BELLSOUTH TELECOMMUNICATIONS, INC.

SURREBUTTAL TESTIMONY OF DR. CHRISTOPER J. PLEATSIKAS

BEFORE THE TENNESSEE REGULATORY AUTHORITY

DOCKET NO. 03-00491

MARCH 17, 2004

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME.

A. My name is Christopher J. Pleatsikas.

Q. ARE YOU THE SAME CHRISTOPHER J. PLEATSIKAS WHO FILED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I respond to comments regarding market definition made by Dr. Bryant (on behalf of MCI), Mr Gillan (on behalf of CompSouth), Mr. Klick (on behalf of AT&T),

Mr. Brown (an economist in the Consumer Advocate and Protection Division, Office of the Attorney General), and Mr. Bradbury (on behalf of AT&T).

Q. PLEASE PROVIDE YOUR OVERALL VIEW OF THE COMMENTS MADE BY THESE PARTIES.

A. I have several general observations regarding the comments and recommendations made by these parties. First, the various CLEC recommendations are inconsistent with one another in terms of geographic area. Dr. Bryant claims that each individual customer represents the appropriate economic market, although, he contends, a wire center would be administratively simpler. In contrast, Mr Gillan recommends that the entire service footprint, or else the LATA should be considered a market. Thus, while Mr. Gillan disparages the use of UNE Rate Zone/CEAs as "gratuitously granular," Dr. Bryant and Mr. Bradbury both appear to advocate the even more granular wire center-based definition.

Second, no witness proposing a wire center-based definition has provided a compelling economic rationale to explain why wire center boundaries should be used as the basis for defining relevant geographic markets in this instance While there is no question that certain data are available by wire center, this does not constitute an economic rationale for defining a market, particularly when data are as readily available for aggregations of wire centers. In addition, the FCC's guidance on this issue is inconsistent with the view that individual wire centers would generally be appropriate relevant markets. That is, no witness proposing the use of wire centers as a basis for defining geographic markets has explained how, absent any further market-based analysis, and as a general economic proposition, such a definition can be reconciled with the TRO's clear guidance that "[S]tates should not define the market so narrowly that a competitor *serving that market alone* would not be able to take advantage of available scale and scope economies from serving a wider market." (TRO 495 (emphasis added))

Third, some witnesses have responded to the UNE Rate Zone/CEA definition by separately criticizing the relevance of CEAs and of UNE Zones. In my opinion, these criticisms are misguided, because these concepts are not used *separately* to determine a relevant market Instead, both concepts are used together to provide an economically reasonable definition of the market Thus, any criticisms that either CEAs or UNE Zones are, by themselves, too "large," too "vast," or too "heterogeneous" [in demand] are not relevant to my analysis.

Finally, in my opinion, there is an undercurrent in the testimony of the CLEC witnesses that favor using wire center boundaries as the basis for defining the market that, unless all issues relating to the ability of a CLEC to compete profitably in each and every wire center are definitively resolved, markets must be defined according to the smallest possible geography. In this manner, their testimony implicitly appears to seek to turn the impairment analysis on its head In other words, they contend that one should conduct the impairment analysis at the wire center level first, then (possibly) decide, on the basis of those results, the extent of the geographic market. This is inconsistent with sound economic analysis and clearly at odds with the direction in the TRO that "State commissions *must first define the markets in which they will evaluate impairment* by determining the relevant geographic area to include in each market." (TRO 495 (emphasis added))

II. RESPONSE TO DR. BRYANT

Q. DR. BRYANT CLAIMS THAT A CEA IS OVERLY "BROAD." (BRYANT REBUTTAL 3) DO YOU PROPOSE USING A CEA AS THE RELEVANT MARKET DEFINITION?

A. No, I do not. Dr. Byant contends that "[I]f a market as broad as a CEA is defined, differences in profitability in wire centers will be obscured, and the impairment analysis will thus fail to capture any areas where the CLECs cannot profitably provide service " (Bryant Rebuttal 3) There are two problems with this statement. First, it is irrelevant to my analysis, because I did not propose the CEA as an appropriate geographic market – rather, I proposed the intersection of CEAs and UNE Zones, which leads to a smaller area than the CEA as a whole. Second, Dr. Bryant seems to imply that there is an additional test in the TRO that CLECs must be able to profitably provide service to all customers within the geographical area. The FCC's explicit *Errata* to the Order clarified that the TRO does *not* require that, for the purposes of the switching triggers, self-provisioning competitors must be ready and willing to serve all retail customers in the market.

Q. DR. BRYANT CONTENDS THAT THE USE OF WIRE CENTERS PROVIDES MORE ACCURACY REGARDING THE ABILITY OF CLECS TO OFFER SERVICE. (BRYANT REBUTTAL 6) PLEASE COMMENT.

A. In my opinion, Dr Bryant's reasoning is faulty on this point. The economies of scale and scope available to CLECs in providing switch-based services are not, in general, consistent with using wire center boundaries as the basis for defining markets in this case Therefore, by defining markets in this manner, the analysis would simultaneously become more complex and less accurate (as the market definition would obscure supply-side substitutability) Defining markets in this manner could also be more time consuming and costly Disagreement would inevitably arise as at least some parties would attempt to compensate for the overly-narrow market definition by citing factors that reflected supply-side substitutability over a broader area, particularly factors associated with some of the scope and scale economies that would be available to efficient CLECs

In any case, Dr. Bryant's contentions regarding the use of wire center boundaries as the basis for market definition appear to be based in large part on his view that location specificity is an important factor for defining markets in this case. However, while location specificity may be relevant to understanding the interface between the end user and the local loop, it is not particularly relevant to understanding the interface between the end user and switching, which is the focus of the impairment analysis Stated more simply, Dr. Bryant's discussion of location specificity is not relevant to the end user when choosing a vendor of switching services because the location of the switch providing those services is not constrained (except by transport costs) by the location of the end user or the location of the wire center serving the end user. Thus, Dr. Bryant's discussion of location specificity seems more directed to the market for loop services than the market for switching services.

Q. DOES THE FACT THAT AT LEAST SOME CLECS MAY EVALUATE INVESTMENTS IN EACH WIRE CENTER TO DETERMINE THE POTENTIAL PROFITABILITY OF THESE INVESTMENTS IMPLY THAT EACH WIRE CENTER MUST BE A RELEVANT ECONOMIC MARKET?

A. No, it does not Any company evaluates discrete investments to determine their expected contribution to profits. The task in defining relevant markets goes beyond such simple evaluations to discern factors and information in the firm's decision-making process that may relate to economic substitutability. It is these factors and information (along with information about demand characteristics) that must be utilized in conjunction with economic principles and theory to enable the analyst to identify relevant economic markets. Thus, as I have emphasized in my testimony, relevant economic markets are determined based on demand- and supply-side substitutability. While substitutability can, in some instances, be informed by the nature and content of the financial analyses conducted by firms, the nature and content of these financial analyses are insufficient in and of themselves to establish the boundaries of relevant markets.

To understand this more fully, an example is useful Consider a gasoline retailer deciding whether to develop a new site for a retail outlet. The retailer will likely evaluate the potential contribution to profits of any individual site before deciding to expand its operations. However, the area served by any particular site bears no necessary relationship to the relevant geographic market for gasoline retailing.

Q. DR. BRYANT CONTENDS THAT THERE ARE COSTS THAT ARE NOT CAPTURED BY THE UNE RATE ZONE/CEA CONCEPT, AND THAT THESE COSTS SHOULD AFFECT THE MARKET DEFINITION. (BRYANT REBUTTAL 2-3) PLEASE RESPOND.

A. Dr. Bryant lists a number of features that may vary across different areas within the same geographic market, such as the number of addressable lines, the number of lines that are accessible by DSL or that are served by DLC, the relative number of business and residential lines, and customer demographics. While I do not seek to comment on all of the technical issues here, I will state that it is normally the case that different parts of the same economic market are not, and need not be, homogeneous in all respects

Moreover, not all of Dr. Bryant's items necessarily have to do with market definition. Some of his factors appear to have more to do with market structure. For example, an area with a large number of customer lines (or a large number of lines accessible by DSL) may allow *more firms* to economically enter than would an area with a smaller number of lines (that is, the area with more lines may allow more firms to achieve minimum efficient scale), but this variation would not necessarily be a factor in determining the geographic contours of the relevant market (or markets).

The UNE Rate Zone concept, as I understand it, is designed to capture the variation in the cost of the loops. To the extent that other costs or revenues vary systematically with UNE Rate Zone, they will also be accounted for, at least in part More importantly, from the perspective of supply-side substitutability, BellSouth's witness Wayne Gray has stated that some of the most important wire center-related cost factors for an efficient CLEC to consider in deciding whether to offer switched-based mass-market services are (1) loop costs, (2) transport costs and (3) collocation costs

The UNE Zone concept, of course, captures the variation in loop costs directly. Furthermore, Mr Gray has also stated that transport costs exhibit economies of scale and collocation costs do not vary much across different wire centers. Thus, wire centers with higher line densities and higher customer counts would tend, all other things being equal, to have lower per customer transport and collocation costs Since line counts and densities tend to higher in UNE Zone 1 than in UNE Zone 2 and in UNE Zone 2 than UNE Zone 3, the UNE Zone concept tends to capture at least some of the variation in per customer transport and collocation cost s across the State.

Finally, certain cost factors are not noted in Dr Bryant's list of factors. For example, he does not include the costs of marketing and advertising, which tend to support wider areas than wire centers as relevant economic markets.

My recommendation to define the market as the intersection of the UNE Rate Zone and the CEA is a reasonable "middle ground" attempt to balance both the community-of-interest aspect of, for example, marketing/advertising costs as well as some of the network-oriented cost factors that can influence substitutability in supply. Dr Bryant's definition appears to focus on some network-oriented factors that relate more to market structure than demand- or supply-substitutability, virtually ignoring such "community-of-interest" factors as mass-market marketing and advertising costs

III. RESPONSE TO MR. GILLAN

Q. MR. GILLAN CLAIMS THAT HE HAS "NEVER COME ACROSS ANY MENTION" OF CEAS (GILLAN REBUTTAL 9) AND THAT THEY "HAVE NOTHING TO DO WITH TELECOMMUNICATIONS." (GILLAN REBUTTAL 4, 9) PLEASE RESPOND.

A. Mr. Gillan may not be familiar with the term, but the FCC uses the CEA concept in connection with telecommunications According to 47 CFR 101.1401, multichannel video distribution and data service (MVDDS) was set to be licensed on the basis of CEAs. That rule stated in part that "Each CEA consists of a single economic node and the surrounding counties that are economically related to the node " In July 2003 the FCC ultimately decided to adopt a proprietary geographic area called "Designated Market Areas" ("DMAs") for licensing MVDDS (Third Report and Order, FCC ET Docket No. 98-206, FCC 03-152, Released July 7, 2003). In discussing its decision, the FCC found that, with regard to fixed (as opposed to wireless) services, "DMAs and CEAs are equally advantageous because they are both local in nature" (Third Report and Order, p. 4). Thus, the FCC recognizes the economic basis for markets defined using the CEA concept In addition, the FCC's Wireless Bureau provides some tools for those interested in bidding for wireless spectrum to map the CEAs as well as other geographic areas, such as MSAs. (These are found online at www.fcc.gov/oet/info/maps/areas/.) Thus, contrary to Mr. Gillan's assertions, the FCC considers CEAs to be useful for defining markets in telecommunications In any event, whether Mr Gillan is familiar with the CEA concept is hardly a reasonable basis for critiquing a proposed market definition A concept should be evaluated on its own merits, and not on whether a particular party happens to be familiar with the concept. In my opinion, the relevant consideration in this instance is whether the intersections of UNE Rate Zones and CEAs reasonably represent the relevant markets for the purposes of conducting the requisite impairment analyses.

Q. MR. GILLAN CLAIMS THAT CEAS ARE NOT THE BUREAU OF ECONOMIC ANALYSIS'S "FINAL PRODUCT" AND ARE NOT SUFFICIENTLY LARGE FOR THE BEA'S ECONOMIC PROJECTIONS. (GILLAN REBUTTAL 9) PLEASE COMMENT.

A. In making this claim, Mr Gillan confuses the different purposes of CEAs and the (generally) larger BEA "Economic Areas." As the article appended to Mr Gillan's rebuttal testimony ("Redefinition of the BEA Economic Areas," by Kenneth P.

Johnson, *Survey of Current Business*, February 1995, pp. 75-81) notes, CEAs were defined as "a single economic node and the surrounding counties that are economically related to the node " Thus, CEAs are not, in an economic sense, "middle step[s]" but rather defined areas with an economic community of interest. Most are defined with MSAs as their core. The CEAs were then combined into BEA Economic Areas so that "each economic area is economically large enough to be part of BEA's local area economic projections program." In other words, the BEA determined that, for the purposes of its own particular economic forecasts, many of the CEAs were too small to permit the development of reliable forecasts. However, this does not in any way undermine the economic rationale for using CEAs to define relevant geographic markets in this context In fact, if anything this usage may be supported by footnote 5 in the Johnson article, which states: "Data for CEAs can be used by government agencies for administering regulatory programs for small areas and by businesses for developing marketing programs for small areas."

Q. PLEASE COMMENT ON MR. GILLAN'S CRITIQUE OF UNE RATE ZONES. (GILLAN REBUTTAL 10.)

A Mr Gillan claims that UNE prices vary modestly between UNE-L and UNE-P and so UNE price variation has little effect on the relative ability of a CLEC to use its own switching (Gillan Rebuttal 10) However, this criticism ignores two important issues relevant to market definition First, of course, I have not defined markets *solely* on the basis of UNE Rate Zones. The rationale for my use of CEAs in conjunction with UNE Rate Zones was to account for factors that affect supply-side substitutability, including, but not limited to, the differences in loop costs captured by the intersection of UNE Rate Zones and CEAs, and also to recognize that there is a broader set of costs such as marketing and advertising costs that affect the relevant geographic scope of the market.

Second, the objective of the market definition exercise in this case is to provide an appropriate economic context in which to evaluate whether CLECs are impaired in offering switch-based services to mass-market customers, not to carry out a hypothetical comparison between UNE-L and UNE-P CLECs. As I noted in my comments on Dr. Bryant's testimony, this objective is relevant to the market definition exercise. For this reason, the fact that UNE prices do not vary significantly for UNE-L as compared with UNE-P is not an important consideration in market definition in this case What is important is that supply-side substitutability will likely be affected for CLECs offering UNE-L as a result of the differences in costs associated with offering service in different UNE Zones. Mr. Gillan's criticism appears to ignore this issue.

Q. PLEASE COMMENT ON THE USE OF LATAS IN DEFINING GEOGRAPHIC MARKETS.

A. LATAs, by themselves, are unlikely to represent relevant geographic markets because it is likely that they do not adequately reflect differences in supply substitutability. For example, there may not be reasonable substitutability in supply between UNE Zone 1 and UNE Zones 2 and 3 within a particular LATA. It is my understanding that LATAs, which were created by Judge Greene following the breakup of AT&T, correspond loosely to Standard Metropolitan Statistical Areas. An advantage of using UNE Rate Zones divided by CEAs rather than MSAs or LATAs (without reference to UNE Rate Zones) is that the UNE Rate Zone/CEA approach accounts for *both* differences in loop and other costs *and* for economies of scale and scope related to factors such as mass-market advertising costs.

IV. RESPONSE TO MR. KLICK

Q. MR. KLICK CLAIMS THAT "USE OF CEAS RESULTS IN A MARKET THAT IS TOO BROAD, ARTIFICIALLY INCREASING THE LIKELIHOOD THAT THE TRO'S TRIGGERS ARE MET." (KLICK REBUTTAL 21) PLEASE RESPOND.

A. Contrary to Mr Klick's claims, I did not recommend the use of CEAs, by themselves, as an appropriate market definition for assessing impairment in Tennessee. Instead, I recommend *UNE Rate Zones, subdivided by CEAs*, as an economically sound basis for defining geographic markets. The distinction is important, and Mr. Klick's arguments regarding CEAs, by themselves, are therefore not relevant to my analysis

I also note that Mr Klick apparently prefers the use of LATAs over the use of CEAs in conjunction with UNE Zones at least in part because the "use of CEAs results in a market that is too broad " (Klick Rebuttal 21) This is a curious preference since there are only five LATAs in Tennessee, but parts of 11 CEAs in the state. Thus, simple mathematics indicates that the average CEA in Tennessee must be substantially smaller in area than the average LATA. Therefore, it is clear that the average geographic market in terms of area for UNE Zones subdivided by CEAs in Tennessee must be smaller than the average geographic area of a LATA in that state (even if LATAs were subdivided by UNE Zones – see below) As a consequence, Mr. Klick's assertion in this instance is factually incorrect and his preference for LATAs, at least on this basis, is without foundation.

Finally, I note that Mr. Klick has provided an alternative market definition to the LATAs that he initially recommends He has suggested as an alternative to LATAs that the market might be defined as LATAs subdivided by UNE Zones (Klick Rebuttal 21). It is difficult to discern how these two substantially different market definitions set forth by Mr. Klick could result from the application of an economically-sound market definition methodology on his part.

Q. MR. KLICK ASSERTS THAT YOU HAVE PROVIDED NO RATIONALE FOR USING THE CEA CONCEPT AS PART OF THE METHODOLOGY YOU USE TO DEFINE RELEVANT MARKETS "OTHER THAN (1) IT RESULTS IN MARKETS THAT ARE MORE GRANULAR THAN RELYING ON UNE ZONES, ALONE, AND (2) CEAS COVER AN ENTIRE STATE." (KLICK REBUTTAL 19-20). PLEASE RESPOND.

A Mr Klick's assertion is not correct As I stated in my testimony, I defined relevant geographic markets in this case as UNE Zones subdivided by CEAs based on demand- and supply-side substitutability, the two paramount factors recognized by economists as the basis for market definition, and on the guidance provided by the FCC. It is certainly true that CEAs, in the aggregate, cover the entire state More importantly, CEAs provide a consistent, economic basis for subdividing the state into different areas This is one advantage of using CEAs as one element (the other being UNE Zones) of the methodology I used for developing the relevant geographic markets compared with using LATAs, as Mr. Klick prefers

Moreover, and more importantly, the CEA concept has particular applicability to developing relevant geographic markets because CEAs conform much more closely to media markets than MSAs or LATAs, two other concepts that have been proposed as bases for defining relevant markets in this case. Media markets are an important determinant of geographic market definition because the costs suppliers incur to obtain customers (which are related to marketing and promotional costs) are an important factor when CLECs decide whether to offer service in a particular area.

Q. MR. KLICK HAS SUGGESTED THAT LATAS ARE A MORE APPROPRIATE BASIS FOR DEFINING GEOGRAPHIC MARKETS IN THIS CASE THAN UNE ZONES SUBDIVIDED BY CEAS BECAUSE THE BELLSOUTH POTENTIAL DEPLOYMENT MODEL ASSUMES THAT A SWITCH IS PLACED IN EACH LATA. (KLICK REBUTTAL 20-21) PLEASE COMMENT.

A. Mr. Klick's view is erroneous in several respects. First, he is implicitly basing his market definition on the elements of the impairment analysis, not on economic substitutability and the FCC's guidance, which are the proper foundations for market definition analysis in this case Thus, Mr. Klick has implicitly turned the impairment analysis on its head – using information from the impairment analysis to define markets rather than using the geographic market definition as an input to the impairment analysis.

Second, he has based his view on the fact that the placement and geographic area served by a switch "reflect[s] the cost of self-provisioning switches for various groups of customers " (Klick Rebuttal 21) However, the purpose of the market definition task for impairment analysis is not to define the market for switches (an upstream input to the downstream service of interest), as Mr. Klick implies, but to define the market for the provision of telecommunications services, including local exchange services, to mass-market customers by carriers using self-provisioned switches. Thus, the placement of the switches themselves may provide useful information for defining the relevant market, but is not determinative for defining the appropriate relevant geographic market in this instance As an analogy, the placement of an oil refinery may be useful information in defining a relevant market for gasoline retailing, but the geographic area served by the refinery need not (and generally does not) correspond to the relevant geographic market(s) for gasoline retailing because other factors affect economic substitutability.

Third, to the extent that Mr. Klick implies that a geographic market must exhaust all sources of economies of scale and scope, he is incorrect as a matter of economics and, in my opinion, in relation to the guidance provided by the FCC in paragraph 495 of the TRO. If it were true that all economies of scale and scope must be exhausted in a market, then the coverage of CLEC billing systems, some of which are national in scope, would indicate that even larger markets than LATAs were required.

V. RESPONSE TO MR. BROWN

Q. MR. BROWN CLAIMS THAT "THE CEA IS A SPECIALIZED GEOGRAPHIC TERM APPLICABLE TO WIRELESS TECHNOLOGY." (BROWN REBUTTAL 17). PLEASE RESPOND.

A Mr. Brown is incorrect. While the CEA concept has been used by the FCC in the context of licensing wireless technology, the CEA concept was developed by the Bureau of Economic Analysis of the U S Department of Commerce for much broader applications than just defining geographic areas applicable to wireless technologies Indeed, the concept was developed for much broader applications than even just to telecommunications technologies in general. As I have noted, the CEA concept has been developed, among other things, for application to commercial and regulatory contexts. As I have also noted, because the CEA concept is closely related to media markets it has applicability in the context of developing relevant geographic markets for assessing the impairment of CLECs in providing mass market local telecommunications services using self-provisioned switching. In fact, Mr. Brown explicitly acknowledges the relationship of CEAs to media markets in his testimony (Brown Rebuttal 24), but fails to recognize the applicability of this relationship for defining markets in this context

Q. MR. BROWN CLAIMS THAT IN CHOOSING TO USE THE CEA AS ONE ELEMENT IN YOUR MARKET DEFINITION YOU TREATED BELLSOUTH "AS IF ITS LOCAL-CIRCUIT-SWITCHING-MARKET [SIC]

COVERS EVERY COUNTY IN TENNESSEE, WHEN IN FACT THE INCUMBENT DOES NOT PROVIDE LOCAL-CIRCUIT-SWITCHING EVERYWHERE IN TENNESSEE." (BROWN REBUTTAL 18. SEE ALSO BROWN REBUTTAL 29-30.) IS THIS CORRECT?

