ORIGINAL

BELLSOUTH TELECOMMUNICATIONS, INC.

REBUTTAL TESTIMONY OF WILLIAM H. B. GREER

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 990649-TP

(PHASE II)

AUGUST 21, 2000

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

A. My name is William H. B. Greer. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375. I am a Staff Manager in BellSouth's Transmission Engineering group in the Network Planning and Support organization. I have served in my present role since August 1990, and I provide technical support regarding transmission engineering issues to various BellSouth entities.

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

A. In my testimony, I will provide rebuttal to the testimony of intervenor witnesses Messrs. Steven McMahon (SPRINT), Eric McPeak (Broadslate Networks, Inc., Cleartel Communications, Inc., Florida Digital Network, and Network Telephone Co. ("The Coalition"), Joseph

Riolo (BlueStar Networks, Inc. ("BlueStar"), Covad Communications Co. ("Covad"), and Rhythms Links, Inc. ("Rhythms")), and Ms. Terry Murray (BlueStar Networks, Inc. ("BlueStar"), Covad Communications Co. ("Covad"), and Rhythms Links, Inc. ("Rhythms")). I will address issues in the following areas: Unbundled Loop Modification (ULM), xDSL compatible loops, and nonrecurring work times.

Unbundled Loop Modification (ULM)

Q. ON PAGE 11 OF HIS TESTIMONY, MR. McMAHON SUGGESTS THAT BELLSOUTH ONLY ASSUMES THAT TEN (10) PAIRS AT A TIME WOULD BE CONDITIONED FOR LOAD COIL REMOVAL WHEREAS SPRINT ASSUMES THAT A MINIMUM OF 25 PAIRS, OR AN ENTIRE BINDER GROUP, WOULD BE CONDITIONED AT ONE TIME. MR. McMAHON STATES HIS BELIEF THAT THIS IS INCONSISTENT BECAUSE BELLSOUTH'S SERVING AREA IS MORE DENSELY POPULATED THAN SPRINT'S AND THUS USES LARGER CABLE SIZES. PLEASE COMMENT.

A. BellSouth's load coil removal assumption is consistent with BellSouth's practice, which is to remove load coils on average from 10 pair at one time. There are a number of considerations for not unloading large complements of pairs at one time (as suggested by Sprint) which include:

- Load coils are commonly used to improve voice grade transmission for copper loops longer than 18 kilofeet (Kft).

However, BellSouth also has installed load coils for loops shorter than 18 Kft for reasons I will set out below. The majority of BellSouth's network is used to provide services that only require voice grade transmission levels. Two points of loading, or more, are an acceptable (and sometimes preferable) way to provide some voice grade special service circuits.

- The presence of load coils on loops as short as 15 Kft reduces the attenuation loss to some degree but more importantly improves the attenuation distortion. It is for this reason that in metropolitan areas many loops as short as 12 Kft are loaded in order to improve the transmission characteristics for Centrex lines and for PBX trunks.
- The churn in Outside Plant Engineering (OSPE) facilities has spread working loop feeder pairs throughout the entire complement of available pairs. In other words, there are few "clean" loop feeder cable pair counts (01 to 50 or 75 to 100, for example) that are all spare and that can have load coils removed from all pairs at one time without adversely affecting service.
- Mr. McMahon's assumption appears to be that all loops are used to provide Plain Old Telephone Service (POTS) voice grade service. This assumption is invalid since BellSouth's loops are used to provide both POTS and special services. Thus, many of BellSouth's loops are used for designed circuits. The design process specifically accounts for the fact that the

loop has load coils in order to meet transmission requirements. Simply removing load coils will result in poor customer service unless the loop is redesigned and re-engineered to account for the lack of load coils, or unless the end user's service is moved to another similarly loaded loop. In some cases, the end user will perceive a reduction in the quality of service after the load coils are removed. In other cases, such as with analog data services, the loop with its load coils removed would not function at all until the loop is redesigned and re-engineered or until the service is moved to a similarly loaded loop.

