geographically-clustered industries over fragmented and dispersed industries; and high-rent industries over low rent industries. **(3) Home-to-Office Telecommuting Hindered:** To remain a proprietary network, cable broadband networks have been designed to prevent cable customers from being able to link at high speed with DSL—unless it is cable-provided DSL (a de minimis share of SMEs). This effectively prevents a cable modem telecommuter working from home from linking at high speed into their office's DSL network. On a broader scale, it also prevents the creation of integrated suburban-urban metro-wide high-speed networks. This is another hidden drag on future productivity growth. **(4) Broadband Job Flight:** Increasingly states and localities are realizing that broadband is a mission critical utility for business and a core factor in attracting or keeping businesses in a locality or state. Broadband increasingly is a prerequisite for growth. **This has positive implications for relatively broadband rich REITs and negative implications for relatively broadband poor REITs.** ***Geo-economic data source: www.imapdata.com*** • • • • •

Precursor Watch®: Broadband Deployment Outlook

Residential Provider	SME Subs. (000s)	SME Market Share	Estimated Residential Subscribers (000s) 1H99	2H99	1H00	2H00	Total Res. Subs.	Res. Market Share	Est. "Footprint" Growth 2001 2002 2003	Approximate Retail Pricing	Download Speed	Upload Speed	Spectrum (Mhz) Available	% allocated for data
SMALL BUSINESS[1]									**RESIDENTIAL**					
Wireline									■ Deployed ☐ Potentially deployed ☐ Deployment unlikely	☐ Start-up ☐ Monthly				
√ Cable Modem Cable and AT&T	0*	~0%	950	750	1,200	1,825	4,725	73%		$75 ($0-$150) $40	~2 mbps	128-500 kbps	750	
√ xDSL ILEC, CLEC, IXC	720	90%	100	200	555	855	1,710	26%		$100 ($0-$200) $40-$50	~768 kbps	90-256 kbps	1	
√ Overbuilders RCN (cable modem)	0	0%	13	9	18	27	67	1%		$0 ($0-$100) $40	~1.5 mbps	~768 kbps	860	
Terrestrial Wireless[2]														
Digital TV Geocast/iBlast/WaveExpress (54-746 MHz)	0	0%	0	0	0	0	0	0%	Supplemental service; 1-way	n/a	~2 mbps	28-56 kbps	6+	
√ Wireless Local Loop AT&T Digital Broadband (1.8-2.1, 2.3 GHz)	0	0%	0	0	3	7	10	~0%		$0 ($215 waived) $35	512 kbps-2 mbps	~150	10	
√ MMDS ("wireless cable")[3] Sprint/Worldcom/Nucentrix (2.1, 2.5-2.7 GHz)	11	1%	1	0*	0*	0*	1	~0%		$150 $40	~1 mbps	~256	~198	
√ LMDS Winstar/Teligent/XO/etc. (24, 28/31, & 39 GHz)	70	9%	0*	0*	0*	0*	0*	0%	Not targeting residential	n/a	n/a	n/a	n/a	n/a
3G Mobile Wireless Mobile Providers, et. al. (spectrum not yet allocated)	0	0%	0	0	0	0	0	0%	Not a direct competitor	n/a	56-192 kbps	56-192 kbps	n/a	
Satellite[4]														
√ Starband (Gilat) (Ku band: 10-18 GHz)	0*	0%	n/a	n/a	n/a	0*	0*	~0%		$575 $60-$70	150-500 kbps	50-150 kbps	n/a	n/a
Hughes DirecPC[5] (Ku band: 10-18 GHz)	23	0%[5]	35	0*	0*	0*	35	0%[5]	Satellite targets unserved rural areas; DirecPC still 1-way	$215 $50	~400 kbps	28-56 kbps	n/a	n/a
Totals	**824**	***100%***	1,099	959	1,776	2,714	**6,548**	***100%***						

