CASE NUMBER:

99-218

MIDDLETON & REUTLINGER

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October 21, 1999

Ms. Helen C. Helton
Executive Director
Kentucky Public Service Commission
P.O. Box 615
730 Schenkel Lane
Frankfort, Kentucky 40601

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
Case No. 99-218

Dear Helen:

Enclosed are the original and ten (10) copies of ICG Telecom Group, Inc.'s Prefiled Direct Testimony of Cindy Schonhaut, Michael Starkey, Philip Jenkins, Gwen Rowling and Bruce Holdridge. I have also enclosed one additional copy and ask that you indicate its receipt by your office by placing your file stamp on it and returning it to me via our runner.

Thank you for your assistance in this matter.

Sincerely,

C. Kent Hatfield

C. Kent Hatfield
Counsel for ICG Telecom Group, Inc.

Before the
COMMONWEALTH OF KENTUCKY
PUBLIC SERVICE COMMISSION
Frankfort, Kentucky

In the Matter of	)	
	)	
PETITION BY ICG TELECOM GROUP, INC.	)	
FOR ARBITRATION OF AN	)	Docket No. 99-218
INTERCONNECTION AGREEMENT WITH	)	
BELLSOUTH TELECOMMUNICATIONS, INC.	)	
PURSUANT TO SECTION 252(B) OF THE	)	
TELECOMMUNICATIONS ACT OF 1996	)	

* * * * * * * * * * * * * *

DIRECT TESTIMONY OF ICG TELECOMMUNICATIONS GROUP, INC.

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COUNSEL FOR ICG TELECOMMUNICATIONS GROUP, INC.

CERTIFICATE OF SERVICE

It is hereby certified that a copy of ICG Telecommunications Group, Inc.'s Direct Testimony has been served on all parties on the Commission's service list in Case No. 99-218 this 21st day of October, 1999.

C. Kent Hatfield

C. Kent Hatfield

Before the
KENTUCKY PUBLIC SERVICE COMMISSION
Frankfort, Kentucky

In re: Petition of ICG Telecom Group, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996	Docket No. 99-218

DIRECT TESTIMONY
OF CINDY Z. SCHONHAUT
ON BEHALF OF
ICG TELECOM GROUP, INC.

ICG TELECOM GROUP, INC.

DIRECT TESTIMONY OF CINDY Z. SCHONHAUT

BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

DECEMBER 2, 1999

Q. PLEASE STATE YOUR NAME, ADDRESS, AND EMPLOYMENT.

A. My name is Cindy Zara Schonhaut. I am Executive Vice President for Government and Corporate Affairs for ICG Communications, Inc., the parent company of ICG Telecom Group, Inc. ("ICG"). My office is at 161 Inverness Drive West, Englewood, Colorado 80112.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I received my J.D. from the University of Miami School of Law, where I graduated with honors and was an editor of the Law Review. Prior to that, I received an undergraduate degree in social work from Syracuse University.

I have worked in the telecommunications industry for 19 years, particularly in the area of regulatory and legal affairs. As Executive Vice President, I handle all public policy issues for ICG at the federal, state, and local levels. I am also responsible for ICG's implementation of the Telecommunications Act of 1996 (the "Act") and parallel state laws, and negotiation of ICG's interconnection agreements with all incumbent local exchange carriers ("ILECs"). I joined ICG in February 1996 as a Vice President of the newly created Government Affairs department. I was promoted in December 1996 to Senior Vice President, and was again promoted in November 1998

to my current position.

Prior to my work with ICG, I held positions at MFS Communications Company, Inc. ("MFS") and the Federal Communications Commission ("FCC"). At MFS in Washington, D.C., I served for more than four years as Vice President of Government Affairs. In that role, I represented the company before the U.S. Congress, state legislatures, and regulatory agencies. I often served as an expert witness for MFS in state regulatory proceedings. In particular, I represented MFS before Congress during the period leading up to the passage of the Act.

Prior to my tenure with MFS, I served for 11 years as an attorney with the FCC. I was Legal Advisor for a commissioner and two Bureaus -- the Common Carrier Bureau and the Mass Media Bureau. While at the FCC, I was a member of the task force that implemented the original access charges system and the divestiture of the Bell system. Following that, I was Special Counsel for joint board matters in the Common Carrier Bureau. I also served as a member of the Communications Staff Subcommittee of the National Association of Regulatory Utility Commissioners and acted as the FCC's liaison to all state regulatory agencies.

Currently, I serve as Vice Chair of the Board of Directors of the Competitive Telecommunications Association ("CompTel"), the leading trade association representing competitive telecommunications interests. I also chair CompTel's Regulatory Affairs Committee, a committee designed to provide a forum for competitive local providers. In addition to my work with CompTel, I am a member of the Board of Directors of the Association for Local Telecommunications Services ("ALTS").

Q. HAVE YOU TESTIFIED BEFORE STATE PUBLIC SERVICE COMMISSIONS IN THE PAST?

A. Yes, at various points in my career I have testified before a number of state commissions including those having jurisdiction in Alabama, Colorado, Florida, Tennessee, Kentucky, North Carolina, Texas, Maryland, Ohio, California, Colorado, and Missouri.

Q. HAVE ICG AND BELLSOUTH REACHED A SETTLEMENT OF ANY OF THE ISSUES IN THIS PROCEEDING?

A. Yes. Subsequent to the filing of ICG's Petition for Arbitration, ICG and BellSouth settled several issues. These include issues relating to the bona fides request process (Issue Number 2), the reporting of the breakdown between intrastate and interstate traffic (Issues 9 and 10) and various matters concerning collocation (Issues 12-17). However, issues still remain regarding the application of reciprocal compensation for ISP-bound calls (Issue Numbers 1 and 8), the availability of unbundled network elements ("UNEs") associated with packet-switching (Issue Number 3), the availability of the enhanced extended link ("EEL") as a UNE (Issue Number 4), volume and term discounts for UNEs (Issue Number 6), payment of reciprocal compensation to ICG at the tandem rather than the end-office rate (Issue Number 7), binding forecasts (Issue Number 11), and performance standards and remedies (Issues 5 and 19-26).

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

A. My purpose in testifying is to describe the dispute between ICG and BellSouth as it pertains to both the appropriate reciprocal compensation rate generally and reciprocal compensation for calls

to ISPs. I will outline the potential consequences of these reciprocal compensation issues on the availability of a wide array of telecommunications options for the people and businesses of Kentucky. Ultimately, much of the disagreement of the parties about reciprocal compensation is fundamentally policy-oriented, rather than factual in nature. The resolution of this dispute, however, will have significant public policy implications for the development of local exchange competition throughout Kentucky. In some respects, the outcome of the reciprocal compensation disputes will be a primary factor in determining whether competition in local exchange service moves forward or becomes mired in an outdated regulatory system.

My testimony focuses on the compelling public policy justifications for providing reciprocal compensation for calls to ISPs at a rate that reflects the network functions ICG performs in delivering traffic from the BellSouth network to all customers (including ISPs) served by ICG's network. Another ICG witness, Michael Starkey, discusses the responsibility of the state commissions with regard to providing for reciprocal compensation and setting the appropriate rate in his direct testimony, from an economics and regulatory perspective.

Q. DOES ICG PROVIDE SERVICE TO ISP CUSTOMERS?

A. Yes. ICG serves ISPs in many of the markets in which it currently operates, including Kentucky.

Q. HOW HAS ICG WON ITS ISP CUSTOMERS?

A. ICG has simply stepped in to provide the new and innovative services necessary to serve a market the ILECs were ignoring. Before competitive local exchange carriers ("CLECs") began to

offer local exchange service, ISPs and other end-users with specific service needs were dependent exclusively on the ILECs -- the monopolist providers of such services. Without competitive pressures, the ILECs offered "one size fits all" service at high rates. Often the "size" offered to ISPs was one that barely fit their operations.

Compared to the ILECs, ICG has frequently been able to offer ISPs service packages that are carefully tailored to the ISPs' operations. For example, ICG has led the way in offering volume and term discounts to ISPs. ICG has gone beyond offering simple delivery to the ISP's demarcation point and has provided turn-key solutions to ISPs' needs. ISPs have also been attracted by ICG's superior network, which consists entirely of digital switching and fiber optic transport facilities, as opposed to the analog/digital switching and a hybrid of fiber, microwave, and copper network transport facilities offered by the typical incumbent. In addition, ICG offers ISPs the option of collocating ISP equipment alongside ICG equipment in ICG's central office.

Before the advent of local competition, high bandwidth options were expensive and there were few users. Without the arrival of ICG and other CLECs, there is no reason to believe that the ILECs would have been spurred to develop their own new technology and service offerings, such as ISDN lines, digital subscriber lines, and packet-switching capabilities. Today, ICG continues to be at the forefront of serving ISPs as well as other businesses that have specific or advanced telecommunications needs.

Q. HOW WOULD THE LACK OF RECIPROCAL COMPENSATION FOR CALLS TO ISPs HARM ICG?

A. The impact of no reciprocal compensation for a significant amount of BellSouth traffic that ICG delivers to ICG's local customers would be felt across ICG's operations. Without reciprocal compensation for delivering traffic to ISPs, ICG and other CLECs would be left to raise their rates or absorb their costs -- either of which would be destructive to their ability to attract and keep customers. The remaining option would be to decline to provide service to ISPs. All of these possible responses would endanger the competition that is critical to fostering an advanced public switched telephone network and a menu of service offerings that would meet the needs of all end-users -- whether business end-users or individuals.

In addition, with reciprocal compensation for calls to ISPs precluded as a source of revenue, ICG would find it necessary to weigh whether it would be a wise business decision to expand its investment and provide increased services in Kentucky. Consequently, the improvements in rates and services that would result from CLEC competition for all customers, including other customers ICG (and additional CLECs) might serve, would be adversely affected.

Precluding reciprocal compensation for calls to ISPs that ICG delivers on behalf of BellSouth would deny ICG payment for the service it provides. ICG would incur a cost for which it would never be compensated, not even when the FCC adopts its rules on compensation for ISP traffic, which will be prospective in application. BellSouth, for its part, would avoid the cost of delivering the call to the ISP and would therefore come out ahead. Without receiving fair compensation for the

service it provides its competitors, ICG would be significantly handicapped in the competitive marketplace. In this regard, ICG is not requesting special treatment, but only that it be allowed to recoup its costs incurred on behalf of other carriers, as ICG would for any other local calls ICG terminates.

Q, WHAT ABOUT THE EFFECT ON ISPs?

A. If CLECs are forced to raise their rates to ISPs because the CLECs are not recovering the cost of delivering the traffic, it could result in increased costs to end-users of ISP services. There is no way of knowing how ISPs would handle rate increases, and whether ISP rate increases would artificially suppress demand for services in such a way that the growth of the Internet in this state would not reach the levels it otherwise would have achieved. If, as I have discussed above, CLECs reassessed their willingness to provide service to ISPs, ISPs would be left without any bargaining leverage to negotiate more favorable rates and necessary services, and all ISP customers would suffer as a consequence.

Q. DOES BELLSOUTH HAVE A PARTICULAR INCENTIVE TO RESIST PAYING ICG RECIPROCAL COMPENSATION FOR ISP TRAFFIC?

A. Yes. Another witness, Michael Starkey, discusses BellSouth's incentives at length in his testimony. In brief, BellSouth apparently recognizes that any carrier that can avoid paying compensation to other carriers for the completion of local calls originated by its end-user customers will have a competitive advantage. As an established ILEC with a diversified customer base, BellSouth seeks to limit its exposure to reciprocal compensation for local calls delivered to end-user

ISPs who may be targeted by its competitors. While its incentive may be natural, however, the consequences of this Commission allowing BellSouth to avoid such payments would be competitively disastrous, as I have outlined above.

Q. WHAT IS THE ROLE OF THE COMMISSION IN RESOLVING THE DISPUTE ABOUT RECIPROCAL COMPENSATION FOR ISPs?

A. The role of this Commission is to make a policy decision that will have a fundamental impact on the development of the Internet in this state. This Commission's decision will help determine whether competitors enter the local market in the first place and, if they choose to do so, whether one whole category of customers -- Internet service providers and high tech customers who bring the benefits of the information age to end-users -- will be without the benefit of competition, thus reducing competition for access to the Internet.

Q. WHAT IS THE ROLE OF THIS COMMISSION WITH REGARD TO RECIPROCAL COMPENSATION FOR ISP-BOUND TRAFFIC IN LIGHT OF THE FCC's RECENT RULING?

A. Although the FCC's *Declaratory Ruling and Notice of Proposed Rulemaking* in CC Docket 96-98, released on February 26, 1999 ("FCC Ruling"), found that calls to ISPs when exchanged between two carriers within the same local calling area in a state are "jurisdictionally mixed and appear to be largely interstate[,]" the FCC concluded that calls are to be *compensated* in accordance with the actions of the state commission unless and until the FCC adopts a further order governing compensation. Any FCC Order will have prospective application only.

The FCC Ruling makes it abundantly clear that a state commission's ordering of reciprocal compensation in an arbitration proceeding is consistent with federal policy until the FCC adopts a rule. The FCC stated repeatedly in its Ruling that "[c]urrently, the Commission has no rule governing inter-carrier compensation for ISP-bound traffic." Id. at ¶ 22. In addition, the FCC suggested in its Ruling that it was appropriate for a state to provide for reciprocal compensation as long as there continues to be no federal rule. The FCC stated further that:

> In the absence of a federal rule, state commissions that have had to fulfill their statutory obligation under Section 252 to resolve interconnection disputes between incumbent LECs and CLECs have had no choice but to establish an inter-carrier compensation mechanism and to decide whether and under what circumstances to require payment of reciprocal compensation...
>
> **... [N]either the statute nor our rules prohibit a state commission from concluding in an arbitration that reciprocal compensation is appropriate [for traffic] not addressed by section 251(b)(5), so long as there is no conflict with federal law. A state commission's decision to impose reciprocal compensation obligations in an arbitration proceeding does not conflict with any [FCC] rule regarding ISP-bound traffic.**

FCC Ruling at ¶26 (emphasis added). Therefore, a determination by this Commission to impose reciprocal compensation pending promulgation of a federal rule at some point in the future not only would "not conflict with any [FCC] rule regarding ISP-bound traffic," it would help to ensure equity until the FCC resolves how CLECs will get paid for calls to ISPs.

Q. WHAT WOULD BE THE CONSEQUENCES OF THIS COMMISSION CHOOSING TO AWAIT THE COMPLETION OF THE FCC's RULEMAKING PROCEEDING ON COMPENSATION FOR ISP-BOUND TRAFFIC?

A. Without action by this Commission, ICG will not receive compensation for calls to ISPs and, until the time the FCC finally promulgates a rule, ICG will be unable to recover its costs of carrying calls to ISPs on behalf of end-users served by BellSouth. The FCC has not indicated its time line for adopting a rule, which could be months or even a year away. This means that ICG would be uncompensated for a significant amount of traffic that it carries every day for the indeterminate future. In addition, because the FCC's rule will be prospective only in application in this state, ICG would *never* receive compensation for delivering calls to ISPs without a ruling by this Commission in ICG's favor. The foreclosure of this source of revenue would threaten ICG's ability both to compete in Kentucky as well as to provide service to ISPs and their end-users. Without compensation for ICG's costs in serving a significant category of its customers, ICG could be forced to re-think its options concerning its operations in this state.

Q. HOW SHOULD THIS COMMISSION SET THE RECIPROCAL COMPENSATION RATE FOR CALLS TERMINATED BY ICG ON BEHALF OF BELLSOUTH?

A. The Commission should establish a reciprocal compensation rate that recognizes that ICG's network performs a similar function and serves a comparable geographic area to that served by the BellSouth tandem. As such, the rate paid to ICG by BellSouth for reciprocal compensation should

recover ICG's costs of providing the same tandem, transport, and end-office functions that BellSouth provides in terminating a call from ICG. As Mr. Starkey describes in more detail in his testimony, to ensure symmetrical compensation between ICG and BellSouth, the appropriate rate for ICG's termination of BellSouth traffic would be the sum of the BellSouth tandem switching, transport, and end-office switching rate elements.

Q. WHAT RECIPROCAL COMPENSATION RATE SHOULD APPLY TO ISP TRAFFIC?

A. The same reciprocal compensation rate that is applied to any other local traffic. As I have mentioned, and as Mr. Michael Starkey explains in greater detail, the functions performed by ICG's network are the same when it delivers a call from BellSouth's customer to ICG's ISP customer as when ICG terminates any other call. Accordingly, the same rate should apply.

Q. PLEASE SUMMARIZE YOUR TESTIMONY ON THE IMPORTANCE OF THE RELIEF SOUGHT BY ICG.

A. It would be sound public policy to grant the relief sought by ICG. If local competition is to continue to develop and expand, it is necessary to achieve efficient interconnection of competing service providers. As an integral part of this interconnection, service providers will need to terminate traffic on each other's network, making reciprocal compensation critical to recovering the costs associated with terminating a call obtained from another provider. Without action by this Commission, ICG will not receive compensation for calls to ISPs and, until the time the FCC finally promulgates a rule, ICG will be unable to recover its costs of delivering calls to ISP customers on

behalf of end-users served by BellSouth. The Commission's decision has significant implications for the future of the competitive market for local services and the development of Internet services in this state. More generally, this Commission should set a symmetrical, reciprocal compensation rate that allows ICG to recover costs equal to those recovered by BellSouth when ICG terminates traffic to its tandem locations. Although it is by now an obvious point, it bears repeating that the resolution of this arbitration issue will ultimately have a significant impact on the people and businesses of Kentucky and the range of telecommunications options open to them.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY AT THIS TIME?

A. Yes.

Before the
KENTUCKY PUBLIC SERVICE COMMISSION
Frankfort, Kentucky

In re: Petition of ICG Telecom Group, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996	Docket No. 99-218

DIRECT TESTIMONY
OF MICHAEL STARKEY
ON BEHALF OF
ICG TELECOM GROUP, INC.

ICG TELECOM GROUP, INC.

DIRECT TESTIMONY OF MICHAEL STARKEY

BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

DECEMBER 2, 1999

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 United States 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. 1 ("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") 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: Georgia, Alabama, Florida, Michigan, Illinois, Maryland, Wisconsin, Indiana, Ohio, New Jersey, North Carolina, Pennsylvania, Massachusetts,

Wyoming, Hawaii, Oklahoma, Kentucky, Mississippi, Missouri and Tennessee.

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") 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 enforcement mechanisms 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 enforcement 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 TA 96 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. Local Interconnection Compensation**
>
> 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 other's 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 CLECs 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 CLEC govern the rates, terms, and conditions by which the CLEC will pay BST for service, this is one area where BST may actually, in some circumstances, be required to pay the CLEC for services the CLEC 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 commissions aren't misled into believing that the FCC has preempted 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. (emphasis added).

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 commissions 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 CLECS, ELIMINATING AN CLEC'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 CLECs.

Likewise, CLECs, 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 CLECs are often times "made for one another." ISPs have flocked to new entrant CLECs in increasing numbers. Likewise, CLECs 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 CLECS SERVE ISPS IN GREATER PROPORTION THAN A MATURE INCUMBENT LIKE BST THE RESULT OF A MARKET FAILURE?

A. Not at all. The relationships between CLECs 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 CLEC 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, CLECs 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 CLECs 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 CLECs 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 CLECs. 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 CLECs 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.2 (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. Most importantly, the costs to terminate the calls made to the residential customer and the ISP customer are identical. As such, the rates associated with recovering those costs should be identical. 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. 3 (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 CLEC 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 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 CLEC, 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 CLEC 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 CLEC?

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

CLEC 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 CLECs 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 CLEC 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 CLECS 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 CLECs 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 CLECs -- ICG included. The fact that these types of customers have flocked to CLECs 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 CLEC'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 in 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 CLECS 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 CLECs 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 CLECs, 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. 4 (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 CLEC'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. CLECs 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.

Q. WITH REGARD TO BELLSOUTH'S INTERCONNECTION ARRANGEMENTS WITH CMRS PROVIDERS, ARE THE RATES FOR RECIPROCAL COMPENSATION SYMMETRICAL?

A. Yes, they are. In BellSouth's October 6, 1999 Revised Responses to ICG's First Request for Admissions, Items 5-10, in the contemporaneous arbitration in Georgia between BellSouth and ICG, BellSouth acknowledges that its rates for reciprocal compensation with CMRS carriers in Georgia are symmetrical regardless of the configuration of each carrier's network and regardless of the switching and transport functions actually performed by each carrier. I know of no reason why BellSouth should treat CMRS carriers in Kentucky any differently and I assume that they do not. BellSouth should afford CLECs symmetrical rates for reciprocal compensation just as it does for CMRS providers.

III. PERFORMANCE STANDARDS AND ASSOCIATED REMEDIES

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

A. As explained in Ms. Rowling's testimony, ICG believes the Commission should adopt the performance standards and remedies embraced by the Texas Utility Commission.

Q. WHAT IS THE ECONOMIC RATIONALE FOR THE ADOPTION OF PERFORMANCE STANDARDS AND REMEDIES 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.

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.

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]

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 LECs 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 LECs 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 LECs 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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- 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

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

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

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

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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.

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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.

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.

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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

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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

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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

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

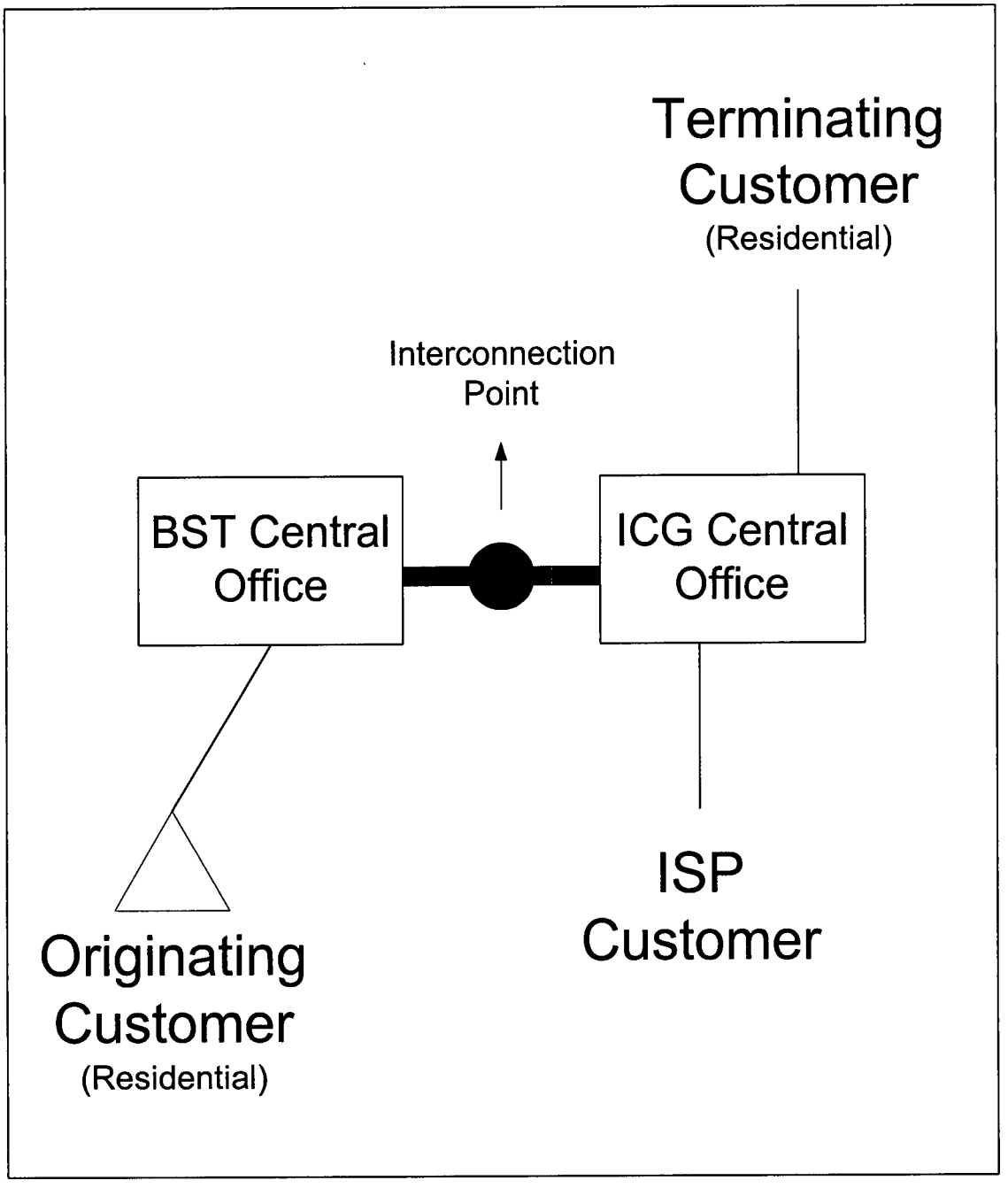

Terminating
Customer
(Residential)
Interconnection
Point
BST Central
Office
ICG Central
Office
ISP
Customer
Originating
Customer
(Residential)