A No, it is not correct. First, it is important to note that I did not recommend, as is sometimes implied in Mr. Brown's testimony (e.g , Brown Rebuttal 23), the use of CEAs as the sole basis for defining relevant geographic markets in this case, but rather UNE Zones subdivided by CEAs. Second, as to the specific assertions made by Mr Brown regarding the extent of the BellSouth markets I defined, it is clear from Exhibit CJP-2 to my direct testimony in this matter that the BellSouth markets I define cover only those geographic areas in Tennessee where BellSouth provides local service. For this reason, the assertions Mr. Brown makes concerning administrative difficulties involved in using CEAs as an element of the market definition methodology (e.g., see Brown Rebuttal 33) are not relevant to the markets I have defined.

Q. MR. BROWN CLAIMS THAT YOU PROVIDED NO TESTIMONY CONCERNING "HOW SUBDIVIDING THE UNE ZONES BY THE CEA FULFILLS THE TRO'S MINIMUM MARKET SIZE REQUIREMENT STATED IN THE TRO." (BROWN REBUTTAL 18. SEE ALSO BROWN REBUTTAL 27.) PLEASE RESPOND.

A I noted in my testimony a number of factors, including economic principles and the guidance provided by the TRO, that I used to define the relevant geographic markets in this case. Among the specific factors I noted were the location of mass-market customers, the availability of scale and scope economies, and variation in loop rates.

Q. MR. BROWN ASSERTS THAT YOU DEFINED THE RELEVANT MARKETS IN TENNESSEE SPECIFICALLY TO ENSURE THAT "'DIFFERENT FINDINGS OF IMPAIRMENT' WILL RESULT" (BROWN REBUTTAL 19). DOES THIS ACCURATELY CHARACTERIZE THE MARKET DEFINITION TASK YOU UNDERTOOK?

A. No, it does not. I defined relevant geographic markets in Tennessee purely with regard to economic principles and the guidance provided by the FCC in its TRO I did not utilize any of the inputs or findings from the triggers analysis nor did I use the BACE model employed by BellSouth for its potential deployment analysis to define relevant markets. In fact, as I have stated on numerous occasions, the relevant markets must be defined prior to the conduct of the impairment analysis, both to conform to the requirements, as I understand them, of the TRO and to comport with sound economic principles. This is precisely the manner by which I conducted my market definition analysis

Q. MR. BROWN SEEMS TO IMPLY THAT MARKETS MUST BE DEFINED BASED ON THE GEOGRAPHIC AREA COVERED BY CLEC SWITCHES. (BROWN REBUTTAL 4). IS THIS AN APPROPRIATE BASIS FOR DEFINING A RELEVANT MARKET IN THIS CASE?

A. No As I noted in my comments on Mr Klick's testimony, such an assertion rests on a fundamental confusion between the relevant geographic markets appropriate in this instance – that is for the impairment analysis – and the market for switches. They are not the same markets, just as the geographic markets for refining crude oil into gasoline are not the same as the retail geographic markets for gasoline Part of this confusion on the part of Mr. Brown may stem from a view that markets must be defined so that all scale and scope economies are exhausted (Brown Rebuttal 35). However, neither the guidance provided by the FCC in the TRO nor sound economic principles require that all scale economies be exhausted at the geographic boundaries of the relevant market Indeed, the economic principle of paramount importance is that of economic substitutability. While the existence of scale and scope economies will affect economic substitutability, they are just two of the factors that must be taken into account.

VI. RESPONSE TO MR. BRADBURY

Q. MR. BRADBURY CLAIMS THAT YOU MAKE AN "OUTLANDISH [CLAIM] THAT THE WIRE CENTER CONCEPT HAS NO MEANING

AND THAT WHERE THE CUSTOMER IS LOCATED IS UNNECESSARY INFORMATION IN DETERMINING WHETHER CLECS CAN USE THEIR OWN SWITCHING FACILITIES TO ECONOMICALLY AND EFFICIENTLY SERVE MASS MARKET CUSTOMERS." (BRADBURY REBUTTAL 19.) PLEASE RESPOND.

A. Mr. Bradbury's immediately preceding discussion on CLEC network architecture is consistent with my own discussion and supports my own analysis. Furthermore, I did not claim in my direct testimony that the "wire center concept has no meaning." Indeed, as Mr Bradbury is apparently aware based on his quotation of my direct testimony, what I actually stated was "Therefore, the wire center concept is not relevant to market definition in this context, and specifically not economically relevant in terms of how CLECs provision services to their end users." In my opinion, Mr Bradbury's testimony on CLEC network architecture supports my views regarding the relevance of wire center boundaries to geographic market definition in this instance. I note that Mr. Bradbury leads off his discussion on network architecture by acknowledging that CLEC networks are not configured in the same manner as BellSouth's network. He specifically states that, compared to the traditional (BellSouth) network, CLECs are able to use fewer switches than does BellSouth to provide service to a particular geographic area. It is precisely this point – i.e., that AT&T has chosen a network architecture approach different from

BellSouth's approach (e g., to serve customers in a wider geographic area with a single switch) – that I make in my own direct testimony

I conclude that this fact provides evidence that the geographic market definition in Tennessee should not be based on the BellSouth wire center boundaries because the switch-based CLEC's decision to offer service in a geographic area is not limited by the area covered by the BellSouth wire center. The reason is that AT&T (or any CLEC) is not obligated to install a separate switch to customers in the different wire centers where it offers (or could offer) switch-based services. One of the principles that I refer to frequently herein and in my previously filed testimony in this matter is that supply substitutability is an important determinant of geographic market definition. The fact that CLECs such as AT&T are capable of serving customers in multiple wire centers from a single switching location is one indicator that using the boundaries of individual wire centers as the basis for geographic market definition is inappropriate because it does not consider supply-side substitutability (e g., because CLECs are able to take advantage of scale and scope economies, including switching, that allow them to serve much larger areas than an individual wire center).

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes.

BELLSOUTH TELECOMMUNICATIONS, INC.

SURREBUTTAL TESTIMONY OF JAMES W. STEGEMAN

BEFORE THE TENNESSEE REGULATORY AUTHORITY

DOCKET NUMBER 03-00491

MARCH 17, 2004

Section 1 **INTRODUCTION**

Q. PLEASE STATE YOUR NAME AND BUSINESS AFFILIATION.

A. My name is James W. Stegeman. I am the President of CostQuest Associates, Inc. I am testifying on behalf of BellSouth Telecommunications ("BellSouth", "BST" or the "Company")

Q. ARE YOU THE SAME JAMES W. STEGEMAN THAT FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes. In my direct testimony I described the BACE model used for evaluations of economic impairment

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A I respond to the rebuttal testimony of Dr Mark Bryant and Mr. James Webber (MCI), Dr. Steve Brown representing the Consumer Advocate and Protection

Division, Office of the Attorney General of the State of Tennessee, and Mr. Don Wood and Mr. John Klick (AT&T). Each of these witnesses addresses the BACE model in their rebuttal testimony My surrebuttal is confined to issues related to the operations and methods of the BACE model itself, Drs. Aron and Billingsley will primarily respond to issues relating to BACE model inputs and interpretation of the results

Q. HOW IS YOUR SURREBUTTAL TESTIMONY ORGANIZED?

A. I have divided my surrebuttal testimony into six sections:

1) Introduction.
2) The BACE model is open to review, structurally sound, and is a valid TRO potential deployment tool
3) The rebuttal by CLECs concerning BACE is inconsistent and contradictory.
4) Clarification of BACE features and misinterpretations of BACE
5) Additional Rebuttal of Mr. Wood
6) BACE is clearly superior to AT&T's model in meeting the requirements of the TRO and criteria discussed by Mr. Wood.

Section 2. **<u>THE BACE MODEL IS OPEN TO REVIEW, STRUCTURALLY SOUND, AND IS A VALID TRO POTENTIAL DEPLOYMENT TOOL</u>**

Q. HAVE ANY WITNESSES CLAIMED THAT BACE IS NOT OPEN TO REVIEW?

A. Yes, Mr. Wood (page 24, lines 12-14), Dr Bryant (page 25, lines 15-18, and page 27, line 21 to page 28, line 2), and Mr Klick (page 3, section heading II) claim that BACE is not sufficiently open to allow a full review and analysis of the model

Q. DO YOU AGREE ON THESE PARTIES' ASSESSMENT OF THE OPENNESS OF BACE?

A. No. BACE and the supporting material provided with BACE will allow even a casual user to review the model Indeed, BACE and the supporting material provided with BACE will allow any seasoned, telecommunications modeler the ability to review the inputs, review the logic, review the calculations, and verify the output.

Q. PLEASE DESCRIBE HOW PARTIES CAN REVIEW THE BACE MODEL.

A. My direct testimony included several capabilities to aid the user in evaluating BACE, including.

1 A detailed Users Guide (Exhibit JWS-2);

2. A detailed Methods Manual (Exhibit JWS-3);

3. A data dictionary and table layout (contained within the Methods Manual); and ,

4 Printable, BACE calculation logic source code for BACE version 2 2 (Exhibit JWS-4).

Q. WHAT OTHER MEANS TO EVALUATE BACE HAVE BEEN PROVIDED TO PARTIES?

A. There are several.

1) BellSouth offers, at no charge, BACE model support, by telephone and email.

2) I was a key presenter at public workshops on the model at the November 2003 NARUC meetings.

3) I also presented information on the model at the Kentucky Commission on December 3rd, the Florida Commission on December 4, 2003, and at other venues in the BellSouth territory. Many of the CLECs that are actively participating in this docket attended some of these workshops.

4) Through counsel, parties were provided with access to BACE before my direct testimony was filed and without the need for a formal discovery request. Specifically, the link to the CostQuest website was forwarded electronically to AT&T on November 27, 2003 and to MCI on December 2, 2003 This version of BACE was substantively the same as the version of BACE filed with my direct testimony

5) The majority of inputs (all non-proprietary inputs) are user adjustable so that changes can be made to test impacts and sensitivities; and various scenarios

can be run either through the wizard or by modifying inputs and creating scenarios directly.

Q. HAVE YOU TAKEN ANY OTHER STEPS TO PROVIDE FULL ACCESS TO BACE?

A. Yes, I have With my direct testimony I filed a version of the BACE model in which there is a linked database file (the file name is "Scenario"_Intermediate MDB which resides in the "Scenario" folder) that allows the user to view non-sensitive intermediate processing tables for scenarios based upon the proprietary BellSouth customer data.

The BACE source code (for BACE version 2 0) was first provided to the parties (in a version that could be read on-screen) in the Florida proceeding on December 23, 2003

In discovery in Florida, on January 22, 2004 BellSouth filed supplemental responses to Staff's Third Set of Interrogatories, which responses included PDF versions of the proprietary BACE tables for all nine BellSouth states, including Tennessee. MCI, and AT&T received copies of these responses, which contain information that applies regionally in the context of the state TRO proceedings.

In discovery in Florida, on January 23, 2004, BellSouth filed supplemental responses to Sprint's First Request for Production of Documents, which included a BACE Demonstration scenario ("Demo") that is fully open for review by any party and which MCI and AT&T received copies of. The processed Demo scenario (including all input and processed BACE tables) is also fully accessible. It is intended to allow a user to see how the model processes from input data to intermediate processing tables to final values (The price and customer demand "data" in the BACE Demo is for illustrative purposes only and should not be interpreted or construed to reflect values for any particular geographic area. However, the user controlled input data in the BACE Demo is representative of the inputs filed by BellSouth).

With the above mentioned material, the user can review the structure of the system, all tables (input and processed), and follow the processing of the model much in the same way as I (and my team) have in developing, testing and refining BACE. And, all of these resources were available at least four weeks prior (and some were available three months prior) to the filing date of rebuttal testimony in Tennessee, yet Mr. Klick, Dr Bryant and Mr Wood still claim that their access to the model has been impeded in some way.

Finally, at the request of a party to the proceedings in Florida (the party is not involved in the Tennessee proceedings), BellSouth has made the complete editable source code of the BACE model available for review by all parties at its offices upon request. To date, none of the parties in this proceeding has availed itself to the access provided by BellSouth In short, claims that the BACE model is not sufficiently "open" are simply not credible

Q. ARE THERE ANY OTHER AVENUES FOR A USER TO RECEIVE SUPPORT ON BACE?

A. Yes I am available to answer questions. In fact, parties in the Florida and South Carolina proceedings have called me and my team repeatedly as they worked through the code and the tables This is not the case for parties to this proceeding here in Tennessee In my opinion, it is easier and more productive to address an issue or question in an open manner rather than making accusations in testimony.

Q. YOU HAVE FILED THE DEMONSTRATION SCENARIO. CAN THIS BE USED TO VERIFY THE SYSTEM?

A. Yes In creating systems, developers recognize that a test dataset (designed to test various conditions within the model) is an invaluable and well known approach in testing complex models and the formulas / algorithms within. As such, we released the Demonstration scenario to allow others to test BACE in the same manner as it has been tested by me and my team. That is, the user can run the system, follow the processing, verify each formula / algorithm, and be reassured that the full "production" model will produce reliable results

Q. THE DEMONSTRATION SCENARIO PROVIDED TO THE CLECS IN DISCOVERY IN FLORIDA DOES NOT HAVE ACTUAL PRICE AND CUSTOMER DEMAND DATA (NO ACTUAL DATA SPECIFIC TO ANY STATE). WHY ARE CERTAIN TABLES AND INTERMEDIATE

RESULTS STILL LOCKED FROM THE USERS' VIEW IN THE FULL BACE MODEL WITH ACTUAL DATA?

A. Mr. Klick complains (rebuttal page 9, lines 3-4) that the user can't view or alter the underlying exchange demographics nor the Baseline Demand tables. However, BACE, unlike the AT&T Model (which contains <u>no</u> revenue information and no Tennessee-specific product demand and customer counts) uses a proprietary database containing commercially sensitive and valuable information. Naturally, this data has to be protected. My objective in developing BACE was to make the model as open and easy to use, review, and evaluate, while still protecting this granular, sensitive and powerful data. Certainly, with the additional filed material (filed in my direct and rebuttal testimony and in responses to discovery), BACE users have more than adequate opportunities to use, review and evaluate the model.

Q. WITHIN THE FILED BELLSOUTH SCENARIO, ARE THERE INPUTS THAT <u>CANNOT</u> BE MODIFIED BY THE USER IN BACE?

A. The user cannot modify the initial input values for market prices and quantities. These "locked" quantities include both the total number of customers and the number of each product category sold. However, the user has the ability to control modeled CLEC prices via the CLEC price discount and the bundle price inputs. These additional tables were created specifically to allow the user to control a la carte and bundle prices. The user also can control the CLEC quantities via the CLEC market penetration inputs The user can also change prices, price discounts and penetration over time

Q. WHY CAN'T THE USER DIRECTLY VIEW (AS MR. KLICK WOULD PREFER) AND MODIFY THE UNDERLYING MARKET PRICE AND QUANTITY INPUTS?

A. The underlying market price and quantity information is proprietary and commercially sensitive. It is not possible to protect this proprietary information and still allow the user to change it As a result, we designed BACE to provide the user the ability to create CLEC prices and quantities without adjusting the underlying data. The TRO requirement for granularity implies the need to examine a modeling trade-off between allowing the user to change every possible input and having a model that uses this granular, proprietary data. The clearly superior choice is to use proprietary data and provide other methods for the user to obtain modeled CLEC prices and quantities.

Q. DO YOU HAVE ANY ADDITIONAL RESPONSE TO MR. WOOD'S AND MR. KLICK'S SUGGESTIONS THAT EDITABLE SOURCE CODE IS REQUIRED FOR A REVIEW OF A MODEL?

A. Yes. Mr. Wood's claim (rebuttal page 4, lines 10-12) and Mr Klick's claim (rebuttal page 5, line 17 to page 6, line 5) that editable source code is required to review BACE is misleading for several reasons. First, as the primary designer, debugger, and developer of the code, I do not have the editable version of the source code (and have never had it). I have a word processor document (similar to a PDF) that I use to analyze the code in conjunction with the ability to review the intermediate tables

Second, in contrast to what Mr. Klick implies, editable source code for all key components of telecommunications models typically have not been provided to parties in a format allowing the user to make code changes. For example, the FCC's HCPM, and AT&T's sponsored HAI and original Hatfield models, which rely on customer data developed by PNR/TNS Telecom, have never provided editable source code for the development of the key customer data to parties. Parties were permitted to visit a PNR/TNS site and use the PNR/TNS computers to review the intermediate outputs of their processes. However, parties were not allowed to review the code. In addition, any party making such a visit was precluded from copying anything, leaving with any material, and were charged a fee by PNR/TNS for the use of computers.

Similarly, consider the telecommunications model BCPM. This was a joint project of BellSouth, Sprint and USWest. It was written in Excel, VBA and C++ While the Excel and VBA programming were available to users, only a Word® document of the C++ code (which created the clustered customer data) was provided to parties.

Third, the source code for the BSTLM, a model that was used by the Authority in recent BellSouth UNE proceedings, was released in PDF form, i e., in the same format that BACE source code was provided to the other parties in this proceeding.

Fourth, contrary to Mr. Klick's statements and as noted previously in this surrebuttal testimony, the BACE calculation source code is available, printable and readable, and BACE files have been opened so that any party can review the BACE model. To my knowledge, neither Mr. Klick nor Mr. Wood, nor Dr. Bryant has ever asked for additional access to the BACE source code.

Q. EVEN THOUGH THE SOURCE CODE IS NOT REQUIRED TO REVIEW BACE, HAS BELLSOUTH MADE AN EDITABLE, COMPILABLE VERSION OF ALL SOURCE CODE AVAILABLE FOR PARTIES TO INVESTIGATE?

A. Yes As mentioned above, in connection with the Florida proceeding, BellSouth has made available the editable BACE source code on a machine at BellSouth's offices AT&T and MCI were parties to the Florida proceeding and were aware of the fact that BellSouth had made the editable BACE source code available. Not only does this computer contain the editable source code for the calculation engine, it contains all the input and processing tables in an open format (i.e , passwords are either removed or provided) and the source code for the User Interface executable file and Table Utility executable file. The last two source code files have no calculation functions, but are provided for completeness

While parties are only able to use the code on site, they have full access to all BACE processing logic in an editable form that they can modify, compile, run and analyze the results. In addition, all tables within BACE, including proprietary data, have been left unprotected BellSouth will make this computer available at other BellSouth offices for additional review, if requested (as it has by making it available at its Washington D C. office). To date, none of the witnesses in this proceeding has requested such access. With the provision of this source code and all the BACE input and processing tables, it makes the issue of source code availability and access to locked tables a moot issue in this proceeding.

I should note that even with this provision of all source code and data, Mr. Klick, to the best of my knowledge, has not availed himself of access to the BACE model, which he claims to be so critical to validate its results.

Q. MR. KLICK CLAIMS (REBUTTAL FOOTNOTE 1, PAGE 14) THAT "IF THE CODE IS PRODUCED AS SPRINT REQUESTED [IN FLORIDA], WE INTEND TO USE IT..." PLEASE RESPOND TO THIS CLAIM.

A. First, it bears repeating that, to my knowledge, neither AT&T nor Mr. Klick have requested access to the editable version of the source code. If access to the source code in an editable version is so vital to AT&T's review, I would expect that AT&T and its consultants would have availed themselves of any avenue to the source code at any point in time from the time they first gained access to BACE in November of 2003 and the source code in December of 2003. It appears that it is better for AT&T to complain about access to the source code than to actually gain access to it

In regard to the Sprint request in Florida, I think it is useful to put it in perspective.

In late December 2003, I placed the PDF version of the BACE source code on the CostQuest website I provided the proprietary password to access that website to BellSouth. My understanding was that both AT&T and Sprint had informally requested the BACE source code and that website access would be provided so that the parties could review the source code. Additionally, with my direct testimony, I provided a printable, PDF copy of the source code for the version of BACE that was filed in this proceeding (Exhibit JWS-4).

In mid-January 2004, I received data requests from Sprint. These data requests included a request for the editable version of the BACE source code. To my knowledge, there was no comparable request from AT&T. Thereafter, on January 30, 2004, I understand that BellSouth offered to make an editable version of the BACE model available at a BellSouth location. I have learned that this offer was emphatically rejected by Sprint witnesses during a conference call between BellSouth, the Florida Commission staff, and Sprint. While I did not personally participate in the conference call, I was available in case my participation in the call was needed.

BellSouth reiterated its offer to make the editable version of the BACE source code available in early February 2004. I personally arranged for a computer with editable source code to be sent to BellSouth's Tallahassee office The computer was delivered to Tallahassee and available on February 13, 2004.

Despite the fact that the editable form of the BACE source code has been provided, no representative of AT&T, to the best of my knowledge, has "used it". Indeed, the computer with the editable version of BACE is currently in the BellSouth office in Washington, D.C , which is not far from Mr. Klick's business address).

It appears that it is better for Mr. Klick (and Mr. Wood) to complain that they do not have access to an editable version of BACE than to request the access that has been available for sometime. Their complaints are analogous to customers sitting in a restaurant, with a full country breakfast placed before them on the table (sufficient to satisfy even the heartiest rational hunger), complaining that they never received the Eggs Benedict when (after more careful scrutiny) the Eggs Benedict was on the menu all along and they simply never bothered to order it.

Q. **IN ADDITION TO AT&T'S FAILURE TO AVAIL ITSELF OF THE EDITABLE BACE SOURCE CODE, DOES ANYTHING ELSE APPEAR DISINGENUOUS ABOUT AT&T'S DISCUSSION OF LIMITATIONS TO THE ANALYSIS OF BACE?**

A Yes. First, Mr. Wood does not cite a single Tennessee BACE result.