- Generally, in order to achieve the removal of all load coils for an entire complement of cable counts, existing working service would have to be moved to similarly loaded loop before the load coil removal work could commence. These moves to similarly loaded loops would require dispatches of technicians to rerun jumpers in the BellSouth central office and also in the crossbox in the field, which would entail considerable expense. Also, obtaining a release from the end user on what the customer would consider to be a critical circuit (analog data, or off-premise station for example) would incur even more time and effort as well as customer inconvenience.

To summarize, load coils cannot simply be removed from loops that are currently in service to customers when such loops were originally designed taking into account the inclusion of a load coil for proper

transmission performance.

Q. ARE THERE OTHER REASONS THAT MAKE IT INFEASIBLE TO UNLOAD 25 OR EVEN 50 PAIR AT ONE TIME, AS MR. McMAHON AND MR. RIOLO PROPOSE?

A. Yes. BellSouth's loop plant must accommodate both POTS services and special services, including digital services. At any given crossbox there are only three possible loop provisioning scenarios: (1) all loops are served entirely over copper; (2) all loops are served by Digital Loop Carrier (DLC) or; (3) some loops are served by the first method (copper) while the remaining loops are served by the second method (DLC). All loop feeder pairs in a given crossbox must be capable of serving any loop distribution pair in that crossbox. As such, the feeder pairs must be uniform. If the design of the distribution area requires loaded pairs (that is, the longest loop served by that crossbox will be longer than 18Kft), then the entire feeder complement will be loaded.

Sometimes a small complement of unloaded facilities is available in the crossbox. In that instance, some pairs in the crossbox were specifically unloaded for the express purpose of putting digital services on them. Not all of BellSouth's crossboxes have this situation where both loaded and nonloaded pairs are present. Generally, BellSouth only provisions these unloaded pairs if there is a demand for digital services such as DS1, ISDN, or DDAS in the area served by that

crossbox. Obviously, since before the advent of DSL services one would not have expected demand for digital services in residential areas, most crossboxes serving such areas do not have both loaded and unloaded pair complements. In the case of ISDN, where the serving crossbox has both copper loops and loops served via DLC, the ISDN service is normally provisioned via DLC, and the loops are not unloaded.

Q. ON PAGE 23 OF HIS TESTIMONY, MR. McMAHON STATES THAT BELLSOUTH DOESN'T PROVIDE ANY EXPLANATION AS TO WHY ITS COST MODEL ASSUMES THAT 2.1 LOAD COILS WOULD EXIST. HE SUGGESTS THIS IS INCONSISTENT WITH STANDARD OUTSIDE PLANT (OSP) ENGINEERING RULES THAT THE DISTANCE FROM THE LAST LOAD COIL TO THE END USER BE NOT LESS THAN 3,000 FEET. PLEASE COMMENT.

A. First of all, Mr. McMahon is mistaken in his statement that OSP engineering rules prohibit load coils within 3 kft of the end user. To the contrary, OSP engineering rules allow the distance from the load coil to the end user to be as little as 0.1 kft (that is, 100 feet) if 3 kft of bridged tap is present at that point on the loop. See, for example Bell System Practices, Addendum 902-115-101SB, Issue B, October 1975, which provides "minimum end section plus bridged tap for loaded loops is 3 kft." [Emphasis added.] The bridged tap allows proper transmission performance since the capacitance of the bridged tap section

equalizes the load coil inductance for customers less than 3 kft from the load coil. Thus, there are instances where a loop of less than 18 kft will have three load coils installed. Installed load coils are spread over the loop such that overall transmission performance parameters are achieved.

Q. PLEASE SUMMARIZE BELLSOUTH'S RATIONALE THAT 2.1 LOAD COILS, ON AVERAGE, ARE PRESENT.

A. For loops of less than 18 kft, if the loop is loaded, 90% of the time it will have two load coils and 10% of the time it will have three load coils. As explained above, Mr. McMahon is incorrect that loops between 15 kft and 18 kft cannot have a third load coil. The network is designed and constructed assuming a "worst case" regarding loop length within a serving area. For instance, a third load coil may be required on feeder pairs within 18 kft of the central office to serve customers who are located 21 kft from the central office. Thus, it is not unusual to have customers within 18 kft of the central office using loops that have three load coils so that other customers beyond 18 kft from the central office, who are served over that same complement of loop facilities, will also enjoy proper transmission performance.