KEY. (√) Depicts **broadband** service, defined by the FCC as 200 kbps *both ways* (@Home & SBC upload speed is 128 kpbs and Verizon upload speed is 90 kpbs upload speed at prices listed above; a few cable modems and MMDS systems still use dial-up return.) **Footprint:** Assuming ~100m U.S. households, circles depict estimated growth over time. **Pricing/Speed:** We show price/speed packages for broadband *plus Internet service* likely to have mass market appeal; circles depict speed/size of "pipe." (1) SME market shown here excludes businesses using certain high-speed access lines such as ISDN, T-1, T-3, etc. (2) Some spectrum (e.g., 700MHz and unlicensed spectrum) is either not yet available, niche use, or both. (3) Many MMDS 2-way licenses awaiting FCC approval ~1H01. (4) Planned systems include: Skybridge (Ku-band) and WildBlue, Hughes' Spaceway & Teledesic (Ka 18-30 GHz). (5) DirecPC's subscriber totals not included in market share calculation because service uses dial-up return path; 2-way service and new pricing information due out ~1Q01, upload speed will be ~128 kbps. (*) Amount is negligible.

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Graphics by Kim Silhanek

EXHIBIT TGW-2

LINE SHARING RT PROJECT CHARTER
Consisting of Two (2) Pages

Collaborative Charter

Project Name	BST-RT-LS Line Sharing Collaborative			Project Number:	Line Share
Project Manager	Brenda Slonneger	Priority Level (1-10) (1=lowest, 10=highest)	8	Date:	7/19/000

Stakeholder(s)	BellSouth - Tommy Williams NorthPoint - Chuck Polizzotti Rhythms - Jim Cuckler Duro - Richard McDaniel Sprint - Chris Monticue

Mission

The mission of the collaborative is to support the development of, with the mutual agreement to, the processes and procedures required to jointly implement line sharing utilizing splitters located in the remote terminal as one of the options to meet the requirements of the FCC line sharing order.

Scope

The collaborative will support the implementation of the line sharing initiative within the existing collocation guidelines in the remote terminal by mutually establishing the business processes and inter-company interface procedures required to implement and support this phase of line sharing within the BellSouth area.

Objectives

1. Identify line sharing system requirements for the RT located splitter option
2. Identify, test, approve, and secure a line sharing splitter product for the RT located splitter option
3. Implement a line sharing pilot test for the RT located splitter option
4. Establish ordering, provisioning, maintenance, and billing processes for the RT located splitter option

Assumptions

1. There will be regular participation by all stakeholder members of the collaborative
2. All the members of the collaborative will be objective and work in good faith
3. All the members of the collaborative will maintain a mutual respect for their counterparts
4. Any member of the CLEC/DLEC community may monitor this collaborative
5. This is a working team and does not include legal representation from the participating companies.
6. Wavers of existing collocation rules will be obtained in order to implement a pilot test and achieve the target implementation date

Constraints

1. RT collocation agreements
2. Requirement to amend existing interconnection agreements
3. Pilot agreements will be required in the event the collaborative agrees to implement a pilot
4. Resource availability for participation in the collaborative meetings
5. Product target implementation date of 3/31/2001
6. Achieving desired target date will require wavers of existing collocation rules to implement a pilot test

Time/Major Milestones

1. Collaborative start date: 7/19/2000
2. Project schedule development complete 10/16/2000

3. Product target implementation date: 3/31/2001

Cost/Budget/Financial Assumptions
The collaborative is a non-funded process. Each participating member will be responsible for their own respective expenses.

Quality/Specification
Deploy this phase of line sharing by 3/31/2001.

Major Risks
- Product target implementation date of 3/31/2001
- Obtaining wavers of existing collocation rules to implement a pilot test prior to implementation date

Project Core Team: Members:	Company	Phone	Email Address
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Project Manager Approval:	Signature	Date
Brenda Slonneger		

Stakeholder Approval:	Signature	Date
BellSouth - Tommy Williams		
NorthPoint - Chuck Polizzotti		
Rhythms - Jim Cukler		
Duro - Richard McDaniel		
Sprint - Chris Monticue		