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September 24, 1999

Gary Hotved, Esq.
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37243-0505

Re: Petition by ICG Telecom Group, Inc. for Arbitration of an Interconnection Agreement with BellSouth Telecommunications, Inc. Pursuant to Section 252(b) of the Telecommunications Act of 1996
Docket No. 99-00377

Dear Gary:

Enclosed, as we discussed, are copies of Mr. Starkey's testimony filed by ICG in Florida concerning the reciprocal compensation issue.

As the testimony explains, ICG believes that BST's position on the reciprocal compensation issue is directly related to the relationship between BST and BellSouth.net. In particular, the proposal by BST witness Varner is intended, we believe, to give BellSouth.net an unfair competitive advantage over other Internet service providers and cannot be properly understood except in that context.

Mr. Starkey addresses this issue in his direct testimony, see pages 15-17, and, more so, in his rebuttal testimony. Although all of his rebuttal is relevant to this point, pages 27-31 discuss specifically how BST's reciprocal compensation proposal is apparently intended to benefit BellSouth.net.

This testimony demonstrates why ICG's discovery questions about BellSouth.net are relevant or reasonably likely to lead to the discovery of relevant information.

Very truly yours,

BOULT, CUMMINGS, CONNERS & BERRY, PLC

By: _____
Henry Walker

HW/nl
c: Guy Hicks, counsel for BellSouth

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FILE

DIRECT TESTIMONY AND EXHIBITS

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY AND EXHIBITS

OF MICHAEL STARKEY

ON BEHALF OF ICG TELECOM GROUP, INC.

DOCKET NO. 990691-TP

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Michael Starkey. My business address is Quantitative Solutions, Inc., 857 N. LaSalle Drive, Suite 3, Chicago, Illinois 60610.

Q. WHAT IS QUANTITATIVE SOLUTIONS, INC. AND WHAT IS YOUR POSITION WITH THE FIRM?

A. Quantitative Solutions, Inc. (QSI) is a consulting firm specializing in the areas of telecommunications policy, econometric analysis and computer aided modeling. I currently serve as the firm's President.

Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH TELECOMMUNICATIONS POLICY ISSUES AND YOUR RELEVANT WORK HISTORY.

A. Prior to founding QSI I was a founding partner and Senior Vice President of Telecommunications Services at Competitive Strategies Group, Ltd. (CSG). Like QSI, CSG is a consulting firm providing consulting services to international telecommunications carriers, consumer advocates and policy makers. During my tenure at CSG I represented a number of clients in regulatory proceedings across the

country, including numerous arbitrations held pursuant to Section 252 of the Federal Telecommunications Act of 1996 (TA96).

Prior to joining CSG I was most recently employed by the Maryland Public Service Commission as Director of the Commission's Telecommunications Division. In my role as the Commission's Telecommunications Director I was responsible for managing the Commission's Telecommunications Staff. My staff and I were responsible for providing the Commission with telecommunications policy, economic, and technical expertise. During my tenure with the Maryland Commission, I managed the Commission's transition to a competitive local telecommunications regulatory framework, headed the Commission's Industry Consortium on Local Number Portability and represented the Commission in an industry effort aimed at replenishing the supply of usable telephone numbers.

Prior to joining the Maryland Commission Staff I was employed by the Illinois Commerce Commission as Senior Telecommunications Policy Analyst within the Commission's Office of Policy and Planning (OPP). As a member of the Commission's OPP Staff I was a primary witness in the Commission's "Customers First" proceedings. In that capacity, I authored revisions to Commission Code Part 790 to incorporate "Line Side Interconnection" allowing, for the first time, interconnection to unbundled network elements. I also represented the Commission Staff at the Ameritech Regional Regulatory Conference (ARRC). I participated with the ARRC staff in preparing a report submitted to the FCC and the U.S. Department of Justice detailing Ameritech's proposal to participate in a trial waiver from the

Modified Final Judgement for purposes of offering in-region, inter-LATA services. Before joining the Illinois Commerce Commission Staff I began my career as an Economist with the Missouri Public Service Commission within the Commission's Utility Operations Division. My responsibilities included recommendations to the Commission with respect to the tariff filings submitted by Missouri's telecommunications companies and numerous other telecommunications issues. A more complete description of my relevant experience can be found in Exhibit No. _____ (MS-1).

Q. DO YOU HAVE DIRECT EXPERIENCE WITH THE ISSUES IN THIS CASE?

A. Yes, I do. Over the past three years I have participated in a number of proceedings dealing with the proper application of the Federal Communications Commission's (FCC's) local competition rules and the proper implementation of TA96. I have also been active in a number of cases involving the FCC's Total Element Long Run Incremental Cost ("TELRIC") methodology by which prices for unbundled network elements and reciprocal compensation rates must be set. I have participated in arbitrations and other proceedings across the country wherein the interconnection agreements and underlying incremental cost estimates of Ameritech, Bell Atlantic, Southwestern Bell Telephone, Sprint, U.S. West, GTE, NYNEX, Bell South and Cincinnati Bell Telephone have been at issue.

Q. HAVE YOU PROVIDED TESTIMONY BEFORE STATE UTILITY COMMISSIONS IN THE PAST?

A. Yes, I have. I have over the past seven (7) years provided testimony before

the FCC and state utility commissions in the following states: Michigan, Illinois, Maryland, Wisconsin, Indiana, Ohio, New Jersey, Pennsylvania, Massachusetts, Wyoming, Hawaii, Georgia, Oklahoma, Kentucky, Mississippi and Missouri.

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

A. The purpose of my testimony in this proceeding is to establish the economic and public policy rationales supporting ICG Telecom Group, Inc.'s (ICG's) positions with respect to the following issues: (1) whether traffic originated on the network of one carrier and directed to an Internet Service Provider (ISP) served by another carrier's network should be subject to reciprocal compensation payments, (2) the appropriate reciprocal compensation rate to be paid to ICG by BellSouth Telecommunications, Inc. (BST), (3) the need not only for the inclusion of performance standards within the interconnection agreement, but also the inclusion of liquidated damages associated with failure to meet those specified performance levels and (4) the need for volume and term discounts when a company like ICG is willing to commit to a given volume of unbundled network elements purchased from BellSouth and/or a commitment to purchase those elements over a given period of time.

Q. PLEASE SUMMARIZE THE CONCLUSIONS OF YOUR TESTIMONY.

A. First, though a multitude of complex legal and technical arguments have been made both in support of, and in opposition to, requiring reciprocal compensation payments for traffic directed to ISPs, it is simply good public policy, as well as economically rational, to require payment for terminating this traffic. Second, ICG

efficiently deploys its network in such a way that the appropriate rate for its termination of BST traffic is a rate, based upon the same rates charged by BST, that compensates it for tandem switching, transport and end office switching functions. Third, absent the inclusion of performance standards and liquidated damage provisions for non-performance within the interconnection agreement between ICG and BST, ICG will be at a distinct disadvantage in the marketplace *vis-à-vis* BST. Finally, both the Telecommunications Act of 1996 and the FCC's orders in C.C. Docket No. 96-98 support the need for volume and term discounts for purchases of unbundled network elements when necessary to reflect underlying economic costs and to maintain non-discriminatory treatment. As such, the Commission should find that volume and term discounts are required when a carrier is willing to commit itself to purchase a given volume of unbundled network elements or to purchase those elements for a particular period of time.

I. PAYMENTS FOR TERMINATING TRAFFIC TO ISPs

Q. ARE THE PARTIES IN DISAGREEMENT REGARDING SPECIFIC LANGUAGE WITH RESPECT TO PAYMENTS FOR TERMINATING TRAFFIC TO ISPS?

A. Yes, they are. While there are still interconnection agreement drafts circulating among the negotiating teams, it seems clear that BST intends to include the following, or similar, language in any interconnection agreement between the parties:

8. <u>Local Interconnection Compensation</u>

8.1 The Parties shall provide for the mutual and reciprocal recovery of the costs of transporting and terminating local calls on each other's network.

8.3 Interconnection with Enhanced Service Providers (ESPS) / Information Service Providers (ISPs). ESP/ISP traffic shall not be included in the local interconnection compensation arrangements of this Agreement. (Excerpts taken from Attachment 3, Page 11 of the 03/15/99 draft of BellSouth's proposed interconnection agreement.)

ICG does not agree that the proposed language included in Section 8.3 above should be included in the parties' interconnection agreement. Neither does it agree that calls terminated to ISP providers should be excluded from reciprocal compensation requirements. Instead, ICG requests that the Commission approve an interconnection agreement between ICG and BST that excludes the language in 8.3 entirely and includes language that highlights the fact that calls originated on one of the carriers' networks and directed to an ISP on the others' network is subject to payments for reciprocal compensation.

Q. CAN YOU PROVIDE SOME BACKGROUND AS TO WHY THIS ISSUE IS IMPORTANT TO BOTH ICG AND TO BST?

A. This issue is of the utmost importance to ICG because, as I am informed and explain in more detail below, ICG has been notably successful in attracting ISP providers and other customers requiring advanced technological services to its network. BST's attempt to exclude these types of local customers from reciprocal

compensation obligations unfairly targets ICG's customer base and threatens to leave ICG in a position of terminating a large number of BST calls without any payment from BST. In essence, ICG is being asked to carry large volumes of BST traffic without an ability to charge BST for its carriage.

While I am not attempting to speak for BST as to why it finds this issue to be of such importance, I think it is safe to say that BST is oftentimes a "net payor" of reciprocal compensation. This is due primarily to the fact that ALECs have been far more successful in attracting ISP providers to their local service offerings than BellSouth has been in retaining them. Consider that although the vast majority of services and prices included in an interconnection agreement between BST and a ALEC govern the rates, terms and conditions by which the ALEC will pay BST for service, this is one area where BST may actually, in some circumstances, be required to pay the ALEC for services the ALEC provides to BST. It is likely for that reason that BST is acutely interested in the rates that will be paid for reciprocal compensation and the terms and conditions under which they will be assessed.

Q. HOW HAS THE FCC CHARACTERIZED CALLS TO ISPS?

A. On February 26, 1999 the FCC released its *Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 96-98* (hereafter "ISP Order"). At paragraph 18 of its ISP Order, the FCC states the following:

> After reviewing the record, we conclude that, although some Internet traffic is intrastate, a substantial portion of Internet traffic involves accessing interstate or foreign websites.

Q. DOESN'T THIS FINDING BY THE FCC SUPPORT BST'S PROPOSED LANGUAGE EXCLUDING ISP TRAFFIC FROM RECIPROCAL COMPENSATION?

A. It does not. Included in the same ISP Order, at paragraph 20, the FCC includes the following language:

> Our determination that at least a substantial portion of dial-up ISP-bound traffic is interstate does not, however, alter the current ESP exemption. ESPs, including ISPs, continue to be entitled to purchase their PSTN links through intrastate (local) tariffs rather than through interstate access tariffs. Nor, as we discuss below, is it dispositive of interconnection disputes currently before state commissions. (emphasis added, footnotes removed)

The FCC also includes the following additional language at paragraph 25 meant to ensure that state commission's aren't misled into believing that the FCC has pre-empted their ability to require compensation for ISP traffic within an arbitration proceeding:

> Even where parties to interconnection agreements do not voluntarily agree on an inter-carrier compensation mechanism for ISP-bound traffic, state commissions nonetheless may determine in their arbitration proceedings at this point that reciprocal compensation should be paid for this traffic. The passage of the 1996 Act raised the novel issue of the applicability of its local competition provisions to the issue of inter-carrier compensation for ISP-bound traffic. Section 252 imposes upon state commissions the statutory duty to approve voluntarily-negotiated interconnection agreements and to arbitrate

interconnection disputes. As we observed in the Local Competition Order, state commission authority over interconnection agreements pursuant to section 252 "extends to both interstate and intrastate matters." Thus the mere fact that ISP-bound traffic is largely interstate does not necessarily remove it from the section 251/252 negotiation and arbitration process. However, any such arbitration must be consistent with governing federal law. While to date the Commission has not adopted a specific rule governing the matter, we do note that our policy of treating ISP-bound traffic as local for purposes of interstate access charges would, if applied in the separate context of reciprocal compensation, suggest that such compensation is due for that traffic. (emphasis added, footnotes removed)

Q. IF THE FCC HASN'T DECIDED THE ISSUE OF WHETHER ISP-BOUND TRAFFIC SHOULD BE SUBJECT TO RECIPROCAL COMPENSATION, AND IF IT IS THE STATE COMMISSIONS' RESPONSIBILITY TO DO SO, UPON WHAT BASIS SHOULD A STATE COMMISSION MAKE SUCH A FINDING?

A. First, the Commission should take special note of the following excerpt taken directly from paragraph 25 of the FCC's ISP Order:

> While to date the Commission has not adopted a specific rule governing the matter, we do note that our policy of treating ISP-bound traffic as local for purposes of interstate access charges would, if applied in the separate context of reciprocal compensation, suggest that such compensation is due for that traffic.

From this excerpt it seems obvious that the FCC is encouraging state commissions to make findings consistent with its policy of treating ISP-bound traffic as local for purposes of applying interstate access charges. That is, the FCC is encouraging state commission's to require reciprocal compensation payments for ISP bound traffic.

Second, the Commission, as always, should rely upon sound public policy and economic reasoning to find that ISP-bound traffic should be subject to reciprocal compensation obligations. The Commission should keep in mind that its decisions in this regard will have substantial impact on the internet marketplace and the investment required to realize the potential of electronic communication and commerce as a whole.

Q. PLEASE EXPLAIN WHY SOUND PUBLIC POLICY AND ECONOMIC REASONING SUPPORT RECIPROCAL COMPENSATION PAYMENTS FOR ISP-BOUND TRAFFIC.

A. The list below provides an overview of the public policy and economic rationale that support requiring payments for ISP bound traffic *via* the application of transport and termination charges (*i.e.* reciprocal compensation):

(a) ISP providers are an important market segment for CLECs and eliminating a CLEC's ability to recover its costs associated with serving them is likely to distort one of the only local exchange market segments that appears to be well on its way toward effective competition. ISPs have been drawn to CLECs like ICG because these CLECs, unlike incumbent carriers

(ILECs) such as BST, have been willing to meet their unique service needs. Allowing ILECs to direct calls to the ISPs by using the CLEC network without compensating them for its use, penalizes the CLEC for attracting customers *via* innovative and customer service focused products.

(b) Despite complex legal arguments and historical definitions, the simple fact remains that calls directed to ISPs are functionally identical to local voice calls for which BST agrees to pay termination charges. Applying different termination rates or, even worse, compensating a carrier for one type of call and not for the other, will generate inaccurate economic signals in the marketplace, the result of which will drive firms away from serving ISPs. This result could have a dire impact on the growing electronic communication and commerce markets.

(c) Requiring carriers to pay reciprocal compensation rates for the termination of ISP bound traffic is economically efficient. Indeed, because termination rates must be based upon their underlying costs, BST should be economically indifferent as to whether it itself incurs the cost to terminate the call on its own network or whether it incurs that cost through a reciprocal compensation rate paid to ICG. The fact that BST is not economically indifferent stems from its incentive to impede ICG's entry into the marketplace instead of an incentive to be as efficient as possible in terminating its traffic.