Q. ON PAGE 9 OF HIS TESTIMONY, MR. McMAHON STATES THAT SPRINT'S COST MODEL ALLOCATES A TOTAL TRAVEL TIME OF 18 MINUTES PER LOOP CONDITIONING JOB. PLEASE

COMMENT.

A. First, I note that BellSouth assumes average travel times for both unbundled loops and Unbundled Loop Modification (ULM). BellSouth assumes 30 minutes for travel time associated with ULM regardless of loop length and 20 minutes travel time for xDSL compatible loops as well as SL1 and SL2 loops. The ULM work is performed by BellSouth's outside plant construction forces, while unbundled loops are installed by BellSouth's Installation and Maintenance (I&M) or Special Services Installation and Maintenance (SSI&M) groups working in conjunction with BellSouth's central office work group. Because there are generally fewer outside plant construction groups than I&M groups in a particular geographic area, outside plant construction groups have to travel greater distances, which explains the difference in travel times.

Q. PLEASE EXPLAIN WHAT FACTORS INFLUENCE AVERAGE TRAVEL TIMES.

A. Travel times are influenced by many factors such as traffic congestion, weather, and the distance one has to travel to the site in question. Further, it is my understanding that DSL competition is materializing in larger metropolitan areas first. BellSouth serves many of the metropolitan areas in Florida such as Jacksonville, Orlando, Fort Lauderdale and Miami. Thus, BellSouth's proposed travel times

recognize its experience in serving such areas. If Mr. McMahon assumes that the distance from the BellSouth work center (from which the technician is dispatched) to where the work is performed is the same as the distance from the BellSouth central office to the work location, he is mistaken. Thus, determining average travel times is not as simplistic as Mr. McMahon makes it appear.

Q. PLEASE EXPLAIN BELLSOUTH'S RATIONALE FOR ITS ASSUMPTION THAT LOAD COIL REMOVAL INVOLVES 90% UNDERGROUND AND 10% AERIAL/BURIED PLANT DISTRIBUTION.

A. BellSouth's rationale is based on the fact that, in metropolitan wire centers, the plant is predominantly built underground in the area close to the central office. The vast majority of BellSouth's central offices serving metropolitan areas have underground structures (conduits, etc.) for the placement of large underground cables and associated load coils. Smaller, rural central offices (that is, central offices not in metropolitan areas) do use aerial or buried facilities directly from the central office. Because competition for DSL services is developing first in metropolitan areas, most of the work involved with conditioning loops for xDSL will be in metropolitan settings and will involve predominantly underground facilities. Certainly that has been BellSouth's experience to date.

In those instances where there are only two load coils, which is ninety percent (90%) of the time, both load coils will fall within 9 kft of the central office and will, generally, be placed in underground facilities. Even if there is a third load coil located within 15 kft of the central office, this load coil will likely be placed, as well, in underground facilities in metropolitan settings.

Q. MR. McMAHON SUGGESTS ON PAGE 17 OF HIS TESTIMONY THAT VIRTUALLY ALL BRIDGED TAP REMOVED WOULD BE DONE IN AERIAL OR BURIED CABLE. DO YOU AGREE?

A. No. Bridged tap allows for greater utilization of the loop facilities and enhanced network flexibility by having the same cable pair appear at more than one service address. BellSouth assumes that an average of three bridged taps will be removed, one of which would be in the underground facilities. Here again, BellSouth's rationale recognizes that competition for xDSL services in its region has developed first in metropolitan areas where the use of underground facilities is the norm rather than the exception.

Q. MR. McMAHON FURTHER ADVOCATES THAT CUTTING OFF THE PAIR AT THE SERVICE TERMINAL AT THE TIME xDSL SERVICE IS INSTALLED WOULD ELIMINATE THE NEED FOR BRIDGED TAP REMOVAL. PLEASE COMMENT.