Second, it appears that Mr Klick formulated his opinions regarding BACE before he ever attempted to run the model. It is noteworthy that his rebuttal testimony filed in Tennessee is substantially similar (in the first 30 pages) to that first filed in North Carolina on February 16, 2003 In his Tennessee rebuttal he added (Tennessee rebuttal page 41, line7-9): "understanding sensitivity studies is an important initial step in seeking to understand how a model works .. " However, when Mr. Klick filed his substantially similar North Carolina rebuttal testimony, on February 16, 2003, he did not file a single BACE result, and he had apparently not run the BACE model, or certainly he had not performed the "important initial step in seeking to understand how [BACE] works." Therefore, even without running BACE or taking this important initial step, Mr. Klick's opinions were apparently already formed.

Q. HAS AT&T HAD AMPLE OPPORTUNITIES TO REVIEW AND RUN BACE?

A. Yes AT&T attended the NARUC meeting in November and attended a number of workshop presentations on the BACE model, mentioned above. As I noted earlier, the link to the CostQuest website was forwarded electronically to AT&T on November 27, 2003. AT&T was a party to the Florida proceeding where it received a copy of the BACE model with Florida data on December 4, 2003. AT&T also attended some of the BACE presentations to state commissions in early December And finally, the BACE source code is available in PDF format, a demonstration scenario (including all with all input and processed BACE tables) is available, and the editable version of the model is available.

As I noted earlier, AT&T did not request an editable version of the BACE model, and has not availed itself of the opportunity to use the editable version of the BACE model

Q. **IS IT NECESSARY TO HAVE TENNESSEE-SPECIFIC INPUT DATA TO EVALUATE BACE AS A MODEL?**

A. Certainly not. As I indicated earlier, AT&T could evaluate BACE as a model with the demonstration data, or data from another state (recall that BACE was formally filed in Florida originally on December 4, 2003). While the evaluation of impairment in Tennessee obviously must rely upon a granular analysis of Tennessee data, the model itself can be reviewed with the data from another state (or the sample data in the BACE demo).

Q. **MR. KLICK SUGGESTS (REBUTTAL PAGE 5, LINES 12-17) THAT MANY OF THE BACE TABLES ARE INACCESSIBLE TO THE USER. DO YOU AGREE?**

A. No, quite the contrary. As originally filed, 45 of 48 input Access Tables in BACE were open to any user Of the three tables that are protected, PDF versions of the data have been made available to the parties through discovery in Florida. In addition to the PDF versions of the three tables, the user can control how these three protected tables are used via the use of the other 45 tables. Finally, with the use of the Demonstration scenario or the source code machine at BellSouth's site, all tables are open for review.

Q. MR. KLICK (REBUTTAL PAGES 6-7) SUGGESTS THAT THE OUTPUT TABLE FOR THE P-PROCESS IS UNAVAILABLE. IS THERE A TECHNIQUE TO REVIEW THE PMASTER RESULTS RECORDS?

A. Yes. While not labeled as such, the contents of PMaster are available through the Reporting screen of BACE. To access the PMaster file, the user would select "Price" as the "Report Data Source" on the Report screen of BACE.

Additionally, the BACE demonstration scenario provided as a supplemental discovery response in Florida and the source code machine on BellSouth's site, opens all intermediate tables are to user review, including table PMaster.

Q. ON PAGE 9, LINE 6, OF HIS REBUTTAL TESTIMONY MR. KLICK STATES THAT "THE QMASTER RESULTS TABLE IS UNAVAILABLE FOR REVIEW AND EVALUATION". IS THERE A TECHNIQUE TO VIEW QUANTITY RECORDS?

A. Yes. The Quantity contents of QMaster are available through the Reporting screen of BACE. These Quantity records are contained within RMaster, but are post optimization. To access the Quantity contents of the RMaster file, the user would select "Quantity and Customer Counts" as the "Report Data Source" on the

Report screen of BACE Also, the Demonstration database and the source code machine on BellSouth's site allows the user to open intermediate results tables, including table QMaster

In addition, it appears that other parties in the Florida mass market switching proceeding (referenced by Mr. Klick) were able to utilize the quantities in BACE since the Florida rebuttal testimony filed January 7, 2004 included exhibits with line quantity counts by year by wire center.

Q. ON PAGE 10 MR. KLICK STATES THAT "THE RMASTER OUTPUT TABLE, IS ALSO UNAVAILABLE FOR EXTERNAL REVIEW ..." IS THERE A TECHNIQUE TO VIEW THE RMASTER DATA?

A. Yes. As noted above, the post optimization Quantity contents of RMaster are available from the reporting screen. In addition, the revenue contents of RMaster, post optimization, are available through the use of the Reporting screen of BACE. To access this revenue data, the user would select "Revenue and Cost" as the "Report Data Source" on the Report screen of BACE and select "Rev" as the "Account Category" as the filter. Also the Demonstration database and the source code machine on BellSouth's site allows the user to open intermediate results tables, including table RMaster

Q. MR. KLICK (REBUTTAL PAGE 16) CITES TWO (OF TEN) OF THE FCC'S UNIVERSAL SERVICE COST MODEL REQUIREMENTS. DOES BACE SATISFY THESE TWO REQUIREMENTS?

A Yes it does, even though BACE is not a universal service cost model and these criteria, to the best of my knowledge, have not been noted as a requirement of impairment models by the FCC. As I described above, BACE is open to review and evaluation. In addition, during my deposition in Florida (which Mr. Klick cites in his rebuttal testimony on page 50) I explained how BACE met the FCC's universal service criteria number eight (deposition transcript, page 102-3)

In addition, BACE satisfies the FCC's requirement number nine. The user has the ability to modify the critical assumptions and engineering principles such as the cost of capital, depreciation rates, fill factors, input costs, overhead adjustments, retail costs, etc.

Q. MR. KLICK CLAIMS (REBUTTAL PAGE 3, LINES 7-8) THAT HE "DESCRIBES A SERIES OF ANOMOLOUS RESULTS" FROM BACE, WHILE MR. WOOD (REBUTTAL PAGE 4, LINE 10 AND PAGE 7, LINES 8-10) SUGGESTS THAT BACE IS STRUCTURALLY LIMITED AND PRODUCES INCONSISTENT RESULTS. WHAT IS YOUR RESPONSE?

A. While some of the parties have identified what they may believe are unusual results (which I will describe later in my testimony), there is nothing in the testimony of Mr. Klick, Mr. Webber, Mr Wood, or Dr. Bryant that indicates anyone has identified any significant errors, in the model output, model platform or model operations. Outside of misunderstandings of the operations of BACE and misunderstandings of the allocations of indirect costs and corporate taxes across geographic areas within BACE, the majority of the issues that have been raised in regard to BACE and its output are related to input values not BACE algorithms. In fact, Dr. Bryant states (page 28 lines 3-4 of his Rebuttal): "I cannot fault the general approach outlined in Mr. Stegeman's testimony and in the model documentation."

In addition, BellSouth posed the interrogatory question to AT&T in Florida: "Do you contend that there are any errors or flaws in the BACE model? AT&T responded. "AT&T has made no such contention." (AT&T's Response to BellSouth's Sixth Set of Interrogatories, Interrogatory 240, dated January 16, 2004).

Q. DESPITE CRITICISMS, HAVE OTHER WITNESSES USED BACE TO SUPPORT THEIR POSITIONS?

A. Yes. While some of the reviewers claim that BACE is flawed, the reviewers do not seem to have a problem in using the model, with inputs of their choice, to support their own positions. For example, Mr Wood claims (rebuttal page 4, line 13) albeit without providing any information (e.g., BACE results) by which to assess either type of claim: "it is impossible in many cases to populate the model with meaningful input values" and (rebuttal page 24, lines 12-16) "I have not been able to determine whether the model calculations are accurate ..renders the results unreliable " Yet on page 21, lines 20 and 21 he states "When inputs and assumptions are used that do reflect such reasonable judgment, the <u>results of the</u>

BACE indicate that a rational CLEC . . " and at page 10, line 8: "As BellSouth's BACE model can be used to demonstrate . . . ." (emphasis added).

It appears that Mr. Wood populated the model with (what he considers to be) meaningful inputs and the results were reliable (unless he is indicating that his inputs and results are not meaningful or reliable). Alternatively, he has concluded, albeit in a circular fashion, that the only reliable and meaningful inputs are those that show impairment in every wire center in Tennessee. In either case, his approach appears self-serving.

Further, Mr Klick describes in his rebuttal (page 36, line 21) the BACE results from one of his sensitivity runs "causing all markets to be 'impaired'".

Q. MR. WOOD CLAIMS (PAGE 7, LINES 7-10 OF HIS REBUTTAL) THE MODEL IS NOT STABLE AND DOES NOT PRODUCE CONSISTENT RESULTS? IS THIS CLAIM TRUE?

A. Not at all. I will focus specifically upon Mr Wood in more detail later in this testimony. However, Mr Wood's accusation is unsupported and unjustified.

Q. DID YOU MAKE ANY MODIFICATIONS TO BACE WITH YOUR SUPPLEMENTAL DIRECT FILING TO ENSURE IT PROVIDES THE MOST ACCURATE INFORMATION?

A Yes I did. However, it was not a change to the BACE model but rather it was a change to the BellSouth filed scenario (Exhibit JWS-6). As an initial matter, I remain committed to submitting the best possible model to the TRA. This means that any substantive modifications will be made, if necessary, to present the most accurate version of BACE.

Q. MR. KLICK CLAIMS (REBUTTAL PAGE 14, LINES 18-20) THAT THE BACE SOURCE CODE IS INCOMPLETE. IS HE CORRECT?

A. No. At page 15 Mr. Klick lists functions and subroutines that are referenced or called by the BACE source code, but which have not been provided by BellSouth. These are housekeeping/interface functions or utility functions that do not affect the underlying calculations in BACE. To ask for these is a bit like asking Mr. Turner (AT&T) for the underlying source code for Excel to review how Excel works.

However, to ensure that that all parties have access to material that may be relevant (even though these functions are not relevant to the calculations in BACE), I have provided as exhibit JWS-7 and JWS-8 the source code for these functions

Q. MR. KLICK STATES (REBUTTAL PAGE 18, LINES 3-5) "THIS ASYMMETRY OF INFORMATION ABOUT THE BACE MODEL CREATES AN ENVIRONMENT IN WHICH ERROR CORRECTION

COULD TEND TO GO ONLY IN THE DIRECTION OF THE MODEL PROPONENT." DO YOU HAVE ANY COMMENT?

A. Yes. First, there is not a significant asymmetry of information. AT&T has access to virtually the same information that I do in developing and evaluating BACE.

Second, the errors discovered and corrected in BACE have not gone in the direction that would support BellSouth's claim of non-impairment. For example, the most recent update to data used in this proceeding, the Florida proceeding, and the Georgia proceeding increased the transport costs that are reported and thereby reduced the NPV values in all markets

Third, as the model developer I have a responsibility to produce an economic evaluation tool that is sound and satisfies the TRO As I stated earlier, I remain committed to submitting the best possible model to the Authority. In contrast, Mr. Klick did not develop a model and does not have the same scope of responsibilities that I have. It appears, based on the implication of his testimony at page 18, that if Mr Klick were to discover an error in BACE that worked in favor of BellSouth, perhaps he would not bring it to the attention of the Authority or BellSouth. Indeed, in Mr Klick's discussion of the input dimension of the BACE model there is already some evidence to this effect. Mr. Klick describes telecommunications cost reductions as part of the reason why he expects price reductions. However, in Mr. Klick's sensitivity analysis, he applies a 1% annual and 15% initial price reductions but asymmetrically he does not include the corresponding cost reductions he himself states would accompany these very same price declines

Q. MR. KLICK CITES THE TESTIMONY OF KENT DICKERSON IN FLORIDA. DO YOU HAVE ANY COMMENT?

A. While I am not an attorney and I am not offering a legal opinion in this regard I do have a comment. While Mr Klick may feel compelled to rely upon the testimony of others in other jurisdictions, Sprint is not a party in this proceeding and Mr Dickerson (unlike myself) will not be available for cross examination here in Tennessee

Should the Authority decide to consider the testimony of Mr Dickerson, I would expect that the Authority would also consider the surrebuttal testimony I filed in Florida as well as the surrebuttal testimony of Drs Aron and Billingsley filed in Florida.

Q. ARE THERE ANY OTHER AREAS OF BACE MISUNDERSTANDING EXHIBITED BY MR. KLICK?

A. Yes. At times, it appears that Mr. Klick confuses the BACE model with issues regarding the choice of BACE inputs For example, Mr Klick cites (rebuttal page 42, line 10) "Mr. Stegeman's results", however I do not sponsor results in my direct testimony, I only sponsored the BACE model, its documentation, and materials useful for evaluation of the model. Mr. Klick claims "BellSouth's

BACE model assumes that the CLECs will not serve geographic areas that are not profitable" (rebuttal page 37, pages 9-10). This is incorrect. Here he has confused user adjustable optimization inputs with the BACE model itself.

Section 3. <u>**THE REBUTTAL BY CLECS CONCERNING BACE IS INCONSISTENT AND CONTRADICTORY**</u>

Q. EARLIER YOU STATED THAT THE REBUTTAL TESTIMONY BY THE CLEC WITNESSES IS INCONSISTENT AND CONTRADICTORY REGARDING BACE. PLEASE EXPLAIN THIS STATEMENT.

A There are four major areas of inconsistency and contradiction: 1) whether the fundamental BACE approach is reasonable; 2) whether BACE is sensitive or insensitive to changes in inputs; 3) whether BACE optimization should be utilized, and, 4) which inputs are appropriate. I address the first three items in my testimony. With respect to inputs, these will be addressed in the testimony of other BellSouth witnesses such as Drs. Aron and Billingsley

Q. WHAT INCONSISTENCIES EXIST IN THE CLEC WITNESSES' TESTIMONY REGARDING THE FUNDAMENTAL APPROACH UTILIZED BY BACE?

A. Mr. Wood makes vague and unsubstantiated claims about the appropriateness of BACE. For example, he states. "the structural limitations of the model cannot be corrected " (Wood rebuttal, page 4, line 10) and "I have been able to determine that the model does not consider all barriers to entry, . ." (Wood rebuttal page 24, lines 14-15).

In contrast, Dr. Bryant states: "... with one or two exceptions that I discuss below, I cannot fault the general approach outlined in Mr Stegeman's testimony and in the model documentation, .. " (Bryant rebuttal, page 28, lines 2-4) And, ". . I do not disagree with the general approach to estimating CLEC profitability outlined in Dr Aron's and Mr Stegeman's testimony." (Bryant rebuttal, page 31, lines 17-19)

Q. WHAT INCONSISTENCIES EXIST IN DISCUSSIONS OF WHETHER BACE IS SENSITIVE OR INSENSITIVE TO CHANGES IN INPUTS?

A. Mr. Wood claims that even slight changes to key inputs yield drastically different results (Wood rebuttal, page 20, lines 15-18). Mr. Klick (rebuttal, page 36, line 21) claims that a 15 percent reduction in retail prices for year 1 causes "all markets to be 'impaired'". In contrast, Dr. Bryant was "surprised by how insensitive the model's outputs are to model inputs " (Bryant rebuttal, page 26, line 2).

Q. **IS IT POSSIBLE TO ASSESS MR. WOOD'S CLAIM THAT SLIGHT CHANGES TO INPUTS YIELD DRASTICALLY DIFFERENT RESULTS?**

A. No Like much of Mr Wood's testimony regarding BACE, this is an unsubstantiated assertion. Unlike Dr. Bryant reviewing BACE, Mr Wood does not cite or provide even a single numerical result from BACE. Moreover, as I noted earlier, Mr Wood only suggests one input change with any specificity. That change is the suggested 5.1% annual price change (based on a review of long distance prices 1984-1993). Even in this case, he does not specify whether he would apply this change to the default input values (which already reflect price reductions below existing prices).

Q. **WHAT INCONSISTENCIES EXIST ACROSS THE PARTIES IN DISCUSSIONS OF WHETHER THE BACE OPTIMIZATION ROUTINES SHOULD BE UTILIZED?**

A. Mr. Wood appears to believe that segmentation, optimization and cream skimming are to be abhorred and no amount of data could convince him that they do, or even could, exist (Wood rebuttal, pages 34-39). Mr. Wood claims that firms investing in switches " .. will have the incentive to serve as many customers as possible as quickly as possible .. will hardly be in the position to be selective about its customer base." (Wood rebuttal, page 37, line 24 to page 38, line 6)

Dr. Bryant runs BACE with the optimization filters off (Bryant rebuttal page 29, line 17), then later complains in response to his finding of negative NPV segments that "no rational firm, however, would provide service to a market if that service offering would reduce its overall profitability." (Bryant rebuttal, page 31, lines 8-9)

It appears the solution is the continued use (rather than the abandonment) of a number of the optimization filters More importantly, the power and (ease of use) of the BACE model allows Dr Bryant, to consider (and describe in his rebuttal testimony) results at such a granular level of detail (e.g., NPV by customer type by wire center).

Q. DR. BRYANT EXPRESSES SURPRISE THAT BACE IS INSENSITIVE TO CHANGES IN INPUTS (BRYANT REBUTTAL PAGES 26-27). IS HIS STATEMENT INCONSISTENT WITH HIS FINDINGS?

A. To be clear, I cannot testify regarding what Dr. Bryant finds surprising or not surprising. However, his statement of BACE input insensitivity is inconsistent with his own reported findings and other portions of his testimony. First, it is noteworthy that much of his discussion at pages 26 and 27 is based on the number of wire centers that change from positive to negative NPV, rather than focusing on the size of the change in NPV. Any binary measure (such as whether a wire center changes from positive to negative NPV) can hide a great deal of information as compared to a continuous variable (such as the total dollar amount of NPV) Indeed, I find it noteworthy that he does not provide any measure of actual NPV in Exhibit MTB-10

Second, in exhibit MTB-12 he provides the results of combinations of input changes in columns (b) through (e) in which virtually every wire center in the state has a negative NPV. The results of column (b) appear (based on my reading of Dr. Bryant's testimony) to be caused by only 6 input changes in BACE. As a simple matter of logic, either BACE does respond to input changes, or the values Dr Bryant has chosen for his sensitivity runs are unreasonably pessimistic by any measure of judgment. (Of course, it may be possible that both are true.)

Section 4. **CLARIFICATION OF BACE FEATURES AND MISINTERPRETATIONS OF BACE**

Q. DR. STEVE BROWN CLAIMS (REBUTTAL PAGES 59-62) THAT BACE DOES NOT ACCOUNT FOR ILEC TERMINATION CHARGES. DO YOU HAVE ANY COMMENTS?

A Yes First, it is noteworthy that BACE has been conservatively designed to not include the termination revenues that the CLEC may collect from customer contracts with a volume and/or term discount and a corresponding termination liability.

Second, to the extent that Dr Brown believes that an efficient CLEC will have to account for the customer's termination fee to BellSouth in their own costs, he can capture this cost in any of several ways including raising the customer acquisition cost and adding a new operational cost component specifically for ILEC termination charges. (I hold aside the issue of whether his argument is valid; rather I simply consider here what the model allows the user to do) I would suggest the latter approach so that Dr Brown can prepare cost entries for the mass market and enterprise customer segments as well as appropriate weights for these item, i e., the proportion of the time this non-recurring cost will occur, considering the FCC's comment in paragraph 127 of the TRO that "These customers [mass market customers] usually resist signing term contracts "

Third, the BACE user can account for the existence of long-term contracts in the market via the choice of the speed of CLEC penetration (i.e , the rate at which the CLEC achieves its market penetration). Fourth, the BACE user can account for the degree to which firms in the market employ long term contracts via the churn rate I expect lower churn in a market with a higher proportion of term contracts. Dr. Aron will respond to Dr. Brown's criticisms regarding specific BACE inputs.

Q. MR. WOOD CLAIMS THAT BACE PRICE INPUTS DON'T REFLECT VARIATIONS IN RETAIL PRICES ACROSS THE STATE. IS HE CORRECT?

A. No. While the spend band (quintile in the case of retail customer's) average price/average revenue per user (ARPU) is determined at the state level, the number and the percentage of customers falling into each spend band (quintile for residence for example) varies by wire center based on both the retail prices that actually exist in the wire center and the propensity of customers in the wire center to purchase services in each of the major service categories Using this wire center specific customer count and the ARPU, an unbiased estimate of the revenue for a wire center is determined

For example, if wire center A is in a low-priced rate center (i e , customers facing low tariffed rates), it will tend (other things being equal) to have customers with actual spend characteristics that are below the state wide average and will therefore have a higher proportion of mass-market customers in the lower spend quintiles If wire center B is in a high-priced rate center, its customer's actual spend levels are likely to be relatively high and they will tend to have a higher proportion of mass-market customers in the higher spend quintiles.

Q. DOES BACE ALLOCATE CUSTOMERS TO WIRE CENTERS?

A No. Mr. Wood's claim (rebuttal page 39, line 23 - page 40, line 3) that customers are "allocated" from the state level down to wire centers is incorrect In North Carolina, Mr. Klick made a claim similar to Mr Wood's (North Carolina rebuttal page 14), that BACE uses "a mechanism that forces an equal number of customers of each class into each spend category in each wire center " While the actual spend information by individual customers is not retained from the original data source, actual customer spend information by wire center is used to determine the number of customers in each wire center that fall into each of the customer spend categories. Customers with similar spend characteristics are treated similarly

In Tennessee, Mr. Klick has now dropped the reference to wire centers in his rebuttal testimony (presumably because he knew it is wrong) but he retains some misleading and nonsensical language, claiming that " .. using a mechanism that, statewide, forces an equal number of customers of each class into each spend category .. " This is also incorrect At the state level, customers are not "forced" into any category. Actual spend information is used to determine the range of each residential customer spend quintile (terciles for business categories).

I would like to note that from this starting point of actual expenditures by wire center by customer group, the user can establish starting CLEC price discounts, changes in the discounts over time, starting bundle prices, and changes in bundle prices over time, penetration rates and the speed by which penetration is achieved

Q. MR. WEBBER STATES (REBUTTAL PAGE 5) AS SECTION HEADING IV: "BELLSOUTH FAILS TO DEMONSTRATE THAT CLECS CAN USE EELS TO SUPPORT MASS MARKET UNE-L." CAN YOU CLARIFY HOW EELS WORKS WITHIN BACE AND COMMENT ON MR. WEBBER'S ASSERTION?