(d) Because BST is required to pay, as well as receive, symmetrical compensation for local exchange traffic based upon its own reported costs, its

payments to other carriers in this regard are an important check on BST's cost studies used to establish rates for the termination of traffic. Unless BST is required to pay the costs that it itself has established *via* its own cost studies, it has every incentive to over-estimate those costs for purposes of raising barriers to competitive entry. By removing large traffic volume categories such as ISP bound traffic from BST's obligation to pay terminating costs, the Commission would be removing an important disciplining factor associated with ensuring that BST's reported termination costs are reasonable.

Q. PLEASE EXPLAIN IN GREATER DETAIL YOUR CONTENTION THAT BECAUSE ISP PROVIDERS ARE AN IMPORTANT MARKET SEGMENT FOR ALECS, ELIMINATING AN ALEC'S ABILITY TO RECOVER ITS COSTS ASSOCIATED WITH SERVING THEM IS LIKELY TO DISTORT THE MARKET.

A. Transitionally competitive markets like the local exchange market have shown that new entrants are usually most successful in attracting customers that (1) are most disaffected by the services or quality offered by the incumbent, (2) have technological, capacity or other specific requirements that are not easily met by the incumbent's oftentimes inflexible service offerings and/or (3) don't have a long history of taking service from the incumbent. ISP providers fall directly into all three of these categories. Many of them have been unable to reach agreement with incumbent LECs in areas such as pricing for high capacity lines, provisioning intervals, collocation of their equipment in ILEC central offices or even, in some circumstances, the ability to purchase service in sufficient quantity to meet their own end-user

customer demands. Likewise, most ISP organizations are fairly new and have begun their enterprise at a time when competitive alternatives for local exchange services are available. Hence, it is reasonable to expect that these types of businesses are less restricted by long term agreements, a long storied business relationship or other circumstances that often breed loyalty to the incumbent. The fact that these customers are far more likely to explore competitive opportunities than more traditional residential and/or business customers has made them an extremely important customer base for ALECs.

Likewise, ALECs, like ICG, because of their oftentimes unproven track record and non-existent customer base in new markets, have been forced to target customers that require services specifically tailored to their strengths (*i.e.* customer service, new technology deployment and substantial spare capacity). Given these characteristics, ISP providers and ALECs are often times "made for one another." ISP's have flocked to new entrant ALECs in increasing numbers. Likewise, ALECs have worked with ISPs to design new and innovative services and have provided ISPs the capacity they need to meet their customers' increasing demands.

Q. IS THE FACT THAT ALECS SERVE ISPS IN GREATER PROPORTION THAN A MATURE INCUMBENT LIKE BST THE RESULT OF A MARKET FAILURE?

A. Not at all. The relationships between ALECs and ISPs, as described above, are the direct result of how a competitive market is meant to work. Carriers who are unwilling to meet the demands of their customers-as ILECs have shown an

unwillingness to work with ISPs-lose those customers to carriers who are more accommodating. Likewise, carriers who provide customer focused services and supply the capacity required to meet their customers' demands are rewarded. The fact that relatively new customers who require specific technological support have embraced new, competitive local carriers is one of the most promising outcomes of the local exchange market's transition to competition. Indeed, ISPs and other technologically reliant customer groups are, in many cases, providing the revenue and growth potential that will fund further ALEC expansion into other more traditional residential and business markets.

Q. IF THE COMPETITIVE MARKETPLACE FOR ISP CUSTOMERS APPEARS TO BE WORKING WELL, WHY IS ICG ASKING THE COMMISSION FOR ITS ASSISTANCE IN THIS ARBITRATION?

A. Within the interconnection agreement at issue in this proceeding, BST is refusing to pay for traffic that originates on its network and is directed to a local ISP customer served by ICG. Simply put, BST is asking that ICG avail its facilities for the use of BST's customers without compensation for its efforts. Traffic originated on the BST network and directed to ICG's local ISP customers is no different, either from a technical or cost basis, than other types of traffic for which BST has agreed to provide reciprocal compensation (*e.g.*, calls to ICG local business and residential customers). Given this, and the fact that ICG has agreed to pay BST for traffic originating on the ICG network and directed to a BST local ISP customer, ICG believes that the Commission should require BST to compensate it for such calls.

Q. EARLIER YOU MENTIONED THAT ALLOWING BST TO REMOVE ITS OBLIGATION TO COMPENSATE ICG FOR TRAFFIC DIRECTED TO ITS LOCAL ISP CUSTOMERS WOULD DISTORT ONE OF THE ONLY LOCAL EXCHANGE MARKET SEGMENTS THAT APPEARS TO BE WELL ON ITS WAY TOWARD EFFECTIVE COMPETITION. CAN YOU EXPLAIN THIS CONCEPT IN GREATER DETAIL?

A. As I described above, ALECs have been successful in attracting a number of ISP customers because they have offered those customers innovations and reasonably priced advanced services at a level of customer care that BST was unable or unwilling to provide. As such, BST has lost a number of these customers to ICG and other ALECs resulting in this particular market segment exhibiting some of the most competitive characteristics of any segment in the local market.

It is no coincidence that BST refuses to pay reciprocal compensation for calls directed to this particular customer group. If BST can successfully remove itself from an obligation to compensate ALECs for calls directed to their ISP customers, BST will have accomplished two goals very dangerous to the competitive marketplace.

First, BST will have been successful in branding ISP customers as "unattractive" customers from a local provider's standpoint because only ISP customers will generate costs for their local service provider without providing the reciprocal compensation revenues required to recover those costs. By branding ISP customers as unattractive customers, BST will have significantly diminished the hard-earned victories made by its competitor ALECs. This result stems from the fact that

a disproportionate percentage of BST's competitors' customer base (ISPs) will immediately turn from highly valued customers to customers that are likely to be unprofitable. This will have a significant impact on the viability of many competitive carriers and may, at least in the short term, significantly impact their ability to attract capital and other resources necessary to further penetrate the BST market.

Second, without the reciprocal compensation revenues necessary to recover costs caused by BST's customers directing traffic to the ICG network, ICG and other ALECs will have no choice but to raise rates charged specifically to ISP local customers to recover their costs (*e.g.*, a DS-1 service provided to a business customer could be provided at a lower rate than the same DS-1 provided to an ISP simply because the rate charged to the ISP must recover costs of terminating traffic that originate from the BST network). At a minimum, this will disrupt the ISP marketplace and is likely to send many ISPs back to BST where BST's more mature customer base can be used to offset the costs of terminating the ISPs traffic without raising ISP local rates.

Further, because their local exchange rates are increasing, ISPs who do not return to BST will have little choice but to raise the rates charged to their individual end users. This will in turn make *BellSouth.net*, BST's ISP retail service, more attractive to individual end users, further stifling competition. All of these circumstances would disrupt a competitive segment of the local exchange marketplace that seems to be operating more effectively than most other more traditional segments. The fact that each of these disruptions happens to benefit BST

should not be lost on the Commission when it considers BST's rationale for refusing to pay reciprocal compensation for ISP bound traffic.

Q. PLEASE EXPLAIN IN GREATER DETAIL YOUR CONTENTION THAT CALLS DIRECTED TO ISPS ARE FUNCTIONALLY IDENTICAL TO LOCAL VOICE CALLS FOR WHICH BST HAS AGREED TO PAY TERMINATION CHARGES.

A. A ten minute call originated on the BST network and directed to the ICG network travels exactly the same path, requires the use of exactly the same facilities and generates exactly the same level of cost regardless of whether that call is dialed to an ICG local residential customer or to an ISP provider. The simplistic diagram, attached as Exhibit No. ___ (MS-2), details one scenario by which such a call might travel.

As you can see from the diagram, regardless of whether the originating customer dials either the ICG residential customer or the ICG ISP customer, the call travels from the originating customer's premises to the BST central office switch, which then routes the call to the BST/ICG interconnection point and ultimately to the ICG switch. From the ICG switch the call is then transported to either the residential customer or the ISP customer depending upon the number dialed by the BST caller. Both calls use the same path and exactly the same equipment to reach their destinations. To single out the ISP call and suggest that $0 compensation should be paid for purposes of carrying that particular call and some other, non-zero rate should be applied to all other calls ignores the simple economic reality that both calls generate costs that must be recovered by the reciprocal compensation rate paid for

their carriage.

Q. WOULD THERE BE NEGATIVE ECONOMIC RESULTS FROM ALLOWING BST TO PAY $0 FOR CALLS DIRECTED TO ISPS WHILE PAYING A NON-ZERO RATE FOR ALL OTHER CALLS?

A. Of course. Given the option of receiving an amount greater than zero for carrying a non-ISP call and $0 for carrying an ISP call, any reasonable carrier would fill its switch with non-ISP calls to the extent possible. Likewise, any carrier that currently served a larger proportion of ISP customers would be a less profitable network than a network that served a smaller proportion of ISP customers. In effect, allowing BST to skirt its obligation to pay for the use of an interconnecting carrier's network for purposes of terminating its local customers' calls to ISP providers will skew the supply substitutability of ISP services versus other local services, thereby making other local exchange services more attractive production alternatives. This will in turn raise ISP prices in relation to other local exchange services thereby impairing an ISP's ability to receive services at rates comparable to other local end users. Not only is this in direct conflict with the FCC's decision to treat ISP traffic as local, so as to place ISPs on a level playing field with other local customers, it also is likely, all else being equal, to suppress ISP communication demand versus other types of non-ISP communication. This price discrimination effect will mean electronic communication and commerce demand will undoubtedly grow at a slower pace than if there were no discrimination. Any difference between the unrestricted growth of electronic communication and the suppressed growth caused by the uneconomic

price discrimination described above would result in a net welfare loss due to the inefficient market consequences of BST's failure to pay reciprocal compensation rates.

Q. PLEASE EXPLAIN IN MORE DETAIL THROUGH EXHIBIT NO. ___ (MS-3) YOUR CONTENTION THAT BECAUSE TERMINATION RATES MUST BE BASED UPON THEIR UNDERLYING COSTS, BST SHOULD BE ECONOMICALLY INDIFFERENT AS TO WHETHER IT ITSELF INCURS THE COST TO TERMINATE THE CALL ON ITS OWN NETWORK OR WHETHER IT INCURS THAT COST THROUGH A RECIPROCAL COMPENSATION RATE PAID TO ICG.

A. Assume that a BST customer calls another BST customer within the same local calling area. The path the call travels will be very similar to the path detailed earlier in Diagram 1, except that both end offices will now be owned by BST as shown below:

In such a circumstance, BST incurs costs associated both with originating the call and terminating the call for which it is paid, by its originating customer, a local usage fee (either a flat fee per month or a per message or per minute charge). When compared to our original diagram, it is easy to see that the only difference between a call made between two BST local customers and the call made from a BST customer to an ICG customer is that ICG's central office serves the terminating switching function that was originally performed by the BST switch. In this way, BST avoids those terminating switching costs and ICG incurs them. Hence, if BST has accurately established its terminating reciprocal compensation rate based upon its

own costs of terminating a call, it should be economically indifferent with respect to whether a call both originates or terminates on its own network or whether a call terminates on the ICG network. BST will either incur the terminating cost via its own switch or it will incur that cost via a cost based rate paid to ICG for performing the termination function. Either way, the extent to which a particular call is directed to a residential or business customer, or an ISP provider is irrelevant to the economics of the call.

Q. WHY IS THIS POINT IMPORTANT TO UNDERSTAND IN TERMS OF THE DISPUTE REGARDING PAYMENT FOR ISP BOUND TRAFFIC AT ISSUE IN THIS PROCEEDING?

A. This point is important for two reasons. First, assume that neither ICG nor any other ALEC existed and that BST provides local services to 100% of the customer base. Assume further that ISP traffic is occurring at today's levels and has experienced significant growth over the past few years with future growth expected to be even greater. In such a circumstance, BST would be responsible not only for originating every call but also for terminating every call, including calls made to ISP providers. BST would undoubtedly need to reinforce its network to accommodate the additional capacity requirements associated with this increase in traffic and would undoubtedly be asking state commissions and the FCC for rate increases intended to recover those additional investment costs. It seems highly unlikely under such a circumstance that BST would be arguing that terminating traffic to an ISP provider should be done for free, indeed, it would be the only carrier to suffer. However, that

is exactly what BST is asking this state commission to do in this case. The arbitration issue before the Commission in this case differs from our hypothetical above in that instead of only BST investing in its network to meet the capacity requirements of the traffic volume increases that have occurred over the past few years, new entrants have also invested capital and have deployed their own switching capacity to accommodate this growth. Likewise, as BST would have undoubtedly argued in our hypothetical above that it should be compensated for its additional investment to meet this growth, those carriers should also be compensated for terminating that traffic such that their investments can be recovered.

The second reason is of paramount importance because it is at the heart of the dispute between the parties in this case. As I have shown above, BST should be indifferent as to whether it terminates the traffic or it avoids the costs of termination and pays someone else, namely a ALEC, to do so. Yet we know that BST is not indifferent because it has refused to agree to such a compensation framework. The question is: Why? The answer lies in one of two reasons. Either (1) BST's rate for call termination is not representative of its actual underlying costs and it realizes that paying an ALEC for terminating traffic actually makes it economically "worse off" than terminating the traffic itself, or (2) it has a competitive interest in not providing a cost recovery mechanism for its competitors regardless of the extent to which it is economically indifferent on any given call.

Q. DO YOU BELIEVE THAT EITHER OF YOUR CONTENTIONS ABOVE IS LIKELY TO BE AT THE ROOT OF BST'S REFUSAL TO PAY COMPENSATION

FOR CALLS DIRECTED TO ISP PROVIDERS SERVED BY AN ALEC?

A. Obviously, I can't speak to what motivates BST's position in this respect. However, I can speak to the economic incentives that are at work in the local exchange marketplace and how participants within that marketplace react to them. And, in this case, BST has an incentive (though an incentive steeped in self-interest) to refuse payment for traffic directed to an ISP served by an ALEC for both of the reasons described above.

As I mentioned earlier, with respect to 99% of the services included in the interconnection agreement between BST and ICG, ICG will be required to pay BST for services rendered. Hence, BST has every incentive to overestimate its underlying costs associated with the services it provides to ICG. By doing so, it not only increases its revenues from providing these services, it also raises the costs of its competitor thereby protecting its retail prices and slowing its competitor's entry into the marketplace. However, in the case of reciprocal compensation, it has come to BST's attention that it has become, in many cases, a net payor of termination charges because ALECs have been successful in attracting ISP providers and other technologically demanding customers. Hence, if indeed its rates for traffic transport and termination are overstated, it becomes the party most likely to be harmed. Given this scenario it has two basic options, either (1) reduce its charges to more appropriately cost based rates, or (2) remove from the equation the reason for its "net payor" status. It is apparent that BST has opted for the second option by refusing to pay reciprocal compensation for calls directed to ISP providers served by its ALEC

competitors.