A. While I cannot speak for Sprint, cutting off the cable pair at the serving terminal at the same time xDSL service is installed is not common practice at BellSouth because it results in the destruction of the continuity of the cable pairs in the network beyond that point. This results in the extended part of the cable being unusable unless, at some time in the future, work is done to reattach the section Mr. McMahon advocates be cut off. Cable pairs generally have appearances in multiple serving terminals along a route. Even Mr. McPeak agrees that this provides for serving flexibility and efficiency (McPeak at page 7, line 14 and page 10, line 14). The cable records reflect these capabilities. If cable pairs were cut off at a given service terminal, the overall capability of the network would be impaired, records would no longer be accurate, and additional dispatch costs would be incurred to re-establish cable continuity associated with subsequent service order activity. Factors such as loss (attenuation), noise, length of bridged tap and location of bridged tap impact overall transmission performance. Further, cutting the pair off beyond the serving terminal is not always necessary to qualify a circuit for xDSL service.

Q. ON PAGE 57 OF HER TESTIMONY, MS. MURRAY SUGGESTS THAT THE SERVICE INQUIRY FUNCTION IS ALSO A SEPARATE UNBUNDLED NETWORK ELEMENT THAT CARRIERS COULD REQUEST IF DESIRED. SHE CONCLUDES THAT THE INCLUSION OF THAT FUNCTION IN THE LOOP INSTALLATION COST WILL

NECESSARILY RESULT IN FORCING SOME CARRIERS TO PAY TO HAVE THE SAME SERVICE INQUIRY DONE TWICE, AND SHE SUGGESTS THAT COSTS FOR THE SERVICE INQUIRY FUNCTION SHOULD BE ENTIRELY REMOVED. MR. RIOLO MAKES THE SAME ARGUMENT. PLEASE COMMENT.

A. BellSouth's filing on August 16, 2000, reflects a service inquiry process for loop makeup and loop reservation activities, both manual and electronic. As described in greater detail by BellSouth witness Mr. Ron Pate, these processes allow the ALEC to obtain loop makeup information and to reserve facilities for its xDSL type services. When the ALEC requests loop makeup or loop reservation and then requests a loop over which it will provision xDSL services (in that order), the work activities that have taken place previously during the loop makeup and loop reservation process are not included. This would apply to the following loop types: Unbundled Copper Loop - Long, Unbundled Copper Loop - Short, ADSL-compatible, and HDSL-compatible. Additionally, in loop modification, BellSouth recognizes the efficiencies associated when ULM and an xDSL loop are ordered at the same time.

Q. MR. RIOLO SUGGESTS THAT THE CRSG AND LCSC WORK TIMES SHOULD BE ELIMINATED OR REDUCED. DO YOU AGREE?

A. No. First, the work activities that are at issue here occur only when BellSouth performs the Service Inquiry function. In other words, when an ALEC performs Loop Makeup for itself, neither the CRSG nor the LCSC perform service inquiry functions with respect to the loop. Second, in advocating that Service Inquiry should take only 30 minutes, Mr. Riolo's testimony only describes some of the work functions performed by the CRSG and the LCSC. The CRSG is an extension of the Account Team and is the customer advocate within BellSouth. Some of the additional functions that were not detailed in Mr. Riolo's testimony include: (1) serving as the first point of contact for ALECs ordering certain UNE types; (2) providing information on service availability; (3) researching ALEC agreements to ensure that the services the ALEC orders are included in the agreement and advising the ALEC of any needed amendments to provide those desired services; and (4) providing guidance to the ALEC on completing the required documentation for desired UNEs (SIs and LSR, End User form, Loop Service form, Loop Service form with Number Portability).

The service representatives in the LCSC review the SI and the LSR from the CRSG/Account Team and then validate the information contained on these forms. This involves a time consuming process of accessing numerous databases and checking various input fields. Additionally, if the SI or the LSR contains an error, the service

representative must clarify the problem and work with the ALEC to resolve it.

In short, the work activities of the CRSG and the LCSC are not nearly as limited as Mr. Riolo suggests. Thus, Mr. Riolo's proposed Service Inquiry time of 30 minutes is without merit. Equally without merit is Mr. Riolo's proposal that Service Inquiry will take place on only 10% of orders. I can find nothing in Mr. Riolo's testimony to support this assumption, which is also inconsistent with the notion that these activities are performed 100% of the time when BellSouth must perform the Service Inquiry function.