A. Yes. In regard to EELs, if the user specifies, the model will determine whether collocation or EELs will be used on a wire center by wire center basis This determination considers the difference in NPV between a full collocation approach and a full EELs approach at each wire center. Regardless of one's perspective regarding the use of EELs, Mr. Webber is incorrect since the user of the model is free to turn EELs completely off so that only collocation is used. It should be noted that in the BellSouth filed Tennessee BACE run, collocation (rather than EELs) is used in the great majority of locations.

Q. MR. KLICK SUGGESTS (REBUTTAL PAGE 39) THAT ALLOCATING SOME OF THE FIXED COSTS WITHIN THE LATA TO BOTH

BELLSOUTH AND TO OTHER ILECS WITHIN THE LATA UNDERSTATES CLEC IMPAIRMENT. PLEASE COMMENT.

A This BACE assumption is actually relatively conservative. BACE only allocates these costs to non-rural ILECs (BACE implicitly assumes that there is no CLEC service to customers in rural ILEC areas). And for these other non-rural ILECs, this approach has the effect of assuming that the adjacent areas have a zero NPV; i e , there is no opportunity for the adjacent areas to generate a positive NPV in addition to the BellSouth area. Finally, the impact of this allocation on the total NPV in BellSouth's sponsored BACE Tennessee run is only a reduction of less than 0.05% (i.e., less than 5/100ths of 1 percent) Thus, whether one agrees or disagrees with the approach, the impact in Tennessee is insignificant.

Q. MR. KLICK SUGGESTS (REBUTTAL PAGE 3, LINES 7-8) THAT HE HAS IDENTIFIED "A SERIES OF ANOMALOUS RESULTS". PLEASE COMMENT.

A. There are three categories of reasons why BACE results from two runs can have the appearance of being anomalous· 1) service to different segments or areas; 2) allocations of indirect costs; and 3) income tax liability allocations. For these categories, I will provide a clear explanation of how the results can be produced and why these results are intuitive or the result of anomalous user inputs.

Q. MR. KLICK CLAIMS THAT HIS "RESULTS INDICATE A POTENTIALLY [SIC] FLAW IN THE BACE MODEL" (REBUTTAL

PAGE 48, LINE 18), SUGGESTING (PAGE 48, LINES 19-22) THAT NO NPV VALUE SHOULD DECLINE AS THE CHURN RATE IS REDUCED. PLEASE RESPOND.

A. First, note that Mr Klick has an error in the "Percent Change" columns in exhibits JCK-8 and JCK-9. For example, on page 1 of exhibit JCK-8 for Memphis Zone 2 he shows an increase in after-tax mass market NPV from a negative $568,908 to negative $300,761 as a <u>decline</u> in mass market after-tax NPV of 47.1% (i.e., -47.1%); obviously this is an increase, not a decrease, in after-tax NPV.

Indeed, this same error exists in exhibits JCK-7, JCK-5, JCK-4, JCK-3, and JCK-2. This is an obvious error in Mr. Klick's exhibits that could have been solved with any one of a number of methods in Excel. This is not the kind of repeated error that one would expect from someone implying that they would "evaluate, test and modify the complex calculation, 'optimization,' and 'filtering' portions of the BACE model" (Klick rebuttal, page 3, lines 1-2).

Q. IF YOU CORRECT THE ERROR IN MR. KLICK'S EXHIBITS, CAN YOU ADDRESS HIS CONCERN?

A. Yes. Mr Klick cites BTSPTNMA (Exhibit JCK-8; page 2) as his most extreme example, a wire center for which a 20% reduction in churn leads to a 2.1% reduction in after-tax NPV (of course, his calculation error in his percentage change column actually shows this wire center as having a 2.1% <u>increase</u> in total NPV) Correcting for Mr Klick's error in his percentage change columns, wire center BTSPTNMA shows a 2 1% reduction in after-tax NPV and five rows down wire center CHTGTNHT has a 0 5% reduction in after-tax NPV.

Of course, these are not large changes in after-tax NPV. And, these seemingly counter-intuitive results are caused by the allocation of income taxes (which are allocated on the basis of pre-tax NPV). From page 1 of Exhibit JCK-8, one can see that the total CLEC after-tax NPV increased by almost $9 million due to the reduction in churn. To achieve this increase in after-tax NPV the CLEC had to obtain a greater increase in pre-tax NPV. This leads to an increase in total CLEC tax liability. In these cases, it is possible that for some geographic areas (such as BTSPTNMA) that the allocation of the increased tax liability could exceed any small gain in NPV from reduced churn For example, if a user were to investigate the pre-tax NPV for the BTSPTNMA they would discover that the NPV from the 25% increase in churn, which was -201,646, is a greater negative NPV, as expected, versus the NPV from the 20% decrease in churn, which was - 200,677 (I will provide an expanded explanation of the tax allocation issue later in this testimony).

Note that (after correcting for the error in Mr Klick's percent change column) that page one (results at the market level) of both Exhibits JCK-8 and JCK-9, the after-tax NPV values for all markets move in the direction Mr. Klick expects

Q. MR. STEGEMAN, I THOUGHT THAT BACE ELIMINATED NEGATIVE MARGIN MARKETS IF OPTIMIZATION IS USED. IF THIS IS THE

CASE, WHY ARE THERE NEGATIVE NPV VALUES (AFTER CORRECTING MR. KLICK'S ERROR) IN THE RESULTS?

A. First, the optimizations within BACE are performed based on direct NPV What I mean by this is that BACE compares the present value of the revenues to the present value of the <u>direct</u> costs for the optimization step at hand. What a positive margin (direct NPV) then indicates is that the item is producing a contribution to a higher level cost, that is, a cost that is not direct to the items we are looking at and will not go away should we eliminate the item we are considering. For example, the getting started investment of the switch is driven by the fact that the CLEC has customers within a LATA Should a wire center within the LATA be eliminated, the getting started investment will not go away but would rather be re-apportioned to other wire centers that have positive margin (direct NPVs).

Therefore, what BACE retains are optimization areas that cover their direct costs, but not necessarily all of their apportionment of higher level costs that would only be re-apportioned (not eliminated if the area were dropped). Therefore, if a market has a direct NPV greater than zero, but a negative total NPV after the allocation of indirect costs, BACE still serves the market since it has an overall positive contribution to the CLEC. It is my understanding that Dr. Aron eliminates these negative NPV markets, thereby using a more conservative test for whether a market is impaired than the construct in BACE optimization.

Q. CAN YOU EXPLAIN THE RESULTS OF MR. KLICK'S TABLE JCK-4 (REBUTTAL PAGE 43) IN A BIT MORE DETAIL GIVEN THIS

EXPANDED UNDERSTANDING OF THE RESULTS OF BACE'S OPTIMIZATION?

A. Yes Below I have reproduced Mr. Klick's Table JCK-4 However, instead of using the full NPV including the allocation of indirect costs (such as the share of the getting-started switch cost), I have excluded the allocation of indirect costs.

Revised JCK-4
Summary of Net Present Values by Customer Segment (contribution over direct costs)
BellSouth Tennessee

		Net Present Value				
	eqn.	All Products	Local	Long Distance	Internet	VoiceMail
Business						
SOHO	a	34,533,694	14,185,480	17,665,614	1,993,250	638,422
SME/A	b	30,556,085	(9,276,383)	73,821,306	14,323,904	1,687,269
SME/B	c	27,458,266	8,909,705	15,351,252	2,593,762	603,546
SME/C	d	35,972,123	16,316,685	17,094,026	2,552,513	-
Residential	e	22,141,093	(85,761,794)	81,564,273	17,559,140	8,779,474
Total	f=(sum(a.e)	150,661,262	(55,627,479)	165,497,471	39,022,569	11,768,701
Mass Market NPV	g=a+e	56,674,787	(71,576,307)	99,230,887	19,542,390	9,477,896
Enterprise NPV	h=f-g	93,986,475	15,948,908	56,266,584	19,480,179	2,290,805

Note that from these results it is clear that all customer segments contribute towards the recovery of indirect costs.

Q. **CAN YOU EXPLAIN THE RESULTS OF MR. KLICK'S TABLE JCK-5 (REBUTTAL PAGE 45)?**

A. Yes Mr Klick has chosen a scenario in which the total after-tax NPV is negative. He cites exhibit JCK-6, however the labels for this exhibit can not be read and some values in his rebuttal text are non-sensical (e.g., $1,074,121-1, page 46, line 11). But ignoring these errors, this is a scenario in which BACE was not designed to assess the details of the scenario (i e., after-tax NPV by geographic area or market segment). When the CLEC in total has a negative NPV, the investigation of details below the state level is not relevant for evaluating impairment.

As I discus in more detail later in this testimony, the appearance of apparent anomalous results is caused by the allocation of tax liability within BACE. When total NPV turns negative, the allocation of income tax liability can cause after-tax NPV values for geographic areas or market segments to swing from positive to negative

Q. PLEASE DESCRIBE HOW ATTRIBUTION AND ALLOCATION OF COSTS CAN LEAD TO THE APPEARANCE OF COUNTER INTUITIVE RESULTS.

A. If the user changes input values that only affect mass market customers (e.g., an input related to DSL service, which is not offered to large business customers) the NPV values for enterprise operations can still change due to cost attribution and cost allocation. If input changes lead to lower NPV values for mass market customers and losses of these customers for some areas or markets, the enterprise customers in some areas may then have lower NPV as they must now bear a greater proportion of the higher level costs in some areas where mass market customers are no longer served.

Q HOW CAN TAX ALLOCATION LEAD TO THE APPEARANCE OF COUNTER INTUITIVE RESULTS?

A. BACE was designed to model an efficient CLEC, a firm that attempts to serve customers profitability and avoids serving unprofitable customers and areas However, if the user turns off many of the optimizations or provides inputs that lead to a negative NPV in total for the CLEC, the allocation of corporate taxes can produce results below the state level that appear to be counter intuitive.

It is important to note that in any situation where total post-tax NPV becomes negative, the allocation of taxes essentially becomes moot. This occurs either in situations of negative total pre-tax NPV, or where pre-tax total NPV is positive, but smaller than the tax liability.

Q. PLEASE EXPLAIN HOW CORPORATE INCOME TAXES ARE TREATED IN THE BACE MODEL.

A. First, it is important to note that the BACE after-tax and pre-tax NPV calculations reflect the cost of equity Unlike the cost of debt (or other cost items), the cost of equity is not a tax-deductible expense. Therefore, if a BACE run (a hypothetical run) were to reflect a zero NPV for a state, this would imply a significant accounting profit for the modeled CLEC and a significant corporate income tax liability, in order to generate after-tax profits sufficient to compensate shareholders for the cost of equity. There will also be a range of results in which a negative total after-tax NPV will correspond to an accounting profit and a corporate tax liability. Indeed, even with some range of negative total pre-tax NPV, the CLEC would still generate an accounting profit and a corporate tax liability (since the pre-tax NPV already includes the cost of equity, i.e., it already reflects the required accounting profit to satisfy shareholders).

BACE was designed to identify and quantify the likely costs and revenues that a CLEC would incur and obtain in a UNE-L environment. BACE calculates corporate income taxes and provides a reasonable method of allocating taxes to products and smaller geographic areas when the modeled CLEC has a total NPV that is positive. However, BACE's allocation of taxes below the state level is not foolproof for modeling an NPV negative CLEC

Q. HOW ARE INCOME TAXES ALLOCATED TO PRODUCTS AND GEOGRAPHIC AREAS IN BACE?

A. BACE uses pre-tax NPV to allocate corporate income taxes. A ratio of total tax liability to total pre-tax NPV is used to allocate taxes to those products and geographic areas that generate a positive pre-tax NPV.

Q. WHAT HAPPENS WHEN A USER MODELS A CLEC THAT HAS AN OVERALL NEGATIVE NPV?

A. When a user models a CLEC in which the tax liability is greater than the pre-tax NPV, the post-tax results can appear counter intuitive. This is because more than a dollar of taxes is allocated to each dollar of pre-tax NPV (and more than a dollar of tax credit is allocated to each dollar of negative pre-tax NPV) causing NPV values to flip-flop from positive to negative (for positive pre-tax NPV) and negative to positive (for negative pre-tax NPV), when comparing pre and post-tax NPVs. (Counter intuitive results can also obviously occur if the pre-tax NPV in total is negative.) While the allocation of taxes in BACE can be adjusted in situations where the post-tax NPV is negative, I am not sure what benefit it provides since the CLEC in total has a negative NPV.

Q. MR. KLICK CLAIMS (REBUTTAL PAGE 49) THAT THERE IS A TAX CALCULATION ERROR IN BACE THAT YOU CHOSE NOT TO FIX. IS THERE A TAX CALCULATION ERROR IN BACE?

A. No, there is not a tax calculation error in BACE. As I describe above the issue is a design issue of choosing a method by which to allocate total corporate income taxes (which are already calculated) to products and geographic areas within Tennessee. As with any cost allocation issue, at times the results can appear anomalous As a design issue, I chose a corporate tax allocation method that provides reasonable results when there is positive total NPV. When there is negative total NPV, the issue of the allocation of the corporate tax liability to products or geographic entities within Tennessee is moot

Q. **MR. KLICK CITES (REBUTTAL PAGES 49, 50) YOUR DEPOSITION IN FLORIDA REGARDING TAXES. DOES MR. KLICK CITE THE EXHIBIT REQUESTED BY THE FLORIDA STAFF EXPLAINING THE TAX ISSUE?**

A. No, Mr. Klick does not mention the exhibit which was the culmination of the entire deposition discussion on tax allocation Therefore, I have attached the exhibit requested by the Florida staff on BACE tax allocation, as Exhibit JWS-9 in this proceeding This exhibit provides a description and numerical examples explaining the tax allocation issue.

Q. **DO YOU HAVE ANY ADVICE FOR THE BACE USER SEEKING TO MODEL A CLEC THAT HAS A TOTAL NPV THAT IS NEGATIVE?**

A Yes. First, I am not sure I see the value in analyzing market results for a CLEC that in total has a negative NPV (Of course, other parties may see value in creating peculiar scenarios in which BACE has the appearance of counter intuitive results). However, should a user wish to carefully consider instances in which total after tax NPV is negative, the user should focus on the pre-tax NPV values As I noted earlier, the tax allocation mechanism in BACE was designed for scenarios where the CLEC had a positive NPV

Q. **MR. KLICK DESCRIBES (REBUTTAL PAGES 46-48) A RUN IN WHICH ALL PRODUCTS (INCLUDING LOCAL SERVICE) IN A BUNDLE**

RECEIVE A DISCOUNT (EXHIBIT JCK-7). IS THERE AN ERROR IN BACE RELATED TO BUNDLE PRICE DISCOUNTS?

A No. However, Mr. Klick chose a bundle discount configuration that I did not expect a user to choose Indeed, Mr. Klick discusses elsewhere in his testimony his finding that basic local exchange service has a negative NPV, yet here he chooses to discount this service. Within BACE when all products included within a bundle are tagged as being discounted, all bundle prices drop out of the model due to a SQL join condition As a result, all bundle products show a price of 0 This is why all the mass market drops out in Mr. Klick's run

As a design and documentation issue, it may be better if the BACE model and/or the BACE documentation warned the user that at least one service of a bundle must be excluded from the discount Alternatively, BACE code changes could be applied to allow for the scenario Mr. Klick chose.

Section 5. <u>**ADDITIONAL REBUTTAL OF MR. WOOD**</u>

Q. DOES MR. WOOD MAKE UNDOCUMENTED ASSERTIONS REGARDING BACE?

A. Yes. Mr. Wood makes a variety of claims and assertions regarding BACE. However, unlike other witnesses in this proceeding, he fails to provide a single numerical result from BACE, nor does he provide an exhibit with any BACE results Such undocumented assertions provide no available information by which his assertions can be evaluated, and should be viewed with skepticism given the lack of foundation

Q. DOES MR. WOOD CONFUSE SHORTCOMINGS OF A MODEL (BACE IN THIS CASE) WITH DISAGREEMENT REGARDING INPUT CHOICES?

A. Yes At several points in his rebuttal testimony, Mr. Wood makes assertions regarding BACE, but only provides associated rhetoric related to the choice of the input values For example, at page 40, lines 5-6, he states. "The BACE goes on to assign a different CLEC market share for the different customer spending segments ..". The user of course determines CLEC market shares (BACE doesn't assign them) by segment (and the user can vary them over time if they choose) However, as I note elsewhere in my surrebuttal testimony, when Mr Wood populates the model with unspecified inputs of his choosing it provides results he finds comport with his view of the world. This has nothing to do with a model shortcoming; Mr. Wood appears to be attempting to disguise some issue regarding inputs under his claims of model shortcomings.

Q. DOES MR. WOOD MAKE UNDOCUMENTED AND MISLEADING ASSERTIONS REGARDING CRASHES OF THE BACE MODEL?

A. Yes. At page 7, lines 7-8 of his rebuttal he asserts that he has not been able to complete his analysis of BACE, apparently in part since "[o]ur efforts continue to be encumbered by the frequent crashes of the model and the limitations of the model wizard." I have several responses.

First, Mr. Wood's comment is surprising in light of the fact that in operating BACE, I (and my team) and the LECG team have had no problems with crashes. I have determined that the model is stable, consistent, and operates as stated in the documentation.

Second, I am unaware of similar complaints from other parties. Given the number of runs documented by LECG, Sprint (in Georgia and Florida) and MCI in their testimony, the natural conclusion would be that problems with crashes in BACE would have been raised through these parties, had they occurred.

Third, emails and phone calls to the BACE model support team are illustrative. When an employee of Wood and Wood Consulting contacted BellSouth's BACE support manager in early December 2003, raising concerns with initial slow run times and log-in problems in running BACE, these concerns appeared to be caused because an attempt to run BACE in a shared-server environment. BACE was not designed to run in, nor was it tested for, a shared-server environment. These concerns appeared to be resolved by December 11, 2003 through the use of BACE on a stand-alone computer platform. Thereafter, BellSouth responded to additional questions from Wood and Wood consulting about how to perform runs on the model from December 11-15, 2003. However, no concerns relating to frequent "crashes" were raised between December 11, 2003 (once the appropriate computer platform was used) and the filing of Mr. Wood's rebuttal testimony in

Florida (which is identical to the rebuttal testimony he filed in Georgia and North Carolina, and identical to that he filed here in Tennessee). I would expect that if Mr. Wood continued to be encumbered by frequent crashes, he would have contacted the BACE support team (there is no charge for the support).

Since Mr Wood's identical rebuttal testimony was filed with the Florida Commission on January 7, 2004, nearly seven weeks later, the statement that AT&T's "efforts continue to be encumbered by frequent crashes ." (emphasis added) is misleading. On January 15, 2004, after Mr. Wood's identical rebuttal testimony was filed in Florida, a concern relating to crashes was communicated to BellSouth. The timing of this "concern", in light of Mr Wood's other unsubstantiated claims, seems somewhat questionable

Q. MR. WOOD ALSO COMPLAINS THAT LIMITATIONS OF THE BACE MODEL WIZARD HAVE ENCUMBERED HIS EVALUATION OF BACE (WOOD REBUTTAL PAGE 7). IS THIS A VALID COMPLAINT?

A Certainly not, for at least three reasons. First, the user has the option to either use the BACE wizard, or create and run scenarios outside the wizard. Second, other models (e.g. HCPM, BCPM) either do not have a wizard, or do not have an extensive wizard. Third, the BACE model wizard is designed for ease of use, especially for those without the skill or time to examine the all of the model's inputs in great detail Anyone genuinely seeking to evaluate a model, and having the skills to even initially evaluate a model, should not need to rely only on a model wizard alone For example, any party suggesting that they need the source code to a model should not need to rely upon the model wizard for evaluation Claiming that the limitations of a model wizard creates an encumbrance to review is akin to an auto mechanic claiming that a car needs more gauges and lights by the steering wheel in order to readily evaluate the engine; popping the hood is still an option if you are actually a mechanic.

Q. **MR. WOOD STATES (REBUTTAL, PAGE 23, LINES 18-19) THAT "...BACE HAS NO PLACE TO ENTER A PROJECT BETA..." IS IT NECESSARY TO INPUT A PROJECT BETA IN ORDER TO CALCULATE ECONOMIC IMPAIRMENT?**

A No. From a modeling perspective, BACE provides input values for the pre-tax cost of capital, the cost of equity, federal and state tax rates and the proportion of equity Nothing more is required to determine the cost of capital used in BACE. As Dr Billingsley has described, beta is fully reflected in these values, so there is no further role for beta to play. To the best of my knowledge, no other telecommunications cost model (e.g., BCPM, HCPM, HAI, BSTLM) allows for the specific input of a project beta Indeed, it appears that AT&T's cost disadvantage model does not allow the input of a beta.

Q. MR. WOOD ASSERTS (REBUTTAL PAGE 28, LINES 16-18) THAT IT IS IMPOSSIBLE TO ACCURATELY DETERMINE THE REVENUES THAT A CLEC IS LIKELY TO RECEIVE WITHOUT THE ABILITY TO INPUT FUTURE PRICE CHANGES BY WIRE CENTER. DO YOU AGREE?

A No, for several reasons First, as I discussed above, BACE already leverages a powerful database that reflects actual prices and actual spend levels by wire center. Therefore, the starting market prices and customer expenditures are specific to the wire center and customer segment

Second, BACE allows the user to determine CLEC price discounts by customer segment, by market, over time (if the user wishes). BACE also allows the user to establish bundle prices by customer segment by market and changes in bundle prices over time Further, BACE allows the user to determine CLEC penetration by customer segment over time In designing BACE, there seemed to be no need to forecast prices changes on a wire center basis

Third, it is unreasonable to expect a user would be willing to perform the task of inputting even initial prices by wire center, let alone forecast future prices by wire center. BellSouth has a large number of wire centers in its service area in Tennessee each with 17 customer-spend categories in BACE. Each of these would have with approximately 15 services, each requiring data (under Mr. Wood's approach) for 10 years, this leads to almost one-half million price data entries.