Diagram 2

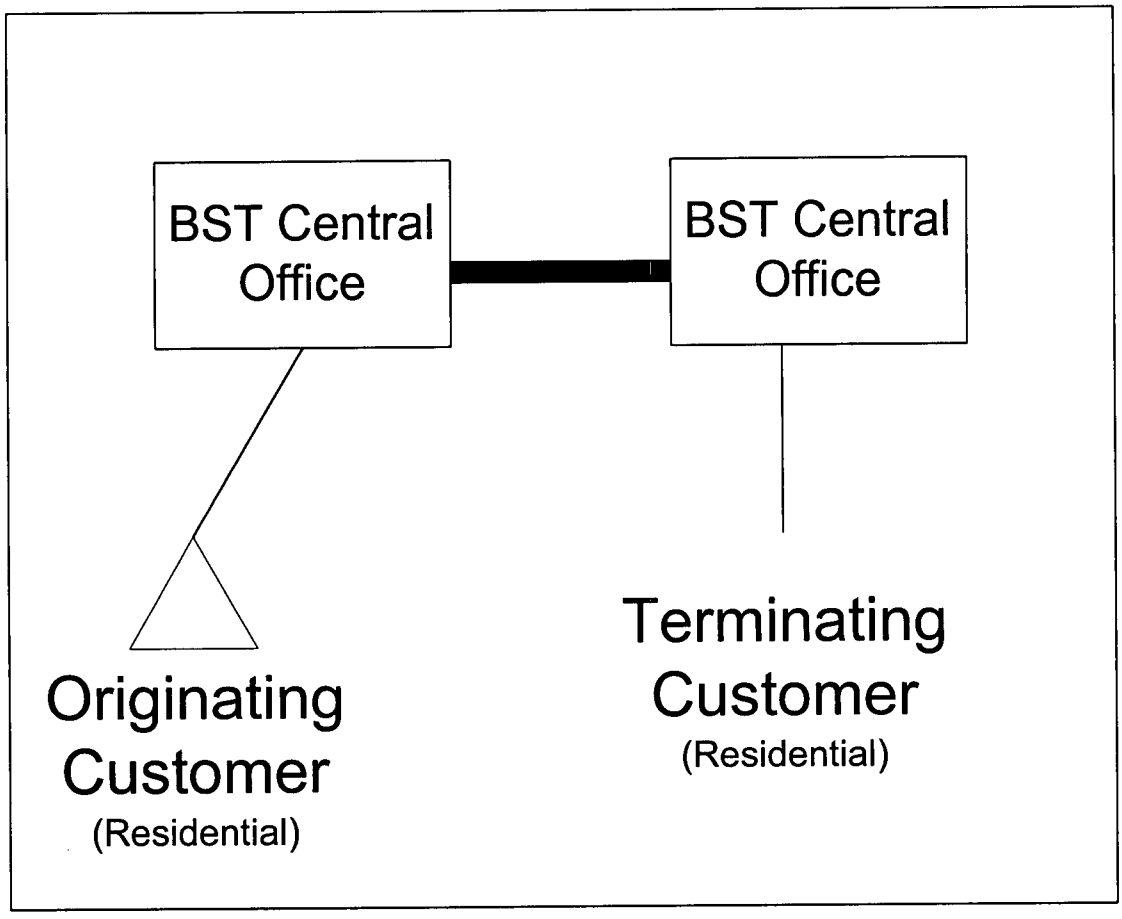
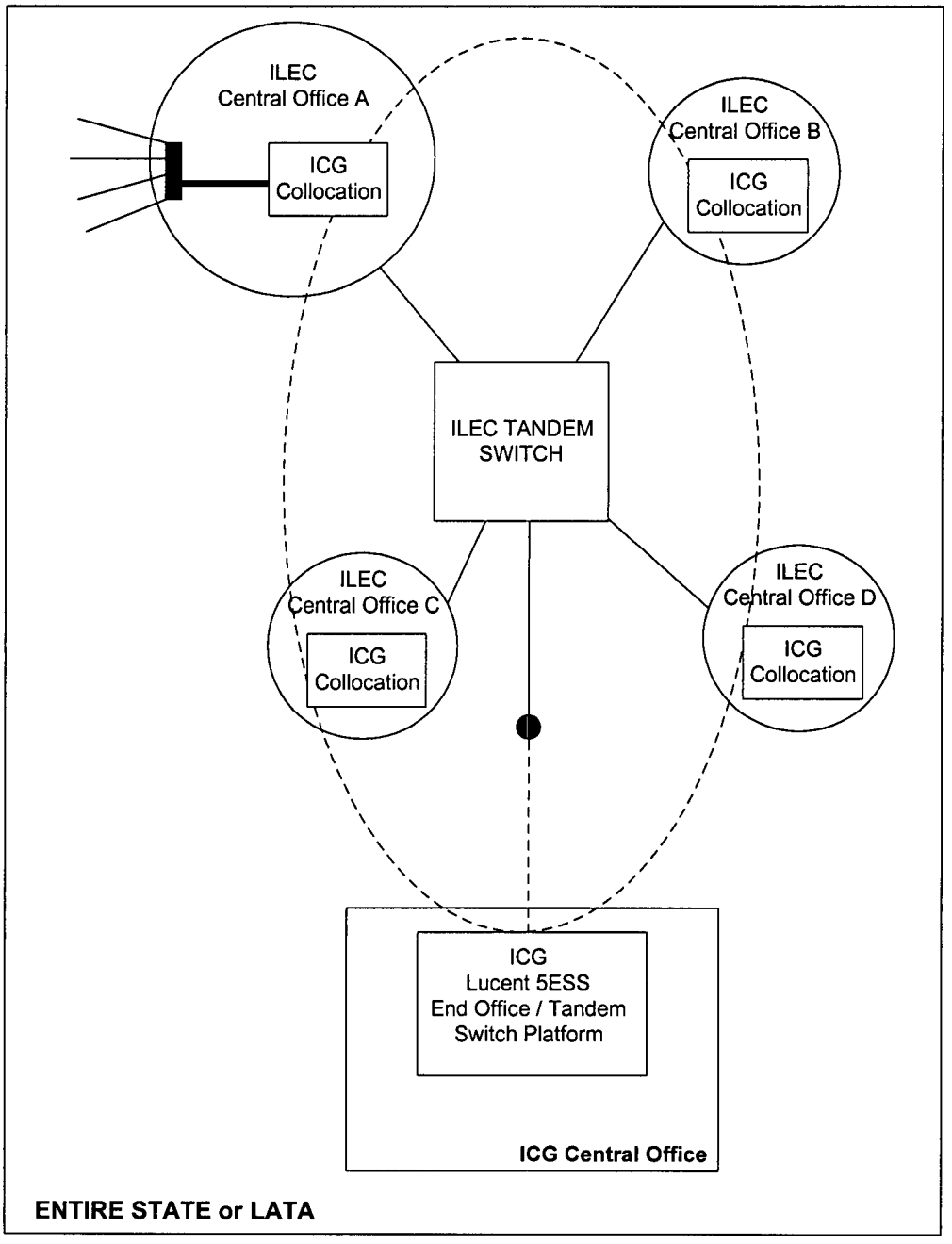

BST Central Office
BST Central Office
Originating Customer
(Residential)
Terminating Customer
(Residential)

DIAGRAM 3


ILEC
Central Office A
ICG
Collocation
ILEC
Central Office B
ICG
Collocation
ILEC TANDEM
SWITCH
ILEC
Central Office C
ICG
Collocation
ILEC
Central Office D
ICG
Collocation
ICG
Lucent 5ESS
End Office / Tandem
Switch Platform
ICG Central Office
ENTIRE STATE or LATA

Before the
KENTUCKY PUBLIC SERVICE COMMISSION
Frankfort, Kentucky

In re: Petition of ICG Telecom Group, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996	Docket No. 99-218

DIRECT TESTIMONY
OF PHILIP W. JENKINS
ON BEHALF OF
ICG TELECOM GROUP, INC.

ICG TELECOM GROUP, INC.

DIRECT TESTIMONY OF PHILIP W. JENKINS

BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

DECEMBER 2, 1999

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION WITH ICG TELECOM GROUP, INC. ("ICG").

A. My name is Philip W. Jenkins. I have been employed by ICG as the Senior Director of Engineering and Operations for the Southeast Region since August 1997. My business address is 50 Glenlake Parkway, Suite 500, Atlanta, Georgia.

Q. PLEASE GIVE A BRIEF DESCRIPTION OF YOUR BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I have worked in the telecommunications industry for over twenty years. Prior to becoming Senior Director of Engineering and Operations for ICG, I was the director of Network Engineering for Time Warner Communications of Tennessee from 1993 through 1997. From 1991 to 1993, I was a professional engineer for the telecommunications division of the Public Service Company for the State of Wisconsin. During the period of 1977 to 1991, I worked in an engineering capacity for all of the following entities: NorLight, Communication Transmission, Inc., Davis & Associates Consultants, and Rockwell-Collins. Previous to 1977, I was a technician for Heath/Schlumberger Electronics and served in the U.S. Navy.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to describe the forecasting needs of ICG.

Q. PLEASE DESCRIBE ICG'S OPERATIONS IN THE BELLSOUTH STATES WHERE ICG OPERATES.

A. In BellSouth states, ICG is a facilities-based competitive local exchange carrier ("CLEC") certified by the applicable state regulatory commissions in Kentucky, Georgia, Alabama, Florida, North Carolina, and Tennessee. ICG maintains operational networks in the cities of Louisville, Atlanta, Charlotte, Birmingham, and Nashville.

ICG has one or more Lucent 5ESS switches in each of the cities in which it maintains an operational network. Prior to federal and state legislation permitting local exchange competition, ICG offered exchange access in some of these cities as a competitive access provider.

Q. WHAT ARE ICG'S FORECASTING NEEDS?

A. As ICG grows and expands its services, there may be instances where ICG is willing to commit to a binding forecast to insure that BellSouth's network can support ICG's traffic requirements. This may be particularly true in congested wire centers and tandem offices. Like many other carriers, ICG's traffic has grown significantly over the past several years. ICG expects that its traffic requirements will continue to expand in the immediate future. To guarantee that ICG will have the requisite capacity on BellSouth's networks as ICG's traffic requirements expand, ICG believes that it is necessary that it have the right to enter into binding forecasts with BellSouth as part of the interconnection agreement between the parties. BellSouth, as a matter of routine, and at its own expense, adds trunking capability based on its forcasted requirements. However, ICG cannot always rely on BellSouth to have adequate trunking capability in place to satisfy ICG's own forecasted requirements. To address this need, ICG is willing to pay BellSouth for making increased capacity available in stages, whether or not ICG actually fills that capacity. The benefit

for BellSouth is that it can build out its network without fearing that it will not be able to recoup its investments if the forecasts in the interconnection agreement are inaccurate. ICG would cover BellSouth's costs in the event ICG fell short of the binding forecast. Therefore, the Commission should direct BellSouth to enter into a binding forecast with ICG within the context of the interconnection agreement between the parties.

Q. CAN YOU EXPLAIN ICG'S PROPOSAL MORE SPECIFICALLY?

A. Yes. ICG relies primarily on direct end-office trunks to deliver traffic from BellSouth end-offices to ICG's switch. Trunks from BellSouth to ICG are BellSouth's responsibility to provision, pay for, and administer. These direct end-office trunks from BellSouth to ICG are the trunks for which ICG requires the right to enter into binding forecasts.

Currently, ICG provides BellSouth with quarterly traffic forecasts. These forecasts assist BellSouth in planning the growth of its network to meet ICG's needs. However, BellSouth is currently under no obligation to respond to ICG's forecasts. BellSouth may choose not to provision additional trunking to ICG even though ICG's forecast suggests additional trunks are, or soon will be, needed. Also, while BellSouth may ultimately augment these trunk groups, it may not do so in time to meet ICG's needs. Under ICG's proposal for binding forecasts, in exchange for ICG's commitment to specific traffic forecasts, BellSouth would be obligated to provision the trunking necessary to carry the traffic volume specified. Ordinarily, trunks from BellSouth to ICG are BellSouth's financial responsibility. However, ICG is willing to agree to pay BellSouth for any trunks provisioned under a binding forecast which are not utilized. Were there to be such a shortfall, ICG believes that it would be only temporary and that traffic volume would soon catch up to the forecasted level.

Q. WOULD ICG WANT TO MAKE ALL OF ITS FORECASTS BINDING FORECASTS?

A. No. ICG simply wants the option to require binding forecasts. We do not anticipate that this provision would be used in every instance. In many cases, ICG would continue to provide BellSouth with non-binding traffic forecasts to assist BellSouth's network planning efforts. ICG would only use the binding forecast option: (i) where it was confident of substantial additional growth and (ii) where ICG was concerned that, without a binding commitment by BellSouth to timely provision the necessary trunks, there would be an unacceptable risk of blockage of incoming calls to ICG's network.

Q. WHY ARE BINDING FORECASTS NECESSARY?

A. With a binding forecast, ICG will be assured that whatever additional trunking is dictated by its forecast will be provided by BellSouth. Binding forecasts will provide ICG and its customers with the certainty that the network -- specifically BellSouth's trunking to ICG -- will handle reasonably foreseeable traffic volumes. Again, ICG is willing to assume all of the risk that its traffic volume will not meet its projections. BellSouth will be paid in full for any trunks called for in the forecast if they are not utilized by ICG on the schedule indicated in the forecast. Under these conditions, I do not understand BellSouth's unwillingness to agree to ICG's proposal.

Q. HAS BELLSOUTH HAS EVER OFFERED TO PROVIDE BINDING FORECASTS TO CLECs?

A. Yes. I am aware of at least one agreement (there may be more) in which BellSouth has agreed to binding forecasts with a CLEC. In its agreement with KMC Telecom, BellSouth agreed to the following language:

20.3 Exchange of Traffic Forecasts

Thirty (30) days after the Interconnection Activiation [sic] Date and each month during the term of this Agreement, each Party shall provide the other Party with a rolling, six (6) calendar month, non-binding forecast of its traffic and volume requirements for the services and Network Elements provided under this Agreement in the form and in such detail as agreed by the Parties. Notwithstanding Section 31.0, the Parties agree that each forecast provided under this Section 20.3 shall be "Proprietary Information" under Section 31.0.

20.4 Binding Traffic Forecasts

Any Party that is required pursuant to this Agreement to provide a forecast (the "Forecast Provider") or the Party that is entitled pursuant to this Agreement to receive a forecast (the "Forecast Recipient") with respect to traffic and volume requirements for the services and Network Elements provided under this Agreement may request in addition to non-binding forecasts required by Section 20.3 that the other enter into negotiations to establish a forecast (a "Binding Forecast") that commits such Forecast Provider to purchase, and such Forecast Recipient to provide, a specified volume to be utilized as set forth in such Binding Forecast. The Forecast Provider and Forecast Recipient shall negotiate the terms of such Binding Forecast in good faith and shall include in such Binding forecast provisions regarding price, quantity, liability for failure to perform under a Binding Forecast and any other terms desired by such Forecast Provider and Forecast Recipient. Notwithstanding Section 31.0, the Parties agree that each forecast provided under this Section 20.4 shall be deemed "Proprietary Information" under Section 31.0.

There is no reason similar language should not be included in the ICG agreement.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

ICG TELECOM GROUP, INC.

DIRECT TESTIMONY OF GWEN ROWLING

BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

DECEMBER 2, 1999

Q. PLEASE STATE YOUR NAME, ADDRESS AND EMPLOYMENT.

A. My name is Gwen Rowling. I am Vice President - State Government Affairs for ICG Communications. My office is located at 11902 Burnett Road, Suite 100, Austin, Texas.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I received a Bachelor of Science Degree from the University of Texas in Austin. I previously was Vice President, Business/Government Relations for Westel, Inc., a competitive local exchange carrier and interexchange carrier. During my 13 years with Westel, I also served as Director of Business Development, Branch Sales Manager and Account Manager. I have served on the boards of directors of industry associations including the American Carriers Telecommunications Association and Competitive Telecommunication Association ("CompTel"). I currently serve as Vice President of TEXALTEL, an industry association in Texas.

Q. HAVE YOU TESTIFIED IN STATE REGULATORY PROCEEDINGS BEFORE?

A. Yes. I provided testimony on behalf of Westel and CompTel before the Texas Public

Utility Commission in a Section 271 proceeding.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to discuss the need for performance measures and effective enforcement mechanisms in the ICG-BellSouth Interconnection Agreement.

Q. WHY SHOULD THE COMMISSION ADOPT PERFORMANCE MEASURES AND EFFECTIVE ENFORCEMENT MECHANISMS IN INTERCONNECTION AGREEMENTS?

A. BellSouth has refused to negotiate with ICG on these important issues. BellSouth has indicated that it is only willing to engage in discussions with the Federal Communications Commission ("FCC") on issues relating to performance measures. Therefore, Commission intervention is needed to resolve this controversy.

Q. WHY ARE PERFORMANCE MEASURES AND ENFORCEMENT MECHANISMS IMPORTANT ISSUES?

A. A facilities-based carrier such as ICG is dependent upon its competitor BellSouth for essential network elements. Preordering, ordering, provisioning, billing, repair and maintenance of these facilities is provided by BellSouth. ICG is similarly dependent upon BellSouth with respect to resold services. If BellSouth's performance on any of these functions falls short, ICG's customer holds ICG responsible. ICG's customer does not care if it was really BellSouth's fault. In the customer's eyes, ICG is responsible. This dependent relationship is what makes this issue so important to the development of local competition.

Comprehensive performance standards and effective enforcement mechanisms must be put in place to hold BellSouth accountable. Otherwise, BellSouth has no incentive to perform at a level that will enable ICG to meet the expectations of its customers; indeed, BellSouth's natural incentives are to impede its competitors' efforts to capture a share of the market now dominated by BellSouth.

Q. HAVE OTHER STATE COMMISSIONS ADOPTED PERFORMANCE MEASURES AND ENFORCEMENT MECHANISMS?

A. Yes. State commissions in Pennsylvania and Texas have adopted comprehensive performance standards and enforcement mechanisms. In California, the Commission has adopted comprehensive performance standards and is in the process of adopting enforcement mechanisms.

Q. DO YOU HAVE ANY SPECIFIC SUGGESTIONS REGARDING THE PERFORMANCE MEASURES THAT THIS COMMISSION SHOULD ADOPT THROUGH THIS ARBITRATION?

A. Yes This Commission should adopt the same performance measures and enforcement mechanisms embraced by the Public Utility Commission of Texas (the "Texas Commission") in the "mega arbitration" in that jurisdiction. These performance measures (as amended) are attached hereto as Exhibit "1" and the applicable enforcement mechanisms (as amended) are attached hereto as Exhibit "2."

Q. IN WHAT CONTEXT WERE THE TEXAS PERFORMANCE MEASURES ORIGINALLY DEVELOPED?

A. In 1996, AT&T, MCI, MFS, TCG and ACSI filed petitions for arbitration with Southwestern Bell Telephone ("SWBT"). The Texas Commission consolidated these petitions into what became known as the "mega arbitration." One of the issues arbitrated by AT&T and MCI was performance measures along with an associated penalty structure.

Q. DID ANY OTHER GOVERNMENTAL ENTITY PLAY A ROLE IN DEVELOPING THE INITIAL SET OF PERFORMANCE MEASURES AVAILABLE IN TEXAS?

A. Yes. In parallel to the efforts by the Texas Commission, the United States Department of Justice ("DOJ") also played a role. At that time, the DOJ had recommended that SWBT's 271 application in Oklahoma be denied. In part, the DOJ's recommendation was based on the lack of performance measures available from SWBT. Subsequently, the DOJ worked with SWBT in developing a set of measurements that would be in addition to the measures that Texas was in the process of developing.

Q. DID THE TEXAS COMMISSION RESTRICT THE AVAILABILITY OF THE PERFORMANCE MEASUREMENTS AND ASSOCIATED PENALTY PLAN TO AN AWARD OF SECTION 271 RELIEF?

A. No. The measurements were available to any CLEC who wished to incorporate them into an interconnection agreement with SWBT. The Texas Commission will not

restrict the implementation of the measurements and penalty plan until such time as SWBT obtains 271 relief. The Texas Commission believes that the measurements and penalty structure will foster the development of local competition by reflecting whether SWBT's Section 251 obligations are being met.

Q. WERE THE MEASUREMENTS OR PENALTY PLAN SUBSEQUENTLY MODIFIED?

A. Yes. After SWBT filed its 271 application in Texas, the Texas Commission heard from a number of CLEC witnesses concerning a variety of issues, including performance measurements. In particular, facilities-based CLECs voiced serious concerns that the measurements were not capturing critical operational failures of SWBT to provide non-discriminatory treatment. Since the measurements originally had been developed within the context of an arbitration, the broader Texas CLEC industry had been excluded from participating in the formulation of the measurements. In an effort to address valid facilities-based CLECs' concerns, the Texas Commission included performance measurements as one of the issues slated for a series of collaborative meetings. These meetings were an outgrowth of the Texas Commission's preliminary findings regarding SWBT's 271 application.

Q. WHAT ASPECTS OF THE MEASUREMENTS WERE ADDRESSED IN THIS COLLABORATIVE PROCESS?

A. Over the course of a year, numerous collaborative meetings were held to address

the addition of new measurements that captured essential facilities-based issues which included the following -- installation of interconnection trunks, trunk blockage, interim and permanent number portability installation, and so-called coordinated "hot cuts," in which the CLEC re-uses the ILEC's loop facilities to a customer in order to conserve plant facilities. Moreover, measures were added which were meant to address other processes that had significant impact on a CLEC's ability to present itself as a viable competitor in the marketplace. For example, the timeliness of updates to directory assistance and LIDB databases were added because these issues impact whether the customer's transition to the new local service provider is transparent. Furthermore, the timeliness of updates to 911 databases was addressed because this matter effects the CLEC's ability to protect the accuracy of the customer's 911 record.

Q. WERE THERE ANY OTHER ADDITIONS OR MODIFICATIONS TO THESE TEXAS MEASUREMENTS DURING THE COLLABORATIVE PROCESS?

A. Yes. Additionally, the CLECs, SWBT, and the Texas Commission's Staff honed the "business rules" which delineate the data collection method to be applied for each measurement.

Q. IS THE COMPLETE SET OF PERFORMANCE MEASUREMENTS AVAILABLE TO ALL CLECS?

A. Yes. In Texas, any CLEC may request that SWBT provide the full set of Texas

Measurements.

Q. WHAT ARE THE TYPES OF ACTIVITIES THAT ARE MONITORED BY THE TEXAS PERFORMANCE MEASUREMENTS?

A. The categories of activities monitored by the Texas performance measurements include the following:

1. Pre-ordering and ordering activities such as response times of the ILEC's OSS interfaces; timely return of Firm Order Commitments ("FOCs"), which notify CLECs of the installation due dates for services; and Service Order Completion ("SOCs"), which notify CLECs of the date on which service completion;

2. The accuracy of the ILEC's invoices to CLECs;

3. The ILEC local service centers' responsiveness to CLECs' inquiries;

4. Provisioning timeliness and accuracy for all types of services including resale, unbundled network elements ("UNEs"), interconnection trunks and special access orders;

5. Maintenance and repair activities as captured by trouble tickets submitted by the CLEC;

6. Network blockage on interconnection trunks or common transport trunks;

7. The level of performance of the ILEC's directory assistance and operator services;

8. Interim number portability installation;

9. Permanent number portability installation and maintenance activities stemming from trouble reports;

10. Timeliness of 911 database updates;

11. Processing of requests for access to poles, conduits, and rights-of-way;

12. Processing of collocation projects;

13. Timeliness of directory assistance database updates;

14. Processing of coordinated conversions;

15. Timeliness of uploading new NXXs into the Local Exchange Routing Guide (LERG); and

16. Timeliness of processing bona fide requests submitted by CLECs.

These categories of activities reflect the operational processes necessary to provide competitive local service to customers.

Q. HOW IS EACH MEASUREMENT DELINEATED?

A. Each measurement contains the following information:

1. Clearly Defined Business Rules:

Each measurement lists business rules that define what data is to be collected and to some extent the data collection methodology. For example, for the measurement "Percent Mechanized Completions Returned Within One Day of Work Completion," the business rules define that the "days are calculated by subtracting the date the Service Order Completion was returned to the CLEC minus the order completion date."

2. Exclusions, if Any:

Each measurement also lists "exclusions," which itemizes what information specifically will be excluded from the calculation of a particular performance measurement. For example, maintenance problems caused by customer premise equipment or inside wiring are not included in the data collection for performance

measurements capturing trouble report activities.

3. The Method of Calculation:

The mathematical calculation of the data is set out for each measurement.

4. Report Structure:

The ILEC is required to report the performance measurement data for the entities listed in the "report structure." Generally, the data is reported for each individual CLEC, all CLECs, and for the ILEC itself. With this reporting structure, the CLEC can determine how the treatment it is receiving from the ILEC compares with the ILEC's performance with respect to its own retail customers. Additionally, the report structure reveals the ILEC's treatment with respect to the broader base of CLEC wholesale customers.

5. Levels of Disaggregation:

Unless measures are disaggregated to a level that mirrors operational realities, measurements will not provide a clear reflection of an ILEC's performance. For example, measurements that track the provisioning of UNEs are disaggregated for each type of UNE that a CLEC is able to order. Without this level of disaggregation, significant inequities in the ILEC's performance can be masked.

6. Benchmarks:

Each measurement has an established benchmark that sets the performance threshold that the ILEC must meet.

Only by clearly articulating each measurement will an "apples-to-apples" comparison be available. And only with this level of articulation will all parties have a clear understanding and reasonable expectations as to what activity is being measured and the data collection methodology.

Q. **ARE THESE MEASUREMENTS FULLY IMPLEMENTED BY SWBT?**

A. While the bulk of the measurements have been implemented by SWBT, a few measurements currently are in the process of implementation.

Q. WERE THERE ANY MODIFICATIONS TO THE REMEDY PLAN DURING THE COLLABORATIVE MEETINGS?

A. Yes. The remedy plan that evolved from the original MCI and AT&T arbitration contained a plan that focused on credits. The credit system would allow SWBT to bank "credits" for good performance and apply these credits against any poor performances. The significant failure of this type of remedy plan is the opportunity for the ILEC to selectively deliver good performance and thereby avoid consistently delivering non-discriminatory treatment to CLECs.

Q. WHAT IS THE PRESENT REMEDY PLAN IMPLEMENTED WITH THE TEXAS PERFORMANCE MEASUREMENTS?

Penalties are categorized as either a Tier 1 and/or Tier 2. Tier 1 penalties are paid to the CLEC. Tier 2 penalties are paid to the state. Each measurement carries a "high," "medium," "low," or "none" designation for Type 1 and Type 2 penalties. This

designation indicates the amount of the penalty to be paid. In addition, the amount of the penalty is determined by whether the performance measurement was missed for one month or for succeeding months. For example, the performance measure "Percent of Firm Order Confirmations Received within X Hours" is labeled as a Tier 1-Low and Tier 2-Medium measurement. Penalties paid for missing this measurement for one month would be $25 per occurrence paid to the CLEC and $300 per occurrence paid to the state.

Q. ARE THE PENALTIES SUBJECT TO ANY CAP?

A. Yes. Eleven measurements are subject to a monthly cap on penalties paid per occurrence. For example, "Average Response Time for OSS Preorder interfaces" is subject to a monthly penalty cap. This measurement's penalty cap for Month 1 is $5,000 for Tier 1 penalties and $20,000 in Tier 2 penalties.