Q. ON PAGES 30 AND 31 OF HIS TESTIMONY, MR. RIOLO PROPOSES VARIOUS ADJUSTMENTS TO BELLSOUTH'S WORKTIMES FOR BELLSOUTH'S XDSL OFFERINGS. DO YOU AGREE WITH MR. RIOLO'S PROPOSED ADJUSTMENTS?

A. No. Mr. Riolo follows the same categories of major work activities that BellSouth used in its cost studies: Service Inquiry, Engineering, and Connect and Test (which is reflected as UNEC, WMC, CO I&M, SSI&M (Outside Plant) in Mr. Riolo's testimony). Interestingly, Mr. Riolo does not propose that the Commission disallow the involvement of these various work centers in the UNE ordering and provisioning process, except for the WMC. I have already addressed the activities

associated with Service Inquiry and will now address the remaining activities described by Mr. Riolo.

Q. WHAT ENGINEERING WORK ACTIVITIES ARE INVOLVED IN THE INSTALLATION OF XDSL LOOPS?

A. Engineering includes work activities in the following work groups or centers at BellSouth: the Service Advocacy Center ("SAC"), the Address and Facility Inventory Group ("AFIG"), and the Circuit Provisioning Group ("CPG").

The SAC is involved with outside plant engineering investigation of the loop makeup and availability. The activities performed by the SAC include obtaining LMU from the engineer, inputting LMU into LFACs, and reserving the facility. Because the work functions performed by the SAC are highly mechanized for the most part, it is assumed that the manual efforts by the SAC will occur only 10% of the time.

The AFIG performs the following work activities: (a) investigates for errors; (b) contacts the appropriate organization, such as the LCSC, to correct any errors (which generally involves incorrect collocation information provided by the ALEC); and (c) ensures that the collocation information returned on the order has been built into BellSouth's systems. BellSouth assumes that the AFIG will be involved only 30% of the time.

Finally, the CPG is involved when the ALEC's order falls out for manual handling (which is assumed to be only 15% of the time). The CPG is responsible for designing a circuit and generating the necessary documentation in TIRKS.

Mr. Riolo does not question the work times assumed by BellSouth for engineering work in the SAC, the AFIG, and the CPG (other than with respect to his issue about nondesigned versus designed circuits, which is discussed below. However, Mr. Riolo proposes arbitrary adjustments to the frequency when these work groups are involved, proposing that their involvement be limited to 1% of orders. Nothing in Mr. Riolo's testimony, nor in BellSouth's experience, supports such limited involvement. Because of the complexity of designed circuits, the SAC, the AFIG, and the CPG are involved in significantly more than 1% of orders, and, based on BellSouth's experience, BellSouth's assumptions on their involvement are, at the very least, conservative.

Q. WHAT CONNECT AND TEST ACTIVITIES ARE INVOLVED IN INSTALLING XDSL LOOPS?

A. The work activities associated with actually putting the facility to work (i.e., the Connect and Test function) are performed by the following work groups or centers at BellSouth: Unbundled Network Element Center ("UNEC"); Special Services Installation and Maintenance

("SSI&M"); the Work Management Center ("WMC"); and Central Office Installation and Maintenance ("CO I&M").

Several witnesses, including Mr. Riolo, question the need for involvement of the UNEC and the WMC. Both of these centers perform functions critical to provisioning xDSL loops. The UNEC performs functions similar to those that the Access Carrier Advocacy Center ("ACAC") performs for access carriers. These include coordination activities, such as tracking the status of orders and escalating and handling orders in jeopardy. The major function of the UNEC is to perform frame continuity and due date coordination and testing.

The WMC determines the "dispatchability" of orders to outside field forces. In particular, the WMC personnel: (a) pull a list of all unbundled orders due for that specific day; (b) scan each individual order for facilities and related orders and for facilities that may be reused (which requires not only the verification of facility availability, but also a check to see if the facility is compatible with the service requested); (c) screen orders for the Network Channel type for verification to ensure that the appropriate technician will be assigned to the facility; (d) handle any exceptions (i.e., whether to re-use facility) when appropriate; and (e) assign the proper technician to the order.