Fourth, Mr. Wood's claim that wire-center level price forecasts are necessary is at odds with AT&T's model which provides no price information, nor ability to input price forecasts of any kind.

Fifth, Mr. Wood's claim that wire-center level price forecasts are necessary is at odds with his prior claim (rebuttal page 7) that he and his team are encumbered by the limitations of the BACE wizard. Recall that Mr. Wood is also the only party to complain about the limitations of the wizard. Logic suggests that Mr Wood should be the last party to attempt the daunting and unnecessary task of forecasting prices by wire center

Q. MR. WOOD CLAIMS "THE [BACE] USER HAS NO ABILITY TO CONSIDER A SHORTER INVESTMENT HORIZON [THAN 10 YEARS] THAT A RATIONAL INVESTOR WOULD CONSIDER BEFORE MAKING AN INVESTMENT IN A LARGE, FIXED ASSET SUCH AS A LOCAL CIRCUIT SWITCH." WHAT IS YOUR REACTION?

A. First, Mr. Wood's statement is at odds with the time horizon of AT&T's cost disadvantage model Mr. Turner indicates (direct, page 27, line 23) that AT&T's analysis uses a 10-year study period

Second, my team has examined the inputs to the model, both the Input Portfolio attached to Turner's testimony and the software itself, and there does not appear to be any mechanism to change the study period. We can only assume that the overall study period of AT&T's model is fixed at ten years.

Third, other models use a 10-year period or a longer period for the evaluation of economic impairment. The NRRI model (the pre-cursor of Dr Bryant's model) used asset lives to determine impairment analysis through a TELRIC type costing approach. As such, the time horizon for the costs of assets ranges from 6-30 years. The switch life was ten years. In looking at other industry models, the SPR model submitted in other states actually uses a 25-year time horizon for cash flows.

Fourth, in is my understanding that AT&T and MCI have consistently advocated the use of FCC depreciation lives in cost proceedings. My understanding is that the prescribed FCC depreciation lives applicable to BellSouth range from 8 to 30 years, depending on the type of equipment and the low and high ranges Moreover, Mr. Turner employed a 13-year switch life input in the AT&T model filed in Florida However, in his rebuttal testimony, Mr Wood implies that a switch needs to be recovered in some period less than ten years. Certainly, a 10-year study period is conservative for assets with lives longer than ten years.

Section 6. **<u>BACE IS CLEARLY SUPERIOR TO AT&T'S MODEL IN MEETING THE REQUIREMENTS OF THE TRO AND CRITERIA DISCUSSED BY MR. WOOD.</u>**

Q. ISN'T AT&T THE SAME PARTY THAT SPONSORED A MODEL THAT MR. WOOD CLAIMED IS RELEVANT FOR THIS PROCEEDING?

A Yes, and Mr. Wood mentions Mr Turner's results (Wood rebuttal pages 16 and 17).

Q. GIVEN THE MODEL REQUIREMENTS IMPLIED BY THE TRO, AND THE MODEL CRITERIA DISCUSSED BY MR. WOOD, HOW DOES BACE COMPARE WITH THE AT&T MODEL?

A. BACE is clearly superior

Q. MR. WOOD (REBUTTAL PAGE 31, LINES 20-21) CLAIMS THAT BACE FAILS TO MEET THE BASIC REQUIREMENTS FOR AN IMPAIRMENT MODEL THAT YOU SPECIFY IN YOUR DIRECT TESTIMONY. PLEASE COMPARE AND CONTRAST BELLSOUTH'S BACE MODEL WITH AT&T'S MODEL.

A. In my direct testimony I discussed at length (pages 8-18) the characteristics that must exist for a model to be consistent with the TRO. Below I provide a table with the four major categories of characteristics, comparing how BACE and AT&T's model meet the four required characteristics.

Characteristic	**BACE**	**AT&T model**
1) Capable of granular analysis	yes	yes as to cost, no as to revenue
2) Consistent with efficient CLEC business model & architecture	yes	no
3) Incorporate all likely CLEC revenues and costs	yes	no

4) Perform a business case analysis using NPV	yes	no

Q. PLEASE EXPLAIN THE ENTRIES IN THE TABLE ABOVE.

A. In my direct testimony I described in detail how the BACE model meets these four major characteristics Thus, I will briefly describe the entries for the AT&T model only. First, in regard to "Capable of granular analysis," while the AT&T model considers some cost information at the wire center level, its level of granularity is not sufficient for this proceeding since it is does not consider key information on all CLEC cost components. In addition, the AT&T model has no information at a gross or granular level regarding revenues. Having a model that is capable of granular analysis for only a subset of the information needed to assess economic impairment is simply not useful. This is analogous to needing detailed loop costs but only having the granularity in the feeder portion of the loop; it simply doesn't provide sufficient information to meet the needs of the Authority in this proceeding

Second, concerning "Consistent with efficient CLEC business model & architecture," the AT&T model does not provide for optimization in CLEC service offerings and engineering, does not consider all potential CLEC product offerings, and does not consider all potential customers (e g., across multiple ILECs in a wire center). If a model does not consider the opportunities for a CLEC to optimize its business, it will tend to overstate CLEC costs and/or understate CLEC revenues; this could lead to an erroneous finding of impairment.

Third, regarding "Incorporate all likely CLEC revenues and costs," the AT&T model does not consider revenues at all, and it ignores certain CLEC costs. Thus, the AT&T model fails to provide any meaningful result; it only provides a cost /output picture that is, incomplete, and insufficient to satisfy the requirements of the TRO.

And fourth, concerning "Perform a business case analysis using NPV," while the AT&T model does appear to use some present value calculations, it does not perform a business case analysis. A net present value calculation reflects the present value of revenues net of the present value of costs, yet the AT&T model does not consider revenues nor does it consider all relevant costs. Because the AT&T model has no revenue information at all, it cannot provide an NPV calculation and cannot be utilized to measure economic impairment as established within the TRO.

Q. **CAN YOU ELABORATE ON THE SECOND (OF THE FOUR MAJOR MODEL CHARACTERISTICS YOU LIST ABOVE), WHICH REFERS TO AN EFFICIENT CLEC BUSINESS MODEL AND DESCRIBE WHETHER BACE AND THE AT&T MODEL SATISFY THIS CHARACTERISTIC?**

A Yes. In order to satisfy the TROs requirements to reflect an efficient CLEC's activities, BACE allows the user to incorporate CLEC optimizing activities that could lead to either lower CLEC costs or greater opportunities for CLEC revenues. In the table below, I have identified some of the key dimensions over which a CLEC might optimize its network or its service offerings in order to be efficient, and whether each of the models allows optimization for that dimension of activity

Dimension Over Which to Optimize	BACE	AT&T model
1) EELs or collocation	yes	no
2) DSL within the wire center	yes	no
3) Provide (or not provide) service in total for a wire center	yes	no
4) Provide (or not provide) service for Mass Market customers for a market	yes	no
5) Provide (or not provide) service for Enterprise customers for a market	yes	no
6) Provide (or not provide) CLEC service in total for a market	yes	no
7) Provide (or not provide) CLEC service in total for a LATA	yes	no
8) Place (or not place) a switch in each LATA	no	no
9) Place (or not place) a fiber ring	no	no

Q. WHAT IS THE IMPLICATION OF BOTH BACE AND THE AT&T MODEL NOT OPTIMIZING ON ITEMS 8 AND 9 IN THE TABLE ABOVE?

A. Any model that does not incorporate an opportunity for the CLEC to reduce costs or gain revenues, by not providing optimization in a dimension of CLEC activities, has the <u>potential to</u> <u>overstate the CLEC's costs</u>, <u>or understate revenues</u> Such omissions therefore have the potential to overstate impairment, i.e to indicate economic impairment when it does not actually exist BACE is therefore conservative in these two dimensions and it may overstate CLEC costs As a result, BACE may overstate economic impairment. The AT&T model is very conservative (it may overstate CLEC costs) since it does not optimize in any of the dimensions listed in the table above and further the AT&T model does not model any CLEC revenues.

Q. MR. WOOD CLAIMS (REBUTTAL PAGE 24, LINES 14-16) THAT BACE DOES NOT REFLECT ALL CLEC BARRIERS TO ENTRY. HOW DOES BACE COMPARE TO THE AT&T MODEL WITH RESPECT TO CAPTURING ALL CLEC COSTS?

A. Beginning at page 51 of my direct testimony, I list 15 cost items that are discussed in the TRO and I describe how these cost items are included in BACE. While AT&T's model incorporates many of the 15 cost items, it does <u>not</u> <u>incorporate</u> the following (numbered in the same fashion as my original list of 15):

1) "Costs of purchasing and installing a <u>switch</u>" (TRO, ¶ 520);
2) "[T]he <u>recurring</u> and non-recurring charges paid to the incumbent LEC for <u>loops</u>" (e g , TRO, ¶ 520, and n. 1588) (The AT&T model only considers the non-recurring costs);
5) "[T]he recurring and non-recurring charges paid to the incumbent LEC for ... <u>signaling</u>" (TRO, paragraph 520), 9) "taking into consideration ... the <u>scale economies inherent to serving a wire center and the line density of the wire center,</u>" the AT&T model deploys various levels of equipment capacity and collocation space dependent upon the number of lines they expect to serve in each wire center. However, the model serves all wire

centers regardless of the economics of serving all wire centers and therefore it fails to reflect an efficient CLEC (see the rebuttal testimony of Dr. Aron).

13) "taking into consideration . the cost of <u>maintenance, operations</u>" (TRO, ¶ 520); and 14); "taking into consideration … the cost of … <u>other administrative activities</u>" (TRO, ¶ 520). (Underlining in my original direct testimony)

Q. MR. WOOD COMPLAINS (PAGES 25-29) ABOUT BACE'S TREATMENT OF REVENUES AND PRICES. PLEASE COMPARE AND CONTRAST BACE AND THE AT&T MODEL IN THESE DIMENSIONS.

A. In the table below I compare BACE & the AT&T model with respect to their treatment of prices and revenues in relation to the TRO requirements and the complaints by Mr. Wood.

Item	**BACE**	**AT&T**
Incorporates initial prices via a detailed database on revenues	yes	no
Incorporates geographic differences in the initial prices by wire center via variations in revenues by customer spend categories by wire center	yes	no
Number of major product categories	6	model has no revenue
Allows CLEC to introduce services over time	yes	no

Allows the use of initial CLEC price discount for a la carte services	yes	no
Considers the size of the total market in determining revenues	yes	no
Considers the effects of bundles of services	yes	no
Allows user to input price changes for a la carte prices	yes	no
Considers CLEC penetration in determining CLEC revenue	yes	no
Allows user to input price changes for bundle prices	yes	no
Allows changes in CLEC penetration over time and its affect on revenue	yes	no
Allows the user to vary price changes by service category (e.g., long distance)	yes	no
Provides a user with hundreds or thousands of pages of inputs to allow the user to establish prices by wire center	no	no
Allows the user to input different CLEC penetration rates by customer spend group	yes	no

Q. ARE THERE OTHER COMPARISONS BETWEEN THE MODELS THAT ARE RELEVANT BASED ON THE TRO AND MR. WOOD'S REBUTTAL TESTIMONY?

A Yes. In the table below I list other comparisons that are relevant for the Authority in evaluating a model to assess economic impairment.

Item	BACE	AT&T
Number of years considered	10	10
Allows user to consider salvage value of equipment	yes	yes
Provides a model wizard	yes	no
Considers income taxes	yes	no
Considers calculations of net income	yes	no
Allows the user to enter a project beta	no, not necessary	no, not necessary
Allows for revenue and penetration trends	yes	no for revenue, allows demand trend for cost
Allows costs to change over time	yes	no
Sizes equipment to correspond to demand	yes	yes
Allows the user to size equipment for specific number of years	yes	no
Allows the user to consider the economies gained from serving two or more ILEC territories in a LATA	yes	no
Provides a bright line test for impairment	yes	no

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.

Confidential and Proprietary Information

BACE Interface Functions

Confidential and Proprietary Information

BACE Utility Functions

REQUEST Please respond to the surrebuttal testimony of Sprint witness Dickerson at page 8, line 11 to page 11, line 6

RESPONSE: At page 8, line 11, of Mr. Dickerson's surrebuttal testimony, he purports to attach Exhibits KWD-12, which he claims shows that BACE is illogical. His assertion is without merit

Mr. Dickerson's exhibit KWD-12 shows the results of four different BACE runs, each with a negative total after-tax NPV (row 38) ranging from approximately -$33.4 million to -$120.4 million. Two of these scenarios even have a negative total pre-tax NPV (columns E and F). It appears is that in each of the runs, all but one of the user adjustable optimization toggles (all but the colo or EELs optimization) was turned off (see the rebuttal testimony of Dr. Staihr, page 17). Essentially, all of these runs represent Mr. Dickerson forcing the modeled CLEC to serve all areas (including those that are not economically profitable to serve) Therefore, he has modeled a total entity in Florida that is certainly not efficient and which is not economically profitable (i.e., it does not cover all of its costs including income taxes and the cost of equity).

Before discussing the BACE allocation of corporate income taxes, it is instructive to consider the full scope of the costs BACE considers. Unlike a standard P&L (profit and loss) statement, the BACE NPV metric of impairment includes not only the cost of the network, operations, taxes and debt interest, but also the cost of equity. Unlike the cost of debt (or other cost items), the cost of equity is not a tax-deductible expense. Therefore, if a BACE run (a hypothetical run) were to reflect a zero after-tax NPV for the state of Florida, this would imply a significant taxable income for the modeled CLEC and a significant corporate income tax liability, in order to generate after-tax profits just sufficient to compensate shareholders for the cost of equity.

There will also be a range of results in which a negative total after-tax NPV will correspond to a positive taxable income and a corporate tax liability. Indeed, even with some range of negative total pre-tax NPV, the CLEC would still generate a positive taxable income and a corporate tax liability (since the pre-tax NPV already includes the cost of equity).

Now consider how taxes are allocated within BACE. Corporate taxes represent a cost associated with the total operations of the CLEC. Corporate income tax forms are, of course, not filed for each product offered or for each geographic area served. Since corporate income taxes are caused by taxable income (i.e., taxable measures of revenue less tax deductible measures of cost), one form of tax allocation would track some approximation of taxable income However, taxable income excludes the cost of equity (which is not a tax deductible expense) Therefore, allocating taxes on the basis of taxable income would require that BACE carry this alternate information on taxable income at each and every dimension of the data; a daunting task to say the least. However, the NPV value of every data dimension is available. Since NPV provides an approximation of the "profitability" of a dimension over time, it was selected as a reasonable approach to allocate the corporate taxes.

BACE was designed to allow a user to model an efficient CLEC, a firm that attempts to serve customers profitability and avoids serving unprofitable customers and areas. As such, BACE's allocation of corporate income taxes on the basis of pre-tax NPV as a ratio of (total PV tax)/(total pre-tax NPV) should produce a reasonable assignment of the tax costs for an efficient CLEC. This allocation works as follows.

Consider a hypothetical example in modeling an efficient firm. Total pretax NPV is $10,000,000 and the estimated present value of the taxes is -$7,000, 000 (and total after-tax NPV is $3,000,000). (Note that since taxes are a cost, they have a negative present value, i.e., higher taxes have a greater negative effect on NPV). The tax allocation formula in BACE is (total PV taxes)/(total pre-tax NPV). In this case the tax allocator is -0.7 and each positive pre-tax NPV dollar is reduced by $0.70 to reflect its tax liability. Similarly, each negative pre-tax NPV dollar is assigned a reduction in tax liability of $0.70 (i.e., the -0.7 is multiplied times a negative pre-tax NPV to produce a positive gain to that product or area's NPV or a reduction in its negative NPV by $0.70 on the dollar). In this case, both positive and negative pretax NPV values become smaller (closer to zero) as taxes are applied.

However, in any situation where total post-tax NPV becomes negative, the allocation of taxes essentially becomes moot. That is, if a firm in total has a negative NPV, there is little to be gained by investigating the tax implications on the markets it operates within since it is unlikely the firm would be operating at all This occurs either in the situations of negative total pre-tax NPV (columns E & F in Mr. Dickerson's KWD-12), or where pre-tax total NPV is positive but smaller than the PV of the tax liability (columns D and G of KWD-12).

Turning to the case of negative total pre-tax NPV identified in column E of KWD-12, Mr. Dickerson has turned off optimizations such that the resulting CLEC (which he forces to serve all areas) has a pre-tax NPV of approximately -$93.2 million However, the CLEC still earns taxable income in total for some period of its existence sufficient to generate a PV of taxes of approximately -$27.1 million. In this case the resulting tax allocation ratio is approximately 0.29 (= -93.2/-27.1). Note that because of the negative NPV, the allocator has a positive sign, opposite of what one should expect, leading to counter intuitive results in the after-tax NPV calculations

Now consider the case of a positive total pre-tax NPV in column D of KWD-12 of approximately $31.2 million. Again, since Mr Dickerson has turned off optimization, the resulting CLEC (which he forces to serve all areas) has a PV of taxes of approximately -$64.7 million, which is greater in absolute value than the total pre-tax NPV. Here the tax allocator is -2.07. Here the sign is correct (negative) but the value is greater than one (in absolute value). Each dollar of positive pre-tax NPV is now assigned -2.07 PV in taxes, and each dollar of negative pre-tax NPV is allocated +2.07 PV in taxes (i.e., a reduction in tax liability). In this circumstance, the signs of after-tax segments or areas will tend to flip when after-tax NPV is calculated.

Certainly, these results <u>do not</u> "demonstrate the BACE Model NPV results to be fatally flawed and unsuitable for the conclusions asserted by BellSouth" as Mr. Dickerson claims at page 11 of his surrebuttal BellSouth did not advance a model of inefficient CLEC behavior forcing the CLEC to serve economically unprofitable areas, leading to total negative after-tax NPV.

Nor do these results suggest that Mr. Dickerson cannot model (for whatever reason) the inefficient activities of CLEC serving all geographic areas. However, the BACE tax allocator and calculations of after-tax NPV were designed as a convenience for the user. If the user wishes to model inefficient CLEC behavior, then the user could focus on pre-tax values and ignore after-tax NPVs. While the allocation of taxes could be modified in the situation where the NPV of the CLEC is negative, such a modification would be nonsensical because it would negate the purpose of the model, which is to consider the activities of an efficient CLEC.

PUBLIC DOCUMENT

BELLSOUTH TELECOMMUNICATIONS, INC.

SURREBUTTAL TESTIMONY OF PAMELA A. TIPTON

BEFORE THE TENNESSEE REGULATORY AUTHORITY

DOCKET NO 03-00491

MARCH 17, 2004

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

A My name is Pamela A Tipton I am employed by BellSouth Telecommunications, Inc , as a Director in the Interconnection Services Department. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375.

Q. ARE YOU THE SAME PAMELA A TIPTON WHO FILED DIRECT TESIMONY IN THIS DOCKET ON JANUARY 16, 2004

A Yes, I am

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. I respond to rebuttal testimony filed by AT&T witness Jay Bradbury, CompSouth witness Joe Gillan, and MCI witness Dr Mark Bryant All of these witnesses try to place conditions and limitations on the FCC's self-provisioning trigger rule that simply do not exist I also comment on the rebuttal testimony of Consumer Advocate and Protection Division witness, Steve Brown

<u>Section 1: Discussion of Trigger Candidate Criteria</u>

Q. WITNESSES GILLAN, BRADBURY, AND BRYANT SUGGEST THE AUTHORITY MUST CONSIDER A HOST OF CRITERIA TO "QUALIFY" CLECS AS TRIGGER CANDIDATES BEFORE THEY CAN BE COUNTED WHAT DO THE FCC RULES STATE?

A. The criteria for a CLEC to be counted with regard to the self-provisioning switching trigger are clearly set forth in the FCC's Rules. 47 C.F R. § 51 319(d)(2)(iii)(A)(1), <u>Local switching self-provisioning trigger</u>, states:

> "To satisfy this trigger, a state Authority must find that three or more competing providers not affiliated with each other or the incumbent LEC, including intermodal providers of service comparable in quality to that of the incumbent LEC, each are serving mass market customers in the particular market with the use of their own local switches."

The other parties' attempt to include a number of other unique criteria that a trigger "candidate" allegedly must meet is simply wrong Had the FCC intended for state Authoritys to check off a laundry list of criteria before considering a CLEC as a "trigger candidate," the rules would have said so They do not. The rule contains the only criteria that address the self-provisioning trigger, it is straightforward, and it contains two, and only two, requirements. Competing providers must 1) not be affiliated with each other or the incumbent LEC, and may include intermodal providers of service comparable in quality to that of the incumbent LEC, and 2) be serving mass market customers in the particular market with the use of their own switch. Unlike what the other parties' witnesses would have this Authority believe, the FCC's discussion regarding the actual self provisioning test, in Section VI.D 6 a.(ii)(b)(ii) of the Order, entitled "Triggers", supports the straight forward and narrowly defined criteria set forth in the FCC's rule Exhibit PAT-8 is a decision flow chart that accurately represents the trigger analysis as reflected in 47 C F R § 51 319(d)(2)(iii)(A)(1). This is the only decision-making analysis that needs to be conducted in this proceeding in determining where the trigger is met, despite CLEC claims suggesting otherwise.

Q HAVE THE CLECS MISSED THE FOCUS OF THE SWITCHING TRIGGER?

A Yes. As the FCC explained in its brief filed in the D C Circuit in connection with review of the Triennial Review Order, the switching trigger has to do "with determining when market conditions are such that new entrants are not *impaired* in *entering* the market " (Respondent's Brief filed January 16, 2004, p. 46, n. 22) By seeking to impose unnecessary criteria to the trigger analysis, the CLEC witnesses are advocating conditions that focus more on protecting their access to unbundled switching than focusing on conditions that relate to market entry. For example, on page 20 of his rebuttal testimony, Mr. Bradbury goes so far as to insist that "the Authority must assure itself that UNE-L competition will exist in every wire center " Of course, no such assurance is required either in the FCC's Order or its rules.