Q. IS THERE AN OVERALL CAP ON THE PENALTIES PAYABLE BY THE ILEC?

A. Yes. There are overall annual caps on penalties payable by SWBT. In addition, if SWBT pays $3 million to a single CLEC or $10 million to all CLECs in any one month. The annual cap is $120 million. The ILEC has the opportunity to initiate a show cause proceeding to demonstrate why it should not be liable for payments exceeding the monthly benchmarks of $3 million for a single CLEC and/or $10 million for all CLECs. However, it should be noted that the FCC's Common Carrier Bureau staff has notified SBC Communications, Inc. ("SBC") in a letter dated September 28, 1999 that the staff

believes that the annual cap of $120 million is:

> . . . . too low to foster parity performance in a market the size of Texas. In particular, the Bureau believes that the potential liability under such a plan must be high enough that an incumbent could not rationally conclude that making payments under an enforcement plan is an acceptable price to pay for hindering or blocking competition.

See Letter from Lawrence E. Strickly, Chief, Common Carrier Bureau, FCC to Pricilla Hill-Ardoin, Senior Vice President -- FCC, SBC, dated September 28, 1999, attached as Exhibit "3."

Q. IS THE REMEDY PLAN AVAILABLE TO ALL CLECS IN TEXAS?

A. The "remedy plan" is contained in a generic interconnection document approved by the Texas Commission in an open meeting October 6, 1999. On October 13, 1999, the Texas Commission issued its order approving the generic interconnection agreement, which will be provided to the Commission upon request. At this time, any CLEC may adopt the entire agreement or a portion of the agreement, such as the remedy plan.

Q. ARE THE PERFORMANCE MEASUREMENTS OR THE REMEDY PLAN ONLY AVAILABLE TO CLECS IF SWBT'S 271 APPLICATION IS APPROVED?

A. No.

Q. WOULD IT BE CORRECT TO SAY THAT THE TEXAS PERFORMANCE MEASUREMENTS WERE DEVELOPED WITHIN A CONTEXT OF A 271 APPLICATIONS?

A. No. They were refined as a joint ILEC/CLEC industry effort during the collaborative process that originally stemmed from a 271 application. But the need for performance measurements was acknowledged by the Texas Commission long before SWBT's 271 application. Originally, the Texas performance measures were awarded as part of an arbitration between MCI, AT&T and SWBT.

Q. DOES THE TEXAS COMMISSION PLAN ON SUBJECTING THE PERFORMANCE MEASUREMENTS TO FURTHER EVALUATION?

A. Yes. The Texas Commission has planned to review the measurements at a later point in time in order to ensure that the measurements are capturing the intended performance activity. At that time, measurements might be added, dropped, or modified according to the Texas Commission's evaluation.

Q. ARE YOU AWARE THAT THE KENTUCKY COMMISSION HAS DECLINED TO SET PERFORMANCE MEASUREMENTS?

A. Yes. I know that this Commission ruled that "there does not appear to be any reason to assume that BellSouth will not in good faith comply with" the requirement "to provide the same quality of service to MCI as it provides to itself." Order dated December 20, 1996, *In the Matter of: Petition By MCI Telecommunications, Inc. for*

Arbitration of Certain Terms and Conditions of a Proposed Agreement With BellSouth Telecommunications, Inc Concerning Interconnection and Resale under the Telecommunications Act of 1996., Case No. 96-431.

Q. **WHY SHOULD THE COMMISSION RECONSIDER ITS POSITION?**

A. Setting performance measurements and enforcement mechanisms does not necessarily signal an expectation that the ILEC will not act in good faith. The measures provide an objective reflection of the ILEC's performance with its own retail customers and with its CLEC customers. Unless the CLECs and the regulators have this type of objective barometer, none of us, including the ILEC, truly knows whether the ILEC is providing non-discriminatory treatment to CLECs. The Telecommunications Act of 1996 was intended specifically to establish local competition. That is the policy goal. Whether robust local service competition can truly be established will depend on a myriad of operational details. Consumers have to perceive that changing their service to a new provider is a viable alternative. If a change in service providers is accompanied by service installation delays, loss of dial tone, recurring static on the line, the lack of directory assistance listings, and incorrect 911 information, consumers will never perceive a competitor as a viable alternative to the ILEC. Performance measurements provide an overall picture of whether the goal of establishing local competition by ensuring a seamless operational flow is being achieved. Performance measurements consequently serve the public interest by ensuring that the operational details support and

foster the overall policy goal of establishing local competition.

But performance measurements standing alone have only marginal value. Enforcement mechanisms such as those adopted by the Texas Commission are also necessary to act as a deterrent to non-performance of the performance measurements and to provide incentive to BellSouth to fulfill its contractual and statutory obligations to provide parity of service. As stated previously, BellSouth has every incentive not to live up to these obligations. The system needs teeth to ensure BellSouth's compliance, without which the Telecommunication Act's policy goal of robust local competition will never be fulfilled. Penalty provisions would provide the enforcement strength necessary.

Q. IF THE ILEC WERE FAILING TO PERFORM IN A NON-DISCRIMINATORY MANNER, WHY WOULDN'T THE COMPLAINT PROCESS SERVE AS AN ADEQUATE AVENUE FOR THE CLEC?

A. First, the ILEC's performance to its own retail customers can only be revealed through a complete set of performance measurements that track provisioning issues. Otherwise, how would the CLEC be able to have a reasonable perspective of the ILEC's provisioning performance with respect to the CLEC industry as a whole or with respect with an individual CLEC? In the FCC's NPRM: *In the Matter of Performance Measurements and Reporting Requirements for Operations Support Systems, Interconnection and Operator Services and Directory Assistance*, released April 17, 1998, the FCC stated:

> Mandating nondiscriminatory access, however, is not the same thing as achieving it in practice. A number of competing carriers have submitted anecdotal evidence suggesting that incumbent LECs may not be providing nondiscriminatory access to OSS functions and interconnection consistent with the statutory requirements. Many of these carriers also have emphasized that it is frequently difficult to resolve disputes regarding nondiscriminatory access, because the incumbent LECs do not report on the time and manner in which they process orders for their own retail customers.

Second, performance measurements take issues out of the "he said/she said" and place them on a objective foundation. Measurements that are carefully crafted along with accurate data collection methodology render objective data. Measurements provide a relief from the tiresome "finger pointing" syndrome that all too often plagues the relationship between a CLEC and ILEC.

Third, measurements provide a readily available snapshot of whether the critical operational details of provisioning local service are underpinning or undermining the general policy goal of establishing local competition. The consumer's decision to select a CLEC cannot be realized by a flip of the switch. If a simple single task were required, performance measurements would be unnecessary. Instead, a series of operational processes must be set into place before the customer can be converted to the new provider. In this context, the devil is most definitely in the operational details. Without an objective, clear picture of how those operational details are functioning, no one will have a clear perspective of whether we are on the road to achieving the overarching

policy objective of setting the foundation for local competition.

Using the complaint process as the sole means by which to address whether non-discriminatory treatment has been rendered is a considerably less efficient process than performance measurements. Moreover, the complaint process will never provide an overall view of whether the ILEC is fulfilling its Section 251 obligations. If broad based, non-discriminatory treatment must be established on a complaint-by-complaint basis, the process will be placed in a quagmire of individual antidotal accusations. The complaint process puts the burden on the CLEC while, in reality, it is the ILEC who bears the responsibility to demonstrate its fulfillment of its Section 251 obligations. Performance measurements accomplish this demonstration on a broad scale.

Finally, it is commercially reasonable that CLEC customers have general expectations regarding the delivery of services from their vendor ILECs. Otherwise, the customer-vendor relationship between the CLEC-ILEC will be replete with misunderstandings and frustrations. As a result, consumer welfare and the vitality of competition will suffer. Due to the essential relationship that exists between the CLEC and the ILEC, it is important to establish a threshold understanding of service delivery expectations. That threshold understanding is embodied in a set of generally available performance measurements. Measurements, therefore, play a critical role in establishing a solid business relationship between the ILEC-vendor and its wholesale CLEC-customer.

The FCC further states in its NPRM on performance measurements:

> We believe that the establishment of model performance measurements and reporting requirements will promote the goal of efficient and effective communication between competing carriers and incumbent LECs, while also reducing the need for regulatory oversight in this area. Performance measurements and reporting requirements should make much more transparent, or observable, the extent to which an incumbent LEC is providing nondiscriminatory access, because such requirements will permit direct comparisons between the incumbent's performance in serving its own retail customers and its performance in providing service to competing carriers.

In a separate statement, FCC Commissioner Gloria Tristani stated:

> In the newly competitive local market, regulators will be called upon to arbitrate disputes between competing carriers. The availability of performance measurements will allow regulators to resolve complaints quickly. . . . But to get there, we will need state commissions to put performance measurements in place.

This Commission should alter its past thinking on this issue and adopt the Texas performance measures and penalty provisions in their entirety so that BellSouth's service can be measured from a solid, objective foundational base of performance data.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

Before the
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OF GWEN ROWLING
ON BEHALF OF
ICG TELECOM GROUP, INC.

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PERFORMANCE MEASURES

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Pre-Ordering/Ordering

1. Measurement
Average Response Time For OSS Pre-Order Interfaces
Definition:
The average response time in seconds from the SWBT side of the Remote Access Facility (RAF) and return for pre-order interfaces (Verigate, DataGate and EDI where the pre-order functionality is integrated) by function.
Exclusions:
None
Business Rules:
The clock starts on the date/time when the request is received by SWBT, and the clock stops on the date/time when SWBT has completed the transmission of the response to the CLEC. Timestamps are taken at the DataGate and Verigate servers and do not include transmission time through the LRAF. Response time is accumulated for each major query type, consistent with the specified reporting dimension, and then divided by the associated total number of queries received by SWBT during the reporting period. The response time is measured only within the published hours of interface availability. Published hours of interface availability are documented on the CLEC web site. (SWBT will not schedule system maintenance during normal business hours (8:00 a.m. to 5:30 p.m. Monday through Friday).
Levels of Disaggregation:
• Address Verification • Request For Telephone Number • Request For Summary Customer Service Record (CSR) < = 30 WTNs (Also broken down for Lines as required for DIDs). • Request For Summary Customer Service Record (CSR) > 30 WTNs (Also broken down for Lines as required for DIDs). • Request for Detailed Customer Service Request (CSR) • Service Availability • Service Appointment Scheduling (Due Date) • Dispatch Required • PIC

Calculation:	Report Structure:
Σ[(Query Response Date & Time) - (Query Submission Date & Time)] ÷ (Number of Queries Submitted in Reporting Period)	Reported on a CLEC and all CLECs basis by interface for DATAGATE and VERIGATE.

Measurement Type:

Tier 1 – Low
Tier 2 – Medium

Benchmark:

Benchmarks for summary CSR applies to < = 30 WTNs. Benchmarks for diagnostic measurements will be evaluated at the six months review.

Measurement	EDI/Datagate	Verigate
Address Verification	4.7 seconds	4.7 seconds
Request For Telephone Number	4.5 seconds	4.5 seconds
Request For Customer Service Record (CSR)	6.6 seconds	6.6 seconds
Service Availability	6.6 seconds	6.6 seconds
Service Appointment Scheduling (Due Date)	1.0 second	1.0 second
Dispatch Required	12.6 seconds	12.6 seconds
PIC	28.0 seconds	To be determined at six month revision period

2. Measurement

Percent Responses Received within "X" seconds – OSS Interfaces

Definition:

The percent of responses completed in "x" seconds for pre-order interfaces (Verigate, DataGate, and EDI where the pre-order functionality is integrated) by function.

Exclusions:

See Measurement No. 1

Business Rules:

See Measurement No. 1

Levels of Disaggregation:

See Measurement No. 1

Calculation:	Report Structure:
(# of responses within each time interval ÷ total responses) * 100	Reported on a company basis by interface for DATAGATE and VERIGATE.

Measurement Type:

Tier 1 – Low
Tier 2 – Medium

Benchmark:

Measurement	EDI/Datagate	Verigate
Address Verification	90% in = 8.0 seconds 95% in = 12.0 seconds	80% in = 5.0 seconds 90% in = 7.0 seconds
Request For Telephone Number	90% in = 7.0 seconds 95% in = 9.5 seconds	80% in = 4.0 seconds 90% in = 6.0 seconds
Request For Customer Service Record (CSR)	90% in = 8.0 seconds 95% in = 13 seconds	80% in = 7.0 seconds 90% in = 10.0 seconds
Service Availability	90% in = 12.0 seconds 95% in = 16.0 seconds	80% in = 11.0 seconds 90% in = 13.0 seconds
Service Appointment Scheduling (Due Date)	90% in = 1 seconds 95% in = 2.0 seconds	80% in = 2.0 seconds 90% in = 3.0 seconds
Dispatch Required	90% in = 15.0 seconds 95% in = 25.0 seconds	80% in = 17.0 seconds 90% in = 19.0 seconds
PIC	90% in = 39 seconds 95% in = 60 seconds	To be determined at six month revision period

3. Measurement	
EASE Average Response Time	
Definition:	
Average screen to screen response from the SWBT side of the Remote Access Facility (RAF) and return.	
Exclusions:	
None	
Business Rules:	
The response time for a query is measured from the point in time when the CLEC customer service agent submits the query for information through a function key option on their keyboard into the OSS until the time when the OSS releases the information to the CLEC customer service agent by unlocking the keyboard for a new transaction. Response time is a combination of Network time, Host time and Fasterm time. Response time is accumulated for each query and then divided by the associated total number of queries received by SWBT during the reporting period.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ[(Query Response Date & Time) - (Query Submission Date & Time)] ÷ (Number of Queries Submitted in Reporting Period)	Reported for all CLECs and SWBT by division name (CPU platform).
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Parity. However, a Benchmark will be used until such time that SWBT has the ability to calculate sum of the squares in order to provide the parity comparison. The benchmark will be SWBT performance for the given month plus .05 seconds, and no z-test or modified z-test will be applied.	

4. Measurement	
OSS Interface Availability	
Definition:	
Percent of time OSS interface is available compared to scheduled availability.	
Exclusions:	
None	
Business Rules:	
The total "number of hours functionality to be available" is the cumulative number of hours (by date and time on a 24 hour clock) over which SWBT plans to offer and support CLEC access to SWBT's operational support systems (OSS) functionality during the reporting period. "Hours Functionality is Available" is the actual number of hours, during scheduled available time, that the SWBT interface is capable of accepting or receiving CLEC transactions or data files for processing through the interface and supporting operational support systems (OSS). The actual time available is divided by the scheduled time available and then multiplied by 100 to produce the "Percent system availability" measure. SWBT will not schedule normal maintenance during business hours (8:00 a.m. to 5:30 p.m. Monday through Friday). When interfaces experience partial unavailability, an availability factor is applied to the calculation of downtime. This factor is stated as a percentage and represents the impact to the CLEC. Determination of the availability factor is governed by SWBT's Availability Team on a case by case basis. SWBT's availability team shall provide to CLECs the information supporting the use of any availability factor multiplier used in reporting this measurement. SWBT shall calculate the availability time rounded to the nearest minute.	
Levels of Disaggregation:	
• EASE reported for Geographic Regions • EDI reported by protocol	
Calculation:	**Report Structure:**
[(Hours functionality is available during the scheduled available hours) ÷ Scheduled system available hours)] * 100	Reported on an aggregate CLEC basis by interface, e.g. EASE, DATAGATE, VERIGATE, LEX, EDI and TOOLBAR. The RAF will be reported on an individual CLECs basis.
Measurement Type:	
Tier 1 – None Tier 2 – High	
Benchmark:	
99.5%. The critical Z allowance does not apply on this measurement.	

5. Measurement:
Percent Firm Order Confirmations (FOCs) Returned
Definition:
Percent of FOCs returned within a specified time frame from receipt of a complete and accurate service request to return of confirmation to CLEC.
Exclusions:
• Rejected (manual and electronic) orders. • SWBT only Disconnect orders. • Orders involving major projects mutually agreed upon by CLECs and SWBT. • Upon implementation of Performance Measurement 94, LNP and LNP With Loop will be excluded from this measure.
Business Rules:
FOC business rules are established to reflect the Local Service Center (LSC) normal hours of operation, which include Monday through Friday, 8:00 a.m.-5:30p.m, excluding holidays and weekends. If the start time is outside of normal business hours, then the start date/time is set to 8:00 a.m. on the next business day. Example: If the request is received Monday through Friday between 8:00 a.m. to 5:30 p.m.; the valid start time will be Monday through Friday between 8:00 a.m. to 5:30 p.m. If the actual request is received Monday through Thursday after 5:00 p.m. and before 8:00 a.m. the next day; the valid start time will be the next business day at 8:00 a.m. If the actual request is received Friday after 5:30 p.m. and before 8:00 a.m. Monday; the valid start time will be at 8:00 a.m. Monday. If the request is received on a holiday (anytime); the valid start time will be the next business day at 8:00 a.m. The returned confirmation to the CLEC will establish the actual end date/time. Provisions are established within the DSS reporting systems to accommodate situations when the LSC works holidays, weekends, and when requests are received outside normal working hours. For UNE Loop and Port combinations, orders requiring N, C, and D orders; the FOC is sent back at the time the last order that establishes service is distributed In the event of a post-FOC reject, the originally recorded duration to return the first FOC will not be included in the Measurement No. 5 reported date.

LEX/EDI

For LEX and EDI originated LSRs, the start date and time is the receive date and time that is automatically populated by the interface (EDI or LEX) with the system date and time.. The end date and time is recorded by both LEX and EDI and reflect the actual date and time the FOC is **available** to the CLEC. This data is extracted daily from LEX and EDI and passed to the DSS (Decision Support System), where the end date and time are populated and are used to calculate the FOC measurements. For LSRs where FOC times are negotiated with the CLEC, the ITRAK entry on the SORD service order is used in the calculation. The request type from the LSR and the Class of Service tables are used to report the LSRs in the various levels of disaggregation. The Class of Service tables are based on the Universal Service Order practice.

VERBAL or MANUAL REQUESTS

Manual service order requests are those initiated by the CLEC either by telephone, fax, or other manual methods (i.e. courier). The receive date and times are recorded and input on the SM-FID on each service order in SORD for each FOC opportunity. The end times are the actual dates and times the paper faxes are sent back to the CLEC. Fax end times are recorded and input into the DSS systems via an internal Web application. Each FOC opportunity is dynamically established on the Web application via our interface to SORD. The LSC must provide an end date and time for each entry, which depicts the date and time the FOC was actually faxed back to the CLEC. If a CLEC elects to accept an on line FOC and does not require a paper fax the FOC information is provided over the phone. In these instances, the order distribution time is used in the FOC calculation on the related SORD service order to the appropriate SM-FID entry. These scenarios are identified by data populated on the ITRAK-FID of the service order. The ITRAK-FID is also used when FOC times are negotiated with the CLEC. The LSC will populate the ITRAK-FID with certain pre-established data entries that are used in the FOC calculation.

Levels of Disaggregation:	
Manually submitted: • Simple Res. And Bus. < 24 Hours • Complex Business (1-200 Lines) < 24 Hours • Complex Business (>200 Lines) < 48 Hours • UNE Loop (1-49 Loops) < 24 Hours • UNE Loop (> 50 Loops) < 48 Hours • Switch Ports < 24 Hours **Electronically submitted via LEX or EDI:** • Simple Res. And Bus. < 5 Hours • Complex Business (1-200 Lines) < 24 Hours • Complex Business (>200 Lines) < 48 Hours • UNE Loop (1-49 Loops) < 5 Hours • UNE Loop (> 50 Loops) < 48 Hours • Switch Ports < 5 Hours	
Calculation:	**Report Structure:**
(# FOCs returned within "x" hours ÷ total FOCs sent) * 100	Reported for CLEC and all CLECs. This includes mechanized from EDI and LEX and manual (FAX or phone orders).
Measurement Type:	
Tier 1 – Low Tier 2 – Medium	
Benchmark:	
All Res and Bus 95% / Complex Bus 94% / UNE Loop (1-49) 95% / UNE Loop (>50) 94% / Switch Ports 95%, the Average for the remainder of each measure disaggregated shall not exceed 20% of the established benchmark.	

6. Measurement:	
Average Time To Return FOC	
Definition:	
The average time to return FOC from receipt of complete and accurate service request to return of confirmation to CLEC.	
Exclusions:	
• Rejected Orders. • SWBT only Disconnect orders. • Orders involving major projects. • Upon implementation of Performance Measurement 94, LNP and LNP Without Loop will be excluded from this measure.	
Business Rules:	
See Measurement No. 5	
Levels of Disaggregation:	
• All Res. And Bus. < 24 Hours • Complex Business (1-200 Lines) < 24 Hours • Complex Business (>200 Lines) < 48 Hours • UNE Loop (1-49 Loops) < 24 Hours • UNE Loop (> 50 Loops) < 48 Hours • Switch Ports < 24 Hours	
Calculation:	**Report Structure:**
Σ[(Date and Time of FOC) - (Date and Time of Order Received by SWBT)]/(# of FOCs)	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
No Benchmark	

7. Measurement	
Percent Mechanized Completions Available Within one hour of Completion in SORD	
Definition:	
Percent mechanized completions Available within one hour for EDI and LEX.	
Exclusions:	
None	
Business Rules:	
The elapsed time for an LSR is calculated based on the time of the last service order, which establishes service, being completed in SORD to the actual time LEX or EDI received the SOC notification and it is available to the client. For example, if a multi-line, LSR has 10 lines, the stop time would be when the last of the 10 orders is completed in SORD.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(# mechanized completions available to CLEC within 1 hour of completion on SORD ÷ total mechanized completions) * 100	Reported for CLEC and all CLECs for the electronic interfaces (EDI and LEX).
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
97%	

7.1 Measurement	
Percent Mechanized Completions Available Within one Day of Work Completion	
Definition:	
Percent Mechanized Completions Available Within one Day	
Exclusions:	
None	
Business Rules:	
Days are calculated by subtracting the date the SOC was Available to the CLEC minus the order completion date.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(# mechanized completions returned to the CLEC within 1 day of work completion ÷ total mechanized completions) * 100	Reported for CLEC and all CLECs for the electronic interfaces (EDI and LEX).
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
97%	

8. Measurement	
Average Time to Return Mechanized Completions	
Definition:	
Average time required to return a mechanized completion.	
Exclusions:	
See Measurement No. 7	
Business Rules:	
See Measurement No. 7	
Levels of Disaggregation:	
See Measurement No. 7	
Calculation:	**Report Structure:**
Σ[(Date and Time of Notice Of Completion Issued to the CLEC) - (Date and Time of Work Completion)] ÷ Total Mechanized Completions)	Reported on CLEC and all CLECs for the electronic interfaces (EDI and LEX).
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
No Benchmark	

9. Measurement	
Percent Rejects	
Definition:	
The number of rejects compared to the issued unique LSRs and SUPPs for the electronic interfaces (EDI and LEX).	
Exclusions:	
None	
Business Rules:	
A reject is anything that is received via LEX or EDI that does not pass LASR edit checks or other edits prior to the order being distributed and is returned electronically to the CLEC.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(# of rejects ÷ total unique LSRs and SUPPs) * 100	Reported on CLEC and all CLECs for the electronic interfaces (EDI and LEX).
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Measurement is diagnostic. No benchmark required.	

10. Measurement	
Percent Mechanized Rejects Returned Within one hour of receipt of reject in LASR	
Definition:	
Percent mechanized rejects returned within one hour of the receipt of the reject in LASR.	
Exclusions:	
None	
Business Rules:	
The start time used is the date and time the reject is available to LASR; and the end time is the date and time the reject notice is provided to EDI or LEX and is available to the CLEC. A mechanized reject is any reject returned electronically (without manual intervention) to the CLEC via LASR.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(# mechanized rejects returned within 1 hour ÷ total rejects) * 100	Reported for CLEC and all CLECs for the electronic interfaces (EDI and LEX).
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
97% within 1 hour of the receipt of a reject in LASR	

10.1 Measurement:	
Percent Manual Rejects Received Electronically and Returned Within Five Hours	
Definition:	
Percentage of manual rejects received electronically and returned within five hours of the receipt of LSR from CLEC.	
Exclusions:	
• Manual rejects received through manual process i.e. via mail, fax or courier	
Business Rules:	
The start time is the time the LSR is received electronically via EDI or LEX and logged in LASR. The end time is the date and time the reject notice is available to the CLEC. A manual reject is a reject of an electronic LSR. The rejected order is any reject that errors out of SORD and is returned to the CLEC via LASR GUI.	
Levels of Disaggregation:	
• By State	
Calculation:	**Report Structure:**
(# electronic manual rejects returned within 5 hours of receipt of LSR ÷ total electronic manual rejects) * 100	Reported for CLEC and all CLECs
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
97% within 5 Hours.	