Both the UNEC and the WMC are involved 100% of the time (although not every function performed by these centers occurs each and every time). The work activities by the UNEC and WMC are critical to the Connect and Test of xDSL loops and cannot be disregarded, as Mr. Riolo and others attempt to do.

In addition to the UNEC and the WMC, both the SSI&M and CO I&M groups perform Connect and Test activities in installing xDSL loops. SSI&M personnel perform cross-connection at the cross-box, check continuity on a cross-box (30% of the time), perform testing from the Network Interface Device ("NID"), tag the loop, perform trouble resolution at the premises (21% of the time) and complete the order. CO I&M personnel wire the circuit at the collocation site. Although this activity by CO I&M personnel occurs 100% of the time on xDSL loops, the costs are discounted 15% to reflect costs recovered in related elements purchased by the ALEC (i.e., the cross connect).

Mr. Riolo proposes that the time that it takes for SSI&M and CO I&M personnel to perform these various work functions be adjusted downward and that the involvement of the SSI&M be assumed on only 20% of xDSL orders. Neither of these proposals is reasonable. In particular, the notion that only 20% of xDSL loop orders require a dispatch is unrealistic. As I explain below, a dispatch is required on every xDSL loop order, which means that SSI&M personnel are involved 100% of the time.

Q. ON PAGES 36 AND 37 OF HIS TESTIMONY, MR. RIOLO PROPOSES CERTAIN "TASK TIMES" WHICH HE CLAIMS ARE REQUIRED IN ORDER TO "EFFICIENTLY CONNECT AND DISCONNECT AN UNBUNDLED LOOP." ARE HIS PROPOSALS REASONABLE?

A. No. Mr. Riolo's proposal is based upon numerous errors. First, BellSouth has no frames on which a single jumper may be placed within 3 minutes. Second, Mr. Riolo assumes a single jumper, even though there will be a minimum of 3 jumpers on multiple frames required for these types of services. Third, Mr. Riolo fails to take into account multi-line orders that should be reflected in the "Obtain and Review Order" categories, which require greater time intervals than Mr. Riolo has proposed.

Q. MR. McPEAK PROPOSES NUMEROUS ADJUSTMENTS TO THE WORK TIMES ASSOCIATED WITH LOOP CONDITIONING. ARE THESE ADJUSTMENTS VALID?

A. No. Mr. McPeak offers nothing but his own unsubstantiated opinion to support drastic reductions to the times BellSouth has assumed. Rather than addressing each of his proposals, I will only address outside plant construction to illustrate the unreasonableness of his approach. Mr. McPeak assumes that he can remove load coils from

25 pair in slightly more than two hours. By contrast, BellSouth estimated that it takes more than 9 hours to remove load coils from 10 pair. The work activities involved in removing load coils are complex and time consuming, and Mr. McPeak's assumptions to the contrary are totally misguided. In fact, Mr. McPeak's assumed work times are even well below those proposed by Mr. Riolo.

Q. WHAT ACTIVITIES ARE INVOLVED IN CONDITIONING A LOOP?

A. As noted by Mr. Riolo, to condition a loop, a BellSouth technician must travel to the work location, set up work area protection, pump and ventilate the manhole, buffer the cable and set up the splice, open the splice case, identify the pairs, perform the necessary operations to condition the loop, close the case, rack the cables, pressure test the cables, and close down the work area. When two or more locations are involved, these steps are repeated. To think that all of this work can be accomplished in the short period of time proposed by Mr. McPeak is unrealistic.

XDSL Compatible Loops

Q. BEGINNING ON PAGE 6 OF HIS TESTIMONY, MR. STACY STATES THAT BELLSOUTH'S COST STUDY FOR UNBUNDLED COPPER LOOP (UCL) CONTAINS AN ASSUMPTION THAT DISPATCHES WILL BE MADE FOR EVERY UCL PROVISIONED (100% DISPATCH) AND THAT HE ADVOCATES AN ASSUMPTION OF

ONLY 20% DISPATCH. HE STATES HIS BELIEF THAT THIS LOWER DISPATCH ASSUMPTION SHOULD BE ADOPTED BECAUSE THE SAME PAIR THAT IS USED TO PROVIDE VOICE SERVICE WILL BE USED FOR xDSL SERVICE. IS HE CORRECT?