Q. MCI WITNESS BRYANT ATTACHES A FLOW CHART TO HIS TESTIMONY SHOWING A "TRIGGER ANALYSIS" HE HAS DEVISED. SIMILARLY, MR GILLAN HAS PROVIDED A TABLE SUMMARIZING HIS IMAGINED TRIGGERS CRITERIA IS EITHER THE FLOW CHART OR TABLE SUPPORTED BY THE FCC RULE?

A No, both Dr. Bryant's and Mr. Gillan's proposed trigger criteria go well beyond the straightforward criteria set forth in the FCC's rule.

Q. DOES THE FCC'S RULE CONTAIN LANGUAGE THAT PRECLUDES CONSIDERATION OF SO-CALLED "ENTERPRISE" SWITCHES AS SEVERAL WITNESSES, INCLUDING MR. GILLAN (CRITERIA #1), SUGGEST?

A No

Q. DOES THE FCC'S RULE REQUIRE ANY SPECIFIC CRITERIA ABOUT SWITCHES IN THE CONTEXT OF ITS SELF-PROVISIONING TRIGGER ANALYSIS?

A No, it does not. In fact, in its Errata, the FCC deliberately removed the only qualifier relating to the switches used in providing mass market service for the trigger analysis when it struck the word "circuit" from its trigger rules. There are no other switch qualifications, no count of switches required, and no restriction on the type of switch used to provide service to mass market customers The rule simply requires that three or more CLECS are providing service using their own switch

Q. WOULD IT MAKE ANY SENSE TO EXCLUDE ANY SWITCH THAT SERVES BOTH "ENTERPRISE" AND MASS-MARKET CUSTOMERS FROM THE TRIGGER ANALYSIS, AS MR. GILLAN ADVOCATES?

A No. As BellSouth witness Kathy Blake testifies, within the context of the FCC's Order, an enterprise switch is a switch providing service to enterprise customers through the use of DS1 or above loops (TRO ¶ 441, FN 1354). Where a CLEC is already using its switch to serve customers using DS0 loops, clearly the serving switch already has the capability to serve mass-market customers using DS0 loops and thus is not an "enterprise" switch, regardless of how many or few mass-market customers the switch is serving. Such evidence demonstrates that the CLEC has already invested the additional resources needed to provide service to mass market customers. When a CLEC has self-deployed a switch that is serving mass-market customers using DS0 loops as well as "enterprise" customers, the CLEC constitutes a qualified trigger candidate.

Q. IS THERE ANY REQUIREMENT IN THE APPLICABLE RULE THAT THE SELF-PROVISIONING TRIGGER CANDIDATE MUST BE PROVIDING VOICE SERVICE TO "<u>RESIDENTIAL CUSTOMERS</u>" AS MR. GILLAN (CRITERIA #2), MR. BRADBURY AND OTHERS SUGGEST?

A No

Q DOES THE RULE REQUIRE THAT THE SELF-PROVISIONING TRIGGER COMPANY RELY ON ILEC ANALOG LOOPS TO CONNECT THE CUSTOMER TO ITS SWITCH AS WITNESS MR GILLAN (CRITERIA #4), MR BRADBURY, AND OTHERS CONTEND?

A No The rule explicitly says that intermodal providers of service constitute trigger candidates. In 47 C.F R. § 51.5, the FCC defined intermodal as follows:

> "Intermodal The term intermodal refers to facilities or technologies other than those found in traditional telephone networks, but that are utilized to provide competing services. Intermodal facilities or technologies include, but are not limited to, traditional or new cable plant, wireless technologies, and power line technologies "

Q ARE THERE SPECIFIC REQUIREMENTS THAT APPLY FOR AN INTERMODAL PROVIDER OF SERVICE TO QUALIFY FOR THE SWITCHING TRIGGER (MR. BRADBURY, MR. GILLAN, CRITERIA #4)?

Q Only one, which is that the service provided by the intermodal provider must be comparable in quality to the service provided by the ILEC While Mr. Bradbury and Mr Gillan do concede that there could be an alternative to ILEC loops, they overstate the specific criteria to be applied to intermodal carriers.

Q DOES THE FCC'S SELF-PROVISIONING TRIGGER RULE REQUIRE THAT THE EXISTENCE OF THE CANDIDATE SHOULD BE EVIDENCE OF

SUSTAINABLE AND BROAD-SCALE MASS MARKET COMPETITIVE ALTERNATIVES IN THE DESIGNATED MARKET" AS MR. GILLAN (CRITERIA #6), MR BRADBURY AND DR. BRYANT CLAIM?

A. No It bears repeating that the FCC's rule for implementing the self-provisioning trigger contains only two criteria, neither of which is that broad-scale mass market alternatives presently exist. Remarkably, these witnesses appear to have missed that the FCC issued an errata, in which it corrected paragraph 499, and removed the requirement that the self-provisioning switching trigger candidates must be ready and willing to serve *all* retail customers in the market – a deliberate action by the FCC indicating that, contrary to the other witness's assertion, such a requirement is not to be considered in the trigger analysis. To the extent these witnesses are advocating for additional requirements, this Authority should reject such arguments

Q IS THERE ANY REQUIREMENT IN THE FCC'S TRIGGER TEST THAT UNE-L MUST HAVE THE SAME UBIQUITY AS UNE-P BEFORE THE TRIGGER IS MET, AS MESSRS BRADBURY AND GILLAN CLAIM?

A Absolutely not

Q ON PAGE 7 OF HIS REBUTTAL TESTIMONY, DR. BRYANT IDENTIFIES FOUR TRIGGER CRITERIA, WHICH HE CHARACTERIZES AS "FCC RULES" DO YOU AGREE?

A. No The FCC rule regarding the self-provisioning trigger is set forth in 47 C F.R. § 51.319(d)(2)(iii)(A)(1). A plain reading of this rule shows that Mr. Bryant's "criteria" are not part of the FCC's rule As I stated in my direct testimony and above, the FCC rule, supported by the Order's discussion on the trigger analysis, contains two and only two criteria, both of which are met by the trigger candidates identified by BellSouth in this proceeding (¶462, ¶ 501). Any attempt to impose additional criteria in order to disqualify these trigger CLECS under the guise of the FCC rules is misguided and should not be endorsed by this Authority.

<u>Section 2: Discussion of Trigger Analysis</u>

Q MR BRADBURY CLAIMS (REBUTTAL P 7) THAT AT&T PROVIDES SERVICE TO A RELATIVELY FEW NUMBER OF VERY SMALL BUSINESS CUSTOMERS THAT ARE AN ARTIFACT OF AN "OLD" BUSINESS PLAN. HOW DO YOU RESPOND?

A. According to Mr. Bradbury, the "embedded base" of very small business customers totals approximately BEGIN CONFIDENTIAL *** [redacted] *** END CONFIDENTIAL which is hardly insubstantial Furthermore, AT&T's "old business plan" is more appropriately classified as a change in business plan upon the implementation of the FCC's UNE Remand Order and the widely available UNE-platform It is not coincidence that the decline in AT&T's purchase of UNE loops began during 2001, UNE-P became available as a result of the FCC's UNE Remand Order AT&T had only to revise its interconnection agreement to avail itself of this artificial means of competition. In October of 2000, AT&T executed a standalone agreement that provided rates, terms and conditions for UNE combinations, including UNE-P. AT&T did so, apparently as part of a shift in a business strategy to take advantage of the artificially low, practically all-inclusive cost to serve customers via UNE-P, despite AT&T's sunk capital investment in its switches

Mr Bradbury also claims that "active provisioning of service to very small business using DS0 UNE-L loops ended in late 2001." (Rebuttal, p. 9). Although Mr Bradbury suggests that AT&T is only using unbundled loops to serve an embedded base of customers, AT&T continues to request and BellSouth continues to provision unbundled loops for AT&T's use in serving its customers in Tennessee. Contrary to Mr Bradbury's claim, the DS0 lines counted in BellSouth's trigger analysis are not "off lines", since BellSouth excluded from its analysis any locations served by greater than 4 lines, or served by a DS1 or higher capacity loop Furthermore, in AT&T's view, if it is not "actively" advertising that it is providing service using its own switches, or adding new customers every day, it somehow fails to qualify as a trigger company. That is nonsensical The FCC made it clear that the purpose of the triggers is to demonstrate that CLECS are not impaired without unbundled switching by a showing that they <u>are providing</u> service to mass market customers As I discussed above, the FCC emphasizes that the goal of self provisioning trigger test is to show that three or more competing providers 1) who are not affiliated with each other or the incumbent LEC, are each 2) serving mass market customers in the particular market with the use of their own local switch(es)

Failing to advertise or failing to add new customers using its own switching, particularly when UNE-P is available, proves nothing. The point is, each day, every day, AT&T provides service to thousands of customers in Tennessee, using its own switches. That is what the FCC requires of a trigger company.

Finally, on a statewide basis, Mr. Bradbury's testimony includes a statement that " AT&T's local switches in Tennessee serve a business customer universe that is at least 82% to 91% enterprise." Logic dictates that the remaining 9% to 18% of customers served by AT&T's switches constitute mass market customers, which means that AT&T is unquestionably a switching trigger company in some markets No other explanation, notwithstanding AT&T's protests, is plausible

Q. MR BRADBURY ARGUES THAT EXHIBIT PAT-1 IS IRRELEVANT TO THIS DOCKET. DO YOU AGREE?

A. No. Mr. Bradbury does not understand this exhibit. Exhibit PAT-1 was created simply to demonstrate that a significant number of CLEC switches are providing service in Tennessee, and those same switches serve a number of markets.

Q MR BRADBURY CLAIMS BELLSOUTH COUNTED, IN ITS TRIGGER ANALYSIS, ALL OF AT&T'S SWITCHES IS THIS CORRECT?

A No. BellSouth did not "count switches" as a part of its trigger analysis, because that is not what the FCC requires, or even allows BellSouth counted the number of CLECS providing mass market service to customers in each geographic market. What Mr Bradbury is referring to is the list of CLEC switches derived from the LERG. In no way does my testimony report or allude to Exhibit PAT-1 as a list of mass market switches Instead, my testimony explicitly describes the list as switches "which provide service in Tennessee " Further, BellSouth did not consider AT&T's toll switches or AT&T's ADL switches, nor the services provided from these switches in its trigger analysis, as Mr Bradbury claims on pages 13 – 15 of his rebuttal testimony It is particularly ironic that while Mr Bradbury takes issue with BellSouth's counting, another AT&T witness, Mr. Wood, can't count at all His testimony (p 9) contains the heading "The reality is that CLECs are not self-provisioning switches," leading the reader to conclude that no CLECS, not even AT&T, whom Mr Wood represents, have deployed their own switches

Q ON PAGES 39-42 OF CONSUMER ADVOCATE AND PROTECTION DIVISION WITNESS STEVE BROWN'S TESTIMONY, HE CLAIMS THAT NEITHER YOUR DIRECT TESTIMONY NOR KEITH MILNER'S TESTIMONY IDENTIFIES THE SPECIFIC GEOGRAPHIC SCOPE OF EACH CLEC SWITCH IDENTIFIED IN PAT-1. HOW DO YOU RESPOND?

A. First, Mr. Brown misinterprets my reference to Keith Milner's testimony. I did not state that Mr Milner's testimony would identify the specific geographic coverage area for each switch listed in Exhibit PAT-1. I referenced Mr Milner's testimony because his testimony addresses the fact that CLEC switches are capable of covering a large geographic area. Further, a simple examination of Exhibit PAT-1 demonstrates this is in fact true For example, the TCG/AT&T local switch CLLI of NSVLTN48DS0, located in Nashville, has point of interface nodes in both

Nashville (NSVLTN48DS0) and Memphis (MMPHTNMADS3) Additionally, the Sprint switch CLLI of NSVLTN17CA1, located in Nashville, serves point of interface nodes in Nashville (NSVLTN17CA1), Memphis (MMPHTNMAXSZ), Knoxville (KNVLTNMAXSZ and KNVLTNWHXMD) and Chattanooga (CHTGTNNSXSX) LERG data is self reported by the carriers for the purpose of routing telecommunications traffic. Clearly these companies would not misrepresent the actual serving capabilities of their own switches

Q. MR. BROWN GOES ON TO ASSERT THAT BELLSOUTH HAS NOT PROVEN THAT THE CLEC SWITCHES IN EXHIBIT PAT-1 COVER THE INCUMBENTS' UNIMPAIRED MARKETS. WAS SUCH "PROOF" NECESSARY?

A No. In conducting its trigger and potential deployment analyses, BellSouth did not count switches serving the identified market areas, but instead followed the FCC's prescribed criteria and determined in which markets mass market customers are served by CLECs using their own switch(es) The trigger analysis is concerned with actual service being provided, not with some theoretical switch boundary

Q DID YOU CLAIM, IN YOUR DIRECT TESTIMONY, THAT THE SWITCHES ON EXHIBIT PAT-1 COVER THE MARKETS IDENTIFIED IN EXHIBITS PAT-3 AND PAT-6?

A No Neither Keith Milner nor I claimed whether the switches on Exhibit PAT-1 did or did not cover the trigger markets listed on Exhibit PAT-3 and PAT-6. As I previously stated, the purpose of Exhibit PAT-1 is to demonstrate that a significant number of CLEC switches are providing service in Tennessee.

Q HOW DO YOU RESPOND TO MR BROWN'S ASSERTION THAT MR. MILNER'S SUGGESTION THAT CLEC SWITCHES HAVE A STATEWIDE SCOPE CONTRADICTS THE FACT THAT BELLSOUTH IDENTIFIED ONLY 4 TRIGGER MARKETS IN TENNESSEE?

A These two statements do not contradict each other whatsoever Mr. Brown does not understand how the FCC's self-provisioning trigger is met The self-provisioning trigger is met only in markets where there are 3 or more unaffiliated CLECs <u>serving</u> mass-market customers with their own switch(es) Mr. Milner's testimony discusses the coverage area of CLEC switches, as a general matter, because he is addressing the assumptions that BellSouth used in its BACE model. I discuss the markets where CLECs are, in fact, providing service to mass market customers. The actual location of the switches providing this service or the reach of each particular switch is irrelevant to the FCC's self provisioning trigger test The scope and broad geographic reach of switches, as a general fact, find their meaning in the potential deployment analysis

Q DID BELLSOUTH ASK THE CLECS TO IDENTIFY THEIR SWITCHES IN ITS DISCOVERY REQUESTS?

A Yes BellSouth asked the CLECs to identify the switches they use to provide qualifying service in Tennessee Most, if not all, of the CLECs who use a non-ILEC switch to provide qualifying service in Tennessee provided this information to BellSouth My proprietary Exhibit PAT-9 lists CLEC names and CLLIs for the switches they identified as those that they use to provide qualifying service in Tennessee. This exhibit includes both switches the CLECs own and those they have acquired the right to use

Q. SEVERAL WITNESSES, SUCH AS MESSRS BRADBURY, GILLAN AND OTHERS, ARGUE THAT "ENTERPRISE SWITCHES" SHOULD BE EXCLUDED FROM THE SELF-PROVISIONING TRIGGER ANALYSIS. PLEASE COMMENT

A As discussed above, these witnesses misinterpret the trigger analysis. First, there is no switch qualifier in the FCC's rule or in the Order's discussion in the Triggers section (Section VI D 6 a.(ii)(b)(ii)). The FCC rule requires no count of switches, other than presumably that each trigger candidate must have its own switch; the rule has no discussion regarding how switches are used to provide mass market service. The only mention of excluding "enterprise switches" is in the "potential deployment" section of the TRO, and not in the portion of the order addressing the triggers If the FCC had intended any "qualification" of switches to be included as part of the trigger analysis, it would have set forth the requirement in its rule It did not The relevant inquiry is whether the competing providers counted towards the trigger are providing mass market service using their own switch(es).

Q. SHOULD EVIDENCE OF SELF-DEPLOYED SWITCHES SERVING ENTERPRISE CUSTOMERS BE CONSIDERED IN EVALUATING MASS MARKET SWITCHING IMPAIRMENT?

A Absolutely In the "potential deployment" phase of any case looking at impairment, the FCC recognized the significance of such evidence. In its discussion of the "potential deployment" analysis at paragraph 508 of its TRO, the FCC states

> "We find the existence of switching serving customers in the *enterprise* market to be a significant indicator of the possibility of serving the mass market because of the demonstrated scale and scope economies of serving numerous customers in a wire center using a single switch...The evidence in the record shows that the cost of providing mass market service is significantly reduced if the necessary facilities are already in place and used to provide other higher revenue services. "

Q. IN HOW MANY MARKETS IN BELLSOUTH'S SERVING AREAS ARE THERE THREE OR MORE SELF-PROVIDERS OF ENTERPRISE SWITCHING USING DS1 LOOPS?

A Based on BellSouth's internal data and CLEC discovery responses, there are 5 geographic markets where three or more CLECS are serving the enterprise market with their own switches using DS1 loops, which are shown on the attached Exhibit PAT-10.

Q PLEASE COMMENT ON MR GILLAN'S CONCLUSIONS CONCERNING BELLSOUTH'S TRIGGER ANALYSIS.

A Apparently, Mr Gillan is drawing conclusions based upon his fabricated trigger analysis criteria and upon a subset of data that relates to a CLEC's presence in the marketplace and does not relate directly to BellSouth's actual trigger analysis As I explained in my direct testimony and above, BellSouth's trigger analysis considered CLEC provided data regarding its actual deployment, loop data for business class customers from its loop inventory database, and numbers ported to CLECS (which thus includes lines CLECS serve using their own facilities) This contrasts with the narrow approach Mr. Gillan has apparently taken, which is to disregard completely certain information BellSouth has supplied in its responses to discovery, as well as CLEC's responses to BellSouth discovery – which BellSouth produced under protective agreement. BellSouth has diligently attempted to obtain data directly from CLECS to present this Authority with the most accurate information BellSouth has sought, as much as possible, to rely upon data provided by the CLECS concerning the types of customers served and where such customers are located in analyzing the switching trigger

<u>Section 3: Discussion of Trigger Candidates</u>

Q. SEVERAL WITNESSES, INCLUDING DR BRYANT AND MR GILLAN, ATTEMPT TO DISQUALIFY CLECS AS TRIGGER CANDIDATES ON THE

BASIS THAT THEY ARE PROVIDING SERVICE TO BUSINESS CUSTOMERS ONLY WHAT IS YOUR REACTION?

A. The FCC's rule does not require a competitive LEC to provide service to residential customers in order to qualify as a trigger candidate The Authority must determine if three or more competing providers are serving mass market customers in a particular geographic market. The FCC defines mass market customers as consisting of "residential customers and very small business customers Mass market customers typically purchase ordinary switched voice service and a few vertical features. Some customers also purchase additional lines and/or high speed data services " (¶127, TRO) (emphasis added) Any suggestion that a particular trigger candidate must serve both residential and small business customers goes beyond the FCC's clearly defined test.

Q. SEVERAL WITNESSES, INCLUDING BRYANT, GILLAN, AND BRADBURY, ATTEMPT TO "DISQUALIFY" PARTICULAR (AND IN SOME CASES ALL) CLECS FROM BELLSOUTH'S TRIGGER ANALYSIS COMPLETELY. HOW DO YOU RESPOND?

A I disagree with their assertions. Despite the claims of those witnesses, BellSouth screened out locations served by DS1 loops so that it did not inadvertently include an enterprise location in its mass market analysis. CLECS self-reported their provision of one to three line service to end users in their discovery responses. For CLECS who refused to respond to discovery, or who otherwise did not provide adequate responses, BellSouth used its own data. BellSouth's internal data was based on DS0 loops and residential ported numbers I will address specific assertions below

Q ON WHAT DOES MR. BRYANT BASE HIS ARGUMENTS THAT THE TRIGGER COMPANIES IDENTIFIED BY BELLSOUTH SHOULD BE DISQUALIFIED?

A Mr Bryant attempts to disqualify the trigger companies based solely on pages he printed from these CLECs' web sites Relying on information contained on these web pages, Mr. Bryant concludes that BEGIN PROPRIETARY *** [redacted] ***END PROPRIETARY should be excluded from BellSouth's trigger analysis. Despite Mr Bryant's claims, however, both BellSouth's internal data and the discovery responses from these CLECs indicate that each of these CLECs are serving customers with DS0 analog loops If these CLECs are serving mass market customers with their own switches, they certainly qualify as trigger companies.

Mr Bryant further argues that BEGIN PROPRIETARY ***[redacted]***END PROPRIETARY should be disqualified as a trigger company In support of this argument, he attaches an article about BEGIN PROPRIETARY***[redacted]***END PROPRIETARY that appeared on C/NET NEWS.COM's web page BEGIN PROPRIETARY ***[redacted]***END PROPRIETARY agreement to offer service in 30 new markets in 30 months, Mr Bryant notes, "it has been reported that BEGIN PROPRIETARY***[redacted]***END PROPRIETARY intends to scale back its service offerings to only the most basic local exchange service and not to actively market those services in the markets it was required to enter." The key point to take away from this article is that, while BEGIN PROPRIETARY***[redacted]***END PROPRIETARY may be cutting its data plans, it <u>still intends to offer local exchange service</u> in these markets

Q. REGARDING MR GILLAN'S TESTIMONY ON BEHALF OF COMPSOUTH, SHOULD ANY WEIGHT BE GIVEN TO HIS TESTIMONY CONCERING QUALIFYING TRIGGER CANDIDATES?

A Absolutely not. Beginning on page 26 of his rebuttal testimony, Mr Gillan makes certain assertions about specific CLEC trigger candidates and their alleged failure to serve the mass market segment To support some of his arguments, Mr Gillan attaches to his testimony affidavits not previously filed in this docket from BEGIN PROPRIETARY***[redacted]***END PROPRIETARY In the affidavits, these CLECs state why they should not be considered trigger companies because they are either not "actively marketing" to these customers or because they consider any lines served as the exception, rather than the rule. The FCC criteria requires a determination of whether CLECs <u>are serving</u> mass market customers. Nowhere, in its trigger test, does the FCC require CLECs to be "actively marketing" to these customers The discovery responses these CLECs provided to BellSouth clearly indicate that each <u>is serving</u> mass market customers. Therefore, they qualify as trigger companies.