Likewise, even if BST's rates for transport and termination of traffic are in line with its actual costs, and it should be truly economically indifferent with respect to who terminates any given call, it still has an economic incentive to limit the amount of reciprocal compensation it pays to its competitors. By paying reciprocal compensation to its competitor, BST is in effect providing its competitor a revenue stream by which it can recover its investments and ultimately, extend its operation. Obviously, this is not in BST's self interest regardless of the extent to which those competitors reduce its own termination costs. Said another way, given the option of providing services more efficiently and at lower costs in a market full of competitors or providing higher cost services as a monopolist, it is easy to see which option most rational profiteers would chose.

Q. YOU MENTION ABOVE THAT ALECS LIKE ICG HAVE BEEN SUCCESSFUL IN ATTRACTING ISPS AND OTHER TECHNOLOGICALLY DEMANDING CUSTOMERS. WHAT DO YOU MEAN BY "OTHER TECHNOLOGICALLY DEMANDING CUSTOMERS?"

A. The New York Public Service Commission is currently in the midst of a proceeding to address the issue of whether ISP bound traffic should be subject to reciprocal compensation. One of the issues that has surfaced in that proceeding is that ALECs have been successful in attracting not only ISP providers, but more generally, customers that manage large call volumes (both inward and outward) and have unique or advanced technological needs. As I discussed earlier, that isn't

surprising given that innovation, technological expertise and advanced service offerings are the strengths of many ALECs -ICG included. The fact that these types of customers have flocked to ALECs is simply the workings of a transitionally competitive marketplace matching supply and demand in the most efficient manner. However, the presence of these other large volume customers highlights the fact that ISPs are not alone in generating larger inbound than outbound traffic. A growing number of mail order companies, customer service centers and local chat lines are also relying upon the ALEC's ability to manage their complex telecommunications needs and provide the capacity they require at reasonable prices. A great number of these organizations also elicit disproportionate inbound calling volumes similar, if not more disproportionate, than ISP providers. Singling ISP providers out and holding that only the calls directed to them should be refused compensation would unfairly distinguish them not only from all other local exchange customers in general, but also from other local customers that have exactly the same calling characteristics. If we follow BST's logic is this regard far enough, we must eventually find payments for reciprocal compensation are available only for customers that have calling patterns wherein they receive no greater number of calls than they originate. This is obviously absurd.

Q. IF IT ISN'T FEASIBLE, OR ECONOMICALLY RATIONAL, TO ALLOW CARRIERS TO REFUSE PAYMENT FOR LOCAL CUSTOMERS THAT GENERATE LARGER INBOUND CALLING VOLUMES THAN OUTBOUND CALLING VOLUMES, HOW CAN A CARRIER ENSURE THAT IT IS NOT A NET PAYOR OF

RECIPROCAL COMPENSATION PAYMENTS?

A. First, as I've described above, except for competitive concerns regarding the provision of funds to a competitor for recovery of its costs, a carrier should be economically indifferent with respect to whether it terminates a call or another carrier terminates the call on its behalf. However, even if this were not true, every carrier has the opportunity to compete for the business of customers that generate more inbound than outbound calling. Hence, any carrier can actively target ISPs, mail order companies, customer care centers or even pizza delivery stores that generate significant inbound calling. This is no different than the long distance marketplace where charges are generally assessed on outbound calls. Long distance companies for years have targeted large outbound calling users such as research firms, direct marketers and large businesses. The appropriate way for BST to mitigate its "net payor" status for reciprocal compensation is not to simply refuse to pay for its customers' use of the ICG network, but instead to follow the demands of the competitive marketplace just as ICG and the long distance companies have (*i.e.*, to actively compete for customers that use its own network and require other carriers to use it as well).

Q. IN COMMENTS TO THE FCC, AND A NUMBER OF OTHER DOCUMENTS, ILECS HAVE ARGUED THAT IT IS UNFAIR TO FORCE THEM TO PAY ALECS FOR TERMINATING TRAFFIC TO ISPS WHEN THEY ARE UNABLE TO RECOVER THOSE RECIPROCAL COMPENSATION PAYMENTS EITHER THROUGH ACCESS CHARGES ASSESSED ON THE ISP OR FOR USAGE

CHARGES ASSESSED TO THEIR OWN LOCAL CUSTOMERS. DO YOU HAVE ANY COMMENTS REGARDING THIS ISSUE?

A. Yes, I do. First, I've already discussed the fact that calls to ISPs are really indistinguishable from calls to any other local customer. Hence, the fact that a call is directed to an ISP or to a local residential customer is really irrelevant to this argument. This argument does not support BST's position that it will pay termination charges for calls made to residential and business customers yet not for calls directed to an ISP provider.

Second, however, there seems to be some indication in this argument that ALECs are to blame for the increased costs the ILECs contend they are facing in meeting calling volume requirements associated with electronic communication and commerce. This simply isn't accurate. It is the public's seemingly unquenchable thirst for the internet and other electronic communications mediums that have caused the increased calling volumes which generate costs associated with carrying local traffic to the internet. And, it is important to note that companies like BST are on the front lines marketing these services to feed the public's demand. For example, BST aggressively markets its own internet product *BellSouth.net* by offering customers reduced rates when they purchase the company's internet services in combination with its local access line and vertical feature packages. Indeed, BellSouth.net provides an "unlimited usage" package to its customers at prices ($12.95 per month) far below its most notable competitor America Online (approximately $20.95).

To suggest that BST has no method by which to recover costs associated with

increased internet traffic is also somewhat disingenuous. BST, more than any other ILEC in the nation, has been advantaged by the electronic communications revolution as it has significantly increased the demand for second access lines ordered and used by its local customers. According to a BST news release:

> Second lines increased 21 percent, and accounted for nearly half of all new residential hook-ups in 1995. With 1.3 million second lines, BellSouth has the most of any telephone company in the U.S. BellSouth markets additional lines to satisfy the growing customer demand for access to the internet, telecommuting and home offices, in-home fax machines, and children's phones. (*BellSouth Reports Record Quarter, Year*, taken from http://www.bellsouthcorp.com/proactive/documents/render/10191.html)

Likewise, it appears that since 1995, second access line growth has increased at an ever more impressive pace according to BST's 1998 10K Report to the Securities and Exchange Commission:

> Switched residence lines increased by 3.9% in the period ended December 31, 1998, compared to a growth rate of 4.6% in 1997. In addition to continued economic growth in the region, the growth rate reflects demand for additional lines related to home office purposes, access to on-line computer services and children's phones. The number of such additional lines increased by 375,000 (19.9%) to 2,259,000 and accounted for approximately 61% of the overall increase in switched residence lines since December 31, 1997. (Taken from page 27 of the electronic version of BellSouth Corporation's 10K Report filed

with the Securities and Exchange Commission for operations in 1998.)

The suggestion that BST should be allowed to reap large windfalls for second lines and enjoy profitability from its own retail internet service offering while at the same time refusing to pay for the use of ICG's network for carrying traffic originating by its growing customer base to ICG's ISP providers is without merit and should be rejected by the Commission.

II. BST SHOULD PAY ICG A RECIPROCAL COMPENSATION RATE BASED UPON THE RECOVERY OF TANDEM, TRANSPORT AND END OFFICE TERMINATION COSTS

Q. PLEASE DESCRIBE IN MORE DETAIL WHAT YOU MEAN WHEN YOU STATE THAT BST SHOULD COMPENSATE ICG FOR TERMINATING TRAFFIC BASED UPON THE RECOVERY OF TANDEM, TRANSPORT AND END OFFICE TERMINATION COSTS?

A. This issue is most effectively framed by the FCC in its Local Competition Order at paragraph 1090 (*First Report and Order*, CC Docket No. 96-98, Released August 8, 1996, ¶ 1090.):

> 1090. We find that the "additional costs" incurred by a LEC when transporting and terminating a call that originated on a competing carrier's network are likely to vary depending upon whether tandem switching is involved. We, therefore, conclude that states may establish transport and termination rates in the arbitration process that vary according to whether the traffic is routed through a tandem switch or directly to an end-office switch. In

such event, states shall also consider whether new technologies (e.g. fiber ring or wireless networks) perform functions similar to those performed by an incumbent LEC's tandem switch and thus, whether some or all calls terminating on the new entrant's network should be priced the same as the sum of transport and termination via the incumbent LEC's tandem switch. Where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate.

Q. DOES ICG'S SWITCH SERVE A GEOGRAPHIC AREA COMPARABLE TO THAT SERVED BY THE INCUMBENT LEC'S (BST'S) TANDEM SWITCH?

A. Yes, it does. ICG, like many new entrant ALECs, generally deploys its individual switches to cover a large geographic area served by a common transport network. The advent of fiber optic technologies and multi-function switching platforms have, in many cases, allowed carriers like ICG to serve an entire statewide or LATA-wide customer base from a single switch platform. Likewise, the ability to aggregate unbundled loops from collocations within a number of ILEC central offices while transporting that traffic to a single location allows these carriers to originate, switch and terminate traffic between callers located many miles apart with a single switch. The diagram in Exhibit No. ___ (MS-4) provides a more detailed look at how the ICG switch platform and its multiple collocation arrangements allows it to maximize the geographic capabilities of its switching platform:

As Diagram 3 depicts, ICG uses its single switching platform not only to transfer calls between multiple ILEC central offices and the customers that are served by those central offices, but also to transfer calls between the ICG and ILEC network. In this way, the ICG switch provides services to customers in a geographic area at least as large as that serviced by the ILEC tandem.

Q. DOES THE ICG SWITCHING PLATFORM PERFORM THE SAME FUNCTIONS AS AN ILEC TANDEM SWITCH?

A. Yes, it does. Although the FCC order requires only that a ALEC's switch serve a geographic area comparable to that served by an ILEC tandem to qualify for tandem termination rates, in the case of ICG, its switch also performs many of the same functions that the ILEC tandem performs, further indicating that tandem termination rates are appropriately paid for its use. Tandem switches (what are commonly called Class 4 switches in the traditional AT&T hierarchy), generally aggregate toll traffic from a number of central office switches (Class 5 switches) for purposes of passing that traffic to the long distance network. The tandem switch is also a traditional focal point for other purposes as well, including the aggregation and processing of operator services traffic, routing traffic that is to be transferred between the trunk groups of two separate carriers and measuring and recording toll traffic detail for billing. While ILECs have traditionally employed two separate switches to accomplish these Class 4 and Class 5 functions, ICG's Lucent 5ESS platform performs all of these functions in addition to a number of others within the same switch.

Q. HOW CAN ICG PROVISION SO MANY OF THE SAME FUNCTIONS FROM A SINGLE SWITCH WHEN BST REQUIRES ADDITIONAL SWITCHES?

A. Simply put, the economics of network construction have changed since the time that the majority of the BST network was put in place, allowing new and very different network architectures. Because of their monopoly status and their ability to serve the entire local exchange customer base, ILECs have generally placed local end office switches in generous numbers in an attempt both to accommodate the number of individual access lines that require service within a finite geographic area as well as to minimize the length of the copper facilities needed to serve an individual customer. The dynamics of this network architecture have generally been governed by what is commonly referred to as the "switch/transport tradeoff." The switch/transport tradeoff is an economic give-and-take recognizing that ILECs, when building and maintaining their networks, generally have a choice between building very long copper loops from end users to a small number of centrally located end office switches or, deploying numerous switches across their service territory for purposes of limiting the amount of copper plant required to serve customers at their geographically dispersed locations. At the time the majority of the ILEC network was built, switches were very limited in the number of individual lines they could service and copper plant was the most expensive portion of the network to deploy. Therefore, ILECs chose to trade switching costs for copper plant costs by deploying greater numbers of switches and shorter copper loops. However, with the advent of relatively inexpensive fiber optic transport facilities and the enormous switching

capacity available in today's switching platforms, the economics of the switch/transport tradeoff have changed. ALECs today are able to perform many of the same functions with a single switch that may be performed by at least two switches in the BST network.

Q. IF BST REQUIRES TWO SWITCHES TO TERMINATE A CALL WHEN ICG REQUIRES THE USE OF ONLY ONE, WHY SHOULD ICG BE PAID THE SAME TANDEM TERMINATION RATE AS THAT PAID TO BST?

A. ICG should receive the same tandem termination rate as that paid to BST because ICG's switch serves a comparable geographic area and performs the same functionality as the BST tandem switch and end office switch combined. Likewise, transport and termination rates paid to ICG recover costs in addition to those incurred by its switch. If we refer back to Diagram 3 above, the dotted circular line represents the fiber optic ring that ICG either owns or leases for purposes of transmitting traffic amongst its collocation locations and between itself and other carriers. For example, assume a BST customer served by ILEC Central Office C calls an ICG customer served *via* ICG's collocation at ILEC Central Office A. In this scenario BST will pass the call to ICG at the two carriers' point of interconnection. From that point, ICG's switching platform will direct the call to another piece of equipment located at ICG's collocation cage at ILEC central office A. This piece of equipment works as an extension of the ICG switch for purposes of terminating the call to the proper unbundled loop serving the called customer. Hence, in addition to switching costs associated with identifying the appropriate termination point for BST's call, ICG has

also transported the call to the proper collocation point using its fiber optic transport network (many times miles away from the ICG switch) and identified the appropriate unbundled loop to which the call must be completed. This process is no different than the process BST would follow to terminate a similar call originated on the ICG network and terminated to its own Central Office A.

Q. WHAT RATE SHOULD BST PAY TO ICG FOR TERMINATION OF ITS TRAFFIC?

A. BST should pay to ICG a combined rate equal to the rate ICG pays to BST for terminating its traffic *via* the following individual rate elements: tandem switching, transport and end office switching.

Q. SHOULD THE COMMISSION RELY UPON BST'S COSTS FOR TANDEM SWITCHING, TRANSPORT AND END OFFICE SWITCHING TO SET THE RATE THAT ICG WILL CHARGE BST FOR TERMINATING ITS TRAFFIC?

A. Yes, it should. As the FCC points out at paragraphs 1085 thru 1089 in its Local Competition Order, BST should pay ICG rates for reciprocal compensation equal to its own reported costs for tandem switching, transport and end office switching. For example, the following excerpt is taken from paragraph 1085 of the Commission's Local Competition Order:

> Regardless of whether the incumbent LEC's transport and termination prices are set using a TELRIC-based economic cost study or a default proxy, we conclude that it is reasonable to adopt the incumbent LEC's transport and termination prices as a presumptive proxy for other telecommunications

carriers' additional costs of transport and termination. Both the incumbent LEC and the interconnecting carriers usually will be providing service in the same geographic area, so the forward-looking economic costs should be similar in most cases.

Likewise, the Commission further addresses this issue at paragraph 1087, specifically addressing a concern I raised earlier in my testimony:

> We also find that symmetrical rates may reduce an incumbent LEC's ability to use its bargaining strength to negotiate excessively high termination charges that competitors would pay the incumbent LEC and excessively low termination rates that the incumbent would pay interconnecting carriers. As discussed by commenters in the *LEC-CMRS Interconnection* proceeding, LECs have used their unequal bargaining position to impose asymmetrical rates for CMRS providers and, in some instances, have charged CMRS providers origination as well as termination charges. On the other hand, symmetrical rates largely eliminate such advantages because they require incumbent LECs, as well as competing carrier's, to pay the same rate for reciprocal compensation.