A. No. Whether or not the same loop that is providing voice service can be reused to provide xDSL service, a dispatch is required in order to ensure that certain parameters are met so that the loop will be suitable for the intended xDSL service. These parameters, as stated in BellSouth's TR 73600, include loading, foreign voltage, capacitance, resistance, and actual measured loss. If these parameters are met, the field technician will then attempt to test cooperatively with the ALEC. These parameters cannot be accurately tested without a technician in the field to send/receive the appropriate tones and/or read the measurements, which necessitates a dispatch 100% of the time.

Nonrecurring Work Times

Q. BRIEFLY DESCRIBE BELLSOUTH'S SL1 AND SL2 LOOP TYPES.

A. BellSouth witness Mr. Latham provides a detailed explanation of the differences between SL1 and SL2 loops. While both loops are suitable for voice grade services, the SL2 loop has these attributes that the SL1 loop does not:

- Test points are installed that are used to sectionalize a

trouble condition.

- Design Layout Record (DLR) is documented and provided to the ALEC. The DLR provides details of the actual loop makeup.
- A coordinated cutover process is used to minimize end user outage when the loop is moved from BellSouth's switch to the ALEC's switch.

Q. ARE BOTH SL1 LOOPS AND SL2 LOOPS "DESIGNED" LOOPS?

A. No. Only the SL2 loop is a designed loop. By designed loop, I mean that BellSouth identifies the actual makeup of the loop and documents such on the DLR that is provided to the ALEC so that the ALEC can be assured that the loop meets the specified design parameters. Further, the SL1 loop only accommodates loop start signaling (commonly used for POTS services). The SL2 loop may have no signaling type specified or may have loop start signaling ground start signaling or loop reverse battery signaling upon request. The provisioning of the requested signaling type means the loop must be designed for the requested signaling type and provisioned accordingly.

Q. ON PAGE 58 OF HER TESTIMONY, MS. MURRAY ACCUSES BELLSOUTH OF IMPOSING THE "DESIGN OF DSL-BASED SERVICES" ON ALECS IN ORDER TO RAISE ALECS' COSTS UNNECESSARILY. DO YOU AGREE?

A. Absolutely not. BellSouth offers a full array of unbundled loop types such that ALECs have a choice of loop types over which they can provision their services. ALECs have not come to the xDSL market with a "one size fits all" all approach, and BellSouth has appropriately responded to ALECs' requests for specialized loop types with differing technical capabilities. Ms. Murray apparently advocates that BellSouth should provide this full array of unbundled loop types but should only be allowed to recover the costs associated with the lowest price loop BellSouth offers. She is wrong. Ms. Murray attempts to shift the risks associated with ALECs' decisions from the ALECs themselves to BellSouth.

BellSouth offers "designed" loops not in order to drive up ALECs' costs but to provide greater specificity about what a given loop type will provide and greater certainty that a given service offering can be successfully provisioned. For example, if the ALEC wants to sell ADSL service to its end user, the ALEC can choose an SL1 loop, an SL2 loop, an ADSL-compatible loop, an unbundled copper loop - short or an unbundled copper loop - long in order to provision the service. Each of these loop types has different design criteria and thus different inherent technical capabilities. Correspondingly, there are different rates for each of these loop types reflective of the actual network elements used and the associated work required of BellSouth to provision them. It is up to the ALEC to determine in a particular

situation which of these loop types offers the needed technical characteristics at the lowest rate.

Q. MS. MURRAY SUGGESTS THAT THE COST FOR AN ISDN COMPATIBLE LOOP SHOULD REFLECT ONLY A SMALL INCREMENT ABOVE THE COST FOR AN SL1 LOOP. DO YOU AGREE?

A. No. First of all, ISDN loops are designed loops. BellSouth must document and provide the DLR to the ALEC. BellSouth must install a test point on the ISDN loop at the central office and the ALEC may request a coordinated cutover. These differences represent far more than the small incremental cost above SL1 suggested by Ms. Murray.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

PC DOCs #225381