With regard to the other companies whom Mr Gillan attempts to disqualify as trigger companies, Mr Gillan does not indicate where he acquired the information and data upon which he bases his arguments. BellSouth's internal data shows that the other CLECS on my exhibit have purchased analog loops from BellSouth to serve mass market customers None of these CLECS are affiliated with each other or with BellSouth. Clearly, these CLECS qualify as trigger companies pursuant to the FCC's straight-forward, bright line self-provisioning trigger

Section 4: Discussion of Market Definition

Q. ON PAGE 13, COMPSOUTH WITNESS JOE GILLAN RECOMMENDS USING LOCAL ACCESS TRANSPORT AREA ("LATA") AS THE APPROPRIATE MARKET DEFINITION WHAT IS THE OUTCOME OF BELLSOUTH'S SELF-PROVISIONING TRIGGER ANALYSIS IF LATA WAS THE MARKET DEFINITION?

A. Using this definition would also result in 4 markets satisfying the triggers test BellSouth's trigger analysis using LATA as the market definition is attached as Exhibit PAT-11.

Q. IN THE OTHER STATE IMPAIRMENT PROCEEDINGS, CLECS HAVE RECOMMENDED USING METROPOLITAN SERVING AREAS ("MSAs") AS THE APPROPRIATE MARKET DEFINITION. WHAT IS THE OUTCOME OF

BELLSOUTH'S TRIGGER ANALYSIS IF MSA WAS THE MARKET DEFINITION?

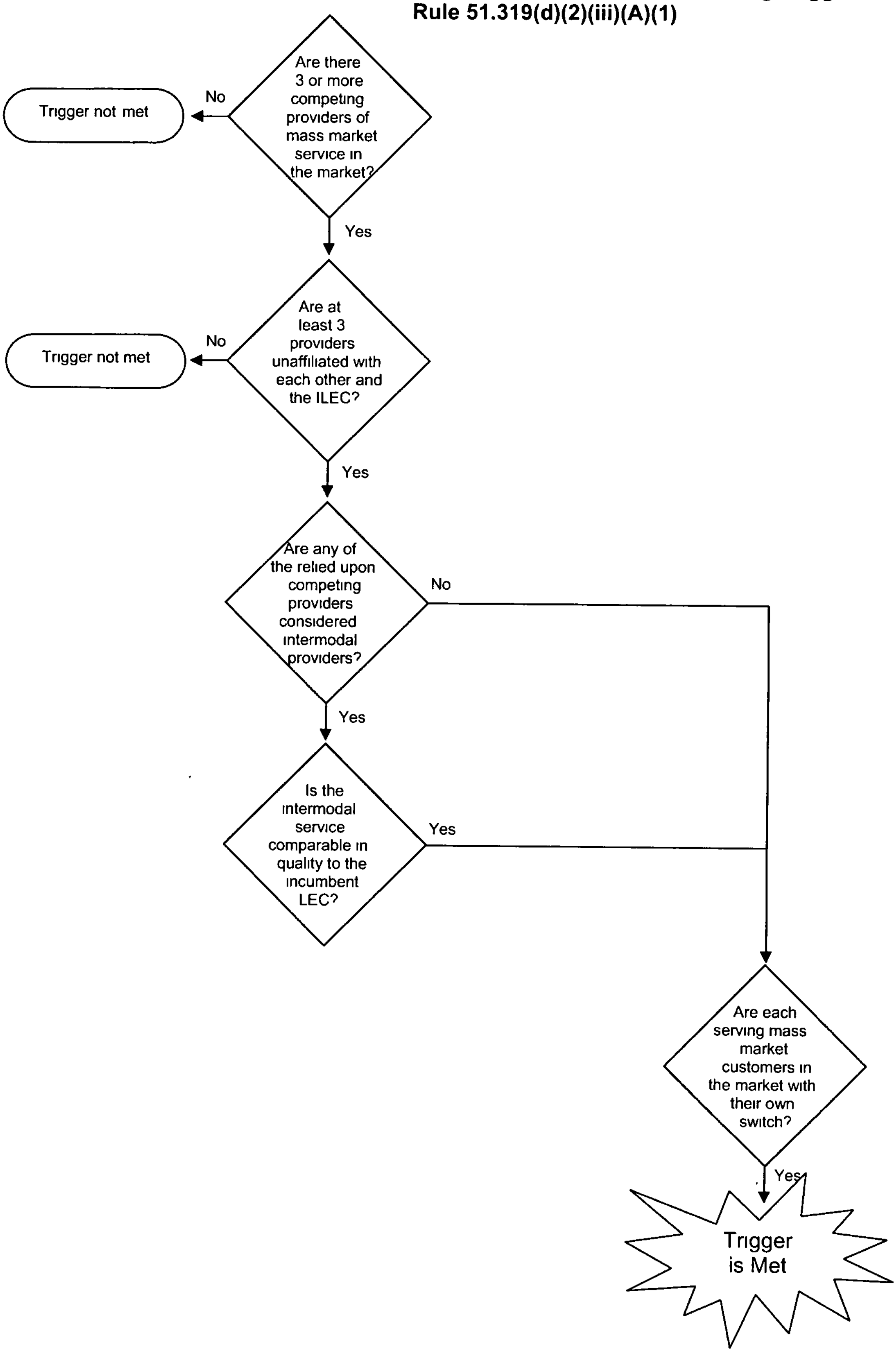
A Using this definition would result in 3 markets satisfying the triggers test BellSouth's trigger analysis using MSA as the market definition is attached as Exhibit PAT-12

Q DOES THIS CONCLUDE YOUR TESTIMONY?

A Yes.

Exhibit PAT-8

Decision Flow Chart to Determine if FCC Self-Provisioning Trigger is Met Rule 51.319(d)(2)(iii)(A)(1)



Confidential and Proprietary
CLEC Information

Markets with 3 or More CLECs Self-Providing DS1 level Switching

MARKETS

Chattanooga TN-GA-GA Zone 1
Knoxville TN Zone 1
Memphis TN-AR-MS-KY Zone 1
Nashville TN-KY Zone 1
Nashville TN-KY Zone 2

LATAs Where the Self-Provisioning Trigger is Met

LATA	Market
472	Chattanooga TN
474	Knoxville TN
468	Memphis TN
470	Nashville TN

3 or more CLECs
Serving locations with 3 or less lines
Based on currently available data

MSAs Where the Self-Provisioning Trigger is Met

MSAs

Chattanooga

Memphis

Nashville - Davidson

3 or more CLECs
Serving locations with 3 or less lines
Based on currently available data

BELLSOUTH TELECOMMUNICATIONS, INC.

SURREBUTTAL TESTIMONY OF ALPHONSO J. VARNER

BEFORE THE TENNESSEE REGULATORY AUTHORITY

FILED MARCH 17, 2004

DOCKET NO 03-00491

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

A. My name is Alphonso J. Varner. I am employed by BellSouth as Assistant Vice President in Interconnection Services My business address is 675 West Peachtree Street, Atlanta, Georgia 30375.

Q. ARE YOU THE SAME ALPHONSO J. VARNER WHO FILED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes I am.

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A My Surrebuttal Testimony is filed in response to several issues raised by AT&T witness Cheryl Bursh.

Q ALL PARTIES HAVE DIRECTED THE TENNESSEE REGULATORY AUTHORITY (THE "AUTHORITY") TO VARIOUS PORTIONS OF THE TRO AND THE RULES IN SUPPORT OF THEIR POSITIONS IN THEIR DIRECT TESTIMONY WHAT IS THE IMPACT OF THE D.C. CIRCUIT COURT OF APPEALS ORDER ON THE TRO IN THIS PROCEEDING?

A. Currently the impact of the DC Circuit Court's opinion is unclear. At the time of filing this testimony, the DC Court had vacated large portions of the rules promulgated as a result of the Triennial Review Order ("TRO"), but stayed the effective date of the opinion for at least sixty days. Therefore my understanding is that the TRO remains intact for now, but its content, and the rules adopted thereto, must be suspect in light of the court's harsh condemnation of large portions of the order. Accordingly, I will reserve judgment, and the right to supplement my testimony as circumstances dictate, with regard to the ultimate impact of the DC Court's order on this case.

I. BELLSOUTH'S CURRENT PERFORMANCE RESULTS ARE NOT ONLY RELEVANT TO THIS PROCEEDING, BUT WITHOUT SUCH DATA THERE IS NO OBJECTIVE BASIS TO DETERMINE IF THE CLECS FACE OPERATIONAL IMPAIRMENT.

Q. DO YOU HAVE ANY RESPONSE TO THE COMMENTS ON PAGE 3 OF MS. BURSH'S TESTIMONY, WHERE SHE CITES PARAGRAPH 469 FROM THE FCC'S TRIENNIAL REVIEW ORDER AS A REASON TO

CONCLUDE THAT BELLSOUTH'S CURRENT PERFORMANCE RESULTS ARE NOT RELEVANT IN THIS PROCEEDING?

A. Yes. Ms. Bursh specifically cites the FCC's statement in paragraph 469 of the TRO that "the number of hot cuts performed by BOCs in connection with the 271 process is not comparable to the number that incumbent LECs would need to perform if unbundled switching were not available for all customer locations served with voice-grade loops." This is construed as the basis to declare that the current performance data are irrelevant This conclusion is neither required by the TRO, nor is it a reasonable way for the Authority to proceed, nor is it a reasonable interpretation of the Order

Paragraph 469 merely indicates that ILECs, like BellSouth, cannot rely only on the findings in the 271 proceedings to conclude that there is no impairment for CLECs if unbundled switching is not available. The point that the FCC was making is that the question the state commissions must answer is how the ILEC will handle increased volumes. They did not dismiss current performance data as relevant evidence to be considered by state commissions in that regard. Moreover, in paragraph 512 of its TRO, the FCC encouraged the use of such data in these proceedings with respect to loop provisioning in general when it explains:

> Evidence relevant to this inquiry might include, for example, commercial performance data demonstrating the timeliness and accuracy with which the incumbent LEC performs loop provisioning tasks and the existence of a penalty plan with respect to the applicable metrics. For the incumbent LECs that are BOCs subject to the requirements of section 271 of the Act, states may choose to rely on any performance data reports and penalty plans that might have been developed in

> the context of the past, pending, or planned application for long-distance authority.

Clearly, the FCC intended for states to use the facts of current performance instead of proceeding solely on the basis of unsupported assumptions as Ms. Bursh proposes. In essence, she is proposing to unnecessarily restrict this Authority in its deliberations by ignoring factual data

The intent of the FCC's statement in paragraph 469 is more reasonably interpreted as the rationale for why it could not find on a national basis that CLECs are not impaired without access to unbundled local switching, or hold unequivocally that they are impaired. If the FCC had made such a clear finding, there would be no need for the state proceedings Clearly, the FCC was unwilling to make a definitive finding. For example, in footnote 1435 of the same paragraph 469 that Ms. Bursh cites, the FCC states: "our decision does not overlook the possibility that if in some markets the incumbents' ability to perform batch hot cuts does not pose impairment, the states may simply make the findings to this effect." BellSouth's performance data evidence BellSouth's ability to perform loop provisioning in a timely and reliable manner. Hot cuts are simply a specific type of loop provisioning activity. Thus, BellSouth's current exemplary performance data are relevant and important.

Q HOW SHOULD THE PERFORMANCE DATA BE USED?

A. The performance data should be used in conjunction with the testimony of BellSouth witnesses such as Mr. McElroy, Mr. Ainsworth, and Mr. Heartley to determine whether operational impairment exists. The performance data calculated as prescribed by this Authority is an important part of this inquiry because it demonstrates the extent of BellSouth's commitment and action on that commitment to provide nondiscriminatory loop provisioning. BellSouth has shown a commitment to provisioning loops, including hot cuts, in a timely and accurate manner for CLECs in Tennessee. These measurement results clearly show that performance does not pose an operational barrier to market entry for the CLECs The performance data provided in my Direct Testimony offers a factual basis for the Authority's decisions as opposed to the unsupported assumptions offered by CLEC witnesses such as Ms. Bursh.

Q. MS. BURSH, ON PAGES 3 OF HER REBUTTAL TESTIMONY ALLEGES THAT BELLSOUTH HAS TWISTED CURRENT PERFORMANCE DATA TO SUPPORT THE CLAIM THAT BELLSOUTH'S EXISTING PROCESSES WILL ADEQUATELY SUPPORT ANTICIPATED LOOP MIGRATION. SHE SPECIFICALLY ARGUES THAT "HOW BELLSOUTH HANDLES HOT CUTS AND LOOP PROVISIONING IN A LOW VOLUME ENVIRONMENT DOES NOT PROVIDE PROOF REGARDING HOW IT WILL HANDLE DRAMATIC INCREASES IN VOLUME." DO YOU AGREE?

A No, I disagree. As demonstrated in Exhibit AJV-1 to my Direct Testimony, BellSouth has shown a commitment to performing loop provisioning, including hot cuts, in a timely and accurate manner for CLECs in Tennessee. This performance stands on its own merit without any need to "twist" the data. If the UNE loop and hot cut volumes are low, these volumes simply reflect the CLECs' choices, which according to Ms. Bursh is sufficient rationale to penalize BellSouth.

That aside, the hot cut process, which Ms. Bursh mentions in addition to loop provisioning in general, is not a new process to BellSouth. BellSouth actually discussed specific hot cut performance as part of its filing in Docket No. 03-00526 However, since this issue was raised here it is important to point out that BellSouth has been doing what we now call 'hot cuts' for many years BellSouth has extensive experience in performing large numbers of hot cuts by completing the work steps required to transfer a geographic area from one wire center to another These transfers are called 'Area Transfers.'

Another example of BellSouth's experience with 'hot cuts' is the T&F process, wherein a customer moves from one location to another within the same wire center Yet one more example of hot cuts in very large volumes is switch replacement. This occurs when BellSouth replaces the switching equipment in a central office with newer technology such as the replacement of an analog switch with a digital switch. Switch replacement involves the hot cut of thousands of customer lines, in a very short period of time. These examples have been subject to oversight by the Authority for many years, even predating the Telecom Act of 1996. These hot cuts have also been included in such retail measurements as Customer Trouble Report Rate.

Further, when the Authority set performance standards for CLEC hot cuts, these standards did not have any volume limitations or constraints. BellSouth was required to meet these standards regardless of the volume offered. As stated in my Direct Testimony in Docket No. 03-00526, considering the three SQM Hot Cutover measures that capture the timeliness and accuracy of the conversion (Coordinated Customer Conversions, Hot Cut Timeliness and Provisioning Troubles within 7 days of Cutover), BellSouth met the standard for 59 of the 62 sub-metrics (93.7%) with CLEC activity from December 2002 through October 2003. (A more detailed analysis was provided as part of my Direct filing in Docket No. 03-00526.) These data show that BellSouth has consistently met the performance standards established by the Authority, which of course required dedication of the resources necessary to do so Having met this challenge in the past certainly lends credence to the proposition that BellSouth will do so in the future These are the facts and these facts cannot be disputed.

Rather than try to refute the facts, Ms. Bursh resorts to the supposition that the facts will change. The allegation that the existing processes will be inadequate to support anticipated loop migration is merely an unsupported guess that BellSouth will not continue to meet the standards that it has met in the past. The facts represented by both current and historical data contradict her conjecture Also, in the unlikely event that BellSouth does not meet the standards, there are indicators, such as measurements, and consequences such as SEEM payments, complaints and other remedies that this Authority and the FCC established that can be used to address her concerns.

Q ON PAGE 4 OF HER REBUTTAL TESTIMONY, MS. BURSH ARGUES THAT USING GEORGIA RESULTS AS SUPPLEMENTAL DATA TO THE TENNESSEE DATA IS INAPPROPIATE BECAUSE PERFORMANCE DATA ARE IRRELEVANT "NO MATTER WHAT STATE IT IS FROM." PLEASE RESPOND.

A. Since Ms. Bursh believes that performance data has no place in this proceeding, "no matter what state it is from," and I strongly disagree with that stance, this issue must be resolved before the utility of the Georgia data can be considered. Thus, if the Authority finds that UNE Loop performance data are relevant, the question becomes whether, in those instances where Tennessee data volumes are very low or absent, there is any benefit in reviewing the corresponding Georgia data. The support for finding that the Georgia data are indeed useful is found in the fact that the systems and processes used in ordering, provisioning and maintaining UNE loops are regional in nature. Thus, the systems and processes used to provide CLECs UNE Loops are substantially the same from state to state within BellSouth's territory. This was confirmed by the FCC in approving BellSouth Florida/Tennessee 271 application, as quoted below:

> We find that BellSouth, through the PwC report, provides evidence that its OSS are substantially the same across BellSouth's nine-state region. Thus, we shall consider both the Georgia KPMG test and the Florida KPMG test in evaluating this application. Moreover, BellSouth's showing enables us to rely, in most instances, on findings relating to BellSouth's OSS from the BellSouth *Georgia/Louisiana Order* and the *BellSouth Multistate Order* in our analysis of BellSouth's OSS in Florida and Tennessee.

(*BellSouth Florida/Tennessee Order*, ¶ 80) (footnotes omitted). Moreover, the FCC in approving BellSouth's Five State application made the same finding that BellSouth's systems are substantially the same across multiple state. The regional nature of BellSouth's systems served as the basis for the FCC's use of data from one state with more significant volumes, in that case Georgia, to supplement low volume data from the states that were under consideration. The FCC specifically stated:

> [W]e can examine data reflecting BellSouth's performance in Georgia where low volumes yield inconclusive or inconsistent information concerning BellSouth's compliance with the competitive checklist. This "anchor state" approach was developed in the *SWBT Kansas/Oklahoma Order* and has been used frequently since then

(*BellSouth Multistate Order*, ¶ 130) (footnotes omitted) Consequently, BellSouth's performance in providing UNE loops to CLECs in Georgia, whether through hot cuts or otherwise, based on the same systems and processes used in Tennessee is certainly relevant and useful in those instances where CLEC volumes are low or nonexistent in Tennessee

Q. CONTINUING IN THE SAME MANNER, MS. BURSH, ON PAGE 4 OF HER REBUTTAL TESTIMONY DENIES THE RELEVANCE OF THE STATEMENT MADE IN YOUR DIRECT TESTIMONY THAT BELLSOUTH'S CURRENT PERFORMANCE IS AT LEAST AS GOOD AS ITS PERFORMANCE AT THE TIME THAT THE AUTHORITY AND THE FCC APPROVED ITS 271 APPLICATION. IS HER REASONING SOUND?

A. No, her reasoning is both unsound and misplaced First, in an attempt to support her contention that BellSouth's current performance is irrelevant, Ms. Bursh quotes a portion of paragraph 469 of the TRO that has nothing to do with the performance data that I referenced in my Direct Testimony She quotes the FCC's statement that: "the number of hot cuts performed by BOCs in connection with the 271 process is not comparable to the number that incumbent LECs would need to perform if unbundled switching were not available for all customer locations served with voice-grade loops."

The statement by the FCC that Ms. Bursh cites specifically addressed hot cuts, as the quote itself highlights, and not the provisioning of loops in general Moreover, in paragraph 512 of the TRO, the FCC actually encouraged the use of loop provisioning data explaining: "states may choose to rely on any performance data reports and penalty plans that might have been developed in the past, pending, or planned application for long-distance authority." Hence, her reasoning that the data are irrelevant is unsound.

Second, as the statement that she quotes deals with hot cuts, Ms Bursh's reasoning is misplaced because the Authority established Docket No. 03-00526 to address hot cuts, and my testimony in that docket provides BellSouth's data and analysis related to its hot cut performance. To the extent, however, that Ms. Bursh claims that hot cut performance data should be ignored in either this filing (Docket No. 03-00491) or the hot cut filing (Docket No 03-00526), even that assertion is faulty The real issue presented with respect to BellSouth's ability to perform the anticipated volume of hot cuts if local circuit switching is not offered as a UNE is that of scalability of the process In order to assess scalability, one has to start with what is to be scaled, namely the hot cut process. Certainly, BellSouth's current hot cut performance is relevant evidence to be considered in conjunction with related evidence provided by other BellSouth witnesses in this proceeding such as Ken Ainsworth, Milton McElroy and Al Heartley.

II. THE CLAIM THAT UNLESS THE PERFORMANCE STANDARDS FOR UNE-L ARE EQUIVALENT TO UNE-P, CLECs ARE IMPAIRED DUE TO OPERATIONAL BARRIERS WITHOUT ACCESS TO LOCAL SWITCHING IS CONTRARY TO BOTH LOGIC AND THE TRO.

Q. ON PAGES 4 AND 5 OF HER REBUTTAL TESTIMONY, MS. BURSH STATES THAT "BELLSOUTH USES THE WRONG STANDARD IN ATTEMPTING TO DEMONSTRATE THAT CLECs DO NOT FACE OPERATIONAL BARRIERS TO MARKET ENTRY ABSENT UNBUNDLED LOCAL SWITCHING." DOES MS BURSH PROPOSE AN APPROPRIATE STANDARD TO COMPARE DELIVERY METHODS?

A. No, her proposal is inappropriate First, I would like to note a bit of inconsistency in Ms Bursh's position. After claiming that BellSouth's data are irrelevant and instructing this Authority to discard this evidence, Ms. Bursh appears to contradict her own testimony. She concedes that the FCC suggested a review of performance data could be appropriate as part of the inquiry into the ILEC's "ability to transfer loops in a timely and reliable manner." (TRO at ¶ 512.) Having now agreed that the data are relevant, she disagrees with the manner in which this Authority chose to develop the data.

The discussion of performance measurements data for hot cuts (Docket No 03-00526) and UNE local loops (Docket No. 03-00491) in Exhibit AJV-1 provides the relevant information that the FCC suggested for use by this

Authority. BellSouth has been producing performance measurements results using Tennessee data, based on the Florida Performance Assessment Plan ("PAP"), for many months. Rather than assessing BellSouth's performance relative to standards set by the Tennessee PAP, as I did in my direct testimony, Ms. Bursh claims that my "discussion provides little insight into the issue of whether BellSouth's loop provisioning is as prompt and efficient as UNE-P." Instead, she creates her own standard Ms Bursh's self-proclaimed "FCC-prescribed standard of UNE-P performance" is neither a directive established by the FCC, nor is it a reasonable standard to suddenly superimpose in order to measure performance.