III. PERFORMANCE STANDARDS AND ASSOCIATED DAMAGES

Q. WHAT IS ICG'S POSITION ON PERFORMANCE STANDARDS AND ASSOCIATED DAMAGES?

A. As explained in Ms. Notsund's testimony, these issues are important on an industry-wide basis and require separate in-depth consideration apart from any

particular individual arbitration. Therefore, rather then deal with these important issues here, ICG believes the Commission should conduct a generic proceeding. The testimony that follows in this section will provide a brief overview of some of the issues the Commission should consider in a generic proceeding.

Q. WHAT IS THE ECONOMIC RATIONALE FOR THE ADOPTION OF PERFORMANCE STANDARDS AND DAMAGES ASSOCIATED WITH A FAILURE TO MEET THOSE STANDARDS?

A. A contract (including an interconnection agreement) is, in its essential form, a promise to perform in a way, or at a level, consistent with the parties' agreement. Indeed, a contract is little more than a detailed account specifying the manner by which one of the parties, or both of the parties, will perform, given a particular set of circumstances. Therefore, specific standards of performance should be included in an interconnection agreement.

Q. WHAT IS THE FUNCTION OF A DAMAGE PROVISION WITHIN A CONTRACT?

A. In the simplest terms, a damage provision's basic function is to be a deterrent from non-performance. Damage provisions are generally determined within a contract based primarily on two considerations:

1. the likelihood of non-performance and
2. the damages caused by non-performance.

Such a provision is critical to ensure performance in an interconnection agreement.

Q. HOW DO THESE CONCEPTS RELATE TO THE NEED FOR INDUSTRY-WIDE

STANDARDS?

A. There is a need for an industry-wide set of performance measures for BellSouth as well as damages provisions in interconnection agreements to ensure the performance of the parties and to compensate one party or the other for some circumstance of non-performance. This is because the relationship between the parties yields both (1) a high likelihood of non-performance, and (2) a likelihood that damages resulting from non-performance will be substantial. The details of the performance measures and damages provisions should be considered in a generic proceeding.

IV. VOLUME AND TERM DISCOUNTS FOR UNBUNDLED NETWORK ELEMENTS

Q. PLEASE DESCRIBE ICG'S POSITION WITH RESPECT TO VOLUME AND TERM DISCOUNTS FOR UNBUNDLED NETWORK ELEMENTS.

A. A number of ICG's requests of BST in their negotiations for an interconnection agreement are aimed at arriving at a commercial relationship similar to that ICG enjoys with its other suppliers, customers and business partners. The contractual relationship between ICG that currently exists and that BST would prefer in the future, however, is without a number of common commercial arrangements that would undoubtedly exist if BST weren't participating in the agreement only as a result of its legal requirement to do so. One of those arrangements is a commitment to passing on cost savings associated with providing services in larger volume and commitments for longer term use of the BST network for carriers willing to commit themselves to

volume and term purchases. ICG believes that BST's refusal to provide such discounts is a direct result of the fact that it is ICG's main competitor and that quite frankly, ICG has no alternative supplier for these services. Hence, BST doesn't have the same incentive that a normal commercial participant in a competitive transaction has to pass on some portion of its savings in this regard. For this reason, ICG requires the Commission to intervene and serve as a proxy for a competitive marketplace, thereby requiring BST to enter into what is an important, commonplace and sensible arrangement whereby cost savings associated with a carrier's willingness to commit to volume and term purchases from BST are shared, at least in some part, with the purchaser (e.g., ICG).

Q. WHAT IS BELLSOUTH'S POSITION IN THIS REGARD?

A. In other jurisdictions, BST has held that it should not be required to provide volume and term discounts for UNEs because neither the Act nor any FCC order or rule requires volume and term discount pricing for UNEs. Likewise, BellSouth has argued that both the nonrecurring and monthly UNE recurring rates that ICG will pay are cost based in accordance with the requirements of Section 252(d) and are derived using least cost, forward looking technology consistent with the FCC's rules."

Q. ARE THESE TWO POINTS ACCURATE?

A. Only partially. First, I would disagree that neither the Act nor any FCC order or rule requires volume and term discount pricing. Section 252(d)(1) of the TA96 provides two primary criteria by which prices for unbundled network elements "shall be" established; (1) rates must be based on the cost of providing the unbundled

elements, and (2) rates must be nondiscriminatory:

> (d) PRICING STANDARDS. -
>
> (1) INTERCONNECTION AND NETWORK ELEMENT CHARGES.- Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2) of section 251, and the just and reasonable rate for network elements for purposes of subsection (c)(3) of such section-
>
> (A) shall be-
>
> (i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and
>
> (ii) nondiscriminatory, and
>
> (B) may include a reasonable profit.

Likewise, the FCC in its Local Competition Order at paragraph 743 interprets this portion of the Act as follows:

> 743. We conclude, as a general rule, that incumbent LECs' rates for interconnection and unbundled elements must recover costs in a manner that reflects the way they are incurred. This will conform to the 1996 Act's requirement that rates be cost-based, ensure requesting carriers have the right incentives to construct and use public network facilities efficiently, and prevent incumbent LECs from inefficiently raising costs in order to deter entry.

> We note that this conclusion should facilitate competition on a reasonable and efficient basis by all firms in the industry by establishing prices for interconnection and unbundled elements based on costs similar to those incurred by the incumbents, which may be expected to reduce the regulatory burdens and economic impact of our decision for many parties, including both small entities seeking to enter the local exchange markets and small incumbent LECs. [emphasis added]

The requirement that BST price its unbundled network elements based upon its costs, and the FCC interpretation that rates must recover costs in a manner that reflects the way they are incurred by BST, requires BST to reflect in its rates any reductions in cost that result from volume or term purchases. The most reasonable way to accomplish this requirement is to offer carriers volume and term discounts.

Likewise, the second criteria established by the Act requires that BST's rates for unbundled network elements be "nondiscriminatory." Again, the FCC interpreted the phrase "nondiscriminatory" as follows:

> 315. The duty to provide unbundled network elements on "terms, and conditions that are just, reasonable, and nondiscriminatory" means, at a minimum, that whatever those terms and conditions are, they must be offered equally to all requesting carriers, and where applicable, they must be equal to the terms and conditions under which the incumbent LEC provisions such elements to itself. [footnote omitted, emphasis added]

Hence, if BST experiences any reductions in cost as a result of a carrier's purchase

of unbundled elements in volume or as the result of the carrier's commitment to purchase those elements over a period of time, BST is required to reflect that cost reduction in a non-discriminatory fashion to the carrier purchasing those facilities. Otherwise, BST would incur a lower cost per unit of providing UNEs than was reflected in the price charged to its competitors. This would undoubtedly conflict with its obligation to provide cost-based, non-discriminatory rates.

Q. DOES THE FACT THAT BST'S PRICES FOR ACCESS TO UNBUNDLED NETWORK ELEMENTS ARE BASED UPON THE TOTAL ELEMENT LONG RUN INCREMENTAL COST ("TELRIC") STANDARD ADOPTED BY THE FCC LIMIT THE EXTENT TO WHICH COST SAVINGS WILL RESULT FROM LARGER VOLUME PURCHASES AND TERM COMMITMENTS?

A. Only slightly. The TELRIC methodology does require that prices for unbundled network elements reflect the economies of scale that are enjoyed by providing the "total element." To a certain extent, this reduces the likelihood that as BST sells greater volumes of specific unbundled network elements, its TELRIC costs go down as a result of the economies of scale it experiences. This results from the fact that these economies of scale have, to some extent, already been accounted for in the derivation of TELRIC costs.

However, there are a number of other areas where per-unit costs will undoubtedly fall with increases in volume purchases and commitments to longer purchase times and where the TELRIC methodology as applied does not account for such reductions. For example, one of the most important steps in developing a

TELRIC study is the process of "unitizing" network investments into costs attributable to individual UNEs. For example, the investment associated with a given piece of equipment that can support 100 loops (assume $1,000) must be allocated among some portion of those 100 loops in order to develop a "per unit investment." The FCC addressed this process at paragraph 682 of its Local Competition Order as follows:

> Per unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of the facility that will be "filled" with network usage); that is, the per unit cost associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element.

The FCC did not require that incumbent LEC's derive per unit investments based upon the capacity of the equipment they were deploying (i.e. to divide the $1,000 by its entire 100 loop capacity). Instead, the incumbent LEC's were allowed to use a projected level of actual usage to allocate those costs. Hence, instead of arriving at $10 of investment per unit in our example above ($1,000 / 100) it is likely that BST was allowed to attribute far more than $10 to each unit (likely in the neighborhood of $20 based upon a "fill factor" of 50% - i.e. $1,000 / 50).

This analysis is important for two reasons. First, it becomes obvious that as the volume of UNE purchases increases, the "actual fill" associated with the underlying BST equipment will rise, thereby altering the "actual" usage by which total investments are allocated. Returning to our example above, it is obvious that if ICG

were willing to commit to 80 loops served by the particular piece of equipment described above and BST had developed its TELRIC costs based upon a 50% fill factor, BST's actual costs would fall on a per unit basis from $20 per loop ($1,000 / 50) to $12.50 per loop ($1,000 / 80). However, as BST's rates are set today (i.e. without any volume or term discount), ICG would not recognize any of this reduction in cost resulting from its volume purchase. Instead, whatever reduction in cost is achieved would simply be enjoyed by BST. This conflicts directly with the FCC's requirement that UNE rates recover costs in the manner in which they are incurred as well as the Act's specific requirement that BST's rates be non-discriminatory.

Q. ARE THERE OTHER WAYS IN WHICH VOLUME PURCHASES CAN/WILL AFFECT THE COSTS INCURRED BY BST IN THE PROVISION OF INTERCONNECTION AND UNES?

A. Yes there are. At paragraphs 694-698 of its Local Competition Order the FCC requires that ILECs be allowed to recover their "forward looking common costs attributable to operating the wholesale network." Common costs are by nature, not incremental to any given level of volume. That is, as the volume of goods sold increases or decreases, common costs are unlikely to change. For example, if BST were assumed to have $1,000,000 in common costs attributable to unbundled network elements and it sold 1,000,000 elements, its common costs per element sold would be $1.00 ($1,000,000 / 1,000,000). However, now assume that BST were to sell 1,500,000 unbundled network elements. By definition, BST's common costs would not rise they would remain at $1,000,000. Now instead of $1.00 reasonably

attributable to each unbundled element, however, only $0.67 would be attributable to each element ($1,000,000 / 1,500,000). In this situation volume purchases reduce BST's costs of providing UNEs, however, without volume and term discounts included in its UNE rates, BST would be the only beneficiary of these decreasing costs. Again, this is inconsistent with the FCC's rules requiring that UNE rates recover costs in a manner in which they are incurred and that they be non-discriminatory.

Q. YOUR DISCUSSION ABOVE APPEARS TO FOCUS SOLELY ON THE NEED FOR DISCOUNTS RECOGNIZING COSTS SAVINGS RESULTING FROM GREATER VOLUME PURCHASES. WHY WOULD DISCOUNTS FOR TERM COMMITMENTS BE NECESSARY?

A. At paragraph 687 of the Local Competition order the FCC specifically addresses term discounts and suggests that this is one way that ILECs could mitigate the increased costs that result from normal business risk:

> As noted, we also agree that, as a matter of theory, an increase in risk due to entry into the market for local exchange service can increase a LEC's cost of capital. We believe that this increased risk can be partially mitigated, however, by offering term discounts, since long-term contracts can minimize the risk of stranded investment.

Q. DOES BST UTILIZE BOTH VOLUME AND TERM DISCOUNTS IN ITS NORMAL COURSE OF BUSINESS WITH ITS RETAIL CUSTOMERS?

A. Yes. BST, along with the majority of other incumbent LEC's across the nation,

uses both volume and term discount structures pervasively in pricing its retail services and has begun to employ these discounts with increasing frequency as local competitive alternatives increase. These discount structures are a good way for BST to "retain" its current customers, thereby stalling its customers' desire to pursue a competitor's service. This is perfectly logical on the part of BST and is a profit-maximizing strategy. Competitive markets require that BST pass along some level of savings it enjoys from large service volumes in an effort to retain the volume of services its customers represent and the associated economies of scale (cost savings) they provide. Absent BST's willingness to provide such discounts, it is likely that some number of its customers would pursue alternatives, thereby reducing BST's service volume and the economies of scale it enjoys. Instead of losing the entire cost savings associated with losing these customers, BST is willing to pass along a portion of those savings in an effort to retain at least some portion of the savings for itself.

However, when competitors partake in contributing to BST's service volume (and hence its economies of scale) by buying unbundled elements, BST has no such incentive to pass along some portion of the savings. It realizes that its competitors really have no alternative for the majority of the unbundled elements they purchase from BST and hence, BST can retain the entire cost savings for itself. Unfortunately, absent intervention by the Commission in requiring volume and term discounts for purchases of UNEs, BST prevails. It can retain the entire cost savings for itself. Even worse, by doing so it can improve its position with respect to its competitors in

the marketplace at the same time. As competitors purchase more and more unbundled elements from BST, its volumes increase and its cost per unit of service fall. Hence, BST can provide its retail customers even greater discounts that position its services in an ill-gained, advantageous position in relation to competitors, who must buy unbundled elements, while receiving no such discount, to provide services in competition with BST. This is exactly the type of discriminatory behavior that both the Act and the FCC were attempting to foreclose by requiring that rates for UNE's be based upon the costs of their provision.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

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Professional Activities

Michael Starkey *Quantitative Solutions, Inc.*

- Former member of the Missouri Public Service Commission's Task Force on FCC Docket Nos. 91-141 and 91-213 regarding expanded interconnection, collocation, and access transport restructure

- Former member of the AT&T / Missouri Commission Staff, *Total Quality Management Forum* responsible for improving and streamlining the regulatory process for competitive carriers

- Former member of the Missouri, Oklahoma, Kansas, Texas, and Arkansas five state Southwestern Bell Open Network Architecture (ONA) Oversight Conference

- Former delegate to the Illinois, Michigan, Indiana, Ohio, and Wisconsin Ameritech Regional Regulatory Conference (ARRC) charged with the responsibility of analyzing Ameritech's "Customers First" local exchange competitive framework for formulation of recommendations to the FCC and the U.S. Department of Justice

- Former member of both the Illinois and Maryland Local Number Portability Industry Consortiums responsible for developing and implementing a permanent data-base number portability solution

Testimony Profile and Experience

Before the Missouri Public Service Commission
Case No. TO-99-370
Petition of BroadSpan Communications, Inc. for Arbitration of Unresolved Interconnection Issues Regarding ADSL with Southwestern Bell Telephone Company
On behalf of BroadSpan Communications, Inc.

Before the Michigan Public Service Commission
Case No. U-11831
In the Matter of the Commission's own motion, to consider the total service long run incremental costs for all access, toll, and local exchange services provided by Ameritech Michigan.
On behalf of MCIWorldCom, Inc.