11. Measurement	
Mean Time to Return Mechanized Rejects	
Definition:	
Average time required to return a mechanized reject.	
Exclusions:	
See Measurement No. 10	
Business Rules:	
The start time is the time the LSR is received electronically via EDI or LEX. The end time is the date and time the reject notice is available to the CLEC. A mechanized reject is any reject returned electronically (without manual intervention) to the CLEC.	
Levels of Disaggregation:	
See Measurement No. 10	
Calculation:	**Report Structure:**
Σ[(Date and Time of Order Rejection) - (Date and Time of Order Acknowledgment)] ÷ (# of unique LSR's and Supps Rejected)	Reported on CLEC and all CLECs for the electronic interfaces (EDI and LEX).
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
See Measurement No. 10	

11.1 Measurement:	
Mean Time to Return Manual Rejects that are Received Electronically via LEX or EDI	
Definition:	
Average time to return manual rejects received electronically via LEX or EDI; receipt to return.	
Exclusions:	
• See Measurement 10.1	
Business Rules:	
See Measurement 10.1	
Levels of Disaggregation:	
• By State	
Calculation:	**Report Structure:**
{Σ(receipt to CLEC of electronic manual rejects – receipt of electronic manual reject) ÷ total electronic manual rejects}	Reported for CLEC and all CLECs
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Five Hours	

12. Measurement	
Mechanized Provisioning Accuracy	
Definition:	
Percent of mechanized orders completed as ordered.	
Exclusions:	
None	
Business Rules:	
This measurement compares the features ordered on a mechanized order, to that which is provisioned on the switch.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(# of orders completed as ordered ÷ total orders) * 100	Reported by individual CLEC, CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – Low	
Benchmark:	
Parity	

13. Measurement	
Order Process Percent Flow Through	
Definition:	
Percent of orders or LSRs from entry to distribution that progress through SWBT ordering systems.	
Exclusions:	
LEX/EDI excludes orders both electronically generated and rejected if error is caused by CLEC.	
Business Rules:	
The number of orders that flow through SWBT's ordering systems and are distributed in SORD without manual intervention, divided by the total number of MOG Eligible orders and orders that would flow through EASE within the reporting period. Orders that fall out after LASR, that are worked by SWBT and not rejected back to CLEC due to CLEC caused errors, will be included as failed pass-through occurrences.	
Levels of Disaggregation:	
• For CLEC typed orders by UNE loops, Resale, UNE Combos, and other.	
Calculation:	**Report Structure:**
(# of orders that flow through ÷ total MOG-eligible orders and orders that flow through EASE) * 100	Reported by individual CLEC, CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – High	
Benchmark:	
Parity	

Billing

14. Measurement	
Billing Accuracy	
Definition:	
SWBT performs three bill audits to ensure the accuracy of the bills rendered to its customers: CRIS, CABS and toll/usage.	
Exclusions:	
Non-recurring charges are not part of the CRIS audit process, as SWBT has developed a test order process to ensure the accuracy of CRIS non-recurring charges.	
Business Rules:	
The purpose of the CRIS Bill Audit is to review and recalculate each service billed for each of the seven bill processing centers in the five states. Wholesale accounts are included in each processing center for every billing period. In the toll/usage bill audit, a sample of customer accounts is selected using an appropriate mix of USOCs and Classes of Service. The purpose of this audit is to ensure that monthly bills sent to the CLECs, whether it is for resale or unbundled services, and retail customers are rated accurately according to tariffs and CLEC contracts. For all accounts that are audited, the number of bills that have been released prior to correction (bills are audited for complete information, accurate calculations and are properly formatted) are counted as an error against the total bills audited.	
Levels of Disaggregation:	
CLEC and non-CLEC	
Calculation:	**Report Structure:**
(# of bills not corrected prior to bill release ÷ total bills audited) * 100	Reported for aggregate of all CLECs and SWBT for the CRIS, CABS and Usage bill audits.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Parity	

15. Measurement	
Percent of Accurate and Complete Formatted Mechanized Bills	
Definition:	
The percent of monthly bills sent to the CLECs via the mechanized EDI process that are accurate and complete.	
Exclusions:	
None	
Business Rules:	
EDI Billing accuracy is based upon three factors: totaling, formatting, and syntax. In other words, does the bill total up correctly, does the EDI Billing data conform to the format outlined in the SWB Electronic Commerce Guide for EDI Billing, and is the EDI Billing data syntactically correct? For completeness, EDI checks that the sum of all itemized calls equals the total for the itemized calls bill section, and the sum of all OC&C charges should equal the total for the OC&C section. Similar audits are performed for total current charges and the amount due.	
Levels of Disaggregation:	
• None	
Calculation:	**Report Structure:**
(Count of accurate and complete formatted mechanized bills via EDI ÷ total # of mechanized bills via EDI.) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – High	
Benchmark:	
99%	

16. Measurement:	
Percent of Usage Records Transmitted Correctly	
Definition:	
The percent of usage records transmitted correctly on the Daily Usage extract feed.	
Exclusions:	
None	
Business Rules:	
Controls and edits within the billing system uncover certain types of errors that are likely to appear on the usage records. When these errors are uncovered, a new release of the program is written to ensure that the error does not occur again. Thus, an error that is reported in one month should not occur the next month because the billing program error would have been fixed by the next month. The usage record data and the cycle date (when the bill was sent out) are used in the calculation of this measurement.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of usage records transmitted correctly ÷ total usage records transmitted) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
95% within 6th workday	

17. Measurement

Billing Completeness

Definition:

Percent of service orders completed within the billing cycle that post in the CRIS or CABS billing systems prior to the customer's bill period.

Exclusions:

Access Service Orders billed through CABS.

Business Rules:

The Billing Completeness Measure includes all orders and is created from the Posted Service Order Database (PSOD). PSOD includes copies of all posted service orders for both the CRIS and CABS. PSOD includes the Bill Period, Completion Date, and Post Date for each Service Order as well as an On-Time/Late indicator created based on these dates. This On-Time/Late indicator is calculated as follows:

1. Determine the Bill Date, Completion Date, and Post Date for any order that has an OCN number regardless of order type.
2. Calculate the Bill Date minus one month by subtracting one month from the Bill Date.
3. Determine the Bill Render Date by using the Bill Date to look up the Bill Render Date on the Bill Period Calendar.
4. Compare the Completion Date, Bill Date, Bill Date Minus one month, Bill Render Date, and Post Date of the service order to determine if order is on-time or late:
   - If the Completion Date of the service order is prior to the Bill Date minus one month, then the order is late.
   - Compare the Post Date to the Bill Render Date. If the Post Date is earlier than or equal to the Bill Render Date and the Completion Date of the service order is equal to or greater than the Bill Date minus one month, then the order is on-time.
   - In all other cases, the order is late.
   - The Billing Completeness Measure for each month is based on all orders that post within that given month. The denominator of the measure is all orders within a month. The numerator is the total number of on-time orders for that same month. The Billing Completeness Measure calculation is completed for each CLEC, for all CLECs, and for all retail service orders. The CLEC orders for both CRIS and CABS are defined as all service orders that include the AECN or OCN FID. The retail orders are all CRIS orders that do not include an AECN.

Levels of Disaggregation:

CLEC and non-CLEC

Calculation:	Report Structure:
(Count of on-time service orders included in current applicable bill period ÷ total service orders in current applicable billing period) *100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – Medium	
Benchmark:	
Parity with SWBT Retail.	

18. Measurement	
Billing Timeliness (Wholesale Bill)	
Definition:	
Billing Timeliness measures the length of time from the billing date to the time it is sent or transmitted (made available) to the CLECs.	
Exclusions:	
Excludes Weekends and Holidays.	
Business Rules:	
The transmission date is used to gather the data for the reporting period. The measure counts the number of workdays between the bill day and transmission date for each bill.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of bills transmitted on time ÷ total number of bills released) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – High	
Benchmark:	
95% within 6th workday	

19. Measurement	
Daily Usage Feed Timeliness	
Definition:	
Usage information is sent to the CLECs on a daily basis. This usage data must be sent to the CLEC within 6 work days in order to be considered timely.	
Exclusions:	
Excludes Weekends and Holidays.	
Business Rules:	
The measure uses the actual EMI usage records that are sent to the CLECs. Data date is the recording date of the usage and is part of the EMI usage record. Cycle date is the day the Daily Usage file is sent to the CLEC. Cycle date is found on the pack header record of the Daily Usage file.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of usage feeds transmitted on time ÷ total number of usage feeds) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
95% within 6th workday	

20. Measurement	
Unbillable Usage	
Definition:	
The percent usage data that is unbillable.	
Exclusions:	
None	
Business Rules:	
For CRIS billing, the total dollars for A.M.A/ECS written off is divided by the total CRIS A.M.A/ECS billing. For CABS, the total CABS uncollectible dollars is divided by total CABS billing. The end of the month cycle date is used as the start/stop time for the reporting period.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Total unbillable usage ÷ total billed usage) * 100	Reported for the aggregate of SWBT and CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

Miscellaneous Administrative

21. Measurement	
Local Service Center (LSC) Average Speed Of Answer	
Definition:	
The average time a customer is in queue.	
Exclusions:	
Weekends and Holidays	
Business Rules:	
The clock starts when the customer enters the queue and the clock stops when a SWBT representative answers the call. The speed of answer is determined by measuring and accumulating the elapsed time from the entry of a CLEC customer call into the SWBT call management system queue until the CLEC customer call is transferred to SWBT personnel assigned to handling CLEC calls for assistance. Data is accumulated from 12:00 a.m. on the first calendar day to 11:59 p.m. on the last calendar day of the month for the reporting period. Hours of operation are 8:00 a.m. to 5:30 p.m. Monday through Friday.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Total queue time ÷ total calls	Reported for all calls to the LSC by operational separation and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Parity with SWBT RSC / BSC	

22. Measurement	
Local Service Center (LSC) Grade Of Service (GOS)	
Definition:	
Percent of calls answered by the Local Service Center (LSC) within 20 seconds.	
Exclusions:	
Excludes Weekends and Holidays.	
Business Rules:	
See Measurement No. 21	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Total number of calls answered by the LSC within a specified period of time ÷ Total number of calls answered by the LSC	Reported for all calls to the LSC by operational separation and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – High	
Benchmark:	
Parity with SWBT RSC / BSC	

23. Measurement	
Percent Busy in the Local Service Center (LSC)	
Definition:	
Percent of calls which are unable to reach the Local Service Center (LSC) due to a busy condition in the ACD.	
Exclusions:	
See Measurement No. 22	
Business Rules:	
See Measurement No. 21	
Levels of Disaggregation:	
See Measurement No. 21	
Calculation:	**Report Structure:**
(Count of blocked calls ÷ total calls offered) * 100	Reported for all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – Low	
Benchmark:	
Parity with SWBT RSC / BSC	

RESALE POTS AND UNE LOOP AND PORT COMBINATIONS COMBINED BY SWBT

Provisioning

27. Measurement
Mean Installation Interval
Definition:
Average business days from application date to completion date.
Exclusions:
• Excludes customer-caused misses. • Field Work orders – excludes customer requested due dates greater than 5 business days. • No Field Work orders – excluded if order applied for before 3:00 p.m.; and the due date requested is not same day; and if order applied for after 3:00 p.m.; and the due date requested is beyond the next business day. • Excludes all orders except N, T, and C orders. • Excludes Weekends and Holidays.
Business Rules:
The clock starts on the Application Date, which is the day that SWBT receives a correct Service Order. The clock stops on the Completion Date, which is the day that SWBT personnel complete the service order activity. Orders are included in the month they are completed. There are 2 types of orders in the measurement. Same Day Due orders (defined as distribution time EQUAL or BEFORE 3:00 p.m. and Application Date = Distribution Date = Due Date. Next Day Due orders (defined as distribution time AFTER 3:00 p.m. and Application Date = Distribution Date and Due Date is one business day after Application Date. If the order is Same Day Due, then (Completion – Application Date), if the order is Next Day Due, then [(Completion – Next Business Day) + 1]. UNE Combos, are reported at order level.
Levels of Disaggregation:
POTS • Field Work (FW) • No Field Work (NFW) • Business class of service • Residence class of service UNE Combo • Field Work (FW) • No Field Work (NFW)

Calculation:	Report Structure:
[Σ(completion date – application date)]/(Total number of orders completed)	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Resale POTS parity between Field Work compared to SWBT Field Work (N, T, C order types) and No Field Work compared to SWBT No Retail Field Work (N, T, C order types). UNE Combo Parity between Field Work compared to SWBT Field Work (N, T, C order types) and No Field Work compared to SWBT No Retail Field Work. (N, T, C order types).	

28. Measurement

Percent Installations Completed Within "X" Business Days (POTS)

Definition:

Measure of orders completed within five business days for Field Work (FW) orders and three business days for No Field Work (NFW) orders, of application date.

Exclusions:

- Excludes customer caused misses.
- Field Work orders – excludes customer requested due dates greater than five business days.
- No Field Work orders – excluded if order applied for before 3:00 p.m.; and the due date requested is not same day; and if order applied for after 3:00 p.m.; and the due date requested is beyond the next business day.
- Excludes all orders except N, T, and C orders.
- Excludes Weekends and Holidays.

Business Rules:

The clock starts on the Application Date, which is the day that SWBT receives a correct Service Order. The clock stops on the Completion Date which is the day that SWBT personnel complete the service order activity. Orders are included in the month they are completed. There are 2 types of orders in the measurement. Same Day Due orders (defined as distribution time EQUAL or BEFORE 3:00 p.m. and Application Date = Distribution Date = Due Date. Next Day Due orders (defined as distribution time AFTER 3:00 p.m. and Application Date = Distribution Date and Due Date is one business day after Application Date. If the order is Same Day Due, then (Completion – Application Date), if the order is Next Day Due, then [(Completion – Next Business Day) + 1]. UNE Combos, are reported at order level.

Levels of Disaggregation:

POTS

- Field Work (FW)
- No Field Work (NFW)
- Business class of service
- Residence class of service

UNE Combo

- Field Work (FW)
- No Field Work (NFW)

Calculation:	Report Structure:
FW: (Count of orders installed within 5 business days ÷ total number of orders) * 100 NFW: (Count of orders installed within 3 business days ÷ total number of orders) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Resale POTS parity between Field Work compared to SWBT Field Work (N, T, C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, C order types). UNE Combo Parity between Field Work compared to SWBT Field Work (N, T, C order types) and No Field Work compared to SWBT Retail No Field Work. (N, T, C order types).	

29. Measurement	
Percent SWBT Caused Missed Due Dates	
Definition:	
Percent of N, T, and C orders where installation was not completed by the due date as a result of a SWBT caused missed due date.	
Exclusions:	
Excludes orders that are not N, T, or C.	
Business Rules:	
The due date is the negotiated date by the customer and the SWBT representative for service activation. For CLEC orders, the due date is the due date reflected on the FOC. The Completion Date is the day that SWBT personnel complete the UNE Combos, are reported at order level.	
Levels of Disaggregation:	
POTS • Field Work (FW) • No Field Work (NFW) • Business class of service • Residence class of service UNE Combo • Field Work (FW) • No Field Work (NFW)	
Calculation:	**Report Structure:**
(Count of N, T, C orders not completed by the due date as a result of a SWBT caused missed due date ÷ total number of orders) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Resale POTS parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types). UNE Combo Parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work. (N, T, and C order types).	

30. Measurement	
Percent Company Missed Due Dates Due To Lack Of Facilities	
Definition:	
Percent N, T, and C orders with missed committed due dates due to lack of facilities.	
Exclusions:	
Excludes orders that are not N, T, or C.	
Business Rules:	
The due date is the negotiated date by the customer and the SWBT representative for service activation. CLEC orders, the due date is the due date reflected on the FOC. The Completion Date is the day that SWBT personnel complete the service order activity. UNE Combos are reported at order level. The lack of facilities is selected based on the missed reason code.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service POTS / UNE Combo • > 30 calendar days • > 90 calendar days	
Calculation:	**Report Structure:**
(Count of orders with missed due dates due to lack of facilities ÷ total orders completed) * 100 (Calculated monthly based on posted orders)	Reported for CLEC, all CLECs and SWBT Retail for POTS.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Resale POTS parity compared to SWBT (N, T, and C order types). UNE Combo Parity compared to SWBT (N, T, C order types).	

31. Measurement

Average Delay Days For Missed Due Dates Due To Lack Of Facilities

Definition:

Average calendar days from due date to completion date on company missed orders due to lack of facilities.

Exclusions:

- Excludes orders that are not N, T, or C.
- Excludes No Field Work (NFW).

Business Rules:

The due date is the negotiated date by the customer and the SWBT representative for service activation. CLEC orders, the due date is the due date reflected on the FOC. The Completion Date is the day that SWBT personnel complete the service order activity.

UNE Combos, are reported at order level. The lack of facilities is based on the missed reason code.

Levels of Disaggregation:

POTS

- Business class of service
- Residence class of service

UNE Combo - None

Calculation:	Report Structure:
Σ(Completion date – due date) ÷ (total # of completed orders with a SWBT caused missed due date due to lack of facilities)	Reported for CLEC, all CLECs and SWBT.

Measurement Type:

Tier 1 – None
Tier 2 – None

Benchmark:

Resale POTS parity between compared to SWBT (N, T, and C order types). UNE Combo Parity between compared to SWBT (N, T, and C order types).

32. Measurement

Average Delay Days For SWBT Caused Missed Due Dates.

Definition:

Average calendar days from due date to completion date on company missed orders.

Exclusions:

- Excludes orders that are not N, T, or C.
- Excludes company delayed orders as a result of lack of facilities.

Business Rules:

The Due Date is the negotiated date by the customer and the SWBT representative for service activation. CLEC orders, the due date is the due date reflected on the FOC. The Completion Date is the day that SWBT personnel complete the service order activity.
Combos are reported at the order level.

Levels of Disaggregation:

POTS
- Business class of service
- Residence class of service

UNE Combo – None

Calculation:	Report Structure:
Σ(Completion date – due date) ÷ (total # of completed orders with a SWBT caused missed due date)	Reported for CLEC, all CLECs and SWBT.

Measurement Type:

Tier 1 – Medium
Tier 2 – None

Benchmark:

Resale POTS parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types). UNE Combo Parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types).

33. Measurement	
Percent SWBT Caused Missed Due Dates > 30 days	
Definition:	
Percent of orders where installation was completed greater than 30 days following the due date.	
Exclusions:	
Excludes orders that are not N, T, or C.	
Business Rules:	
The Due Date is the negotiated date by the customer and the SWBT representative for service activation. CLEC orders, the due date is the due date reflected on the FOC. The Completion Date is the day that SWBT personnel complete the service order activity. UNE Combos, are reported at order level.	
Levels of Disaggregation:	
POTS • Field Work (FW) • No Field Work (NFW) • Business class of service • Residence class of service UNE Combo • Field Work (FW) • No Field Work (NFW)	
Calculation:	**Report Structure:**
(Count of orders completed greater than 30 calendar days following the due date ÷ total # of orders completed) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Resale POTS parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types). UNE Combo Parity between Field Work compared to SWBT Business and Residence Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types).	

34. Measurement	
Count of Orders Canceled After the Due Date Which Were Caused by SWBT	
Definition:	
A count of the total number of orders that were canceled after the order became due. Only orders canceled with SWBT missed codes are included.	
Exclusions:	
Customer delayed orders.	
Business Rules:	
Orders that are cancelled by the customer after the negotiated due date and prior to completion.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service UNE Combinations	
Calculation:	**Report Structure:**
The count of orders cancelled where Cancel Date is > Due Date	Reported for individual CLECs and the aggregate of all CLECs and SWBT. Count is divided into 1-30 delay days / 31-90 delay days / > 90 delay days.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Diagnostic. No benchmark required.	

35. Measurement	
Percent Trouble Report Within 10 Days (I-10) of Installation	
Definition:	
Percent of N, T, C orders that receive an electronic or manual trouble report on or within 10 calendar days of service order completion.	
Exclusions:	
• Excludes subsequent reports. A subsequent report is a repair report that is received while an existing repair report is open on the same number. • Excludes disposition code "13" reports (excludable reports), with the exception of code 1316, unless the trouble report is taken prior to completion of the service order. • Excludes reports caused by customer provided equipment (CPE) or wiring. • Excludes trouble report received on the due date before service order completion.	
Business Rules:	
Includes reports received the day after SWBT personnel complete the service order through 10 calendar days after completion	
Levels of Disaggregation:	
N, T and C Orders POTS • Field Work (FW) • No Field Work (NFW) • Business class of service • Residence class of service UNE Combo • Field Work (FW) • No Field Work (NFW)	
Calculation:	**Report Structure:**
(Count of orders that receive a network customer trouble report within 10 calendar days of service order completion ÷ total # of orders) * 100	Reported for POTS Resale by CLEC, total CLECs and SWBT.

Measurement Type:
Tier 1 – High Tier 2 – High
Benchmark:
Resale POTS parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types). UNE Combo Parity between Field Work compared to SWBT Field Work (N, T, and C order types) and No Field Work compared to SWBT Retail No Field Work (N, T, and C order types).

36. Measurement	
Percent No Access (Service Orders With No Access)	
Definition:	
Percent of Field Work (FW) orders with a status of "No Access."	
Exclusions:	
• Excludes customer caused misses. (SL – customer requests later date, SO – other customer reasons, SR - customer not ready). • Excludes all orders that are not N, T, or C. • No Field Work.	
Business Rules:	
SWBT personnel set the "No Access" flag when access cannot be obtained to the customer's premises.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service UNE Combo - None	
Calculation:	**Report Structure:**
Count of orders that are No Access ÷ Total Field Work orders	Reported for CLEC, total CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Resale POTS parity between Field Work compared to SWBT Field Work (N, T, and C order types). UNE Combo Parity between Field Work compared to SWBT Field Work (N, T, and C order types). .	

Maintenance

37. Measurement	
Trouble Report Rate	
Definition:	
The number of electronic or manual customer trouble reports per 100 lines.	
Exclusions:	
• Excludes reports caused by customer provided equipment (CPE) or wiring. • Excludes all disposition "13" reports (excludable reports), with the exception of code 1316, unless the report is taken prior to the completion of the service order	
Business Rules:	
CLEC and SWBT repair reports are entered into and tracked via WFA. They are downloaded nightly into LMOS. Reports are counted in the month they post to LMOS.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service UNE Combo - None	
Calculation:	**Report Structure:**
[Total number of customer trouble reports ÷ (total lines ÷100)]	Reported for POTS Resale trouble reports by CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
POTS – Parity with SWBT Retail. UNE Combo – Parity with SWBT Business and Residence combined.	

38. Measurement	
Percent Missed Repair Commitments	
Definition:	
Percent of trouble reports not cleared by the commitment time.	
Exclusions:	
• Excludes all disposition code "13" reports (excludable reports), with the exception of code 1316, unless the report is taken prior to the completion of the service order.	
Business Rules:	
The negotiated commitment date and time is established when the repair report is received. The cleared time is the date and time that SWBT personnel clear the repair activity and complete the trouble report. If this is after the commitment time, the report is flagged as a "Missed Commitment."	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service • Dispatch • No Dispatch UNE Combo • Dispatch • No Dispatch	
Calculation:	**Report Structure:**
(Count of trouble reports not cleared by the commitment time ÷ total trouble reports) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
POTS – Parity with SWBT Retail. UNE Combo – Parity with SWBT Business and Residence combined.	

39. Measurement

Receipt To Clear Duration

Definition:

Average duration of customer trouble reports from the receipt of the customer trouble report to the time the trouble report is cleared.

Exclusions:

- Excludes subsequent reports. A subsequent report is one that is received while an existing repair report is open.
- Excludes disposition code "13" reports (excludable reports), with the exception of code 1316, unless the report is taken prior to the completion of the service order.

Business Rules:

The clock starts on the date and time SWBT receives a trouble report. The clock stops on the date and time that SWBT personnel clear the repair activity and complete the trouble report in WFA.

Levels of Disaggregation:

POTS

- Business class of service
- Residence class of service
- Dispatch
- No Dispatch
- Affecting Service
- Out of Service

UNE Combo

- Dispatch
- No Dispatch
- Affecting Service
- Out of Service

Calculation:	Report Structure:
Σ[(Date and time SWBT clears ticket with the CLEC) - (Date and time ticket received)] ÷ Total customer trouble reports	Reported for POTS Resale trouble reports by CLEC, all CLECs and SWBT.

Measurement Type:

Tier 1 – High
Tier 2 – High

Benchmark:

POTS – Parity with SWBT Retail.
UNE Combo – Parity with SWBT Business and Residence combined.

40. Measurement	
Percent Out Of Service (OOS) < 24 Hours	
Definition:	
Percent of OOS trouble reports cleared in less than 24 hours.	
Exclusions:	
• Excludes subsequent reports. A subsequent report is one that is received while an existing repair report is open. • Excludes disposition code "13" reports (excludable reports), with the exception of code 1316, unless the report is taken prior to the completion of the service order. • Excludes reports marked as "No Access" to customer premises. • Excludes Affecting Service reports.	
Business Rules:	
Customer trouble reports are cleared within 24 hours when: • The customer report is received Monday through Friday cleared within 24 hours. • The customer report is received Saturday and cleared within 48 hours. • The customer report is received Sunday and cleared before midnight Monday. • Holidays are excluded.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service UNE Combo - None	
Calculation:	**Report Structure:**
(Count of OOS trouble reports < 24 hours ÷ total number of OOS trouble reports) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
POTS – Parity with SWBT Retail. UNE Combo – Parity with SWBT Business and Residence combined.	

41. Measurement	
Percent Repeat Reports	
Definition:	
Percent of customer trouble reports received within 10 calendar days of a previous customer report.	
Exclusions:	
• Excludes subsequent reports. A subsequent report is one that is received while an existing repair report is open. • Excludes disposition code "13" reports (excludable reports), with the exception of code 1316, unless the report is taken prior to the completion of the service order. • Excludes reports caused by customer provided equipment (CPE) or wiring.	
Business Rules:	
Includes customer trouble reports received within 10 calendar days of an original customer report. When the second report is received in 10 days, the original report is marked as an Original of a Repeat, and the second report is marked as a Repeat. If a third report is received within 10 days, the second report is marked as an Original of a Repeat as well as being a Repeat, and the third report is marked as a Repeat. In this case there would be two repeat reports.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service UNE Combo - None	
Calculation:	**Report Structure:**
Count of customer trouble reports, not caused by CPE or wiring and excluding subsequent reports, received within 10 calendar days of a previous customer report ÷ total customer trouble reports not caused by CPE or wiring and excluding subsequent reports) * 100	Reported by CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
POTS – Parity with SWBT Retail. UNE Combo – Parity with SWBT Business and Residence combined.	

42. Measurement	
Percent No Access (Percent of Trouble Reports with No Access)	
Definition:	
Percentage of dispatched customer trouble reports with a status of "No Access."	
Exclusions:	
• Excludes subsequent reports. A subsequent report is one that is received while an existing repair report is open. • Excludes disposition code "13" reports (excludable reports), with the exception of code 1316, unless the report is taken prior to the completion of the service order. • Excludes reports that are not dispatched.	
Business Rules:	
SWBT personnel set the "No Access" flag when access cannot be obtained at the customer's premises.	
Levels of Disaggregation:	
POTS • Business class of service • Residence class of service UNE Combo - None	
Calculation:	**Report Structure:**
Count of trouble reports with a status of "No Access" to customer's premises ÷ Total dispatched customer trouble reports	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
POTS – Parity with SWBT Retail. UNE Combo – Parity with SWBT Business and Residence combined.	