The key point is that it is not appropriate to compare performance for UNE-P and UNE-L processes in the instances where they are not analogous They are not the same products and do not offer the same functionality to the CLEC Consequently, neither the FCC nor this Authority required them to be the same. The question before the Authority is NOT whether UNE-L can be made the same as UNE-P The question before the Authority, rather, is whether an efficient CLEC can compete in a particular market using UNE-L Because the answer to this question is unequivocally "yes," the CLECs are attempting to change the question.

Q. MS. BURSH, ON PAGE 5 OF HER REBUTTAL TESTIMONY, ASSERTS THAT IF "UNE-P IS NO LONGER AVAILABLE, THE ILEC MUST FOLLOW THE SAME STANDARD IN PERFORMING ITS REPLACEMENT." DOES THIS CONCLUSION HAVE MERIT?

A. Not entirely. It is a reasonable conclusion only when the processes required to provide the two products are analogous. Ms. Bursh, however, is narrowly asserting that the performance standard for Order Completion Interval (OCI) should be the same for these two products even though the processes measured by OCI are not analogous The basis for this illogical approach is purported to be the FCC in the TRO.

The only determination that the Authority need make is: Will BellSouth's performance for UNE loops provide the CLECs with a meaningful opportunity to compete? Stated another way: Does UNE-L performance impair the CLECs' ability to compete? In making this determination, the Authority should consider not only the order completion interval, but also the other measurements of maintenance, provisioning, and ordering processes The Authority should also consider the fact that UNE-L provides the CLEC with a number of competitive advantages that they do not have with UNE-P. For instance, once an end-user is served by a UNE loop, which is terminated on the CLEC's switching equipment, the CLEC can change switch dependant features and offer promotional packaging <u>without involving BellSouth</u>.

Q. DO YOU AGREE WITH THE BASIS OF MS. BURSH'S CLAIM THAT THE ORDER COMPLETION INTERVAL FOR UNE-P AND UNE-L MUST BE THE SAME?

A. No. In coming to the conclusion that the Order Completion Interval for UNE-P and UNE-L should be the same, Ms Bursh cites a partial reference to footnote 1574 in the TRO. The entire footnote is as follows

> In determining whether granular evidence contradicts our finding that the hot cut process imposes an operational barrier, the state commission should review evidence of consistently reliable performance in three areas: (1) Timeliness· percentage of missed installation appointments and order completion interval; (2) Quality: outages and percent of provisioning troubles; and (3) Maintenance and Repair: customer trouble report rate, percentage of missed repair appointments, and percentage of repeat troubles This review is necessary to ensure that customer loops can be transferred from the incumbent LEC main distribution frame to a competitive LEC collocation as promptly and efficiently as incumbent LECs can transfer customers using unbundled local circuit switching. This evidence will permit states to evaluate whether competitive carriers are impaired because the quality of their services is below that offered by the incumbent.

While state commissions are encouraged to review performance, there is nothing in this footnote that requires an identical standard for UNE-P and UNE-L. Ms. Bursh cites only the portion of the footnote that discusses "transferring customer loops from the incumbent LEC main distribution frame to a competitive LEC collocation." If we actually look at the function that the cited portion of the footnote refers to, we find that under BellSouth's current SQM in Tennessee, this function has a performance standard requiring the activity to be completed within 15 minutes, 95% of the time. Thus, Ms. Bursh erroneously concludes that the Order Completion Interval for UNE-L, which is not even a measure of the process identified in her citation, must therefore be the same as UNE-P. Once again, these products are different, which means they have inherent advantages and disadvantages when compared to each other. For example, some forms of UNE-P, such as migration only orders, will have a shorter order completion interval than some forms of UNE-L. Conversely, other forms of UNE-P, such as those orders requiring the dispatch of a technician, will have longer intervals, as shown in my rebuttal testimony on this subject. Finally, UNE-L as previously stated, provides the CLEC with more direct control of some of the services provided to their customer. Particularly, CLECs can change custom calling features themselves with UNE-L.

There are significant parallel processes for ordering and provisioning the unbundled network element platform (UNE-P) and unbundled loop (UNE-L) services, but they are not analogous with respect to order completion interval. Notably, in citing a portion of footnote 1574 in the TRO, the CLECs ignore, in the same order, the language to which this footnote applies. Namely, in paragraph 512, which references footnote 1574, the FCC states:

> We therefore ask the state commissions to consider more granular evidence concerning the incumbent LEC's ability to transfer loops in a timely manner. Specifically, we ask the states to determine whether incumbent LECs are providing nondiscriminatory access to unbundled loops. [fn. 1574] Evidence relevant to this inquiry might include, for example, commercial performance data demonstrating the timeliness and accuracy with which the incumbent LEC performs loop

> provisioning tasks and the existence of a penalty plan with respect to the applicable metrics. For incumbent LECs that are BOCs subject to the requirements of section 271 of the Act, states may chose to rely on any performance data reports and penalty plans that might have been developed in the context of a past, pending, or planned application for long-distance authority. (emphasis added)

Clearly, the FCC is asking states to use existing performance plans with full knowledge that those plans equate performance on UNE-L to retail analogs, not to UNE-P. Therefore, given that the performance data that the FCC encourages states to use in their evaluations do not reflect the same standards for UNE-P and UNE-L, it would be illogical to interpret the footnote cited by the CLECs as meaning that these two performance standards should be equivalent.

Further, the CLECs fail to cite the portion of the footnote that directs "states to evaluate whether competitive carriers are impaired because the quality of their services is below that offered by the incumbent." In other words, the FCC directed the states to use the same tests used to establish the retail analogues and benchmarks in the performance plan – substantially the same time and manner, and meaningful opportunity to compete. Given that the Authority has already established analogues and benchmarks setting those standards, it should rely on those data to meet the FCC's directive.

Q. HAS THIS ARGUMENT THAT UNE-P AND UNE-L INTERVALS MUST BE THE SAME BEEN MADE BEFORE BY THE CLECS?

A. Yes. AT&T made this same argument before the FCC that the standard must be the same for UNE-P and UNE-L, contending that, until ILECs offer an electronic loop provisioning (ELP) method of transferring large volumes of local customers, unbundled switching for voice grade loops is essential. The FCC, in paragraph 491 of its TRO, rejected this contention stating: "the evidence in the record suggests that an ELP process, to be effective, would require significant and costly upgrades to the existing local network at both the remote terminal and the central office.. we, decline to require ELP at this time, although we may reexamine AT&T's proposal if hot cut processes are not, in fact, sufficient to handle necessary volumes " Clearly, the FCC did not support the idea that UNE-P and UNE-L installation intervals must be the same. Consequently, it is impractical for this Authority to superimpose such a blatantly self-serving standard simply because CLECs want to do so.

A more rational interpretation of the TRO is that BellSouth's performance relative to the applicable standards for UNE-L should be equivalent to BellSouth's performance relative to applicable standards for UNE-P. Said another way, it means that BellSouth must provide nondiscriminatory UNE-L performance just like it must provide nondiscriminatory UNE-P performance Of course, analysis of the data shows that BellSouth meets this rational test, which is a fact that CLEC witnesses cannot refute.

Q. MS. BURSH ON PAGE 6 OF HER REBUTTAL TESTIMONY PRESENTS A TABLE THAT SHE CLAIMED ON PAGE 5 DEMONSTRATES THAT BELLSOUTH'S LOOP PERFORMANCE FALLS "WOEFULLY SHORT" WHEN COMPARED AGAINST UNE-P PERFORMANCE. WHAT IS THE RELEVANCE OF THIS COMPARISON IN THIS PROCEEDING?

A. It provides no useful information to the Authority. Ms. Bursh's Table (page 6 of her rebuttal testimony) simply points out that the Order Completion Interval (OCI) is the average time interval to complete UNE-P orders, which are mostly orders requiring a records change only and require no physical work, is less than the average time to complete 2W Analog Loop w/LNP Non-Design < 10 / Dispatch-In, where some form of physical work is required. In other words, UNE-P orders are primarily "switch as is" and 2W Analog Loop w/LNP Non-Design < 10 / Dispatch-In orders are not. Here Ms Bursh twists her analysis as she attempts to draw conclusions by equating the installation interval for two different products and processes.

Many of the UNE-P orders that Ms. Bursh refers to here are largely orders for feature changes. So she has stated incorrectly what OCI would be in a UNE-L environment. In particular, for features changes, the order completion interval in the UNE-L environment would be zero, because the CLEC would do this work itself, compared to the "fraction of a day" for UNE-P orders reflected in Ms. Bursh's Table. Further, it should be noted that the interval for 2-W Analog Loop w/LNP Non-Design < 10 / Dispatch-In includes a 3-day minimum for the LNP portion of the work, which has been requested by the CLECs in collaborative teams so that the CLECs have the time to perform the work necessary to provision the service.

The origin of this 3-day minimum is actually an industry agreement, which allows for the new service provider (either CLEC or BellSouth) to accomplish the work and coordination necessary to perform a number port. In July 2003, the Local Number Portability Administration Working Group (LNPAWG), which includes CLEC and ILEC representatives, approved a set of number porting procedures that place a lower limit on the Order Completion Interval for number ports in an NPA-NXX exchange These procedures, in part, state: "Any subsequent port in that NPA NXX will have a due date no earlier than three (3) business days after FOC receipt " A subsequent port refers to any number port that occurs after the very first one in that NPA-NXX code, which would encompass virtually all of the number ports applicable here. The LNPAWG is a sanctioned committee of the North American Numbering Council (NANC). AT&T is a member of the LNPAWG who approved these procedures requiring the 3-day minimum.

However, despite the aforementioned 3-day minimum, BellSouth is investigating ways to shorten the OCI time, particularly for UNE Loop orders not requiring a dispatch. Of course, any such change must still adhere to industry standards and may be delayed by CLECs through the change control process.

As pointed out in my rebuttal testimony on page 13, an order for UNE-P typically involves little more than changing the billing of an existing end-user from BellSouth retail (or from another CLEC), to the acquiring CLEC. It is important to note that for most UNE-P orders the following three factors apply: 1) no physical work is required, 2) no outside dispatch is needed, and 3) the order is not subject to facility shortages. The other order type listed in Ms. Bursh's Table, 2W Analog Loop w/LNP Non-Design < 10 / Dispatch-In, will always require some form of physical work

Finally, to reiterate, the relevant question is not whether UNE-L and UNE-P are the same, but whether an efficient CLEC can compete using UNE-L. BellSouth's UNE-L performance, coupled with the advantages to the CLEC of UNE-L, provides CLECs a meaningful opportunity to compete. For instance, any alleged timeliness advantage that BellSouth has with respect to loops connected to its switch, becomes an advantage to the CLEC after the CLEC has acquired the customer using UNE-L. In that case, because the loop is already connected to the CLEC's switch and only requires minimal work, BellSouth and the CLEC must perform a hot cut to win-back the customer. Other advantages include the business opportunities to perform their own work, on their own switches, and the marketing opportunities to offer their own features and functionalities that are not offered by BellSouth I only make these points to illustrate the lack of logic surrounding the CLECs claim that Order Completion Interval results should be viewed in a vacuum and are required to be the same for UNE-P and UNE-L.

III. <u>BELLSOUTH HAS PROVIDED ALL OF THE UNE LOOP DATA NECESSARY TO ASSESS ITS PERFORMANCE AND, CONTRARY TO IMPLICATIONS BY THE CLECS, DID NOT "HIDE" ANY RELEVANT LOOP OR HOT CUT PERFORMANCE RESULTS.</u>

Q. MS. BURSH, ON PAGES 6 AND 7 CLAIMS THAT CONSOLIDATING RESULTS FOR "ALL LOOPS" HIDES PERFORMANCE RESULTS RELEVANT TO THE ISSUE OF OPERATIONAL BARRIERS TO MARKET ENTRY ABSENT UNBUNDLED LOCAL SWITCHING. HOW DO YOU RESPOND?

A. BellSouth did not consolidate or offset the performance assessments in a manner that masks the more relevant performance as Ms. Bursh claims on page 7. On the contrary, Exhibit AJV-1 and Attachment 1 provided Tennessee performance data for UNE Local Loops in this docket, as well as hot cut data in Docket No. 03-00526. For UNE Local Loops, BellSouth processed 97% of all LSRs within the specified benchmark intervals during the 11-month period (December 2002 – October 2003). For the same period, BellSouth met the performance standard for 93% of the provisioning sub-metrics and 96% of the maintenance & repair sub-metrics. Also, as filed in my direct testimony for Docket No. 03-00526, the data show that BellSouth met the Coordinated Customer Conversion (for hot cuts) 15-minute benchmark for over 99.5% of all cutovers in the past 11 months in Tennessee This measurement reflects the average time it takes to disconnect an unbundled loop from the BellSouth switch and cross connect it to the CLEC equipment, which was 2 minutes and 47 seconds during this 11 month period

Further, the detailed data for each individual sub-metric was provided. This was clearly the case, because Ms. Bursh refers to some of that data in her testimony. The problem with analyzing performance at the sub-metric level is that many of the sub-metrics have such small volumes, that they don't provide a useful basis for analysis. To help remedy that problem, I refer to aggregate statistics in the body of the testimony; however, the detail is plainly visible for anyone who wants to see it. Moreover, when the detail is considered, BellSouth's performance actually seems to be better than the aggregate statistics indicate.

Q ON PAGE 8, BEGINNING ON LINE 13 MS. BURSH APPEARS TO BELIEVE THAT BELLSOUTH'S AGGREGATED ASSESSMENT MAY MASK PERFORMANCE. HOW DO YOU RESPOND?

A. As I indicated above, BellSouth did not aggregate the performance assessments in a way that masks anything. As Ms. Bursh notes, on pages 7 and 8 of my Direct Testimony, I explain which products are included within the UNE Loop performance data. Also, as previously stated, Exhibit AJV-1 provides a detailed discussion of the data <u>and</u> the detailed performance results at the sub-metric level It is this detailed comparative performance data for UNE Local loops that actually facilitates evaluation of the extent to which nondiscriminatory performance is provided. But regardless of the individual or aggregated presentation of the data, the fact remains that BellSouth's performance is very high

Q. SHOULD THE AUTHORITY GIVE ANY WEIGHT TO MS BURSH'S COMMENT ON PAGE 8, STATING THAT THE AGGREGATED DATA FOR UNE-LOOPS ARE "MEANINGLESS GIVEN THAT A NUMBER OF MISSED SUBMETRICS WERE FOR ORDERING OF PRODUCTS THAT WILL BE DOMINANT IF UNBUNDLED LOCAL SWITCHING IS ELIMINATED" AND HER GENERAL CRITICISM OF THE HIGH LEVEL DATA REVIEW IN YOUR TESTIMONY?

A. No, the Authority should accord this comment no weight, for several reasons, two of which I mention here. First, as a preliminary matter, Ms. Bursh's supposition that this docket will result in a huge increase in the number of UNE Loops if local switching is eliminated presupposes that loops <u>must</u> be ordered because UNE-P will not be available. This is an incorrect assumption as UNE-P will be available, but simply at market-based prices. The second reason, which I will discuss in more detail, is that while Ms. Bursh argues that BellSouth makes its assessment of good performance based on a high level presentation of data, she uses a high level assessment to claim that BellSouth's performance is poor. For example, on pages 8 and 9 of her rebuttal testimony, Ms. Bursh picks two sub-metrics that BellSouth missed for the measure FOC and Reject Response Completeness (Mechanized), namely, 2W Analog Loop w/LNP Design/EDI and 2W Analog Loop w/LNP Design/TAG, notwithstanding the fact that BellSouth returned a response for 96% of the LSRs, and holds up these sub-metrics purportedly as proof that BellSouth's performance is poor.

Additional background information is necessary to understand this measurement. The measurement calculates the number of Firm Order Confirmations or Auto Clarifications sent to the CLEC from EDI or TAG in response to electronically submitted LSRs. That is, the numerator is the total number of service requests for which a FOC or Reject is sent, and the denominator is the total number of service requests received in the report period, as the metric is designed to capture the data for the current data month. CLECs do, however, submit LSRs on the last day of the month. Fully mechanized LSRs, which are captured in the 2W Analog Loop w/LNP Design sub-metric referenced by Ms Bursh, that are submitted on the last day of the month have a FOC benchmark of 95% within 3 hours and Reject Interval of 97% within 1 hour. This means that the FOC or reject may not be due in the month submitted, depending upon the actual receipt time of the LSR and as a result the eventual FOC and Reject may not be included in the numerator of the FOC and Reject Responses Completeness measurement, even though the LSR would be in the denominator. The key point is that the FOC and Reject could have been returned to the CLEC, even though the FOC and Reject Completeness measurement indicates a less than 100% response rate. This becomes particularly significant when the ordering volumes are small.

Specifically, in providing the alleged illustration of a problem with BellSouth's performance for these two sub-metrics, Ms. Bursh fails point out the fact that the low volume required perfection in most cases to make the benchmark First, in the case of the six months missed for FOC and Reject Response Completeness for the 2-W Analog Loop w/LNP Design/EDI sub-metric, 4 of the 6 months missed had a volume of 9 or less. With a benchmark of 95 percent, and a volume of 9 or less, BellSouth could not even miss 1 response and make the benchmark. For the other two months in which BellSouth missed the benchmark, July and August 2003, BellSouth made, respectively, 16 out of 18 (only missed 2) and 19 out 21 (only missed 2). This certainly does not represent a significant problem as Ms. Bursh asserts.

Likewise, if we look at the 11 months missed for FOC and Reject Response Completeness for the 2-W Analog Loop w/LNP Design/EDI sub-metric, 10 of the 11 months missed had a volume of 10 or less This means that with a benchmark of 95%, BellSouth could not miss even 1 response. For the only other month for which the sub-metric was missed, July 2003, BellSouth made 19 of 21 (only missed 2) So again, a more detailed look at the data shows that there is no indication of a performance problem associated with these sub-metrics.

It is noteworthy, that looking at the data in more detail for these sub-metrics provides a picture contrary to that painted by Ms Bursh. Her criticism of the value of the data, therefore, is misguided, as I will explain in more detail below.

The reason for using this high level review provided in my Direct Testimony is to demonstrate that results are good even at that level. More detailed analysis, as just illustrated, shows that the results are actually better than a review indicates, not worse as Ms Bursh insinuates. CLECs and the Authority can certainly review the detailed data to confirm this conclusion

Q MS. BURSH AGAIN PRESENTS PERFORMANCE RESULTS (PAGES 9 AND 10) FOR SUB-METRICS TO BOLSTER THE CLAIM THAT THE PERFORMANCE FOR LOOPS COLLECTIVELY DOES NOT NECESSARILY REPRESENT THE PERFORMANCE FOR INDIVIDUAL LOOP CATEGORIES. HOW DO YOU RESPOND?

A. Ms. Bursh continues her pattern of identifying anecdotal examples of sub-metrics where BellSouth has not met the benchmark, ignoring the overall performance of the measurement, and failing to present relevant and important details that would put the "high level" results in proper perspective Ms. Bursh picks a few sub-metrics of the two measurements Reject Interval and FOC Timeliness

For the first sub-metric cited by Ms Bursh, Reject Interval- Non-Mechanized, she offers a submetric, 2W Analog Loop w/LNP Design as a product that failed to meet benchmarks for several months Again, Ms. Bursh fails to account for the fact that for the period in question (December 2002 through October 2003), that in 2 out of the 3 months where BellSouth performance missed the 95% benchmark, the transaction volume was so low that <u>BellSouth could not miss even a single transaction</u>. For the only other month that BellSouth missed the benchmark, namely June 2003, BellSouth met the benchmark for 26 out of 28 reject notices sent. In this case, BellSouth could only have 1 miss and make the benchmark, and BellSouth actually only missed 2. Once again, Ms. Bursh's conclusions do not consider these pertinent facts

The second sub-metric that Ms Bursh alleges to be a problem is FOC Timeliness for 2W Analog Loop w/LNP Design. Yet again, Ms. Bursh selects a sub-metric where the combination of low volume and a 95% benchmark means that BellSouth would have to reach near perfection to meet the benchmark. Specifically, for 6 of the 8 months that were missed the benchmark, there were fewer than 13 FOCs sent. Meaning that if BellSouth sent even 1 FOC in more than 3 hours, the metric would be missed. For the other two months missed, the largest volume was 32 transactions. With a volume of 32 transactions, anything more than 1 transaction outside of the 3 hour standard would be considered a miss for the sub-metric.

Thus, it is clear, in each case where Ms. Bursh cites results for sub-metrics that she claims proves that there is a significant problem, closer examination shows that there is in fact no meaningful indication of a problem.

Q. ON PAGE 11 OF HER REBUTTAL TESTIMONY, MS BURSH APPEARS TO ALLEGE THAT BELLSOUTH IS MISREPRESENTING THE PERFORMANCE RESULTS BY INCLUDING LOOPS THAT ARE NOT MIGRATABLE FROM UNE-P? HOW DO YOU RESPOND?

A. Actually, it appears that Ms Bursh seems to be creating confusion with the Authority by making an argument that appears to have little, if any, relevance. BellSouth is presenting performance data for all products that a CLEC might use in significant volume to provide service using UNE-L. This inquiry should not be limited simply to those loops that can be migrated from UNE-P because a CLEC can acquire customers by conversion from retail, or from new installations. Additionally, CLECs can add lines to existing accounts. All of these possibilities allow a CLEC to compete, but none of them involve migration from UNE-P

Also, Ms. Bursh's testimony indicates that CLECs are certainly interested in ensuring that no operational impairment exists on loops regardless of whether they can be migrated from UNE-P. The data represents all loops including those that are newly provisioned, migrated from Retail, switched from other CLECs, as well those that are migrated from UNE-P and is not limited to hot cuts This is the appropriate scope of the inquiry, and allows the Authority to assess BellSouth's performance in provisioning UNE Loops for all relevant products.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A Yes.