Before the Illinois Commerce Commission
Docket Nos. 98-0770, 98-0771 *cons.*
Proposed Modifications to Terms and Conditions Governing the Provision of Special Construction Arrangements and, *Investigation into Tariff Governing the Provision of Special Constructions Arrangements*
On behalf of AT&T Communications of Illinois, Inc.

Before the Michigan Public Service Commission
Case No. U-11735
In the matter of the complaint of BRE Communications, L.L.C., d/b/a PHONE MICHIGAN, against Michigan Bell Telephone Company, d/b/a AMERITECH MICHIGAN, for violations of the Michigan Telecommunications Act
On behalf of BRE Communications, L.L.C.

Before the Indiana Utility Regulatory Commission
Cause No. 40830
In the Matter of the request of the Indiana Payphone Association for the Commission to Conduct an Investigation of Local Exchange Company Pay Telephone tariffs for Compliance with Federal Regulations, and to Hold Such Tariffs in Abeyance Pending Completion of Such Proceeding
On behalf of the Indiana Payphone Association

Before the Michigan Public Service Commission
Complaint Pursuant to Sections 203 and 318 of the Michigan Telecommunications Act to Compel Respondents to Comply with Section 276 of the Federal Telecommunications Act
On behalf of the Michigan Pay Telephone Association

Before the Missouri Public Service Commission
Case No. TO-98-278
In the Matter of the Petition of Birch Telecom of Missouri, Inc., for Arbitration of the Rates, Terms, Conditions, and Related Arrangements for Interconnection with Southwestern Bell Telephone Company
On behalf of Birch Telecom of Missouri, Inc.

Before the Public Service Commission of the Commonwealth of Kentucky
Administrative Case No. 361
Deregulation of Local Exchange Companies' Payphone Services
On behalf of the Kentucky Payphone Association

Before the Public Utilities Commission of Ohio
Case No. 96-899-TP-ALT
The Application of Cincinnati Bell Telephone Company for Approval of a Retail Pricing Plan Which May Result in Future Rate Increases
On behalf of the MCI Telecommunications Corporation

Before the Public Utilities Commission of the State of Hawaii
Docket No. 7702
Instituting a Proceeding on Communications, Including an Investigation of the Communications Infrastructure of the State of Hawaii
On behalf of GST Telecom Hawaii, Inc.

Before the Michigan Public Service Commission
Case No. U-11410
In the Matter of the Petition of the Michigan Pay Telephone Association to initiate an investigation to determine whether Michigan Bell Telephone Company d/b/a Ameritech Michigan and GTE North Incorporated are in compliance with the Michigan Telecommunications Act and Section 276 of The Communications Act of 1934, as amended
On behalf of the Michigan Pay Telephone Association

Before the Indiana Utility Regulatory Commission
Cause No. 40849
In the matter of Petition of Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana for the Commission to Decline to Exercise in Whole or in Part its Jurisdiction Over, and to Utilize Alternative Regulatory Procedures For, Ameritech Indiana's Provision of Retail and Carrier Access Services Pursuant to I.C. 8-1-2.6 Et Seq.
On behalf of AT&T Communications of Indiana, Inc.

Before the Federal Communication Commission
C.C. Docket No. 97-137
In the Matter of Application by Ameritech Michigan for Authorization under Section 271 of the Communications Act to Provide In-Region, InterLATA Service in the State of Michigan.
On behalf of the AT&T Corporation

Before the Indiana Utility Regulatory Commission

Cause No. 40611
In the Matter of the Commission Investigation and Generic Proceeding on Ameritech Indiana's Rates for Interconnection, Service, Unbundled Elements and Transport and Termination under the Telecommunications Act of 1996 and Related Indiana Statutes
On behalf of the MCI Telecommunications Corporation

Before the Public Utility Commission of Ohio
Case No. 97-152-TP-ARB
In the matter of the petition of MCI Telecommunications Corporation for arbitration pursuant to section 252(b) of the Telecommunications Act of 1996 to establish an interconnection agreement with Cincinnati Bell Telephone Company
On behalf of the MCI Telecommunications Corporation

Before the Michigan Public Service Commission
Case No. U-11280
In the matter, on the Commission's own motion to consider the total service long run incremental costs and to determine the prices of unbundled network elements, interconnection services, and basic local exchange services for AMERITECH MICHIGAN
On behalf of the MCI Telecommunications Corporation

Before the Illinois Commerce Commission
Docket No. 96-0486
Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic
On behalf of the MCI Telecommunications Corporation

Before the Public Utility Commission of Ohio
Case No. 96-922-TP-UNC
In the Matter of the Review of Ameritech Ohio's Economic Costs for Interconnection, Unbundled Network Elements, and Reciprocal Compensation for Transport and Termination of Local Telecommunications Traffic
On behalf of the MCI Telecommunications Corporation

Before the New Jersey Board of Public Utilities
Docket No. TX95120631
In the Matter of the Investigation Regarding Local Exchange Competition for Telecommunications Services
On behalf of the MCI Telecommunications Corporation

Before the Michigan Public Service Commission
Case No. U-11104
In the matter, on the Commission's Own Motion, to Consider Ameritech Michigan's Compliance With the Competitive Checklist in Section 271 of the Telecommunications Act of 1996
On behalf of AT&T Communications of Indiana, Inc.

Before the Public Utility Commission of Ohio
Case Nos. 96-702-TP-COI, 96-922-TP-UNC, 96-973-TP-ATA, 96-974-TP-ATA, Case No. 96-1057-TP-UNC
In the Matter of the Investigation Into Ameritech Ohio's Entry Into In-Region InterLATA Services Under Section 271 of the Telecommunications Act of 1996.
On behalf of AT&T Communications of Ohio, Inc.

Michael Starkey *Quantitative Solutions, Inc.*

Before the Illinois Commerce Commission
Docket No. 96-0404
Investigation Concerning Illinois Bell Telephone Company's Compliance With Section 271(c) of the Telecommunications Act of 1996
On behalf of AT&T Communications of Illinois, Inc.

Before the Commonwealth of Massachusetts Department of Public Utilities
In the Matter of: D.P.U. 96-73/74, D.P.U. 96-75, D.P.U. 96-80/81, D.P.U. 96-83, D.P.U. 96-94, NYNEX - Arbitrations
On behalf of the MCI Telecommunications Corporation

Before the Pennsylvania Public Utility Commission
Docket No. A-31023670002
In the Matter of the Application of MCI Metro Access Transmission Services, Inc. For a Certificate of Public Convenience and Necessity to Provide and Resell Local Exchange Telecommunications Services in Pennsylvania
On behalf of MCImetro Access and Transmission Services, Inc.

Before the New Jersey Board of Public Utilities
Docket No. TO96080621
In the Matter of MCI Telecommunications Corporation for Arbitration with Bell Atlantic-New Jersey, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996
On behalf of the MCI Telecommunications Corporation

Before the Wisconsin Utility Regulatory Commission
Cause No. 40571-INT-01
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Wisconsin Bell Telephone Company d/b/a Ameritech Wisconsin
On behalf of AT&T Communications of Wisconsin, Inc.

Before the Public Utility Commission of Ohio
Case No. 96-752-TP-ARB
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Ohio Bell Telephone Company d/b/a Ameritech Ohio
On behalf of AT&T Communications of Ohio, Inc.

Before the Illinois Commerce Commission
Docket No. 96-AB-003
Docket No. 96-AB-004 *Consol.*
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Illinois Bell Telephone Company d/b/a Ameritech Illinois
On behalf of AT&T Communications of Illinois, Inc.

Before the Michigan Public Service Commission
Case No. U-11151
Petition for Arbitration of Interconnection Rates, Terms and Conditions, and Related Arrangements with Michigan Bell Telephone Company d/b/a Ameritech Michigan
On behalf of AT&T Communications of Michigan, Inc.

Before the Indiana Utility Regulatory Commission
Cause No. 40571-INT-01

In the Matter of the Petition of AT&T Communications of Indiana, Inc. Requesting Arbitration of Certain Terms and Conditions and Prices for Interconnection and Related Arrangements from Indiana Bell Telephone Company, Incorporated d/b/a Ameritech Indiana Pursuant to Section 252 (b) of the Communications Act of 1934, as Amended by the Telecommunications Act of 1996.
On behalf of AT&T Communications of Indiana, Inc.

Before the Missouri Public Service Commission
Case No. TT-96-268
Application of Southwestern Bell Telephone Company, Inc. to Revise P.S.C. Mo.-No. 26, Long Distance Message Telecommunications Service Tariff to Introduce the Designated Number Optional Calling Plan
On behalf of the MCI Telecommunications Corporation

Before the Corporation Commission of the State of Oklahoma
Cause No. PUD 950000411
Application of Southwestern Bell Telephone Company for an Order Approving Proposed Revisions in Applicant's Long Distance Message Telecommunications Service Tariff
Southwestern Bell Telephone Company's Introduction of 1+ Saver Direct^{sm}
On behalf of the MCI Telecommunications Corporation

Before the Georgia Public Service Commission
Docket No. 6415-U and 6537-U *cons.*
Petition of MCImetro to Establish Nondiscriminatory Rates, Terms and Conditions for the Unbundling and Resale of Local Loops
On behalf of MCImetro Access Transmission Services

Before the Public Service Commission of the State of Mississippi
Docket No. 95-UA-358
Regarding a Docket to Consider Competition in the Provision of Local Telephone Service
On behalf of the Mississippi Cable Television Association

Before the Maryland Public Service Commission
Docket No. 8705
In the Matter of the Inquiry Into the Merits of Alternative Plans for New Telephone Area Codes in Maryland
On behalf of the Staff of the Maryland Public Service Commission

Before the Maryland Public Service Commission
Docket No. 8584, Phase II
In the Matter of the Application of MFS Intelenet of Maryland, Inc. for Authority to Provide and Resell Local Exchange and Inter-Exchange Telephone Service; and Requesting the Establishment of Policies and Requirements for the Interconnection of Competing Local Exchange Networks

In the Matter of the Investigation of the Commission on its Own Motion Into Policies Regarding Competitive Local Exchange Telephone Service
On behalf of the Staff of the Maryland Public Service Commission

Before the Illinois Commerce Commission
Docket No. 94-0400
Application of MCImetro Access and Transmission Services, Inc. For a Certificate of Exchange Service Authority Allowing it to Provide Facilities-Based Local Service in the Chicago LATA
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission

Docket No. 94-0315
Petition of Ameritech-Illinois for 708 NPA Relief by Establishing 630 Area Code
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 94-0422
Complaints of MFS, TC Systems, and MCI against Ameritech-Illinois Regarding Failure to Interconnect
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket Nos. 94-0096, 94-0117, and 94-301
Proposed Introduction of a Trial of Ameritech's Customers First Plan in Illinois, et al.
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 94-0049
Rulemaking on Line-Side and Reciprocal Interconnection
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 93-0409
MFS-Intelenet of Illinois, Inc. Application for an Amendment to its Certificate of Service Authority to Permit it to Operate as a Competitive Local Exchange Carrier of Business Services in Those Portions of MSA-1 Served by Illinois Bell Telephone and Central Telephone Company of Illinois
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 94-0042, 94-0043, 94-0045, and 94-0046
Illinois Commerce Commission on its own motion. Investigation Regarding the Access Transport Rate Elements for Illinois Consolidated Telephone Company (ICTC), Ameritech-Illinois, GTE North, GTE South, and Central Telephone Company (Centel)
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Illinois Commerce Commission
Docket No. 93-0301 and 94-0041
GTE North Incorporated. Proposed Filing to Restructure and Consolidate the Local Exchange, Toll, and Access Tariffs with the Former Contel of Illinois, Inc.
On behalf of the Office of Policy and Planning, Illinois Commerce Commission

Before the Public Service Commission of the State of Missouri
Case No. TC-93-224 and TO-93-192
In the Matter of Proposals to Establish an Alternate Regulation Plan for Southwestern Bell Telephone Company
On behalf of the Telecommunications Department, Missouri Public Service Commission

Before the Public Service Commission of the State of Missouri
Case No. TO-93-116
In the Matter of Southwestern Bell Telephone Company's Application for Classification of Certain Services as Transitionally Competitive
On behalf of the Telecommunications Department, Missouri Public Service Commission

Michael Starkey ***Quantitative Solutions, Inc.***

Selected Reports, Publications and Presentations

Telecommunications Pricing in Tomorrow's Competitive Local Market
Professional Pricing Societies 9th Annual Fall Conference
Pricing From A to Z
Chicago, Illinois, October 30, 1998

Recombining Unbundled Network Elements: An Alternative to Resale
ICM Conferences' Strategic Pricing Forum
January 27, 1998, New Orleans, Louisiana

MERGERS – Implications of Telecommunications Mergers for Local Subscribers
National Association of State Utility Consumer Advocates Mid-Year Meeting,
Chicago, Illinois, June 24 1996

Unbundling, Costing and Pricing Network Elements in a Co-Carrier World
Telecommunications Reports' Rethinking Access Charges & Intercarrier Compensation
Washington, D.C., April 17, 1996

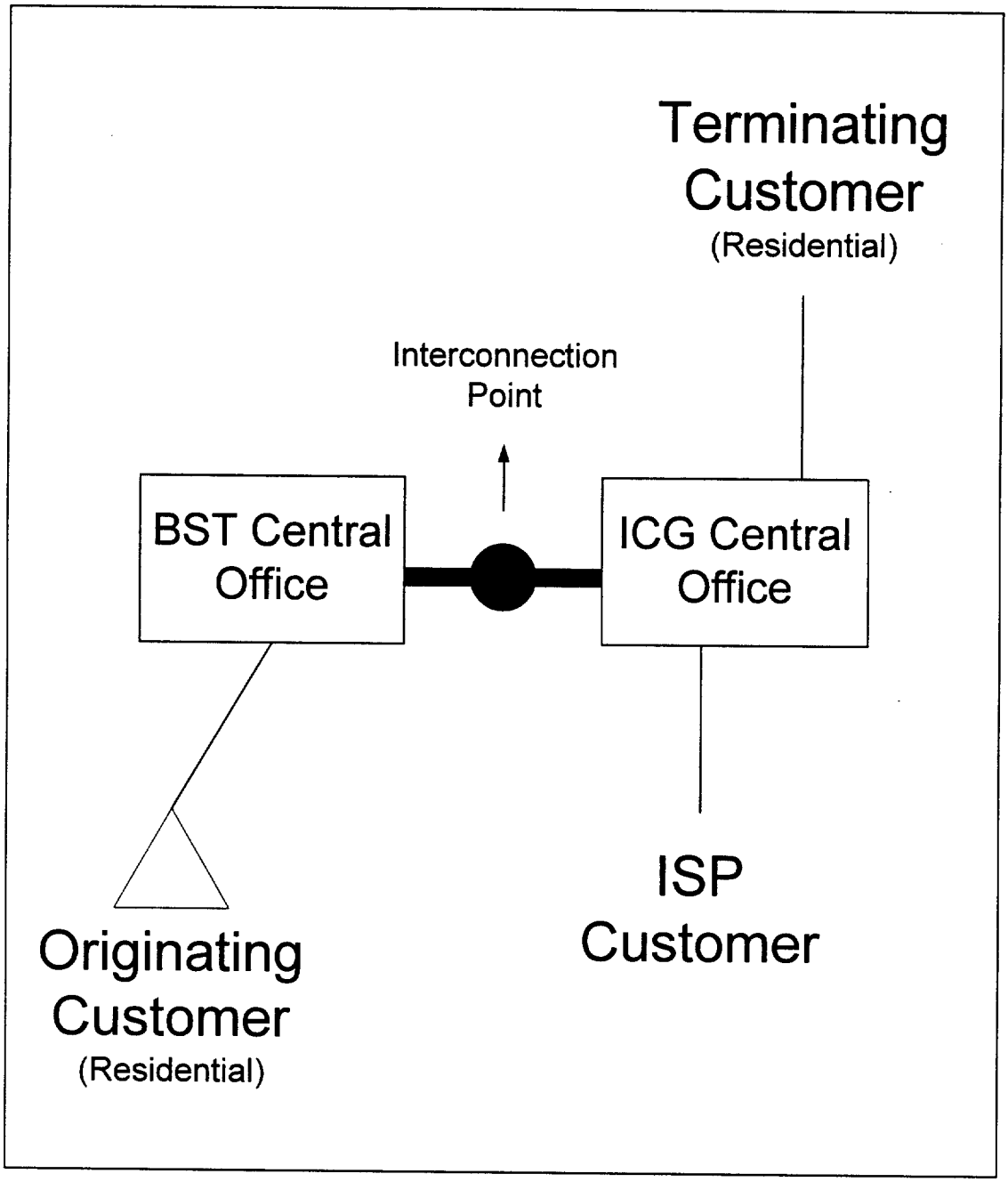
Key Local Competition Issues Part I (novice)
Key Local Competition Issues Part II (advanced)
with Mark Long
National Cable Television Associations' 1995 State Telecommunications Conference
Washington, D.C., November 2, 1995