RESALE SPECIALS AND UNE LOOP AND PORT COMBINATIONS COMBINED BY SWBT (EXCLUDES "ACCESS" ORDERS)

Provisioning

43. Measurement	
Average Installation Interval	
Definition:	
Average business days from application date to completion date for N, T, and C orders by item or circuit.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C. • Excludes circuits that have a customer requested Due Date greater than 20 business days. • Excludes Weekends and Holidays.	
Business Rules:	
The Application Date is the day that the customer initiated the service request. The Completion Date is the day that SWBT personnel complete the service order activity by circuit. The base of items is out of WFA (Work Force Administration) and it is reported at an item or circuit level.	
Levels of Disaggregation:	
• Resold Specials - DDS, DS1, DS3, Voice Grade Private Line (VGPL), ISDN, and any other services available for resale. • UNE Loop and Port - ISDN and other combinations.	
Calculation:	**Report Structure:**
[Σ(completion date - application date)] ÷ (Total number of circuits completed)	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT Retail.	

44. Measurement	
Percent Installations Completed Within 20 Calendar Days.	
Definition:	
Percent installations completed within 20 calendar days.	
Exclusions:	
See Measurement No. 43	
Business Rules:	
See Measurement No. 43	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
(Count of circuits installed within 20 calendar days ÷ total circuits) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Parity with SWBT Retail.	

45. Measurement	
Percent SWBT Caused Missed Due Dates	
Definition:	
Percentage of N, T, and C orders by circuit where installations were not completed by the due date.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C.	
Business Rules:	
The Due Date is the negotiated date that is returned on the FOC by SWBT for service activation. The Completion Date is the day that SWBT personnel complete the service order activity. The source is WFA (Work Force Administration) and is at an item or circuit level. Specials are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
(Count of circuits with missed due dates excluding customer caused misses ÷ total number of circuits) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT Retail.	

46. Measurement	
Percent Installation Reports (Trouble Reports) Within 30 Days (I-30) of Installation	
Definition:	
Percent of N, T, and C orders by circuit that receive a network customer trouble report within 30 calendar days of service order completion.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C. • Excludes trouble report received on the due date before service order completion.	
Business Rules:	
A trouble report is counted if it is flagged on WFA (Work Force Administration) as a trouble report that had a service order completion within 30 days. It cannot be a repeat report and must be a measured report. The order flagged against must be an addition in order for the trouble report to be counted. Specials are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
[Count of circuits that receive a network customer trouble report within 30 calendar days of service order completion ÷ total circuits (excludes trouble reports received on the due date)]* 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT Retail.	

47. Measurement	
Percent Missed Due Dates Due To Lack Of Facilities	
Definition:	
Percentage of N, T, and C orders by circuit with missed committed due dates due to lack of facilities.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C.	
Business Rules:	
The Due Date starts the clock. The Completion Date is the day that SWBT personnel complete the service order activity, which stops the clock. The source is WFA (Work Force Administration) and is at an item or circuit level. Specials are selected based on a specific service code off of the circuit ID and by selected center names that indicate resale. The lack of facilities is selected based on the missed reason code.	
Levels of Disaggregation:	
• See Measurement No. 43 • Reported for > 30 calendar days & > 90 calendar days.	
Calculation:	**Report Structure:**
(Count of circuits with missed committed due dates due to lack of facilities ÷ total circuits) * 100	Reported for Specials Resale by CLEC, all CLECs and SWBT Retail.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity with SWBT Retail.	

48. Measurement	
Delay Days for Missed Due Dates Due to Lack Of Facilities	
Definition:	
Average calendar days from due date to completion date on company missed circuit orders due to lack of facilities.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C.	
Business Rules:	
The calculation is the difference in calendar days between the completion date and the due date. The source is WFA (Work Force Administration) and is at an item or circuit level. Specials are selected based on a specific service code off of the circuit ID and by selected center names that indicate resale. The lack of facilities is based on the missed reason code.	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
Σ(Completion date - Committed circuit due date) ÷ (# of completed circuits with SWBT caused missed due dates due to lack of facilities)	Reported for CLEC, all CLECs and SWBT Retail Specials.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Parity with SWBT Retail.	

49. Measurement	
Delay Days For SWBT Caused Missed Due Dates	
Definition:	
Average calendar days from due date to completion date on company missed circuit orders.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C.	
Business Rules:	
The calculation is the difference in calendar days between the completion date and the due date. The source is WFA (Work Force Administration) and is at an item or circuit level. Specials are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
Σ(Completion date – committed circuit due date) ÷ (# of posted – circuits with a SWBT caused missed due date)	Reported for CLEC, all CLECs and SWBT Retail Specials.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
Parity with SWBT Retail.	

50. Measurement	
Percent SWBT Caused Missed Due Dates > 30 days	
Definition:	
Percentage of circuits where installation was completed greater than 30 days following the due date, excluding customer caused misses.	
Exclusions:	
• UNE and Interconnection Trunks. • Excludes orders that are not N, T, or C.	
Business Rules:	
See Measurement No. 49	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
Count of circuits completed greater than 30 days following the due date, excluding customer caused misses ÷ total number of circuits) * 100	Reported for CLEC, all CLECs and SWBT for Retail Specials.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity with SWBT Retail.	

51. Measurement	
Count of Orders Canceled After the Due Date That Were Caused by SWBT – SPECIALS – Provisioning	
Definition:	
A count of the total number of orders that were canceled by the CLEC after the order became due. Only orders cancelled with SWBT missed codes are included.	
Exclusions:	
• UNE, and Interconnection Trunk • Excludes orders that are not N, T, or C	
Business Rules:	
Orders that are cancelled by the customer after the negotiated due date and prior to completion.	
Levels of Disaggregation:	
• See Measurement No. 43. • The count will be divided into 1-30, 31-90 and > 90.	
Calculation:	**Report Structure:**
The count of orders cancelled where Cancel Date > Due Date	Reported for individual CLECs, the aggregate of all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Diagnostic. No benchmark required.	

Maintenance

Specials are all treated as Out of Service repair reports. There is no classification or disaggregation of Affecting Service.

52. Measurement	
Mean Time To Restore	
Definition:	
Average duration of network customer trouble reports from the receipt of the customer trouble report to the time the trouble report is cleared.	
Exclusions:	
• UNE and Interconnection Trunk. • No Access Time. • Delayed Maintenance Time.	
Business Rules:	
The start time is when the customer report is received and the stop time is when the report is closed in WFA. Specials are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
See Measurement No. 43 • Dispatch In • Dispatch Out	
Calculation:	**Report Structure:**
Σ[(Date and time trouble report is cleared with the customer) - (date and time trouble report is received)] ÷ total network customer trouble reports	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT Retail.	

53. Measurement	
Percent Repeat Reports	
Definition:	
Percentage of network customer trouble reports received within 30 calendar days of a previous customer report.	
Exclusions:	
UNE and Interconnection Trunk	
Business Rules:	
Includes customer trouble reports received within 30 calendar days of an original customer report. When the second report is received in 30 days, the original report is marked as an Original of a Repeat, and the second report is marked as a Repeat. If a third report is received within 30 days, the second report is marked as an Original of a Repeat as well as being a Repeat, and the third report is marked as a Repeat. In this case there would be two repeat reports.	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
Count of network customer trouble reports received within 30 calendar days of a previous customer report ÷ total network customer trouble reports) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT Retail.	

54. Measurement	
Failure Frequency	
Definition:	
The number of network customer trouble reports within a calendar month per 100 circuits.	
Exclusions:	
UNE and Interconnection Trunks	
Business Rules:	
CLEC and SWBT repair reports are entered into and tracked via WFA. Reports are counted in the month they post.	
Levels of Disaggregation:	
See Measurement No. 43	
Calculation:	**Report Structure:**
[Count of network trouble reports ÷ (Total Resold circuits ÷100)]	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity with SWBT Retail.	

UNBUNDLED NETWORK ELEMENTS (UNES)

Provisioning

55. Measurement	
Average Installation Interval	
Definition:	
Average business days from application date to completion date for N, T, and C orders excluding customer caused misses and customer requested due date greater than "X" business days. The "X" business days is determined based on quantity of UNE loops ordered and the associated standard interval.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes UNE Combos captured in the POTS or Specials measurements. • Exclude orders that are not N, T, or C. • Excludes customer requested due dates greater than "X" business days as set out in Measurement No. 56. • Excludes customer caused misses. • Excludes Weekends and Holidays.	
Business Rules:	
The Application Date is the day that the customer initiated the service request. The Completion Date is the day that SWBT personnel complete the service order activity. The base of items is out of WFA (Work Force Administration) and it is reported at an order level to account for different measurement standards based on the number of circuits per order.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
[Σ(completion date - application date)] ÷ (Total number of orders completed)	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
See Measurement No. 56	

24. Measurement	
Local Operations Center (LOC) Average Speed Of Answer	
Definition:	
The average time a customer is in queue.	
Exclusions:	
None	
Business Rules:	
The clock starts when the customer enters the queue and the clock stops when the SWBT representative answers the call. The speed of answer is determined by measuring and accumulating the elapsed time from the entry of a CLEC customer call into the SWBT call management system queue until the CLEC customer call is transferred to SWBT personnel assigned to handling CLEC calls for assistance. Data is accumulated from 12:00 a.m. on the first calendar day to 11:59 p.m. on the last calendar day of the month for the reporting period. The Measure includes calls to the LOC related to provisioning activities, e.g., coordinated conversions, as well as maintenance activities.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Total queue time ÷ total calls	Reported for all calls to the LOC for all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Parity with SWBT CSB	

25. Measurement	
Local Operations Center (LOC) Grade Of Service (GOS)	
Definition:	
Percent of calls answered by the Local Operations Center (LOC) within a specified period of time.	
Exclusions:	
See Measurement No. 24	
Business Rules:	
See Measurement No. 24 – Calls answered within 20 seconds.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Total number of calls answered by the LOC within a specified period of time ÷ total number of calls answered by the LOC	Reported for all calls to the LOC by operational separation and SWBT Retail (Repair Bureau).
Measurement Type:	
Tier 1 – None Tier 2 – High	
Benchmark:	
Parity with SWBT CSB	

26. Measurement	
Percent Busy in the Local Operations Center (LOC)	
Definition:	
Percent of calls which are unable to reach the Local Operations Center (LOC) due to a busy condition in the ACD.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 24	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of blocked calls ÷ total calls offered) * 100	Reported for all CLECs and SWBT.
Measurement Type:	
Tier 1 – None Tier 2 – Low	
Benchmark:	
Parity with SWBT CSB	

55.1 Measurement	
Average Installation Interval - DSL	
Definition:	
Average calendar days from application date to completion date for N, T, and C orders excluding customer caused misses and customer requested due date greater than the offered interval.	
Exclusions:	
• Exclude orders that are not N, T, or C. • Excludes customer requested due dates greater than the offered interval. • Excludes customer caused misses. • Excludes Weekends and Holidays.	
Business Rules:	
The Application Date is the day that the customer authorizes SWBT to provision the DSL based on the loop qualification. If the loop qualification determines that no conditioning is required, SWBT will initiate the service order when the loop qualification is returned from SWBT engineering and this date will be the application date. If conditioning is required, SWBT will reject the LSR back to the CLEC and wait for a supplement from the CLEC notifying SWBT of the appropriate action to take. If the CLEC supplements the LSR to order the DSL, SWBT will issue the order and the application date will be the date that SWBT receives the supplement. The Completion Date is the day that SWBT personnel complete the service order activity. The base of items is out of WFA (Work Force Administration) and it is reported at a circuit level.	
Levels of Disaggregation:	
Loops requiring conditioning and loops requiring no conditioning.	
Calculation:	**Report Structure:**
[Σ(completion date - application date)] ÷ (Total number of orders completed)	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Yes Tier 2 – Yes	
Benchmark:	
Parity with SWBT	

55.2 Measurement

Average Installation Interval for Loop With LNP

Definition:

Average business days from FOC return date to completion date for N, T, and C orders excluding customer caused misses and customer requested due date greater than "X" business days. The "X" business days is determined based on quantity of UNE loops ordered and the associated standard interval.

Exclusions:

- Specials and Interconnection Trunks.
- Excludes UNE Combos captured in the POTS or Specials measurements.
- Excludes orders that are not N, T, or C.
- Excludes customer requested due dates greater than "X" business days as set out in Measurement No. 56.1.
- Excludes customer caused misses.
- Excludes Weekends and Holidays.

Business Rules:

The FOC return date is the day that SWBT returns the FOC to the CLEC. The Completion Date is the day that SWBT personnel complete the service order activity. If the CLEC submits the LSR prior to 3:00 p.m. the CLEC may request a 3 day interval. If the LSR is submitted after 3:00 p.m. the CLEC can request a 4 day interval. The base of items is out of WFA (Work Force Administration) and it is reported at an order level to account for different measurement standards based on the number of circuits per order.

Industry guidelines for due dates for LNP are as follows:

- For Offices in which NXXs are previously opened – 3 Business Days.
- New NXX – 5 Business days on LNP capable NXX.

The above-noted due dates are from the date of the FOC receipt.

For partial LNP conversions that require restructuring of customer account:

- 1-30 TNs: Add one additional day to the FOC interval. The LNP due date intervals will continue to be three business days and five business days from the receipt of the FOC depending on whether the NXX has been previously opened or is new.
- >30 TNs, including entire NXX: The due dates are negotiated.

Levels of Disaggregation:

UNEs contained in the UNE price schedule, and/or agreed to by parties. See Benchmark below.

Calculation:	Report Structure:

[Σ(completion date - application date)] ÷ (Total number of orders completed)	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
See Measurement No. 56.1	

56. Measurement	
Percent Installations Completed Within "X" Days	
Definition:	
Percent installations completed within "X" business days excluding customer caused misses and customer requested due date greater than "X" business days.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes UNE Combos captured in the POTS or Specials measurements. • Exclude orders that are not N, T, or C. • Excludes customer requested due dates greater than "X" business days as set out below. • Excludes customer caused misses.	
Business Rules:	
See Measurement No. 55	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
Count of N, T, C orders installed within business "x" business days ÷ total N, T, C orders) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – High Tier 2 – High	

Benchmark:

95% within "X" days

- 2 Wire Analog and Digital and INP (1-10) – 3 Days
- 2 Wire Analog and Digital and INP (11-20) – 7 Days
- 2 Wire Analog and Digital and INP (20+) – 10 Days
- DS1 loop(includes PRI) (1-10) – 3 Days
- DS1 loop(includes PRI) (11-20) – 7 Days
- DS1 loop(includes PRI) (20+) – 10 Days
- XDSL loop (1-10) – 3 Days
- XDSL loop (11-20) – 7 Days
- XDSL loop (20+) – 10 Days
- Switch Ports – Analog Port – 2 Days
- Switch Ports – BRI Port (1-50) – 3 Days
- Switch Ports – BRI Port (50+) – 5 Days
- Switch Ports – PRI Port (1-20) – 5 Days
- Switch Ports – PRI Port (20+) – 10 Days
- DS1 Trunk Port (1 to 10) – 3 Days
- DS1 Trunk Port (11 to 20) – 5 Days
- DS1 Trunk Port (20+) – ICB
- Dedicated Transport (DS0, DS1, and DS3) (1 to 10) – 3 Days
- Dedicated Transport (DS0, DS1, and DS3) (11 to 20) – 5 Days
- Dedicated Transport (DS0, DS1, and DS3) (20+) and all other types – ICB

56.1 Measurement	
Percent Installations Completed Within Industry Guidelines for LNP With Loop	
Definition:	
Percent installations completed within "X" business days excluding customer caused misses and customer requested due date greater than "X" business days.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes UNE Combos captured in the POTS or Specials measurements. • Exclude orders that are not N, T, or C. • Excludes customer requested due dates greater than "X" business days as set out below. • Excludes customer caused misses. • CLEC or Customer caused or requested delays. • NPAC caused delays unless caused by SWBT.	
Business Rules:	
See Measurement No. 55.2	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
Count of N, T, C orders installed within business "x" business days ÷ total N, T, C orders) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
95% within "X" days • 2 Wire Analog and Digital and INP (1-10) – 3 Days from receipt of FOC • DS1 loop(includes PRI) – 3 Days from receipt of FOC	

57. Measurement	
Average Response Time for Loop Make-Up Information	
Definition:	
The average time required to provide loop qualification for ADSL.	
Exclusions:	
None	
Business Rules:	
The time starts when a request is received by the CLEC and ends when the information on the loop qualification has been made available to the CLEC.	
Levels of Disaggregation:	
ADSL or other DSL as determined by the Public Utility Commission of Texas.	
Calculation:	**Report Structure:**
Σ(Date and Time the Loop Qualification is made available to CLEC – Date and Time the CLEC request is received)/Total number of loop qualifications	CCLEC, All CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – Medium	
Benchmark:	
Parity	

58. Measurement	
Percent SWBT Caused Missed Due Dates	
Definition:	
Percentage of UNEs (8db loops are measured at an order level) where installations are not completed by the negotiated due date.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes UNE Combos captured in the POTS or Specials measurements. • Exclude orders that are not N, T, or C. • Excludes customer caused misses.	
Business Rules:	
The Due Date starts the clock. The Completion Date is the day that SWBT personnel complete the service order activity, which stops the clock. If the completion date is after the Due Date, the order is flagged as a miss. This measurement is reported at a circuit level for all UNEs with the exception of 8db loops, which are reported at an order level to facilitate comparison with POTS retail.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties (Field Work and No Field Work) .	
Calculation:	**Report Structure:**
Count of UNEs (8dB loops are measured at an order level)with missed due dates excluding customer caused misses ÷ total number of UNEs (total orders for 8db loops) *100	Reported for CLEC and all CLECs.

Measurement Type:	
Tier 1 – High	
Tier 2 – High	
Benchmark:	
Parity:	Retail Comparison
1. 8.0 dB Loop with Test Access and 8.0 dB Loop without Test Access (FW)	POTS (Res/Bus FW)
1a. 8.0 dB Loop with Test Access and 8.0 dB Loop without Test Access (NFW)	POTS (Res/Bus NFW)
2. 5.0 dB Loop with Test Access and 5.0 dB Loop without Test Access	VGPL
3. BRI Loop with Test Access	ISDN
4. ISDN BRI Port	ISDN
5. DS1 Loop with Test Access	DS1
6. DS1 Dedicated Transport	DS1
7. Subtending Channel (23B)	DDS
8. Subtending Channel (1D)	DDS
9. Analog Trunk Port	VGPL
10. Subtending Digital Direct Combination Trunks	VGPL
11. DS3 Dedicated Transport	DS3
12. Dark Fiber	DS3
13. DSL Loops	DS1

59. Measurement	
Percent Installation Reports (Trouble Reports) Within 30 Days (I-30) of Installation	
Definition:	
Percentage of UNEs (8db loops are measured at an order level) that receive a network customer trouble report within 30 calendar days of service order completion.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes Non-measured reports (CPE, Interexchange, and Information reports). • Excludes UNE Combos captured in the POTS or Specials measurements. • Excludes trouble report received on the due date before service order completion. • Excludes orders that are not N, T, or C.	
Business Rules:	
A trouble report is counted if it is received within 30 days of a service order completion. The service order which generated the report must be an add in order for the trouble report to be counted. UNEs are selected based on a specific service code off of the circuit ID. This measurement is reported at a circuit level for all UNEs with the exception of 8db loops, which are reported at an order level to facilitate comparison with POTS retail.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
(Count of UNEs (8db loops are measured at an order level) that receive a network customer trouble report within 30 calendar days of service order completion ÷ total UNEs (total orders for 8db loops)) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
See Measurement 58	

61. Measurement	
Average Delay Days for Missed Due Dates Due To Lack Of Facilities	
Definition:	
Average calendar days from due date to completion date on company missed UNEs (8db loops are measured at an order level) orders due to lack of facilities.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes UNE Combos captured in the POTS or Specials measurements. • Excludes orders that are not N, T, or C.	
Business Rules:	
The calculation is the difference in calendar days between the completion date and the due date. The source is WFA (Work Force Administration) and is at an item or circuit level. UNEs are selected based on a specific service code off of the circuit ID. The lack of facilities is selected based on the missed reason code. This measurement is reported at a circuit level for all UNEs with the exception of 8db loops, which are reported at an order level to facilitate comparison with POTS retail.	
Levels of Disaggregation:	
• UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
Σ(Completion date - committed UNE (8db loops are measured at the order level) due date) ÷ (# of completed UNEs (total completed orders for 8db loops) with SWBT caused missed due dates due to lack of facilities)	Reported for CLEC and all CLECs for UNEs contained in the UNE price schedule.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
See Measurement No. 58	

62. Measurement	
Average Delay Days For SWBT Caused Missed Due Dates	
Definition:	
Average calendar days from due date to completion date on company missed UNEs (8db loops are measured at an order level).	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes UNE Combos captured in the POTS or Specials measurements. • Excludes orders that are not N, T, or C.	
Business Rules:	
The calculation is the difference in calendar days between the completion date and the due date. The source is WFA (Work Force Administration) and is at an item or circuit level. UNEs are selected based on a specific service code off of the circuit ID. This measurement is reported at a circuit level for all UNEs with the exception of 8db loops, which are reported at an order level to facilitate comparison with POTS retail.	
Levels of Disaggregation:	
See Measurement 58	
Calculation:	**Report Structure:**
∑(Completion date – committed UNE (8db loops are measured at the order level) due date) ÷ (# of posted UNEs (total completed orders for 8db loops) with SWBT caused missed due dates)	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
See Measurement No. 58	

63. Measurement	
Percent SWBT Caused Missed Due Dates > 30 days	
Definition:	
Percentage of UNEs (8db loops are measured at an order level)where installation was completed greater than 30 days following the due date, excluding customer caused misses.	
Exclusions:	
Specials and Interconnection Trunks	
Business Rules:	
See Measurement No. 58	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
(Count of UNEs (8db loops are measured at an order level) completed greater than 30 days following the due date, excluding customer caused misses ÷ total number of total UNEs (total orders for 8db loops)) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
See Measurement No. 58	

64. Measurement	
Count of Orders Canceled After the Due Date Which Were Caused by SWBT – UNE – Provisioning	
Definition:	
A count of the total number of orders that were canceled after the order became due. Only orders canceled with SWBT missed codes are included.	
Exclusions:	
None	
Business Rules:	
Orders that are cancelled by the customer after the negotiated due date and prior to completion.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
The count of orders cancelled where Cancel Date is > Due Date	The count will be divided into 1-30, 31-90 and > 90. Reported for individual CLECs and the aggregate of all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Diagnostic. No benchmark required.	

Maintenance

65. Measurement	
Trouble Report Rate	
Definition:	
The number of network customer trouble reports within a calendar month per 100 UNEs.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes Non-measured reports (CPE, Interexchange, and Information reports). • Excludes UNE Combos captured in the POTS or Specials measurements.	
Business Rules:	
Repair reports are entered into and tracked via WFA. Reports are counted in the month they post.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
[Count of network trouble reports ÷ (Total UNEs ÷ 100)]	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
See Measurement No. 58	

66. Measurement	
Percent Missed Repair Commitments	
Definition:	
Percentage of trouble reports not cleared by the commitment time for SWBT reasons.	
Exclusions:	
• Specials and Interconnection Trunks. • Excludes all UNE Combos other than 8db loops with test access.	
Business Rules:	
The commitment time is defined as 24 hours. If the cleared date and time minus the receive date and time > 24 hours, it counts as a trouble report that missed the repair commitment. UNEs are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
"POTS type" loops (2-Wire Analog 8dB Loop) with test access.	
Calculation:	**Report Structure:**
(Count of trouble reports not cleared by the commitment time for company reasons ÷ total trouble reports) * 100	Reported for each CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT POTS Business and Residence combined.	

67. Measurement	
Mean Time To Restore	
Definition:	
Average duration of network customer trouble reports from the receipt of the customer trouble report to the time the trouble report is cleared excluding no access and delayed maintenance.	
Exclusions:	
See Measurement No. 65	
Business Rules:	
The start time is when the report is received. The stop time is the stop time is when the report is cleared in WFA.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties. Also disaggregated by Dispatch/No Dispatch.	
Calculation:	**Report Structure:**
Σ[(Date and time trouble report is cleared with the customer) - (date and time trouble report is received)] ÷ total network customer trouble reports	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
See Measurement No. 58	

68. Measurement	
Percent Out Of Service (OOS) < "X" Hours	
Definition:	
Percentage of OOS trouble reports cleared in less than 24 hours.	
Exclusions:	
See Measurement No. 65	
Business Rules:	
The close date and time minus the receive date and time must be greater than 0 and less than 24 hours for it to count as a trouble report that was cleared in less than 24 hours. All WFA specials trouble tickets are considered to be OSS.	
Levels of Disaggregation:	
By "POTS like" loop (2-Wire Analog 8dB Loop) with test access.	
Calculation:	**Report Structure:**
(Count of UNE OOS trouble reports < 24 hours ÷ total number of UNE OOS trouble reports) * 100	Reported for CLEC, CLECs and SWBT.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
Parity with SWBT POTS Business and Residence combined.	

69. Measurement	
Percent Repeat Reports	
Definition:	
Percentage of network customer trouble reports received within 30 calendar days of a previous customer report.	
Exclusions:	
See Measurement No. 65	
Business Rules:	
Includes customer trouble reports received within 30 calendar days of an original customer report. When the second report is received in 30 days, the original report is marked as an Original of a Repeat, and the second report is marked as a Repeat. If a third report is received within 10 days, the second report is marked as an Original of a Repeat as well as being a Repeat, and the third report is marked as a Repeat. In this case there would be two repeat reports. If either the original or the second report within 30 days is a measured report, then the second report counts as a Repeat report.	
Levels of Disaggregation:	
UNEs contained in the UNE price schedule, and/or agreed to by parties.	
Calculation:	**Report Structure:**
Count of network customer trouble reports received within 30 calendar days of a previous customer report ÷ total network customer trouble reports) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
See Measurement No. 58	

INTERCONNECTION TRUNKS

70. Measurement:

Percentage of Trunk Blockage

Definition:

Percentage of calls blocked on outgoing traffic from SWBT end office to CLEC end office and from SWBT tandem to CLEC end office.

Exclusions:

No penalties or liquidated damages apply:

- If CLECs have trunks busied-out for maintenance at their end, or if they have other network problems which are under their control.
- SWBT is ready for turn-up on Due Date and CLEC is not ready or not available for turn-up of trunks.
- If CLEC does not take action upon receipt of Trunk Group Service Request (TGSR) or ASR within 3 days when a Call Blocking situation is identified by SWBT or in the timeframe specified in the ICA.
- If CLEC fails to provide a forecast.
- If CLEC's actual trunk usage, as shown by SWBT from traffic usage studies, is more than 25% above CLEC's most recent forecast, which must have been provided within the last six-months unless a different timeframe is specified in an interconnection agreement.

The exclusions do not apply if SWBT fails to timely provide CLEC with traffic utilization data reasonably required for CLEC to develop its forecast or if SWBT refuses to accept CLEC trunk orders (ASRs or TGSRs) that are within the CLEC's reasonable forecast regardless of what the current usage data is.

Business Rules:

Blocked calls and total calls are gathered during the official study week each month. This week is chosen from a pre-determined schedule.

Levels of Disaggregation:

- The SWBT end office to CLEC end office and SWBT tandem to CLEC end office trunk blockage will be reported separately.
- By Market Region.

Calculation:	Report Structure:
(Count of blocked calls ÷ total calls offered) * 100	Reported for CLEC, all CLECs and SWBT.

Measurement Type:

Tier-1 High
Tier-2 High

Benchmark:

Dedicated Trunk Groups not to exceed blocking standard of B.01.

70.1 Measurement:
Count of Blocked calls Excluded from Measurement No. 70
Definition:
Count of Blocked calls excluded from the numerator of measurement No. 70
Exclusions:
None
Business Rules:
Blocked calls and total calls are gathered during the official study week each month. This week is chosen from a pre-determined schedule.
Levels of Disaggregation:
• The SWBT end office to CLEC end office and SWBT tandem to CLEC end office trunk blockage will be reported separately. • By Market Region. • Count of Blocked calls excluded because of the following reasons reported on a disaggregated basis and the total count of excluded calls; • CLECs had trunks busied-out for maintenance at their end, or if they had other network problems which are under their control. • SWBT was ready for turn-up on Due Date and CLEC was not ready or not available for turn-up of trunks. • CLEC did not take action upon receipt of Trunk Group Service Request (TGSR) or ASR within 3 days when a Call Blocking situation was identified by SWBT or in the timeframe specified in the ICA. • CLEC failed to provide a forecast. • CLEC's actual trunk usage, as shown by SWBT from traffic usage studies, was more than 25% above CLEC's most recent forecast, which must have been provided within the last six-months unless a different timeframe is specified in an interconnection agreement.

Calculation:	Report Structure:
Count of Blocked Calls	Reported for CLEC, all CLECs
Measurement Type:	
Tier-1 None Tier-2 None	
Benchmark:	
Diagnostic Measurement	

71. Measurement:	
Common Transport Trunk Blockage	
Definition:	
Percentage of local common transport trunk groups exceeding 2%, 1% blockage.	
Exclusions:	
No data is collected on weekends	
Business Rules:	
Blocked calls and total calls are gathered during the official study week each month. This week is chosen from a pre-determined schedule. The busy hour of the study week is used for comparison.	
Levels of Disaggregation:	
• Common trunk groups where CLECs share ILEC trunks, and Common trunk groups for CLECs not shared by ILEC. • By Market Region.	
Calculation:	**Report Structure:**
(Number of common transport trunk groups exceeding 2%, 1% blocking ÷ total common transport trunk groups) * 100.	Reported on local common transport trunk groups.
Measurement Type:	
Tier-1 None Tier-2 High	
Benchmark:	
PUC Subst. R. 23.61(e)(5)(A) or parity, whichever allows less blocking in a given month. SWBT shall compare common trunk groups exceeding 1% blockage, reported for switch based CLECs, be compared to SWBT's dedicated trunk groups designed for B.01 standard for parity compliance.	

72. Measurement	
Distribution Of Common Transport Trunk Groups > 2%/1%.	
Definition:	
A distribution of trunk groups exceeding 2% reflecting the various levels of blocking.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 71	
Levels of Disaggregation:	
By Market Region.	
Calculation:	**Report Structure:**
The number of trunk groups exceeding 2%/1% will be shown in histogram form based on the levels of blocking	Reported on local common transport trunk groups.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

73. Measurement	
Percentage Missed Due Dates – Interconnection Trunks	
Definition:	
Percentage of trunk order due dates missed on interconnection trunks.	
Exclusions:	
Customer Caused Misses	
Business Rules:	
The Due Date starts the clock. The Completion Date is the day that SWBT personnel complete the service order activity and it is accepted by the CLEC, which stops the clock. The source is WFA (Work Force Administration) and is at an item or circuit level. Interconnection trunks are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
By Market Region.	
Calculation:	**Report Structure:**
(Count trunk circuits missed ÷ total trunk circuits) * 100	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
Parity with SWBT interconnection trunks.	

74. Measurement	
Average Delay Days For Missed Due Dates – Interconnection Trunks	
Definition:	
Average calendar days from due date to completion date on company missed interconnection trunk orders.	
Exclusions:	
Customer Caused Misses	
Business Rules:	
The calculation is the difference in calendar days between the completion date (the date the CLEC accepts the circuit) and the due date. The source is WFA (Work Force Administration) and is at an item or circuit level. Interconnection Trunks are selected based on a specific service code off of the circuit ID.	
Levels of Disaggregation:	
By Market Region.	
Calculation:	**Report Structure:**
Σ (Completion date – committed circuit due date) ÷ (# of completed trunk circuits with missed Due Dates)	Reported for CLEC, all CLECs and SWBT for interconnection trunks.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity	

75. Measurement:	
Percentage SWBT Caused Missed Due Dates > 30 Days – Interconnection Trunks	
Definition:	
Percentage of Interconnection Trunk Circuits where installation was completed greater than 30 days following the due date.	
Exclusions:	
Excludes Customer Caused Misses.	
Business Rules:	
See Measurement No. 74	
Levels of Disaggregation:	
By Market Region.	
Calculation:	**Report Structure:**
(Count of SWBT caused interconnection trunk circuits completed greater than 30 days following the due date, ÷ total number of interconnection trunk circuits) * 100.	Reported for CLEC, all CLECs and SWBT for interconnection trunks.
Measurement Type:	
Tier-1 Low Tier-2 None	
Benchmark:	
No more than 2% interconnection trunk orders completed > 30 days.	

76. Measurement	
Average Trunk Restoration Interval – Interconnection Trunks	
Definition:	
Average time to repair interconnection trunks. This measure is based on calendar days.	
Exclusions:	
• Excludes non-measured tickets (CPE, Interexchange, or Information). • No access delayed maintenance.	
Business Rules:	
The source is WFA (Work Force Administration) and is at an item or circuit level. Interconnection Trunks are selected based on the circuit being identified as a message type circuit.	
Levels of Disaggregation:	
By Market Region.	
Calculation:	**Report Structure:**
Total trunk outage duration ÷ total trunk trouble reports	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity	

77. Measurement	
Average Trunk Restoration Interval for Service Affecting Trunk Groups	
Definition:	
The average time to restore service affecting trunk groups.	
Exclusions:	
Customer Caused Outages	
Business Rules:	
Service affecting is defined as 20% of a trunk group out-of-service that causes trunk group blockage. The clock starts on receipt of a trouble ticket from the CLEC that identifies a service affecting condition. The clock stops after completion of work by SWBT.	
Levels of Disaggregation:	
• Tandem trunk groups. • Non-Tandem trunk groups. • By Market Region.	
Calculation:	**Report Structure:**
Total trunk group outage time / total trunk group trouble reports	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Tandem trunk groups – 1 hour / Non-Tandem – 2 hours.	

78. Measurement:	
Average Interconnection Trunk Installation Interval	
Definition:	
The average time from receipt of a complete and accurate ASR until the completion of the trunk order.	
Exclusions:	
• Excludes customer requested due dates greater than 20 business days as set out below.	
Business Rules:	
The clock starts on the receipt of a complete and accurate ASR and the clock stops on the date the work is completed and accepted by the CLEC. The measurement is taken for all ASRs that complete in the reporting period.	
Levels of Disaggregation:	
Interconnection Trunks, SS7 links, OS/DA and 911 trunks.	
Calculation:	**Report Structure:**
Σ(completion date of the trunk order - receipt of complete and accurate ASR) ÷ total trunk orders	Reported by CLEC and all CLECs. (SWBT does not currently have comparable data to report. SWBT will continue to work on methods to collect comparable data).
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
20 Business days.	

DIRECTORY ASSISTANCE (DA) AND OPERATOR SERVICES (OS)

79. Measurement	
Directory Assistance Grade Of Service	
Definition:	
Percentage of directory assistance calls answered < 1.5, < 2.5, > 7.5, > 10.0, > 15.0, > 20.0, and > 25.0 seconds.	
Exclusions:	
None	
Business Rules:	
The clock starts when the customer enters the queue and the clock stops when a SWBT representative answers the call or the customer abandons the call. The length of each call is determined by measuring and accumulating the elapsed time from the entry of a CLEC customer call into the SWBT call management system queue until the CLEC customer call is transferred to SWBT personnel assigned to handling CLEC calls for assistance during hours of operation. Calls are categorized into the above bands to determine the percentage of calls that were answered within "x" seconds.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Calls answered within "x" seconds ÷ total calls answered	Reported for the aggregate of SWBT and CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

80. Measurement	
Directory Assistance Average Speed Of Answer	
Definition:	
The average time a customer is in queue.	
Exclusions:	
None	
Business Rules:	
The clock starts when the customer enters the queue and the clock stops when a SWBT representative answers the call or the customer abandons the call. The length of each call is determined by measuring and accumulating the elapsed time from the entry of a CLEC customer call into the SWBT call management system queue until the CLEC customer call is transferred to SWBT personnel assigned to handling CLEC calls for assistance during hours of operation.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Total queue time ÷ total calls answered	Reported for the aggregate of SWBT and CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – Low	
Benchmark:	
PUC Subst. Rule 23.61.e (3)(A)(iii)	

81. Measurement	
Operator Services Grade Of Service	
Definition:	
Percentage of operator services calls answered < 1.5, < 2.5, > 7.5, > 10.0, > 15.0, > 20.0, and > 25.0 seconds.	
Exclusions:	
None	
Business Rules:	
The clock starts when the customer enters the queue and the clock stops when a SWBT representative answers the call or the customer abandons the call. The length of each call is determined by measuring and accumulating the elapsed time from the entry of a CLEC customer call into the SWBT call management system queue until the CLEC customer call is transferred to SWBT personnel assigned to handling CLEC calls for assistance during hours of operation. Calls are categorized into the above bands to determine the percentage of calls that were answered within "x" seconds.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Calls answered within "x" seconds ÷ total calls answered	Reported for the aggregate of SWBT and CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

82. Measurement	
Operator Services Speed Of Answer	
Definition:	
The average time a customer is in queue.	
Exclusions:	
None	
Business Rules:	
The clock starts when the customer enters the queue and the clock stops when a SWBT representative answers the call or the customer abandons the call. The length of each call is determined by measuring and accumulating the elapsed time from the entry of a CLEC customer call into the SWBT call management system queue until the CLEC customer call is transferred to SWBT personnel assigned to handling CLEC calls for assistance during hours of operation.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Total queue time ÷ total calls answered.	Reported for the aggregate of SWBT and CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – Low	
Benchmark:	
PUC Subst. Rule 23.61.e (3)(A)(1)	

83. Measurement	
Percentage of Calls Abandoned	
Definition:	
The percentage of calls where the customer hangs up while the call is in queue.	
Exclusions:	
SWBT generated test calls.	
Business Rules:	
The clock runs on a 24 hour cycle starting at 6:00 a.m. and ending at 6:00 a.m. This measurement determines the amount of calls that were abandoned against the number of operator positions available during the reporting period in quarter hour intervals.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of calls abandoned ÷ number of operator positions available) * 100	Reported for CLEC and SWBT in the aggregate.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

84. Measurement	
Percentage of Calls Deflected	
Definition:	
The percentage of calls that are received and are unable to be placed in queue	
Exclusions:	
SWBT generated test calls.	
Business Rules:	
The clock runs on a 24 hour cycle starting at 6:00a.m. and ending at 6:00a.m. This measurement determines the amount of calls that are received and deflected to a recording rather than being placed in queue against the number of operator positions available during the reporting period in quarter hour intervals.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of calls deflected ÷ number of operator positions available) * 100	Reported for CLEC and SWBT in the aggregate.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

85. Measurement	
Average Work Time	
Definition:	
The average number of seconds an operator spends handling a customer's request for assistance in obtaining a telephone number, placing a call at the customer's request or in a position busy state.	
Exclusions:	
SWBT generated test calls.	
Business Rules:	
The clock starts when a customer connects to an operator position and stops when the operator position releases the customer after serving his/her request.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ (Time operator position releases customer – time customer connects to an operator position) ÷ calls	Reported for CLEC and SWBT in the aggregate.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

86. Measurement	
Non-Call Busy Work Volumes	
Definition:	
The amount of time in CCS (Centum Call Second) that an operator has placed their position in make busy or in a position busy state.	
Exclusions:	
• SWBT generated test calls. • When an operator is talking to a customer and places the position in a busy state to gather information is excluded from this measurement.	
Business Rules:	
The clock starts when the operator's last customer hangs up (position is placed in busy state) and the clock stops when a call is answered (position is removed from busy state).	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ(Time operator placed position in busy state - time operator removed position from busy state)	Reported for CLEC and SWBT in the aggregate.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
Aggregate measurement. No benchmark required.	

INTERIM NUMBER PORTABILITY (INP)

87. Measurement	
Percentage Installation Completed Within "X" (3, 7, 10) Days	
Definition:	
Percentage of installations completed within "x" (3, 7, 10) business days.	
Exclusions:	
• Excludes customer caused misses. • Excludes customer requested due dates greater than "x" (3, 7, 10) business days. • Excludes Weekends and Holidays.	
Business Rules:	
The Application Date is the day that the customer initiated the service request. The Completion Date is the day that SWBT personnel complete the service order activity. The orders are flagged as INP by USOC codes on the order.	
Levels of Disaggregation:	
• 1-10 numbers • 11-20 numbers • > 20	
Calculation:	**Report Structure:**
Total INP orders installed within "x" (3, 7, 10) business days ÷ total INP orders within "x" (3, 7, 10) business days.	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
90% within "X" business days • 1-10 numbers (3 days) • 11-20 numbers (7 days) • > 20 (10 days)	

88. Measurement	
Average INP Installation Interval	
Definition:	
Average business days from application date to completion date for INP orders.	
Exclusions:	
Excludes customer requested due dates greater than the SWBT standard interval.	
Business Rules:	
See Measurement No. 87	
Levels of Disaggregation:	
See Measurement No. 87	
Calculation:	**Report Structure:**
(Total business days from application to completion date for INP orders ÷ total INP orders) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
For calculation of Tier 1 damages, see Measurement No. 87. The benchmark will be established during the 6 month review.	

89. Measurement	
Percentage INP Only I-Reports Within 30 Days	
Definition:	
Percentage of INP N, T, C orders that receive a network customer trouble report.	
Exclusions:	
• Excludes customer provided equipment (CPE) or wiring within 30 calendar days of service order completion. • Excludes subsequent reports and all disposition "13" reports (excludable reports), with the exception of 1316, unless the trouble report is taken prior to completion of the service order.	
Business Rules:	
A trouble report is counted if it is mechanically flagged in LMOS as a trouble report that had a service completion within 30 days. The tickets are flagged as INP by matching the telephone number and order number against an order that is marked as INP based on the USOC codes on the order.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of INP N, T, C orders that receive a network customer trouble report within 30 calendar days of service order completion ÷ total INP N, T, C orders (excludes trouble reports received on the due date)) * 100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
Parity with SWBT POTS NFW I reports within 30 days.	

90. Measurement	
Percentage Missed Due Dates (INP Only)	
Definition:	
Percentage of INP N, T, and C orders where installations are not completed by the negotiated due date.	
Exclusions:	
Excludes customer caused misses.	
Business Rules:	
The Due Date starts the clock. The Completion Date is the day that SWBT personnel complete the service order activity, which stops the clock.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of INP N, T, C orders with missed due dates excluding customer caused misses ÷ total number of INP N, T, C orders) *100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
Parity with SWBT POTS – NFW percent missed due dates.	

LOCAL NUMBER PORTABILITY (LNP)

91. Measurement:	
Percentage of LNP Only Due Dates within Industry Guidelines	
Definition:	
Percentage of LNP Due date interval that meets the industry standard established by the North American Numbering Council (NANC).	
Exclusions:	
• CLEC or Customer caused or requested delays. • NPAC caused delays unless caused by SWBT.	
Business Rules:	
Industry guidelines for due dates for LNP are as follows: • For Offices in which NXXs are previously opened – 3 Business Days. • New NXX – 5 Business days on LNP capable NXX. The above-noted due dates are from the date of the FOC receipt. For partial LNP conversions that require restructuring of customer account: • 1-30 TNs: Add one additional day to the FOC interval. The LNP due date intervals will continue to be three business days and five business days from the receipt of the FOC depending on whether the NXX has been previously opened or is new. • >30 TNs, including entire NXX: The due dates are negotiated.	
Levels of Disaggregation:	
NXXs previously opened and NXX new (1-30 TNs and greater than 30 TNs)	
Calculation:	**Report Structure:**
(Count of LNP TNs implemented within Industry guidelines ÷ total number of LNP TNs) *100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
96.5%. The benchmark will be revised either up or down if industry guidelines are established that are different than the objective stated here.	

92. Measurement:	
Percentage of Time the Old Service Provider Releases the Subscription Prior to the Expiration of the Second 9 Hour (T2) Timer	
Definition:	
Percentage of time the old service provider releases subscription(s) to NPAC within the first (T1) or the second (T2) 9-hour timers.	
Exclusions:	
• Customer caused or requested delays. • NPAC caused delays unless caused by SWBT. • Cases where SWBT did the release but the New Service Provider did not respond prior to the expiration of the T2 timer. This sequence of events causes the NPAC to send a cancel of SWBT's release request. In these cases, SWBT may have to re-work to release the TN so it can be ported to meet the due date.	
Business Rules:	
Number of LNP TNs for which subscription to NPAC was released prior to the expiration of the second 9-hour (T2) timer.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of LNP TNs for which subscription to NPAC was released prior to the expiration of the second 9-hour (T2) timer ÷ total number of LNP TNs for which the subscription was released) *100	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
96.5%. The benchmark will be revised either up or down if industry guidelines are established that are different than the objective stated here.	

93. Measurement:	
Percentage of Customer Account Restructured Prior to LNP Due Date	
Definition:	
Percentage of accounts restructured within the LNP order due date established in Measurement No. 91, and/or negotiated due date for orders that contain more than 30 TNs.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 91	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of LNP orders for which customer accounts were restructured prior to LNP due date) ÷ (total number of LNP orders that require customer accounts to be restructured) *100	Reported for CLEC and all CLECs.
Measurement Type	
Tier 1 – Low Tier 2 – None	
Benchmark:	
96.5%	

94. Measurement:

Percentage FOCs Received Within "X" Hours

Definition:

Percentage of FOCs returned within a specified time frame from receipt of complete and accurate LNP or LNP with Loop service request to return of confirmation to CLEC.

Exclusions:

- Rejected orders.
- SWBT only Disconnect orders.
- Orders involving major projects.

Business Rules:

See Business Rule for FOCs

Levels of Disaggregation:

Manually submitted:

- Simple Residence and Business LNP Only (1-19 Lines)< 24 Clock Hours
- LNP with Loop (1-19 Loops) < 24 Clock Hours
- Simple Residence and Business LNP Only (20+ Loops) < 48 Clock Hours
- LNP with Loop (20+ Loops) < 48 Clock Hours
- LNP Complex Business (1-19 Lines) < 24 Clock Hours
- LNP Complex Business (20-50 Lines) < 48 Clock Hours
- LNP Complex Business (50+ Lines) < Negotiated with Notification of Timeframe within 24 Clock Hours

Electronically submitted via LEX or EDI:

- Simple Residence and Business LNP Only (1-19 Lines) < 5 Business Hours
- LNP with Loop (1-19 Loops) < 5 Business Hours
- Simple Residence and Business LNP Only (20+ Loops) < 48 Clock Hours
- LNP with Loop (20+ Loops) < 48 Clock Hours
- LNP Complex Business (1-19 Lines) < 24 Clock Hours
- LNP Complex Business (20-50 Lines) < 48 Clock Hours
- LNP Complex Business (50+ Lines) < Negotiated with Notification of Timeframe within 24 Clock Hours

Calculation:	Report Structure:
(# FOCs returned within "x" hours ÷ total FOCs sent) * 100	Reported for CLEC and all CLECs This includes mechanized from EDI and LEX and manual (FAX or phone orders).

Measurement Type:

Tier 1 – Low
Tier 2 – Medium

Benchmark:

95%

95. Measurement:	
Average Response Time for Non-Mechanized Rejects Returned With Complete and Accurate Codes.	
Definition:	
Average Response time for returning rejected non-mechanized LNP orders with complete and accurate identification of CLEC caused errors in the order.	
Exclusions:	
None	
Business Rules:	
For each non-mechanized order track, the Start time is the Receipt date/time of non-mechanized order; and the End time is the transmittal time of rejection notification of the order due to CLEC-caused errors. The difference between the two is the duration in hours. Obtain cumulative total for all non-mechanized LNP/LNP with Loop orders for the month. SWBT will track the performance for this measurement until its EDI interfaces are tested and approved as satisfactory by the Commission. Subsequent to the above finding, a CLEC that continues to use manual process should track the performance delivered by SWBT and report to SWBT any sub-standard performance. The CLEC has the burden to prove any dispute regarding sub-standard performance.	
Levels of Disaggregation:	
LNP only and LNP with Loop	
Calculation:	**Report Structure:**
Σ(Date & Time of LNP Order – Date and Time LNP Order Acknowledgement) ÷ Total Number of non-mechanized LNP Orders Rejected	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
5 Business Hours.	

96. Measurement:	
Percentage Pre-mature Disconnects for LNP Orders	
Definition:	
Percentage of LNP cutovers where SWBT prematurely removes the translations, including the 10 digit trigger, prior to the scheduled conversion time.	
Exclusions:	
Coordinated Conversions	
Business Rules:	
The count of incidents, on a TN basis, where the translations are removed prior to the scheduled conversion. Count the number of cutovers that are prematurely disconnected (10 minutes before scheduled conversion time).	
Levels of Disaggregation:	
LNP only and LNP with Loop.	
Calculation:	**Report Structure:**
Count of premature disconnects ÷ total LNP conversions * 100	Reported by CLEC and all CLECs disaggregated by LNP and LNP with UNE loop.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
2% or Less premature disconnects starting 10 minutes before scheduled due time.	

97. Measurement:	
Percentage of Time SWBT Applies the 10-digit Trigger Prior to the LNP Order Due Date	
Definition:	
Percentage of time SWBT applies 10-digit trigger, where technically feasible, for LNP or LNP with loop TNs on the day prior to the due date.	
Exclusions:	
Excludes Remote Call Forwarding in DMS 100s, DID in all offices and ISDN Data TNs."	
Business Rules:	
Obtain number of LNP or LNP with loop TNs where the 10-digit trigger was applied on the day prior to due date, and the total number of LNP or LNP with Loop TNs where the 10-digit trigger was applied, where technically feasible.	
Levels of Disaggregation:	
LNP only, and LNP with Loop.	
Calculation:	**Report Structure:**
(Count of LNP TNs for which 10-digit trigger was applied 24 hours prior to due date ÷ total LNP TNs for which 10-digit triggers were applied) * 100.	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
96.5%	

98. Measurement:	
Percentage LNP I-Reports in 10 Days	
Definition:	
Percentage of LNP and LNP with Loop Orders that receive a LNP related network customer trouble report within 10 calendar days of service order completion.	
Exclusions:	
• Excluding subsequent reports and all disposition code "13" reports (excludable reports) with the exception of 1316 unless the trouble report is taken prior to completion of the service order. • Trouble reports caused by CPE or inside wiring.	
Business Rules:	
The Start time is the date/time of completion; and the End time is the date/time of receipt of trouble report. Count the number of LNP and LNP with loop Orders which receive an LNP related trouble report within 10 calendar days of completion.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of LNP and LNP with loop Orders that receive a network customer trouble report within 10 calendar days of service order completion ÷ total LNP and LNP with loop Orders) * 100.	Reported for CLEC and all CLECs, and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity with SWBT Retail POTS – No Field Work.	

99. Measurement:	
Average Delay Days for SWBT Missed Due Dates	
Definition:	
Average calendar days from due date to completion date on company missed orders.	
Exclusions:	
On time or early completions	
Business Rules:	
The clock starts on the due date and the clock ends on the completion date based on posted LNP orders.	
Levels of Disaggregation:	
LNP Only	
Calculation:	**Report Structure:**
Σ(LNP Port Out Completion Date– LNP Order due date) ÷ # total port out orders where there was a SWBT caused missed due date* 100	Reported for CLEC and all CLECs and SWBT.
Measurement Type:	
Tier 1 – Medium Tier 2 – Medium	
Benchmark:	
Parity with SWBT Retail POTS – No Field Work.	

100. Measurement:	
Average Time of Out of Service for LNP Conversions	
Definition:	
Average time to facilitate the activation request in SWBT's network.	
Exclusions:	
• CLEC-caused errors. • NPAC-caused errors unless caused by SWBT. • Large ports greater than 500 ports.	
Business Rules:	
The Start time is the Receipt of NPAC broadcast activation message in SWBT's LSMS; and the End time is when the Provisioning event is done in SWBT's LSMS. Calculate the total difference between the start time and end time in minutes for LNP activations during the reporting period.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ(LNP start time – LNP stop time) ÷ # total LNP activated messages	Reported for CLEC and all CLECs
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
60 Minutes unless a different industry guideline is established that will override the benchmark referenced here.	