Competition in the Local Loop
New York State Telephone Association and Telephone Association of New England Issues Forum
Springfield, Massachusetts, October 18, 1995

Compensation in a Competitive Local Exchange
National Association of Regulatory Utility Commissioner Subcommittee on Communications' Summer Meetings
San Francisco, California, July 21, 1995

Fundamentals of Local Competition and Potential Dangers for Interexchange Carriers
COMPTEL 1995 Summer Business Conference
Seattle, Washington, June 12, 1995

Diagram 1


Terminating
Customer
(Residential)
Interconnection
Point
BST Central
Office
ICG Central
Office
ISP
Customer
Originating
Customer
(Residential)

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of: Petition by ICG TELECOM GROUP, INC. for Arbitration of an Interconnection Agreement with BELLSOUTH TELECOMMUNICATIONS, INC. Pursuant to Section 252(b) of the Telecommunications Act of 1996.	Docket No. 990691-TP Filed: September 7, 1999

REBUTTAL TESTIMONY

OF

MICHAEL STARKEY

ON BEHALF OF

ICG TELECOM GROUP, INC.

FILE

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

REBUTTAL TESTIMONY

OF

MICHAEL STARKEY

ON BEHALF OF ICG TELECOM, INC.

DOCKET NUMBER 990691-TP

Q. PLEASE STATE YOUR NAME.

A. My name is Michael Starkey.

Q. ARE YOU THE SAME MICHAEL STARKEY WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes, I am.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My rebuttal testimony will respond to a number of issues raised by BellSouth Telecommunications, Inc. ("BellSouth") in its direct testimony. Specifically, I will address the following issues:

I. I will respond to arguments raised by Alphonso J. Varner describing BellSouth's duty to compensate ICG for ISP-bound traffic. Specifically, I will dispel BellSouth's argument that the Commission should simply not address this extremely important issue within the context of this arbitration. (Varner direct, 15).

II. I address Mr. Varner's arguments that ICG should, instead of receiving reciprocal compensation payments for carrying BellSouth's traffic, pay

BellSouth for carrying that traffic, though it is my understanding that this testimony is subject to a Motion to Strike. I conclude that Mr. Varner has so twisted the FCC's decisions and the rubric of common sense that this proposal can't be taken seriously.

III. I show that Mr. Varner is mistaken in his contention that ICG is not entitled to be compensated at the tandem interconnection rate.

Q. BEFORE YOU EXPLAIN YOUR POSITION ON EACH OF THE ISSUES ABOVE, CAN YOU FIRST SUMMARIZE YOUR RESPONSE TO BELLSOUTH'S POSITION THAT ICG SHOULD PAY BELLSOUTH FOR CARRYING BELLSOUTH'S CUSTOMERS' ISP-BOUND TRAFFIC?

A. As a preliminary matter, I note that concurrently with the filing of its rebuttal testimony, ICG Telecom, Inc. (ICG) has filed a Motion to Strike the portion of Mr. Varner's testimony addressing this argument as outside the scope of the issues to be arbitrated. My discussion of this matter is subject to the ruling on that motion.

BellSouth's proposition is outlandish. BellSouth's argument is an obvious attempt to shift the Commission's attention away from the proper cost recovery mechanisms required to ensure that carriers like ICG are compensated for carrying traffic generated by BellSouth's end users. At its heart, BellSouth's position makes obvious the fact that while it continues to sell enormous amounts of second access lines and generally does everything it can to reap windfall profits from its customers' internet usage, it is unwilling to pay the

carriers that end up carrying the brunt of its end users' traffic - the ICGs of the marketplace (i.e. ALECs). Boiled down, BellSouth asks this Commission to believe that carriers like ICG should pay BellSouth for the privilege of carrying the traffic of BellSouth's customers! When the Commission applies sound economics, good public policy, and common sense to the subject of reciprocal compensation, it will reject the argument out of hand. Later in my testimony, I discuss at greater length why on every front BellSouth's argument in support of its "switched access sharing" proposal is grossly flawed and inappropriate.

Q. CAN YOU REITERATE ICG'S POSITION REGARDING THE ISSUE OF PROPER PAYMENT FOR TRAFFIC ORIGINATED ON THE NETWORK OF ONE INTERCONNECTING LEC AND PASSED TO AN ISP SERVED BY THE OTHER INTERCONNECTING LEC?

A. It is ICG's position that sound economic and public policy rationales require that another carrier be compensated for costs incurred when a first carrier uses the other carrier's network for purposes of completing the originating traffic of a customer of that first carrier. BellSouth's customers use ICG's network whenever they dial an ICG customer, regardless of whether ICG's customer is a residential customer or an ISP. BellSouth's use of ICG's network generates costs that ICG must recover, just as ICG's use of the BellSouth network generates costs for which ICG is willing to compensate BellSouth. As I fully explained in my direct testimony, the costs generated by a call bound for an ISP customer do not differ from those generated by calls bound for other

types of ICG customers. Hence, BellSouth should be required to compensate ICG for its use of ICG's network regardless of whether the call is bound for an ISP or any other type of local customer. Because calls to an ISP are identical to other local calls, the reciprocal compensation rate applicable to local traffic is the best cost-based rate available for purposes of establishing reasonable compensation for ISP-bound traffic.

Q. CAN YOU BRIEFLY DESCRIBE BELLSOUTH'S POSITION ON THIS MATTER AS YOU UNDERSTAND IT?

A. I will attempt to, though BellSouth's position appears to be multi-layered. The following citations from the testimony of Mr. Varner give us some insight:

1. Mr. Varner says reciprocal compensation is not applicable to ISP-bound traffic. (Varner direct at 4).
2. BellSouth recommends this Commission not address this issue because it asserts compensation for ISP bound traffic is not subject to a §252 arbitration. (Varner direct at 15).
3. Mr. Varner argues that payment of reciprocal compensation for ISP-bound traffic is inconsistent with sound public policy and economic principles of cost causation.
4. According to Mr. Varner, ICG should compensate BellSouth for the use of ICG facilities by a BellSouth customer to place a call to an ICG served ISP. (Exhibit No. AJV-6).

Q. PLEASE RESPOND TO BELLSOUTH'S CONTENTION THAT RECIPROCAL

COMPENSATION RATES ARE NOT APPLICABLE TO ISP BOUND TRAFFIC.

A. Mr. Varner's statements fly in the face of pertinent FCC rulings. It is clear from reading the FCC's *Declaratory Ruling in C.C. Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 96-98* (hereafter *Declaratory Ruling*), that while the FCC made a number of critical decisions impacting compensation for ISP bound traffic, the FCC left to the states an enormous responsibility to determine the proper compensation that carriers should receive for this traffic until a national rule is established. The following excerpt from paragraph 26 of the FCC's *Declaratory Ruling* best frames a state commission's responsibility in this regard:

> Although reciprocal compensation is mandated under Section 251(b)(5) only for the transport and termination of local traffic, neither the statute nor our rules prohibit a state commission from concluding in an arbitration that reciprocal compensation is appropriate in certain instances not addressed by section 251(b)(5), so long as there is no conflict with governing federal law. A state commission's decision to impose reciprocal compensation obligations in an arbitration proceeding - or a subsequent state commission decision that those obligations encompass ISP-bound traffic - does not conflict with any Commission rule regarding ISP-bound traffic. *By the same token, in the absence of governing federal law, state commissions also are*

free not to require the payment of reciprocal compensation for this traffic and to adopt another compensation mechanism.

(Footnotes omitted, emphasis added).

Q. WHY DID YOU HIGHLIGHT THE LAST SENTENCE OF THE ABOVE QUOTATION?

A. I think there is an important point the FCC is making in the last sentence that it reiterates more directly in paragraph 29:

> We acknowledge that, no matter what the payment arrangement, LECs incur a cost when delivering traffic to an ISP that originates on another LEC's network.

It seems clear from these two paragraphs that while a state Commission is "...free not to require the payment of reciprocal compensation for this traffic...", if it chooses this path it must "adopt another compensation mechanism." It is clear that the FCC's pronouncements leave no room for BellSouth's position that the Commission should ignore the issue.

The FCC has obviously left the state commissions to determine an appropriate rate of compensation one LEC should pay another for ISP-bound traffic. It appears that it has given the state commissions an option to either adopt the reciprocal compensation rates that they have adopted as reasonable payment for all other types of local traffic, or, to construct another means of compensation specific to ISP-bound traffic. While ISP-bound traffic may no longer meet the legal definition of local traffic that the FCC has found

appropriate for compensation under §251(b)(5) of the Act, the FCC has given a strong indication that such reciprocal compensation rates are a good place to start when determining reasonable rates for ISP-bound traffic.

Q. HAVE OTHER STATE COMMISSIONS MADE DECISIONS IN THIS RESPECT SINCE THE FCC ISSUED ITS DECLARATORY RULING?

A. Yes, as many as 16 states have issued decisions since the FCC's issuance of its *Declaratory Ruling* and have found that payments for ISP-bound traffic are appropriate. Among those that have interpreted the FCC's *Declaratory Ruling* for purposes of governing interconnection agreements within their intra-state jurisdictions is the Maryland Public Service Commission. In my opinion, the Maryland Commission provides the most reasoned reading to date of the FCC's intentions. In Order No. 75280 at pages 16 and 17, the Maryland Commission finds as follows:

> Thus, under the FCC's *ISP Order*, it is incumbent upon this Commission to determine an interim cost recovery methodology which may be used until the FCC completes its rulemaking on this issue and adopts a federal rule governing inter-carrier compensation arrangements.
>
> In fact, according to the FCC, "State commissions are free to require reciprocal compensation for ISP-bound calls, or not require reciprocal compensation and **adopt another compensation mechanism**, bearing in mind that ISP/ESPs are exempt from paying

access charges." This directive does not leave us the option of providing for no compensation for ISP-bound calls. State commissions must either require reciprocal compensation or develop another compensation mechanism. To fail to provide for any compensation would violate the 1996 Act, which states:

> A State commission shall not consider the terms and conditions for reciprocal compensation to be just and reasonable unless such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carrier. (47 USC §252(d)(2)(A)).

We are very concerned that the adoption of BA-MD'S position will result in ALECs receiving no compensation for terminating ISP-bound traffic. Such an effect will be detrimental to our efforts to encourage competition in Maryland. No one disputes that local exchange carriers incur costs to terminate the traffic of other carriers over their network. In the absence of finding that reciprocal compensation applies, a class of calls (ISP traffic) will exist for which there is no compensation. The reciprocal compensation rates established by our arbitration order and

contained in the approved Statement of Generally Available Terms ("SGAT") reflect the costs of this termination. Until the FCC establishes an appropriate inter-carrier compensation mechanism for ISP-bound traffic, we find that it is in the public interest to require BA-MD to pay our arbitrated reciprocal compensation rates contained in the SGAT as an **interim** compensation mechanism.

(Footnotes omitted; emphasis in original).

Q. MR. VARNER SUGGESTS IN HIS TESTIMONY THAT "COMPENSATION FOR ISP BOUND TRAFFIC IS NOT SUBJECT TO A SECTION 252 ARBITRATION." HOW DO YOU RESPOND?

A. One needs only to place Mr. Varner's testimony beside the FCC's pronouncement to see that he is wrong. In footnote 87, found in paragraph 26 of the FCC's *Declaratory Ruling*, the FCC states:

> As discussed, *supra*, in the absence of a federal rule, state commissions have the authority under section 252 of the Act to determine inter-carrier compensation for ISP-bound traffic.

Moreover, in its *Notice of Proposed Rulemaking* included as a portion of its *Declaratory Ruling*, the FCC tentatively concludes that even as a result of the federal policy it ultimately adopts in a federal rule, states should still play the role of setting inter-carrier compensation rates for ISP-bound traffic:

> 30. We tentatively conclude that, as a matter of federal policy, the inter-carrier compensation for this interstate

telecommunications traffic [ISP-bound traffic] should be governed prospectively by interconnection agreements negotiated and arbitrated under sections 251 and 252 of the Act. Resolution of failures to reach agreement on inter-carrier compensation for interstate ISP-bound traffic then would occur through arbitrations conducted by state commissions, which are appealable to federal district courts.

Q. PLEASE RESPOND TO BELLSOUTH'S ASSERTION THAT ICG SHOULD PAY BELLSOUTH FOR ORIGINATING THE CALL WHEN A CALL IS ULTIMATELY PASSED TO AN ISP?

A. BellSouth's claim is the absurd result of its erroneous argument that switched access charges should apply to traffic passed to ISP customers and that the switched access charge regime is the proper framework within which to view ISP traffic and its proper compensation.

Q. PLEASE EXPLAIN.

A. BellSouth's mistaken premise is that ISPs actually purchase switched access services from ILECs and ALECs when gaining access to the public switched network and that ISPs are thereby "carriers" that should be required to bear the burden of all costs generated from their customers (i.e. BellSouth and ICG customers) that subscribe to internet services. From this notion, BellSouth derives the argument that it should be compensated, by ICG, for originating those switched access calls, i.e., ICG should pay BellSouth when a

Bellsouth end user calls an ISP served by ICG.