101. Measurement:	
Percent Out of Service < 60 minutes	
Definition:	
The Number of LNP related conversions where the time required to facilitate the activation of the port in SWBT's network is less than 60, expressed as a percentage of total number of activations that took place.	
Exclusions:	
• CLEC-caused errors. • NPAC-caused errors unless caused by SWBT. • Large ports greater than 500 ports.	
Business Rules:	
The Start time is the Time that an "activate NPAC" broadcast is received in SWBT's LSMS. The End time is the Time the provisioning event is complete in SWBT's LSMS. Count the number of conversions that took place in less than 60 minutes.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of activation events provisioned in less than 60minutes) ÷ (total LNP provisioning events) * 100.	Reported for CLEC and all CLECs.
Measurement Type:	
Tier 1 – Medium Tier 2 – Medium	
Benchmark:	
96.5%	

911

102. Measurement	
Average Time To Clear Errors	
Definition:	
The average time it takes to clear an error after it is detected during the processing of the 911 database file. This is only on resale or UNE loop and port combination orders that SWBT installs.	
Exclusions:	
None	
Business Rules:	
The clock starts upon the receipt of the error file and the clock stops when the error is corrected.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ(Date and time error detected – date and time error cleared) ÷ total number of errors	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity	

103. Measurement	
Percent Accuracy for 911 Database Updates	
Definition:	
The percentage of 911 records that were updated by SWBT in error.	
Exclusions:	
CLEC caused errors.	
Business Rules:	
The data required to calculate this measurement will be provided by the CLEC based on the compare file. The CLEC will provide the number of records transmitted and the errors found. SWBT will verify the records determined to be in error to validate that the records were input by SWBT incorrectly. An update is completed without error if the database completely and accurately reflects the activity specified on the order submitted by the CLEC.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of SWBT caused update errors ÷ Total number of updates) * 100	CLEC, All CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity	

104. Measurement	
Average Time Required to Update 911 Database (Facility Based Providers)	
Definition:	
The average time it takes to update the 911 database file.	
Exclusions:	
None	
Business Rules:	
The clock starts on the date/time when the data processing starts and the clock stops on the date/time when the data processing is complete.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ(Date and time data processing begins - date and time data processing ends) ÷ total number of files	Reported for individual CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity	

POLES, CONDUIT AND RIGHTS OF WAY

105. Measurement	
Percentage of requests processed within 35 Days	
Definition:	
The percentage of requests for access to poles, conduits, and right-of-ways processed within 35 days.	
Exclusions:	
None	
Business Rules:	
The clock starts upon the receipt date of the application for access to poles, conduits and right-of-ways and the clock stops upon response date of the application granting or denying access to poles, conduits and right-of-ways.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(count of number of requests processed within 35 days ÷ total number of requests) * 100	Reported for individual CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
90% within 35 days.	

106. Measurement	
Average Days Required to Process a Request	
Definition:	
The average time it takes to process a request for access to poles, conduits, and right-of-ways.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 105	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ(Date request returned to CLEC – date request received from CLEC) ÷ total number of requests	Reported for individual CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
See Measurement No. 105. Benchmark will be established during the 6 month review.	

COLLOCATION

107. Measurement
Percentage Missed Collocation Due Dates
Definition:
The percentage of SWBT caused missed due dates for collocation projects.
Exclusions:
None
Business Rules:
The clock starts when SWBT receives, in compliance with the approved tariff, payment and return of proposed layout for space as specified in the application form from the CLEC and the clock stops when the collocation arrangement is complete and ready for CLEC occupancy. Due Date Extensions will be extended when mutually agreed to by SWBT and the CLEC, or when a CLEC fails to complete work items for which they are responsible in the allotted time frame. The extended due date will be calculated by adding to the original due date the number of calendar days that the CLEC was late in performing said work items. Work items include but are not limited to: • CLEC return to SWBT corrected and complete floor plan drawings. • CLEC placement of required component(s). If the business rules and tariff are inconsistent, the terms of the tariff will apply.
Levels of Disaggregation:
Physical • Caged • Shared Caged • Caged Common • Cageless • Adjacent On-site • Adjacent Off-site • Augments to Physical Collocation Virtual • Virtual • Augments to Virtual.

108. Measurement	
Average Delay Days for SWBT Missed Due Dates	
Definition:	
The average delay days caused by SWBT to complete collocation facilities.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 107	
Levels of Disaggregation:	
Physical, • Caged • Shared Caged • Caged Common • Cageless • Adjacent On-site • Adjacent Off-site • Augments to Physical Collocation Virtual • Augments to Virtual.	
Calculation:	**Report Structure:**
Σ(Date collocation work completed - collocation due date) ÷ total number of SWBT caused missed collocation projects	Reported for individual CLEC and all CLECs by active and non-active as defined in the tariff
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
10% of the tariffed intervals.	

109. Measurement	
Percent of Requests Processed Within the Tariffed Timelines	
Definition:	
The percent of requests for collocation facilities processed within the Tariffed timelines.	
Exclusions:	
Excludes Weekends & Holidays.	
Business Rules:	
The clock starts when SWBT (ICSC) receives the application. The clock stops when SWBT responds back to the application request with a quote.	
Levels of Disaggregation:	
Physical, • Caged • Shared Caged • Caged Common • Cageless • Adjacent On-site • Adjacent Off-site • Augments to Physical Collocation Virtual • Augments to Virtual. .	
Calculation:	**Report Structure:**
(count of number of requests processed within the tariff timeline ÷ total number of requests) * 100	Reported for individual CLEC and all CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
90% within the tariff timeline	

DIRECTORY ASSISTANCE DATABASE

110. Measurement	
Percentage of Updates Completed into the DA Database within 72 Hours for Facility Based CLECs	
Definition:	
The percentage of DA database updates completed within 72 hours of receipt of the update from the CLEC for directory change only and within 72 hours of the completion date on the provisioning service order where a provisioning order is required.	
Exclusions:	
Excludes Weekends and Holidays.	
Business Rules:	
The date and time stamp on fax updates starts the clock and the date and time when the listing is updated stops the clock. For directory changes that also have a provisioning order, the clock starts when the provisioning order completes and ends when the listing is updated. The update clerks work hours are 6:30 a.m. to 3:00 p.m. Monday through Friday. On requests received after 3:00 p.m. the clock will start at 6:30 a.m. the following day.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of updates completed within 72 hours ÷ total updates) * 100	Reported by CLEC and all CLECs for facility based providers.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
95% updated within 72 hours.	

111. Measurement	
Average Update Interval for DA Database for Facility Based CLECs	
Definition:	
The average update interval for DA database changes for facility based CLECs.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 110	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
Σ (8:00 a.m. of the day following the input into the LSS database – Time update received from CLEC) ÷ total updates	Reported by CLEC and all CLECs for facility based providers.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
48 Hours. This benchmark will be re-evaluated in 6 months.	

112. Measurement	
Percentage DA Database Accuracy For Manual Updates	
Definition:	
The percentage of DA records that were updated by SWBT in error. The data required to calculate this measurement will be provided by the CLEC. The CLEC will provide the number of records transmitted and the errors found. SWBT will verify the records determined to be in error to validate that the records were input by SWBT incorrectly.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 110	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of SWBT caused update errors ÷ Total number of updates) *100	Reported by CLEC and all CLECs for facility based providers.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
97%	

113. Measurement	
Percentage of Electronic Updates that Flow Through the DSR process Without Manual Intervention	
Definition:	
Percentage of DSRs from entry to distribution that progress through SWBT ordering systems to ALPS/LIRA.	
Exclusions:	
Rejected DSRs due to CLEC error.	
Business Rules:	
The number of DSRs, that flow through SWBT's ordering systems and are passed to ALPS/LIRA without manual intervention, divided by the total number of DSRs issued within the reporting period.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Number of DSRs that flow through to ALPS/LIRA ÷ Total DSRs) * 100	CLEC and All CLECs.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
97%	

COORDINATED CONVERSIONS

114. Measurement	
Percentage of Premature Disconnects (Coordinated Cutovers)	
Definition:	
Percentage of coordinated cutovers where SWBT prematurely disconnects the customer prior to the scheduled conversion.	
Exclusions:	
None	
Business Rules:	
A premature disconnect occurs any time SWBT disconnects the CLEC customer prior to the CLEC authorization.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of prematurely disconnected customers ÷ total coordinated conversion customers) * 100	Reported by CLEC and all CLECs disaggregated by INP and INP with loop, LNP and LNP with loop.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
2% or less premature disconnects starting 10 minutes before scheduled time.	

115. Measurement	
Percentage of SWBT caused delayed Coordinated Cutovers	
Definition:	
Percentage of SWBT caused late coordinated cutovers in excess of "x" (30, 60 and 120) minutes.	
Exclusions:	
None	
Business Rules:	
A coordinated cutover is delayed if SWBT is not ready within "x" (30, 60, and 120) minutes after the frame due time.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of SWBT caused late coordinated cutovers in excess of "x" (30, 60 and 120) minutes ÷ total coordinated cutovers) * 100	Reported by CLEC and all CLECs disaggregated by INP and INP with loop, LNP and LNP with loop.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
8% or less of SWB coordinated conversions beyond 30 minutes, 2% beyond 1 hour from scheduled time or 1% beyond 2 hours.	

116. Measurement	
Percentage of Missed Mechanized INP Conversions	
Definition:	
Percentage of mechanized INP conversions not loaded in the switch within 10 minutes prior to or 30 minutes after the scheduled due time.	
Exclusions:	
None	
Business Rules:	
The clock starts on the Due Date and Frame Due Time and the clock stops on the Switch Date and Time.	
Levels of Disaggregation:	
None	
Calculation:	**Report Structure:**
(Count of mechanized INP conversions not loaded in the switch within 10 minutes prior to or 30 minutes after scheduled due time (Frame Due Time)) ÷ total mechanized INP conversions) * 100	Reported by CLEC and all CLECs.
Measurement Type:	
Tier 1 – Medium Tier 2 – None	
Benchmark:	
See Measurements No. 114 and No. 115	

NXX

117. Measurement	
Percent NXXs loaded and tested prior to the LERG effective date	
Definition:	
The percent of NXXs loaded and tested prior to the LERG effective date.	
Exclusions:	
None	
Business Rules:	
Data for the initial NXX(s) in a local calling area will be based on the LERG effective date or completion of the initial interconnection trunk group(s), whichever is longer. Data for additional NXXs in the local calling area will be based on the LERG effective date.	
Levels of Disaggregation:	
By Market Region	
Calculation:	**Report Structure:**
(Count of NXXs loaded and tested by LERG date ÷ total NXXs loaded and tested) * 100	Reported by CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity	

118. Measurement	
Average Delay Days for NXX Loading and Testing	
Definition:	
Average calendar days from due date to completion date on company missed NXX orders.	
Exclusions:	
None	
Business Rules:	
See Measurement No. 117	
Levels of Disaggregation:	
By Market Region	
Calculation:	**Report Structure:**
Σ(Completion Date - LERG date) ÷ (number of SWBT caused late orders)	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – Low Tier 2 – None	
Benchmark:	
Parity	

119. Measurement	
Mean Time to Repair	
Definition:	
Average duration of NXX trouble reports from the receipt of the customer trouble report to the time that the trouble report is cleared.	
Exclusions:	
None	
Business Rules:	
The start time is when the report is received. The stop time is when the report is cleared.	
Levels of Disaggregation:	
By Market Region.	
Calculation:	**Report Structure:**
Σ(Date and time trouble report is cleared with the customer – Date and time trouble report is received) ÷ (number of NXX trouble reports)	Reported for CLEC, all CLECs and SWBT.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
Parity	

BONA FIDE/SPECIAL REQUEST PROCESS (BFRs)

120. Measurement	
Percentage of Requests Processed Within 30 Business Days	
Definition:	
Percentage of Bona fide/Special requests processed within 30 business days.	
Exclusions:	
Excludes weekends and holidays.	
Business Rules:	
The clock starts when SWBT receives a complete and accurate application. The clock stops when SWBT completes application processing for Network Elements that are not operational at the time of the request.	
Levels of Disaggregation:	
• None	
Calculation:	**Report Structure:**
(Count of number of requests processed within 30 days ÷ total number of requests) * 100	Reported by CLEC and all CLECs.
Measurement Type:	
Tier 1 – None Tier 2 – None	
Benchmark:	
90% within 30 business days.	

121. Measurement	
Percentage of Quotes Provided for Authorized BFRs/Special Requests Within X (10,30,90) Days	
Definition:	
Percentage of quotes provided in response to bona fide/Special requests for within X (10,30,90) days.	
Exclusions:	
Requests that are subject to pending arbitration.	
Business Rules:	
The clock starts when SWBT receives a complete and accurate application. The clock stops when SWBT responds back to the application request with a quote.	
Levels of Disaggregation:	
• New Network Elements that are operational at the time of the request. • New Network Elements that are ordered by the FCC. • New Network Elements that are not operational at the time of the Request.	
Calculation:	**Report Structure:**
(Count of number of requests processed within X (10, 30, 90) days ÷ total number (10, 30, 90 Days) of requests) * 100	Reported by CLEC and all CLECs.
Measurement Type:	
Tier 1 – High Tier 2 – High	
Benchmark:	
90% within 10, 30, 90 business days. • Network Elements that are operational at the time of the request – 10 days • Network Elements that are Ordered by the FCC– 30 days • New Network Elements 90 days	

PERFORMANCE MEASUREMENTS
Appendix One

Subsequent Due Date Indicator	
Added to the service order whenever the due date is changed. Order can carry multiple codes. Company delay code overrides subscriber delay code.	
Subscriber(customer) Reasons:	
SA	No Access
SL	Subscriber requests later date
SO	Subscriber – Other
SP	Subscriber requests earlier date
SR	Subscriber not ready
Company (SWBT) Reasons:	
CA	Assignment office
CB	Residence/Business office
CE	Back order / unavailability of equipment or supplies from vendors
CF	Lack of Facilities (outside plant or buried service wires)
CL	Work Load
CO	Other company reasons
CS	Lack of Central Office facilities
CU	Uncontrollable circumstances

PERFORMANCE MEASUREMENTS
Appendix Two

Disposition Codes
The following is a list of Excluded (13) disposition codes.
1301 Request for directories 1302 Reports received as a result of dual service 1303 Request for information revertive dialing codes – muliparty line (no longer applicable) 1304 CVAS Disconnect or hang up 1305 Request for information provided by another department – Business office, claims, etc. 1306 Request for SWBT to locate buried facilities 1307 Request to lower or raise wire 1308 Report on phone number which is properly disconnected, unassigned or suspended with disconnect recording on line. 1309 Report on feature customer is not being billed for 1310 Request to verify busy condition of line 1311 Report of non-SWBT plant or facilities 1313 Reports due to incorrect network administration records 1314 Request that SWBT ground be connected to electric company ground 1316 Report on service order activity prior to midnight of completion date 1317 Report on incorrect number; Regenerate report on correct number 1320 Request from Business Office 1321 Customer unable to reach business office 1322 Request from vendor for testing 1323 Changes in network structure (i.e. 10 digit dialing) 1324 Miscellaneous (Commendations, callback request for information only) 1335 Customer request service guarantee (tech gave credit) 1336 Customer request service guarantee (tech did not give credit) 1380 CNA Report Cancel by customer

PERFORMANCE MEASUREMENTS
Appendix Three

Percentage of Missed Collocation Due Dates Damages and Assessments Methodology

The following methodology will apply in calculating Tier 1 liquidated damages and Tier 2 assessments for the percentage of missed collocation due dates measurement.

Tier 1:

1. The benchmark will be 95% of Collocations completed within the due date. For example, if a CLEC has 30 collocations complete in the study month, SWBT can miss two due dates and still be in compliance. In this case no damages would apply. If, three due dates out of 30, SWBT would be out of compliance. In this case, damages would be payable on the number of collocations required to be back within the 95% benchmark.
2. Damages are calculated based on the number of days that SWBT misses the due date using the per occurrence values in the MOU, multiplied by the number of days from completion to due date.
3. In order to determine which collocations to use in the damage calculation, the missed collocation due dates will be ranked based on the number of days missed from highest to lowest. SWBT will pay damages on the highest number of days missed until the number of collocations missed is within the benchmark. For example, in the example above, if the three misses had missed days of 20, 10 and three, SWBT would pay damages on 20 missed days.
4. The collocation measurement will be used in the determination of the "K" number of allowances. In addition, it may also be excluded as defined in the MOU in the order of progression also contained there. The number of underlying data points used for the purposes of determining the order of exclusion will be the total days late for collocation projects.
5. All collocation completions in a month will be considered for the calculation of liquidated damages.
6. The critical Z-value will not be subtracted from the benchmark to determine compliance.

Tier 2:

1. Assessments will be applicable, as described in the MOU, when the measurement has been out of compliance for three consecutive months for the aggregate of all CLEC collocations.
2. Compliance will be defined as described in the Tier 1 damages above.
3. If assessments are applicable, the rolling three month average for days missed will be used to calculate the total assessments payable to the Texas State Treasury.

ATTACHMENT 17: Performance Remedy Plan

This Attachment 17: Performance Remedy Plan sets forth the terms and conditions under which SWBT will report performance to CLEC and compare that performance to SWBT's own performance or benchmark criteria, whichever is applicable. This Attachment further provides for enforcement through liquidated damages and assessments.

1.0 SWBT agrees to provide CLEC a monthly report of performance for the performance measures listed in Appendix 1. SWBT will collect, analyze, and report performance data for these measures in accordance with SWBT's Performance Measurement Business Rules, as approved by the Texas Commission. Both the performance measures and the business rules are subject to modification in accordance with section 6.4 below regarding six month reviews. SWBT and CLEC further agree to use this two-tiered enforcement structure for performance measurements provided for in this Attachment. The Commission approved performance measurements shown in Appendix 1 hereto identify the measurements that belong to Tier-1 or Tier-2 categories, which are further, identified as the High, Low and Medium groups as those terms are used below.

2.0 SWBT and CLEC agree to use a statistical test, namely the modified "Z-test," for evaluating the difference between two means (SWBT and CLEC) or percentages, or the difference in the two proportions for purposes of this Attachment. SWBT agrees to use the modified Z-tests as outlined below as the statistical tests for the determination of parity when the result for SWBT and the CLEC are compared. The modified Z-tests are applicable if the number of data points are greater than 30 for a given measurement. In cases where benchmarks are established, the determination of compliance is through the comparison of the measured performance delivered to the CLEC and the applicable benchmark. For testing compliance for measures for which the number of data points are 29 or less, although the use of permutation tests as outlined below is appropriate comparison of performance delivered to CLECs with SWBT performance as described in Alternative-1 under the "Qualifications to use Z-Test" heading below is preferred.

3.0 SWBT and CLEC concur that, for purposes of this Attachment, performance for the CLEC on a particular measure will be considered in compliance with the parity requirement when the measured results in a single month (whether in the form of means, percents, or proportions) for the same measurement, at equivalent disaggregation, for both SWBT and CLEC are used to calculate a Z-test statistic and the resulting value is no greater than the critical Z-value as reflected in the Critical Z-statistic table shown below.

Z-Test:

SWBT agrees with the following formulae for determining parity using Z-Test:

For Measurement results that are expressed as Averages or Means: $z = (DIFF) / \delta_{DIFF}$

Where;
$DIFF = M_{ILEC} - M_{CLEC}$
M_{ILEC} = ILEC Average
M_{CLEC} = CLEC Average
$\delta_{DIFF} = SQRT\ [\delta^2_{ILEC}\ (1/n_{CLEC} + 1/n_{ILEC})]$
δ^2_{ILEC} = Calculated variance for ILEC.
n_{ILEC} = number of observations or samples used in ILEC measurement
n_{CLEC} = number of observations or samples used in CLEC measurement

For Measurement results that are expressed as Percentages or Proportions:

Step 1:

$$\rho = \frac{(n_{ILEC}P_{ILEC} + n_{CLEC}P_{CLEC})}{n_{ILEC} + n_{CLEC}}$$

Step 2:

$$\sigma_{PILEC\text{-}PCLEC} = sqrt[[\rho(1-\rho)]/n_{ILEC} + [\rho(1-\rho)]/n_{CLEC}]$$

Step 3:

$$Z = (P_{ILEC} - P_{CLEC})/\sigma_{PILEC\text{-}PCLEC}$$

Where: n = Number of Observations
P = Percentage or Proportion

For Measurement results that are expressed as Rates or Ratio:

$$z = (DIFF) / \delta_{DIFF}$$

Where;
$DIFF = R_{ILEC} - R_{CLEC}$
$R_{ILEC} = num_{ILEC}/denom_{ILEC}$
$R_{CLEC} = num_{CLEC}/denom_{CLEC}$
$\delta_{DIFF} = SQRT\ [R_{ILEC}\ (1/denom_{CLEC} + 1/denom_{ILEC})]$

4.0 Qualifications to use Z-Test:

The proposed Z- tests are applicable to reported measurements that contain 30 or more data points.

In calculating the difference between the performances the formula proposed above applies when a larger CLEC value indicates a higher quality of performance. In cases

where a smaller CLEC value indicates a higher quality of performance the order of subtraction should be reversed (i.e., $M_{CLEC} - M_{ILEC}$, $P_{CLEC} - P_{ILEC}$, $R_{CLEC} - R_{ILEC}$).
For measurements where the applicable performance criterion is a benchmark rather than parity performance compliance will be determined by setting the denominator of the Z-test formula as one in calculating the Z-statistic.

For measurements where the performance delivered to CLEC is compared to SWBT performance and for which the number of data points are 29 or less, SWBT agrees to application of the following alternatives for compliance.

4.1 Alternative 1:

For measurements that are expressed as averages, performance delivered to a CLEC for each observation shall not exceed the ILEC averages plus the applicable critical Z-value. If the CLEC's performance is outside the ILEC average plus the critical Z-value and it is the second consecutive month, SWBT can utilize the Z-test as applicable for data sets of 30 or greater data points or the permutation test to provide evidence of parity. If SWBT uses the Z-test for data sets under 30, the CLEC can independently perform the permutation test to validate SWBT's results. SWBT will supply all data required to perform the permutation test, including the complete ILEC and CLEC data sets for the measure, to CLEC upon request. The results of the permutation test will control over the results of the Z-test analysis as applicable for data sets 30 or greater.

For measurements that are expressed as percentages, the percentage for CLEC shall not exceed ILEC percentage plus the applicable critical Z-value. If the CLEC's performance is outside the ILEC percentage plus the critical Z-value and it is the second consecutive month, SWBT can utilize the Z-test as applicable for data sets of 30or greater data points or the permutation test to provide evidence of parity. If SWBT uses the Z-test for data sets under 30, the CLEC can independently perform the permutation test to validate SWBT's results. SWBT will supply all data required to perform the permutation test, including the complete ILEC and CLEC data sets for the measure, to CLEC upon request. The results of the permutation test will control over the results of the Z-test analysis as applicable for data sets 30 or greater.

4.2 Alternative 2:

Permutation analysis will be applied to calculate the z-statistic using the following logic:

Choose a sufficiently large number T.

Pool and mix the CLEC and ILEC data sets

Randomly subdivide the pooled data sets into two pools, one the same size as the original CLEC data set (n_{CLEC}) and one reflecting the remaining data points, (which is equal to the size of the original ILEC data set or n_{ILEC}).

Compute and store the Z-test score (Z_S) for this sample.

Repeat steps 3 and 4 for the remaining T-1 sample pairs to be analyzed. (If the number of possibilities is less than 1 million, include a programmatic check to prevent drawing the same pair of samples more than once).

Order the Z_S results computed and stored in step 4 from lowest to highest.

Compute the Z-test score for the original two data sets and find its rank in the ordering determined in step 6.

Repeat the steps 2-7 ten times and combine the results to determine P = (Summation of ranks in each of the 10 runs divided by 10T)

Using a cumulative standard normal distribution table, find the value Z_A such that the probability (or cumulative area under the standard normal curve) is equal to P calculated in step 8.

Compare Z_A with the desired critical value as determined from the critical Z table. If Z_A > the designated critical Z-value in the table, then the performance is non-compliant.

4.3 SWBT and CLEC will provide software and technical support as needed by Commission Staff for purposes of utilizing the permutation analysis. Any CLEC who opts into this Attachment 17 agrees to share in providing such support to Commission Staff.

5.0 Overview of Enforcement Structure

5.1 SWBT agrees with the following methodology for developing the liquidated damages and penalty assessment structure for tier-1 liquidated damages and tier-2 assessments:

5.2 SWBT will pay Liquidated Damages to the CLEC according to the terms set forth in this Attachment.

5.3 Liquidated damages apply to Tier-1 measurements identified as High, Medium, or Low on Appendix -1.

5.4 Assessments are applicable to Tier-2 measures identified as High, Medium, or Low on Appendix -1 and are payable to the Texas State Treasury.

5.5 SWBT will not be liable for the payment of either Tier 1 damages or Tier 2 assessments until the Commission approves an Interconnection Agreement between a CLEC and SWBT containing the terms of Attachment 17 of this Agreement. Tier 2 assessments will be paid only on the aggregate performance for CLECs that have adopted this Attachment (Performance Remedy Plan) and are operating in Texas.

6.0 Procedural Safeguards and Exclusions

6.1 SWBT agrees that the application of the assessments and damages provided for herein is not intended to foreclose other noncontractual legal and regulatory claims and remedies that may be available to a CLEC. By incorporating these liquidated damages terms into an interconnection agreement, SWBT and CLEC agree that proof of damages from any "noncompliant" performance measure would be difficult to ascertain and, therefore, liquidated damages are a reasonable approximation of any contractual damage resulting from a non-compliant performance measure. SWBT and CLEC further agree that liquidated damages payable under this provision are not intended to be a penalty.

6.2 SWBT's agreement to implement these enforcement terms, and specifically its agreement to pay any "liquidated damages" or "assessments" hereunder, will not be considered as an admission against interest or an admission of liability in any legal, regulatory, or other proceeding relating to the same performance. SWBT and CLEC agree that CLEC may not use: (1) the existence of this enforcement plan; or (2) SWBT's payment of Tier-1 "liquidated damages" or Tier-2 "assessments" as evidence that SWBT has discriminated in the provision of any facilities or services under Sections 251 or 252, or has violated any state or federal law or regulation. SWBT's conduct underlying its performance measures, and the performance data provided under the performance measures, however, are not made inadmissible by these terms. Any CLEC accepting this performance remedy plan agrees that SWBT's performance with respect to this remedy plan may not be used as an admission of liability or culpability for a violation of any state or federal law or regulation. Further, any liquidated damages payment by SWBT under these provisions is not hereby made inadmissible in any proceeding relating to the same conduct where SWBT seeks to offset the payment against any other damages a CLEC might recover; whether or not the nature of damages sought by the CLEC is such that an offset is appropriate will be determined in the related proceeding. The terms of this paragraph do not apply to any proceeding before the Commission or the FCC to determine whether SWBT has met or continues to meet the requirements of section 271 of the Act.

6.3 SWBT shall not be liable for both Tier-2 "assessments" and any other assessments or sanctions under PURA or the Commission's service quality rules relating to the same performance.