Q. PLEASE DESCRIBE THE DIFFERENCES BETWEEN THE SWITCHED ACCESS AND RECIPROCAL COMPENSATION FRAMEWORKS.

A. The differences are major. Within the switched access charge regime, long distance carriers of toll traffic compensate local exchange carriers both to originate and terminate calls placed over their networks. On the other hand, reciprocal compensation obligates the local exchange carrier originating a local call to compensate the carrier to which the call is sent for delivery to the called number. The switched access framework is not the appropriate framework within which to view ISP-bound traffic.

Q. WHY NOT?

A. Very simply, because the switched access framework is intended for long-distance carriers and toll traffic, neither of which is present when ICG completes a call from a BellSouth customer to its ISP. The FCC has already found that switched access charges do not apply to such traffic. Hence, it is important that even if this Commission decides that the reciprocal compensation rate paid for all other local traffic is not applicable to ISP-bound traffic and that some other rate should apply, it must find that the reciprocal compensation *framework* (i.e., the originating carrier is responsible for costs associated with carrying the call) is the proper framework within which to establish reasonable rates for ISP-bound traffic. If any semblance of economic cost causality is to remain in the local exchange marketplace, BellSouth's proposal to charge ALECs for carrying

BellSouth's traffic must be rejected.

Q. BELLSOUTH CONTENDS THAT THE FCC HAS REGULATED DATA CARRIERS AS INTERSTATE CARRIERS FOR OVER 30 YEARS AND HAS HELD THAT WHILE THESE CARRIERS ARE BEING PROVIDED ACCESS SERVICES, THEY ARE ALLOWED TO COLLECT TRAFFIC AT THE PRICES FOR BUSINESS SERVICES. CAN YOU COMMENT?

A. ISP's are not "carriers" based on the FCC rules. In the FCC's *Computer II Inquiry* (77 FCC 2d 384, 387, May 2, 1980), the FCC found that ESPs (of which ISPs are a subset) are not common carriers within the meaning of Title II of the Communications Act (Title II includes all requirements associated with common carriage). This FCC decision was codified in FCC rule 64.702. Section 64.702 of the FCC rules provides:

> [T]he term enhanced service shall refer to services offered over common carrier transmission facilities used in interstate communications which employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; provide the subscriber additional, different or restructured information, or involve subscriber interaction with stored information. Enhanced services are not regulated under Title II of the Act.

(Emphasis added). In addition, more recent FCC regulations clearly specify that ISPs are to be treated as end users, not as carriers. The FCC's *Declaratory*

Ruling from earlier this year at paragraph 15 specifically comments on the status of ISPs:

> The Commission's treatment of ESP [enhanced service providers, of which ISPs are a subset] traffic dates from 1983 when the Commission first adopted a different access regime for ESPs. Since then, the Commission has maintained the ESP exemption, pursuant to which it treats ESPs as end users under the access charge regime and permits them to purchase their links to the PSTN through intrastate local business tariffs rather than through interstate access tariffs. As such, the Commission discharged its interstate regulatory obligations through the applications of local business tariffs. Thus, although recognizing that it was interstate access, the Commission has treated ISP-bound traffic as though it were local.

(Emphasis added). This plain language clearly discredits the testimony of Mr. Varner with respect to his characterization of ISPs as carriers rather than end users. Indeed, Mr. Varner fails to include a single reference in his testimony supporting why he believes the FCC or any other authority has ever considered ISPs to be "carriers."

Q. IS THERE ADDITIONAL INFORMATION WHICH REFUTES MR. VARNER'S CONTENTION THAT ISPS ARE CARRIERS WHO PURCHASE SWITCHED ACCESS SERVICES FOR PURPOSES OF PROVIDING INTERSTATE TOLL SERVICES TO

THEIR CUSTOMERS?

A. Yes, there is. Regardless of how the FCC has regulated "data carriers," as Mr. Varner has used that term, ISPs, to the extent they compare to the "data carriers" to which Mr. Varner refers, are not purchasing or being provided interstate access services when they purchase connection to the public switched network.

The FCC has provided an exemption such that ISPs are not purchasing access and do not pay access charges. BellSouth concludes from this information that ISP-bound traffic is subject to the switched access regime, and the FCC has simply suspended the requirement that ISPs pay these charges. Indeed, BellSouth goes so far as to suggest that the rates ISPs pay local carriers like ICG are actually access charges assessed on a per month, instead of a per minute basis. As such, goes the argument, local carriers like ICG should be responsible for sharing those monthly access charges with BellSouth in compliance with industry standard access sharing arrangements. (Carriers often share switched and special access revenues through "meet point billing" arrangements, wherein the percentage ownership of facilities required to provision the service is determined and the access charge revenues are divided among the carriers based on this percentage. But, in meet point billing, the carrier receiving jointly provided service from the provider carrier is purchasing access.) This analysis is tortured and self-serving.

Q. PLEASE ELABORATE.

A. First, the revenue ICG, or any other local exchange carrier, receives from an ISP is not switched or special access revenue charged on a monthly, instead of on a per minute of use basis. The FCC has stated on numerous occasions that ISPs are to connect to the public switched network using intrastate, local business access line tariffs. That is what they pay, and that is what they purchase. (*Declaratory Ruling,* ¶20).

Second, the FCC in its *Declaratory Ruling* makes clear that the proper framework within which to view compensation for ISP-bound traffic is the reciprocal compensation framework wherein the carrier originating a call is responsible for the costs of carrying the call. Therefore, it seems clear from the FCC rulings that compensation for ISP-bound traffic is not subject to the switched access framework. (*Declaratory Ruling,* ¶30. The FCC states, "...We tentatively conclude that, as a matter of federal policy, the inter-carrier compensation for this interstate telecommunications traffic should be governed prospectively by interconnection agreements negotiated and arbitrated under Sections 251 and 252 of the Act." Switched access services are not part and parcel of sections 251 and 252, as held by the FCC in its *First Report and Order* in C.C. Docket No. 96-98 (paragraph 478), hence, it is clear that the FCC considers reciprocal compensation requirements, as exclusively included in sections 251 and 252 of the Act, as the model by which "this (i.e. ISP-bound traffic) interstate telecommunications traffic should be governed....").

Third, switched access charges are assessed on toll traffic generated by

a local exchange carrier's customer and passed to an interexchange carrier. Fundamentally, the traffic at issue here, traffic to an ISP, is not toll traffic. The end user customer dialing the call is not assessed toll charges, the ISP to which the traffic is ultimately passed is not purchasing switched access service, and perhaps most importantly, none of the revenues generated by either the ILEC or the ALEC can be considered toll or access revenue. Hence, despite BellSouth's arguments, there is little if any relationship between traffic bound for an ISP customer and traffic bound for an IXC. All technical, economic and regulatory comparisons between local traffic, ISP traffic and long distance/access traffic indicate that local traffic and ISP traffic share far more similarities than do ISP traffic and toll/access traffic.

Q. CAN YOU EXPLAIN IN GREATER DETAIL WHY NONE OF THE REVENUES GENERATED BY EITHER THE ILEC OR THE ALEC IN A CALL TO AN ISP CAN BE CONSIDERED TOLL OR ACCESS REVENUE?

A. The FCC has specifically held that revenues and costs generated by traffic to an ISP must be considered to be intrastate, not interstate, traffic. In fact, both SBC and Bell Atlantic have attempted to reclassify costs and revenues from traffic to an ISP provider as interstate access traffic. The FCC rejected both filings. In the most recent attempt made by Bell Atlantic in this regard the FCC's Common Carrier Bureau had the following to say:

> As I recently explained to SBC Communications, the Commission requires carriers to classify the costs and revenues associated with

ISP-bound traffic as intrastate for jurisdictional separations and reporting purposes.

(July 29, 1999 letter from Lawrence E. Strickling, Chief, Common Carrier Bureau, to Don Evans, Vice President, Regulatory Affairs, Bell Atlantic). It is interesting to note that Mr. Strickling, the Chief of the FCC's Common Carrier Bureau and the author of the Commission's letter to Bell Atlantic, cited the FCC's *Declaratory Ruling* as the authority for requiring Bell Atlantic to classify its ISP-bound traffic as intrastate, not interstate, traffic.

Q. IF ALL TECHNICAL, ECONOMIC, AND REGULATORY COMPARISONS INDICATE THAT TRAFFIC BOUND FOR ISP PROVIDERS MORE CLOSELY RESEMBLES LOCAL TRAFFIC AS OPPOSED TO SWITCHED ACCESS TRAFFIC, ON WHAT BASIS DOES BELLSOUTH CONTEND THAT THIS TRAFFIC IS SWITCHED ACCESS TRAFFIC FOR WHICH RECIPROCAL COMPENSATION IS NOT REQUIRED?

A. BellSouth's entire rationale for refusing to pay reciprocal compensation for ISP-bound traffic is based upon the argument that ISP-bound traffic is interstate, not local, traffic.

Q. WHAT ECONOMIC CONDITIONS BEAR ON BELLSOUTH'S PREMISE?

A. Certainly, sound economic and public policies must recognize that when a carrier uses another carrier's network and costs result, the carrier upon whose network the call originates (the true cost causer) must be responsible for compensating the other carrier for the costs it incurs. Even BellSouth

acknowledges this point. At page 47 of his testimony, Mr. Varner has no problem understanding why compensation must be paid whenever a local call originates on the BellSouth network and is directed to the ICG network. Only when the exact same local call is passed by a competitive local provider to an ISP end user does Mr. Varner begin to reassess the economic and public policy ramifications of such compensation. However, neither the economic nor technical characteristics of the call have changed. The only change that BellSouth can even argue is one of the regulatory definition of the traffic. Regardless, Mr. Varner and BellSouth assert that this change requires a substantial shift in the way in which costs for this traffic must be recovered. Now, instead of BellSouth paying ICG to carry this traffic originated by its local exchange customers, BellSouth says ICG should compensate BellSouth for carrying the exact same traffic. All of this results not from a change in calling patterns, a change in the equipment required to carry the traffic, or really, any physical or economic change at all. It results simply from the fact that Mr. Varner and BellSouth assert a regulatory paradigm shift has occurred. That is, the end user receiving the call (i.e., the ISP) should now be considered a "carrier" who is purchasing switched access services to provide an interstate toll service. Mr. Varner's testimony in this respect specifically highlights the fact that BellSouth's position has no basis in sound economic or public policy rationale and that BellSouth's position is nothing more than a contrived strawman.

Q. EVEN IF IT WERE APPROPRIATE TO DISCARD SOUND ECONOMIC AND PUBLIC POLICY RATIONALE, DO YOU AGREE WITH BELLSOUTH'S ARGUMENT?

A. No, I do not. Neither does BellSouth's affiliate.

Q. PLEASE EXPLAIN.

A. In a press release dated March 12, 1997, hailing a strategic agreement between BellSouth (via BellSouth.net) and IBM that would provide a comprehensive set of internet/intranet services to customers in the Southeast, John Robinson, president of BellSouth.net, Inc. said,

> By connecting to the Internet through the IBM Global Network, BellSouth customers will get an important benefit - the ability to access the Internet from more than 830 locations in 49 counties with just a local call.

(From the BellSouth Website. Emphasis added).

When marketing the internet to its own customers BellSouth makes every effort to make accessing the internet as easy and economical as possible for its own ISP customers. Indeed, in the excerpt above, BellSouth is not only admitting that a call made to its wholly owned ISP (Bellsouth.net) is a local call, it is marketing this fact as a major advantage of using BellSouth.net.

Q. MR. VARNER INCLUDES A NUMBER OF DIAGRAMS WITH HIS TESTIMONY DEPICTING A NUMBER OF CALL SCENARIOS. CAN YOU DESCRIBE THE POINT MR. VARNER IS ATTEMPTING TO MAKE AND PROVIDE

YOUR ANALYSIS OF HIS TESTIMONY?

A. Mr. Varner includes the following diagrams in his testimony: AJV-1, AJV-2, AJV-4, and AJV-5. If I understand Mr. Varner's point correctly, he is, through these diagrams, attempting to show the differences between calls made to an end user customer and calls made to what he refers to as an ISP/IXC. AJV-1 provides two diagrams (A&B) depicting the difference between a local call carried solely by BellSouth (Diagram A) and then a call carried by both BellSouth and an ALEC such as ICG (Diagram B).

Mr. Varner at pages 19-20 of his testimony describes Diagram A as follows:

> In this scenario, the ILEC receives a monthly fee from its end user to apply towards the cost of that local call. For that payment the ILEC provides the end user with transport and termination of local calls throughout the local calling area. End users typically do not pay for calls terminated to them. Importantly, in this case, the end user is the ILEC's customer, which means that the end user pays the ILEC revenue for the service.

Similarly, at page 20 Mr. Varner describes Diagram B as follows:

> By comparison, Diagram B illustrates a typical local call that is handled by two carriers - one end of the call is handled by an ILEC, and an ALEC handles the other end of the call. In this scenario, when the ILEC's end user makes a local call to the ALEC's end

user, the ILEC's end user is paying the ILEC the same price for local exchange services as in Diagram A.... As previously noted, end users do not pay for local calls terminated to them, so the ALEC cannot be expected to charge its end user. While the ILEC is receiving the same revenues as shown in Diagram A, its costs are lower. Consequently, reciprocal compensation would be paid by the ILEC to compensate the ALEC for terminating that local call over its network. If the reciprocal compensation rate equals the ILEC's cost, the ILEC is indifferent to whether the ILEC or the ALEC completes the call.

Now, importantly, Mr. Varner attaches Exhibit AJV-5 that includes Diagram G. Diagram G is Mr. Varner's depiction of a call originated on the BellSouth network, transported to an ALEC for transfer to the ALEC's ISP customer. It is important to note that Diagram G is in every way exactly the same as Diagrams A and B, except that Mr. Varner has changed the name (and shape) of the end user receiving the call from an "end user" (the shape of a telephone) to an "ISP" (the shape of a STOP sign). Diagrams A, B and G use exactly the same network schematic. They incorporate all of the same facilities and functionality, indicating that the route of the call and all other handling characteristics are exactly the same regardless of whether the call is completed to a residential, business or ISP customer. Indeed, if you were to remove the verbiage from Mr. Varner's diagrams I think you would find that they are all derived from

exactly the same underlying picture.

Q. WHY IS THIS IMPORTANT?

A. These diagrams directly contradict Mr. Varner. Mr. Varner attempted to demonstrate that there are major differences between calls made to ALEC business and residential end users (calls subject to reciprocal compensation) and calls made to ISPs (calls not subject to reciprocal compensation according to Mr. Varner). However, the fact that Mr. Varner is required to use exactly the same network diagram, incorporating exactly the same facilities and functions for purposes of depicting both types of calls, shows that there is no difference from a technical or economic perspective between these calls. The only difference that is apparent is made in Mr. Varner's verbiage wherein he likens the ISP to an IXC and therefore decides that calls to ISPs are, or should be, regulated differently.

Q. PLEASE CONTINUE.

A. Mr. Varner's diagrams actually make my point that BellSouth should be economically indifferent as to whether it pays reciprocal compensation for calls bound for an ISP or whether it completes those calls itself. With respect to Diagram B and its depiction of a local call terminated by ICG on BellSouth's behalf, Mr. Varner suggested the following:

> As previously noted, end users do not pay for local calls terminated to them, so the ALEC cannot be expected to charge its end user. While the ILEC is receiving the same revenues as shown in Diagram

A, its costs are lower. Consequently, reciprocal compensation would be paid by the ILEC to compensate the ALEC for terminating that local call over its network. If the reciprocal compensation rate equals the ILEC's cost, the ILEC is indifferent to whether the ILEC or the ALEC completes the call.

(Varner direct at 20.) Even though there is no difference between a call depicted in Diagram B (about which Mr. Varner is speaking here) and Diagram G (a call to an ISP served by ICG), Mr. Varner's characterization as to the way that such calls should be treated in terms of reciprocal compensation differs by 180 degrees. Indeed, Mr. Varner argues that calls depicted by Diagram G are so different, that BellSouth should pay ICG for carrying the call in one scenario, but BellSouth should receive revenue from ICG in another. I emphasize that nothing in the network, the routing of the call, or the economics of the call (i.e. cost causation) actually changed between Diagram B (local calls for which BellSouth says reciprocal compensation is appropriate) and Diagram G (calls to ALEC ISPs for which BellSouth says it must receive payment for originating). At best, a purported regulatory distinction (i.e. the claim that the ISP is an IXC and not an end user - a distinction that I have refuted above) has been made between the two call types. Regardless, this regulatory distinction does not change the fundamental technical, economic, or public policy nature of the call and the manner by which costs should be recovered. In short, Mr. Varner's diagrams prove that there is no difference between calls made to an ICG

residential or business customers and an ICG ISP. Likewise, the costs ICG incurs in carrying this traffic when generated by BellSouth local exchange customers do not differ and hence, the rates assessed by ICG on BellSouth for purposes of recovering the costs of this traffic should not differ.

Q. MR. VARNER AT PAGE 38 OF HIS TESTIMONY INCLUDES A TABLE INTENDED TO SHOW THAT THE LACK OF RECIPROCAL COMPENSATION FOR ISP BOUND TRAFFIC WOULD NOT DISTORT THE MARKETPLACE MAKING ISP CUSTOMERS LESS ATTRACTIVE THAN OTHER TYPES OF CUSTOMERS. DO YOU HAVE ANY COMMENTS REGARDING MR. VARNER'S TABLE?

A. Yes, I do. Mr. Varner at page 38 of his testimony includes the following chart:

	SERVING AN ISP AND RECEIVING RECIPROCAL COMPENSATION	***SERVING AN ISP WITHOUT RECEIVING RECIPROCAL COMPENSATION***
REVENUE FROM ISP FOR SERVICE	$600	$900
RECIPROCAL COMPENSATION REVENUE PAID	$300	$0
COST OF PROVIDING SERVICE TO ISP	($600)	($600)
NET MARGIN	$300	$300

In my direct testimony I argued that the absence of reciprocal compensation payments would distort the marketplace. Mr. Varner attempts to

use the table above to show that reciprocal compensation paid for ISP bound traffic is the culprit responsible for distorting the competitive marketplace. However, properly viewed, Mr. Varner's table actually undermines his point and supports mine.

Q. WHY DO YOU BELIEVE THE ABOVE TABLE SHOWS THAT THE ABSENCE OF RECIPROCAL COMPENSATION PAYMENTS FOR ISP BOUND TRAFFIC WOULD DISTORT THE MARKETPLACE?

A. The table above makes a number of assumptions: (1) that it costs an ALEC $300 to carry traffic originated on the ILECs network to the ISP, (2) that it costs an ALEC $300 to provide an access line to an ISP, and (3) that the ALEC receives a $300 margin. Using these assumptions lets review two scenarios: (1) the Commission requires BellSouth to compensate ICG for carrying BellSouth's customers' traffic to ICG ISPs, and (2) the Commission decides to not require reciprocal compensation for such ISP bound traffic.

Under scenario (1), ICG would receive $600 from its ISP customer for an access line allowing the ISP to connect to the network. Likewise, it would receive $300 from BellSouth for carrying traffic originated from BellSouth customers to the ISP (a total of $900 in revenue). All told, the ALEC would incur $600 in costs ($300 for provisioning the access line and $300 for carrying BellSouth's traffic) and receive $900 in revenue while charging its ISP customer $600.

If the Commission were to decide not to require BellSouth to pay for ICG's

carriage of its traffic, scenario number (2) would look much different.

Under scenario number 2, ICG would receive $0 from BellSouth for carrying its traffic. Regardless, it would still incur both its own $300 in cost for providing an access line to the ISP and it would continue to incur $300 in costs associated with carrying BellSouth's traffic. Hence, in order to maintain its $300 net margin, ICG would be required to charge $900 to its ISP instead of the $600 it charged earlier.

You need only compare scenario 2 above with a scenario wherein the ICG customer in question is a large business user instead of an ISP to appreciate the market distortion. The following table compares a scenario very much like Mr. Varner's, except that it compares a business customer and an ISP customer served by ICG and assumes reciprocal compensation payments for ISP bound traffic are not required:

	SERVING A BUSINESS CUSTOMER WITH LARGE INBOUND CALLING PATTERNS	***SERVING AN ISP***
REVENUE FROM ACCESS LINE SERVICE	$600	$900
RECIPROCAL COMPENSATION REVENUE PAID	$300	$0
COST OF PROVIDING SERVICE	($600)	($600)
NET MARGIN	$300	$300

Because BellSouth agrees that calls to ICG business users are subject to reciprocal compensation, it would reimburse ICG for the $300 in costs associated with carrying its traffic. Hence, serving a large business user would look very much like scenario number 1 above, in which ICG was required to charge only $600 for a network access line to serve the customer. In the marketplace under scenario 2, however, assuming the Commission allowed BellSouth to avoid reimbursing ICG for carrying its traffic, ICG could offer the exact same business line to a business customer at $600 that it must offer to an ISP at $900 to receive the same net margin. Or, looking at it another way, ICG could charge $600 to a business customer for an access line and receive $300 in net margin while offering the same access line to an ISP for $600 and receiving $0 in net margin. It is easy to see that under such a scenario, ISPs would become less attractive than any customer for which reciprocal compensation would be paid. Further, it is likely rates to ISPs would go up or carriers serving large numbers of ISPs would find themselves with a large population of unprofitable customers.

Q. HOW WOULD THIS SITUATION BE AFFECTED BY BELLSOUTH'S PROPOSAL THAT ICG PAY BELLSOUTH FOR ORIGINATING CALLS TO ITS ISP CUSTOMERS?

A. This aspect reveals the ludicrous nature of BellSouth's proposition. If ICG were required to pay BellSouth for carrying large amounts of BellSouth's traffic to its ISP customers, ISPs would not be merely unprofitable (i.e. generating $0

in net margin); they would be a financial burden. Under such a circumstance, ICG would be providing a great service to BellSouth's customers (i.e. carrying traffic bound for the internet) and incurring substantial costs to do so, while at the same time being required to pay BellSouth for the"opportunity." It simply doesn't make any sense.

Q. WOULD SUCH A SITUATION BENEFIT BELLSOUTH?

A. Undoubtedly. Such a circumstance would greatly benefit BellSouth at the expense of the ALECs and the marketplace. This is exactly the point I made in my direct testimony. When the Commission attempts to understand BellSouth's underlying rationale for its somewhat bizarre recommendation regarding reciprocal compensation, it should keep in mind the likely results of adopting such a recommendation. In a world where ALECs are required to pay BellSouth for carrying its customers' internet traffic, ISPs will undoubtedly pay higher rates for the same services offered to other businesses and they are likely to simply become far less attractive. As a result, fewer and fewer carriers would attempt to serve them. In general, life becomes hard as an ISP.

However, there is a class of ISPs in the market that would be somewhat insulated from this effect. Any ISP that had an affiliation with a local exchange carrier and provided services primarily to customers served by the local exchange carrier, would create a situation wherein the LEC rarely, if ever, was required "share" ISP revenues with another LEC. This lack of sharing would lower the costs of providing services to the ISP and would increase the

profitability not only of the LEC serving the ISP, but also of the ISP itself. This type of ISP would be a powerful competitor against ISPs without such an "on-net" customer base. It could charge prices significantly below ISP competitors who were paying higher rates to ALECs while maintaining profitability. To illustrate, BellSouth.net would be such a competitor. Because BellSouth still maintains a near monopoly market position in the provision of services to residential and small business customers (the primary customer base responsible for dial-up internet access), BellSouth would, under BellSouth's compensation proposal, rarely if ever need to share ISP revenues with other local carriers. Rarely would an ALEC customer dial into BellSouth.net (at least compared to the number of BellSouth customers calling non-BellSouth ISPs) such that BellSouth would be required to share revenues with the local exchange carrier. In the vast majority of circumstances, BellSouth.net would serve BellSouth's local exchange customers so that BellSouth would receive all revenues.

Q. IS THERE ANY REQUIREMENT THAT BELLSOUTH.NET SERVE ALL CUSTOMERS THAT REQUEST ITS SERVICE?

A. I am not aware of any such requirement. However, it is not likely that BellSouth.net would turn customers away simply because they happen to obtain local service from another carrier. What is more likely, is that BellSouth would attempt to provide better ISP prices and services to its own local exchange customers as opposed to local exchange customers of other carriers. In that way, BellSouth.net would be an attractive alternative only to BellSouth local

customers and customers of other local carriers would be unlikely to subscribe to BellSouth.net. Not only is this likely, it happens today. BellSouth currently offers promotions that tie its local exchange services and its internet services together at discounted rates. Indeed, it is my understanding that e.spire and the Competitive Telecommunications Association (Comptel) have recently filed a complaint with this Commission highlighting BellSouth's marketing efforts in this regard.

Q. IF BELLSOUTH OFFERED SERVICES TO ISPS OTHER THAN BELLSOUTH.NET, WOULDN'T THIS FORCE BELLSOUTH TO SHARE REVENUES WITH ALECS WHOSE CUSTOMERS DIALED THOSE NON-BELLSOUTH AFFILIATED ISPS?

A. Yes, if BellSouth were to serve a non-BellSouth affiliated ISP that had no incentive to serve primarily BellSouth customers, it is likely BellSouth, under its own proposal, would be required to share the revenues associated with serving the ISP with other ALECs. However, I already highlighted in my direct testimony the fact that BellSouth has lost an enormous number of ISP providers (or new providers have chosen never to obtain service from BellSouth). This results from the fact that ALECs provide those ISPs with more flexible service offerings and work directly with the ISPs to enhance their business. BellSouth, because of BellSouth.net, has no incentive to assist the ISPs in their business. Likewise, it has no incentive (indeed it has a disincentive) to provide those ISPs with quality services at reasonable rates. A primary example of BellSouth's unwillingness to

accommodate the unique needs of ISPs is BellSouth's unwillingness to allow ISPs to collocate in its central offices. ISPs prefer to share the environmentally controlled offices used by local exchange carriers to aggregate traffic. These offices provide efficient means by which to connect to the public switched network. Many ALECs allow the ISPs, just like they allow other large users, to use their central office space to house equipment. To this point, however, BellSouth has refused to allow similar access to its central offices. In this way, and simply by not meeting the needs of ISPs, BellSouth could, and would have an incentive to, dissuade non-BellSouth affiliated ISPs from using its services and thereby requiring that BellSouth share revenues with other ALECs.

Q. CAN YOU SUMMARIZE BELLSOUTH'S POSITION AS TO WHETHER ICG SHOULD BE ALLOWED TO CHARGE BELLSOUTH A RECIPROCAL COMPENSATION RATE EQUAL TO THAT WHICH BELLSOUTH CHARGES, INCLUDING TANDEM SWITCHING AND TRANSPORT COSTS?

A. BellSouth believes that while it should be allowed to charge ICG a "reciprocal" compensation rate including the recovery of end office, tandem and transport costs, ICG should be allowed to charge BellSouth a rate only recovering end office costs. At page 45 of his testimony Mr. Varner states as follows:

> BellSouth's position is that if a call is not handled by a switch on a tandem basis, it is not appropriate to pay reciprocal compensation for the tandem switching function. BellSouth will pay the tandem interconnection rate

only if ICG's switch is identified in the local exchange routing guide ("LERG") as a tandem..

Likewise, at page 44 of his testimony Mr. Varner states:

> ICG is seeking to be compensated for the cost of equipment it does not own and for functionality it does not provide.

Q. CAN YOU REITERATE ICG'S POSITION ON THIS ISSUE?

A. BellSouth should pay ICG a reciprocal compensation rate based upon the recovery of tandem, transport and end office switching costs. The FCC at paragraph 1090 of its *First Report and Order in C.C. Docket No. 96-98* (hereafter referred to as the FCC's Local Competition Order) provides the following guidance with respect to the appropriate rate of reciprocal compensation ICG should receive from BellSouth:

> 1090. We find that the "additional costs" incurred by a LEC when transporting and terminating a call that originated on a competing carrier's network are likely to vary depending upon whether tandem switching is involved. We, therefore, conclude that states may establish transport and termination rates in the arbitration process that vary according to whether the traffic is routed through a tandem switch or directly to an end-office switch. *In such event, states shall also consider whether new technologies (e.g. fiber ring or wireless networks) perform functions similar to those performed by an incumbent LEC's tandem switch* and thus,

whether some or all calls terminating on the new entrant's network should be priced the same as the sum of transport and termination via the incumbent LEC's tandem switch. *Where the interconnecting carrier's switch serves a geographic area comparable to that served by the incumbent LEC's tandem switch, the appropriate proxy for the interconnecting carrier's additional costs is the LEC tandem interconnection rate*.

(Emphasis added).

The actual FCC rule that discusses this issue is even more direct:

51.711 Symmetrical reciprocal compensation

(3) Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate. (Rule 41.711 also includes subparts (a)(1) and (a)(2) that have been excluded from the above excerpt.)

Accordingly, the FCC establishes that the LEC's tandem interconnection rate is the appropriate rate for an ALEC to receive if this single geographic criterion is met. In states in which ICG has an established business, it employs a network configuration in which its switch serves a geographical area comparable to that served by a tandem switch and provides comparable functionality. That is to say, ICG's switching platform transfers traffic among discrete network nodes

that exist in the ICG network for purposes of servicing groups of its customers in exactly the same fashion that BellSouth's tandem switch distributes traffic - a similarity that the FCC does not require to justify the application of the tandem rate. In Florida, ICG is in a start-up mode. However, as it grows its business in Florida, ICG intends to develop the type of network - including the geographical coverage of its switches - that typifies its approach to network design in other jurisdictions.

Q. WOULD THERE BE A SEPARATE BASIS FOR APPLYING THE TANDEM RATE?

A. Yes. As ICG deploys its network in Florida, when it provides comparable functionality, that will provide a separate, independent basis for the tandem rate.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the ICG Telecom Group, Inc.'s Rebuttal Testimony of Michael Starkey have been furnished by (*)hand-delivery and by U.S. mail this 7th day of September, 1999 to:

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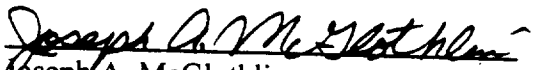

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