6.4 Every six months, CLEC may participate with SWBT, other CLECs, and Commission representatives to review the performance measures to determine whether measurements should be added, deleted, or modified; whether the applicable benchmark standards

should be modified or replaced by parity standards; and whether to move a classification of a measure to High, Medium, Low, Diagnostic, Tier-1 or Tier-2. The criterion for reclassification of a measure shall be whether the actual volume of data points was lesser or greater than anticipated. Criteria for review of performance measures, other than for possible reclassification, shall be whether there exists an omission or failure to capture intended performance, and whether there is duplication of another measurement. Performance measures for 911 may be examined at any six month review to determine whether they should be reclassified. The first six-month period will begin when an interconnection agreement including this remedy plan is adopted by a CLEC and approved by the Commission. Any changes to existing performance measures and this remedy plan shall be by mutual agreement of the parties and, if necessary, with respect to new measures and their appropriate classification, by arbitration. The current measurements and benchmarks will be in effect until modified hereunder or expiration of the interconnection agreement.

6.5 SWBT and CLEC acknowledge that no later than two years after SWBT or its affiliate receives Section 271 relief, the Commission's intention is to reduce the number of performance measures subject to damages and assessments by 50% to the extent there is a smaller number of measures that truly do capture all of the issues that are competition-affecting and customer-affecting

6.6 CLEC and SWBT will consult with one another and attempt in good faith to resolve any issues regarding the accuracy or integrity of data collected, generated, and reported pursuant to this Attachment. In the event that CLEC requests such consultation and the issues raised by CLEC have not been resolved within 45 days after CLEC's request for consultation, then SWBT will allow CLEC to have an independent audit conducted, at CLEC's expense, of SWBT's performance measurement data collection, computing, and reporting processes. In the event the subsequent audit reinforces the problem identified during the 45 days of consultation period or if any new problem is identified, SWBT shall reimburse a CLEC any expense incurred by the CLEC for such audit. CLEC may not request more than one audit per twelve calendar months under this section. This section does not modify CLEC's audit rights under other provisions of this Agreement. SWBT agrees to inform all CLECs of any problem identified during the audit initiated by any CLEC.

7.0 Exclusions Limited

7.1 SWBT shall not be obligated to pay liquidated damages or assessments for noncompliance with a performance measurement if, but only to the extent that, such noncompliance was the result of any of the following: a Force Majeure event; an act or omission by a CLEC that is contrary to any of its obligations under its interconnection agreement with SWBT or under the Act or Texas law; or non-SWBT problems associated with third-party systems or equipment, which could not have been avoided by SWBT in the exercise of reasonable diligence. Provided, however, the third party exclusion will

not be raised more than three times within a calendar year. SWBT will not be excused from payment of liquidated damages or assessments on any other grounds, except by application of the procedural threshold provided for below. Any dispute regarding whether a SWBT performance failure is excused under this paragraph will be resolved with the Commission through a dispute resolution proceeding under Subchapter Q of its Procedural Rules or, if the parties agree, through commercial arbitration with the American Arbitration Association. SWBT will have the burden in any such proceeding to demonstrate that its noncompliance with the performance measurement was excused on one of the grounds set forth in this paragraph.

7.2 In addition to the provisions set forth herein, SWBT shall not be obligated to pay liquidated damages or assessments for noncompliance with a performance measure if the Commission finds such noncompliance was the result of an act or omission by a CLEC that is in bad faith, for example, unreasonably holding orders and/or applications and "dumping" such orders or applications in unreasonably large batches, at or near the close of a business day, on a Friday evening or prior to a holiday, or unreasonably failing to timely provide forecasts to SWBT for services or facilities when such forecasts are required to reasonably provide such services or facilities; or non-SWBT Y2K problems.

7.3 CLEC acknowledges that an overall cap of $120 million per year for Tier-1 liquidated damages and Tier-2 Assessments will apply to payments by SWBT under all SWBT interconnection agreements that include Attachment 17 in the form set forth herein. CLEC further acknowledges that a monthly cap of $10 million for Tier-1 liquidated damages will apply to payments by SWBT under all SWBT interconnection agreements that include Attachment 17 in the form set forth herein. To the extent in any given month the $10 million cap is not reached, the subsequent month's cap will be increased by an amount equal to the unpaid portion of the previous month's cap. At the end of the year, if total Tier-1 liquidated damages and Tier-2 Assessments equal or exceed $120 million but SWBT has paid less than $120 million because of the $10 million per month cap, SWBT shall be required to pay the total $120 million. In such event, Tier-1 liquidated damages shall be paid first on a pro rata basis to CLECs, and any remainder within the overall cap of $120 million, shall be paid as a Tier-2 Assessment. In the event the total calculated amount of damages and assessments for the year is less than $120 million, SWBT shall be obligated to pay ONLY the actual calculated amount of damages and assessments. The cap will be based upon a calendar year beginning the first day of the month following Commission approval of the Texas 271 Agreement.

7.3.1 Whenever SWBT Tier-1 payments to an individual CLEC in a month exceed $ 3 million, or for all CLECs Tier-1 payments (in a month) exceed $ 10 million, then SWBT may commence a show cause proceeding as provided for below. Upon timely commencement of the show cause proceeding, SWBT must pay the balance of damages owed in excess of the threshold amount into escrow, to be held by a third party pending the outcome of the show cause proceeding. To invoke these escrow provisions, SWBT must file with the Commission, not later than the due date of the affected damages payments, an application

to show cause why it should not be required to pay any amount in excess of the procedural threshold. SWBT's application will be processed in an expedited manner under Subchapter Q of the Commission's Procedural Rules. SWBT will have the burden of proof to demonstrate why, under the circumstances, it would be unjust to require it to pay liquidated damages in excess of the applicable threshold amount. If SWBT reports non-compliant performance to a CLEC for three consecutive months on 20% or more of the measures reported to the CLEC, but SWBT has incurred no more than $ 1 million in liquidated damages obligations to the CLEC for that period under the enforcement terms set out here, then the CLEC may commence an expedited dispute resolution under this paragraph pursuant to Subchapter Q of the Commission's Procedural Rules. In any such proceeding the CLEC will have the burden of proof to demonstrate why, under the circumstances, justice requires SWBT to pay damages in excess of the amount calculated under these enforcement terms.

7.3.2 SWBT should post on its Internet website the aggregate payments of any liquidated damages or assessments.

7.4 With respect to any interconnection agreement, SWBT and any CLEC may request two expedited dispute resolution proceedings pursuant to the two preceding paragraphs before the Commission or, if the parties agree, through commercial arbitration with the American Arbitration Association (AAA); during the term of the contract without having to pay attorneys fees to the winning company. For the third proceeding and thereafter, the requesting party must pay attorneys fees, as determined by the Commission or AAA, if that party loses.

7.5 In the event the aggregate amount of Tier-1 damages and Tier-2 assessments reach the $120 million cap within a year and SWBT continues to deliver non-compliant performance during the same year to any CLEC or all CLECs, the Commission may recommend to the FCC that SWBT should cease offering in-region interLATA services to new customers.

8.0 <u>Tier-1 Damages</u>:

Tier-1 liquidated damages apply to measures designated in Attachment–1 as High, Medium, or Low when SWBT delivers "non-compliant" performance as defined above.

8.1 Under the damages for Tier-1 measures, the number of measures that may be classified as "non-compliant" before a liquidated damage is applicable is limited to the K values shown below. The applicable K value is determined based upon the total number of measures with a sample size of 10 or greater that are required to be reported to a CLEC where a sufficient number of observations exist in the month to permit parity conclusions regarding a compliant or non-compliant condition. For any performance measurement, each disaggregated category for which there are a minimum of 10 data points constitutes one "measure" for purposes of calculating K value. The designated K value and the

critical Z-value seek to balance random variation, Type-1 and Type-2 errors. Type-1 error is the mistake of charging an ILEC with a violation when it may not be acting in a discriminatory manner (that is, providing non-compliant performance). Type-2 error is the mistake of not identifying a violation when the ILEC is providing discriminatory or non-compliant performance.

8.2 Liquidated damages in the amount specified in the table below apply to all "non-compliant" measures in excess of the applicable "K" number of exempt measures. Liquidated damages apply on a per occurrence basis, using the amount per occurrence taken from the table below, based on the designation of the measure as High, Medium, or Low in Appendix-1 and the number of consecutive months for which SWBT has reported noncompliance for the measure. For those measures listed on Appendix-2 as "Measurements that are subject to per occurrence damages or assessments with a cap," the amount of liquidated damages in a single month shall not exceed the amount listed in the table below for the "Per measurement" category. For those measures listed on Appendix -2 as "Measurements that are subject to per measure damages or assessment," liquidated damages will apply on a per measure basis, at the amounts set forth in the table below. The methodology for determining the order of exclusion, and the number of occurrences is addressed in "Methods of calculating the liquidated damages and penalty amounts," below.

LIQUIDATED DAMAGES TABLE FOR TIER-1 MEASURES

Per occurrence						
Measurement Group	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6 and each following month
High	$150	$250	$500	$600	$700	$800
Medium	$75	$150	$300	$400	$500	$600
Low	$25	$50	$100	$200	$300	$400

Per Measure/Cap*						
Measurement Group	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6 and each following month
High	$25,000	$50,000	$75,000	$100,000	$125,000	$150,000
Medium	$10,000	$20,000	$30,000	$40,000	$50,000	$60,000
Low	$5,000	$10,000	$15,000	$20,000	$25,000	$30,000

ASSESSMENT TABLE FOR TIER-2 MEASURES

Per occurrence

Measurement Group	
High	$500
Medium	$300
Low	$200

Per Measure/Cap*

Measurement Group	
High	$75,000
Medium	$30,000
Low	$20,000

* **For per occurrence with cap measures, the occurrence value is taken from the per occurrence table, subject to the per measure with cap amount.**

9.0 Tier-2 Assessments to the State:

9.1 Assessments payable to the Texas State Treasury apply to the Tier-2 measures designated on Appendix -1 as High, Medium, or Low when SWBT performance is out of parity or does not meet the benchmarks for the aggregate of all CLEC data. Specifically, if the Z-

test value is greater than the Critical Z, the performance for the reporting category is out of parity or below standard.

9.2 For those Measurements where a per occurrence assessment applies, an assessment as specified in the Assessment Table; for each occurrence is payable to the Texas State Treasury for each measure that exceeds the Critical Z-value, shown in the table below, for three consecutive months. For those Measurements listed in Appendix -2 as measurements subject to per occurrence with a cap, an assessment as shown in the Assessment Table above for each occurrence with the applicable cap is payable to the Texas State Treasury for each measure that exceeds the Critical Z-value, shown in the table below, for three consecutive months. For those Tier-2 Measurements listed in Appendix -2 as subject to a per measurement assessment an assessment amount as shown in the Assessment Table above is payable to the Texas State Treasury for each measure that exceeds the Critical Z-value, shown in the table below, for three consecutive months.

9.3 The following table will be used for determining the Critical Z-value for each measure , as well as the K values referred to below based on the total number of measures that are applicable to a CLEC in a particular month. The table can be extended to include CLECs with fewer performance measures. The Critical Z-value for Tier 2 will be calculated in the same manner as for Tier 1.[1]

Critical Z - Statistic Table

Number of Performance Measures	K Values	Critical Z-value
1	0	1.65
2	0	1.96
3	0	2.12
4	0	2.23
5	0	2.32
6	0	2.39
7	0	2.44
8	1	1.69
9	1	1.74
10-19	1	1.79
20-29	2	1.73
30-39	3	1.68
40-49	3	1.81
50-59	4	1.75
60-69	5	1.7

[1] This sentence is added to clarify the manner in which Critical-Z value is calculated.

70 –79	6	1.68
80 – 89	6	1.74
90 – 99	7	1.71
100 – 109	8	1.68
110 –119	9	1.7
120 – 139	10	1.72
140 – 159	12	1.68
160 – 179	13	1.69
180 – 199	14	1.7
200 – 249	17	1.7
250 – 299	20	1.7
300 – 399	26	1.7
400 – 499	32	1.7
500 – 599	38	1.72
600 – 699	44	1.72
700 – 799	49	1.73
800 – 899	55	1.75
900 – 999	60	1.77
1000 and above	Calculated for Type-1 Error Probability of 5%	Calculated for Type-1 Error Probability of 5%

10.0 General Assessments:

10.1 If SWBT fails to submit performance reports by the 20th day of the month, the following assessments apply unless excused for good cause by the Commission:

If no reports are filed, $5,000 per day past due;
If incomplete reports are filed, $1,000 per day for each missing performance results.

10.2 If SWBT alters previously reported data to a CLEC, and after discussions with SWBT the CLEC disputes such alterations, then the CLEC may ask the Commission to review the submissions and the Commission may take appropriate action. This does not apply to the limitation stated under the section titled "Exclusions Limited."

10.3 When SWBT performance creates an obligation to pay liquidated damages to a CLEC or an assessment to the State under the terms set forth herein, SWBT shall make payment in the required amount on or before the 30th day following the due date of the performance measurement report for the month in which the obligation arose (e.g., if SWBT performance through March is such that SWBT owes liquidated damages to CLECs for March performance, or assessments to the State for January – March performance, then those payments will be due May 15, 30 days after the April 15 due date for reporting March data). For each day after the due date that SWBT fails to pay the required amount,

SWBT will pay interest to the CLEC at the maximum rate permitted by law for a past due liquidated damages obligation and will pay an additional $3,000 per day to the Texas State Treasury for a past due assessment.

10.4 SWBT may not withhold payment of liquidated damages to a CLEC, for any amount up to $3,000,000 a month, unless SWBT had commenced an expedited dispute resolution proceeding on or before the payment due date, asserting one of the three permitted grounds for excusing a damages payment below the procedural threshold (Force Majeure, CLEC fault, and non-SWBT problems associated with third-party systems or equipment). In order to invoke the procedural threshold provisions allowing for escrow of damages obligations in excess of $ 3,000,000 to a single CLEC (or $ 10,000,000 to all CLECs), SWBT must pay the threshold amount to the CLEC(s), pay the balance into escrow, and commence the show cause proceeding on or before the payment due date.

10.5 CLEC will have access to monthly reports on performance measures and business rules through an Internet website that includes individual CLEC data, aggregate CLEC data, and SWBT's data.

10.6 The cap provided in Section 7.3 does not apply to assessments under Section 10 of this Attachment.

11.0 Methods of Calculating the Liquidated Damage and Assessment Amounts

The following methods apply in calculating per occurrence liquidated damage and assessments:

11.1 Tier-1 Liquidated Damages

11.1.1 *Application of K Value Exclusions*

Determine the number and type of measures with a sample size greater than 10 that are "non-compliant" for the individual CLEC for the month, applying the parity test and bench mark provisions provided for above. Sort all measures having non-compliant classification with a sample size greater than 10 in ascending order based on the number of data points or transactions used to develop the performance measurement result (e.g., service orders, collocation requests, installations, trouble reports). Exclude the first "K" measures designated Low on Appendix -1, starting with the measurement results having the fewest number of underlying data points greater than 10. If all Low measurement results with a non-compliant designation are excluded before "K" is exceeded, then the exclusion process proceeds with the Medium measurement results and thereafter the High measurement results. If all Low, Medium and High measurements are excluded, then those measurements with sample sizes less than 10 may be excluded until "K" measures are reached. In each category measurement results with non-compliant designation having the fewest

underlying data point are then excluded until either all non-compliant measurement results are excluded or "K" measures are excluded, whichever occurs first. For the remaining non-compliant measures that are above the K number of measures, the liquidated damages per occurrence are calculated as described further below. (Application of the K value may be illustrated by an example, if the K value is 6, and there are 7 Low measures and 1 Medium and 1 High which exceed the Critical Z-value, the 6 Low measures with the lowest number of service orders used to develop the performance measure are not used to calculate the liquidated damages, while the remaining 1 Low measure, 1 Medium measure, and 1 High measure which exceed the critical Z-value are used.) In applying the K value, the following qualifications apply to the general rule for excluding measures by progression from measures with lower transaction volumes to higher. A measure for which liquidated damages are calculated on a per measure basis will not be excluded in applying the K value unless the amount of liquidated damages payable for that measure is less than the amount of liquidated damages payable for each remaining measure. A measure for which liquidated damages are calculated on a per occurrence basis subject to a cap will be excluded in applying the K value whenever the cap is reached and the liquidated damages payable for the remaining non-compliant measures are greater than the amount of the cap.

11.1.2 Calculating Tier-1 Liquidated Damages

11.1.2.1 Measures for Which the Reporting Dimensions are Averages or Means.

Step 1: Calculate the average or the mean for the measure for the CLEC that would yield the Critical Z-value. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the critical Z-value by adding or subtracting the critical Z-value to the benchmark as appropriate, subject to 4.0 and the Business Rules.).

Step 2: Calculate the percentage difference the between the actual average and the calculated average.

Step 3: Multiply the total number of data points by the percentage calculated in the previous step and the per occurrence dollar amount taken from the Liquidated Damages Table to determine the applicable liquidated damages for the given month for that measure.

11.1.2.2 Measures for Which the Reporting Dimensions are Percentages.

Step 1: Calculate the percentage for the measure for the CLEC that would yield the Critical Z-value. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures,

calculate the value that would yield the critical Z-value by adding or subtracting the critical Z-value to the benchmark as appropriate, subject to 4.0 and the Business Rules.).

Step 2: Calculate the difference between the actual percentage for the CLEC and the calculated percentage.

Step 3: Multiply the total number of data points by the difference in percentage calculated in the previous step and the per occurrence dollar amount taken from the Liquidated Damages Table to determine the applicable liquidated damages for the given month for that measure.

11.1.2.3 Measures for Which the Reporting Dimensions are Ratios or Proportions.

Step 1: Calculate the ratio for the measure for the CLEC that would yield the Critical Z-value. Use the same denominator as the one used in calculating the Z-statistic for the measure.

Step 2: Calculate the percentage difference between the actual ratio for the CLEC and the calculated ratio.

Step 3: Multiply the total number of data points by the percentage calculated in the previous step and the per occurrence dollar amount taken from the Liquidated Damages Table to determine the applicable liquidated damages for the given month for that measure.

12.2 Tier Two Liquidated Damages

12.2.1 Determine the Tier-2 measurement results, such as High, Medium, or Low that are non-compliant for three consecutive months for all CLECs, or individual CLEC if the measure is not reported for all CLECs.

If the non-compliant classification continues for three consecutive months, an additional assessment will apply in the third month and in each succeeding month as calculated below, until SWBT reports performance that meets the applicable criterion. That is, Tier-2 assessments will apply on a "rolling three month" basis, one assessment for the average number of occurrences for months 1-3, one assessment for the average number of occurrences for months 2-4, one assessment for the average number of occurrences for months 3-5, and so forth, until satisfactory performance is established.

12.2.2 Measures for Which the Reporting Dimensions are Averages or Means.

Step 1: Calculate the average or the mean for the measure for the CLEC that would yield the Critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the Critical Z-value by adding or subtracting the Critical Z-value to the benchmark as appropriate, subject to 4.0 and the Business Rules.).

Step 2: Calculate the percentage difference between the actual average and the calculated average for the third consecutive month.

Step 3: Multiply the total number of data points by the percentage calculated in the previous step. Calculate the average for three months and multiply the result by $500, $300, and $200 for Measures that are designated as High, Medium, and Low respectively; to determine the applicable assessment payable to the Texas State Treasury for that measure.

12.2.3 Measures for Which the Reporting Dimensions are Percentages.

Step 1: Calculate the percentage for the measure for the CLEC that would yield the Critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the critical Z-value by adding or subtracting the Critical Z-value to the benchmark as appropriate, subject to 4.0 and the Business Rules.).

Step 2: Calculate the difference between the actual percentage for the CLEC and the calculated percentage for each of the three non-compliant months.

Step 3: Multiply the total number of data points for each month by the difference in percentage calculated in the previous step. Calculate the average for three months and multiply the result by $500, $300, and $200 for measures that are designated as High, Medium, and Low respectively; to determine the applicable assessment for that measure.

12.2.4 Measures for Which the Reporting Dimensions are Ratios or Proportions.

Step 1: Calculate the ratio for the measure for the CLEC that would yield the Critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the Critical Z-value by adding or subtracting the Critical Z-value to the benchmark as appropriate, subject to 4.0 and the Business Rules.).

Step 2: Calculate the percentage difference between the actual ratio for the CLEC and the calculated ratio for each month of the non-compliant three-month period.

Step 3: Multiply the total number of service orders by the percentage calculated in the previous step for each month. Calculate the average for three months and multiply the result by $500, $300, and $200 for measures that are designated as High, Medium, and Low respectively; to determine the applicable assessment for that measure.

13.0 This Section Intentionally Left Blank

14.0 Attached hereto, and incorporated herein by reference, are the following Appendices:

Appendix 1: Measurements that are Subject to Per Occurrence Damages or Assessment with a Cap

Appendix 2: Measurements that are Subject to Per Measure Damages or Assessment

September 28, 1999

Priscilla Hill-Ardoin
Senior Vice President-FCC
SBC Telecommunications, Inc.
1401 I Street, N.W.
Suite 1100
Washington, D.C. 20005

Dear Ms. Hill-Ardoin:

On August 31, 1999, members of the Common Carrier Bureau staff met with representatives from Southwestern Bell Telephone ("SWBT") to discuss SWBT's proposed voluntary enforcement mechanism, the "Performance Remedy Plan" (the "Plan"), which is designed to deter poor performance in the provision of resale services and unbundled network elements to competitors. The Plan was developed through a collaborative process in Texas in conjunction with a proceeding addressing SWBT's application for authority to provide in-region, interLATA services under section 271 of the Telecommunications Act. We appreciate and commend the work of the Texas Public Utilities Commission, in conjunction with SWBT and other participating parties, in developing the Plan. We share the Texas Public Utilities Commission's goal of ensuring that SWBT's performance will not deteriorate after the company receives section 271 authorization, and believe the Plan represents a critical step in this direction.

I would like to take this opportunity to summarize the Bureau's concerns, as expressed by the staff at the August 31st meeting. These views represent the current thinking of the Common Carrier Bureau and are in no way binding on the Commission. Any final determination concerning the merits of this performance plan will be made based on the record in the section 271 application for Texas. It is my hope, however, that the Bureau's views on these issues will provide useful guidance to you and other Bell Operating Companies in formulating successful section 271 applications.

1. Exclusion Of CLECs From The Plan's Tier 2 Mechanisms

The Bureau is concerned that the Plan's "Tier 2" mechanism will address SWBT's performance only with respect to a sub-set of competitive local exchange carriers ("CLECs") operating in Texas, rather than all CLECs, and thus will inadequately protect the competitive marketplace as a whole. The Plan contains two levels of incentive mechanisms. First, Tier 1 addresses SWBT performance with respect to individual CLECs, providing for SWBT payments to a particular CLEC when an out-of-

parity result occurs. Tier 1 would replace any existing liquidated damages provisions in a CLEC's interconnection agreement with SWBT. Second, Tier 2 addresses SWBT performance with respect to all CLECs in the aggregate, providing for SWBT payments to the Texas state treasury when an out-of-parity result occurs. SWBT has proposed making the Plan available to CLECs in Texas as an attachment to its Proposed Interconnection Agreement. A CLEC wishing to participate in the Plan would be required to "opt into" this attachment. As currently proposed, only performance data associated with those CLECs that decide to opt into the Plan (and thereby agree to replace their negotiated liquidated damages provisions with the Tier 1 remedies) would be included in the Tier 2 mechanism.

The Bureau is seriously concerned that the exclusion from the Tier 2 performance mechanism of CLECs that choose not to opt into the Plan could substantially weaken the important deterrent effect of this aspect of the Plan. Indeed, if several CLECs decide not to opt into the new enforcement plan, then the protections offered to competition by Tier 2 on paper may not be realized in practice. Specifically, excluding any CLEC from Tier 2 would necessarily decrease the number of data observations. Because the payments under Tier 2 for most measurements are calculated on a "per-occurrence" basis, the exclusion of CLECs not opting into the Plan, and their corresponding "occurrences," could substantially reduce the amounts at stake under Tier 2 in the event SWBT fails to achieve the performance standards. Accordingly, staff suggested that Tier 2 should address SWBT's performance with respect to all CLECs operating in the state. The Bureau is aware of no operational reason for excluding from the Tier 2 incentive structure those CLECs that choose to retain their own negotiated liquidated damages provisions. In fact, SWBT indicated to Bureau staff that it already collects performance data for all CLECs, and will continue to do so after receiving section 271 authorization, regardless of whether certain CLECs decide not to opt into the Plan.

2. Caps on Liability for Poor Performance

The Bureau is also concerned that the $120 million annual cap on SWBT's potential payments for poor performance under the Plan may be too low to foster parity performance in a market the size of Texas. In particular, the Bureau believes that the potential liability under such a plan must be high enough that an incumbent could not rationally conclude that making payments under an enforcement plan is an acceptable price to pay for hindering or blocking competition.

As a first step, the Bureau urges SWBT to consider increasing the $120 million cap on payments under its plan. When viewed as a percentage of SWBT's in-state gross local revenues (approximately 2.19%), this amount of potential liability may be insufficient to provide the assurances discussed above. As a second step, we emphasize that SWBT must justify whatever cap is finally proposed. The Bureau is open to considering whether there is a reasoned basis for concluding that the proposed annual cap of $120 million would provide adequate incentives for maintaining performance levels. Finally, SWBT may wish to consider adding some form of a "procedural cap" to its Plan, under which an administrative proceeding to identify and correct performance problems

would be instituted automatically after payments under the Plan reach a pre-determined amount during the course of a year.

3. Adequate Incentive Payments Associated With Low-Volume Services

The Bureau is concerned that the Plan may not offer adequate protection for nascent, low-volume services (particularly, innovative "advanced services"), as opposed to services with higher CLEC volumes. The reason for this is imbedded in the design of the plan. The vast majority of performance measurements under the current plan provide for payments calculated on a per-occurrence basis. For such measurements, payments would reach substantial and meaningful levels when the number of out-of-parity occurrences is high – that is, when a measurement is considerably out-of-parity for a service with high volumes, such as Resale POTS service. The converse also is true: payments necessarily will be small for low-volume services because the number of occurrences will be low, even if a CLEC suffers seriously degraded service. Competition could be significantly affected by poor incumbent LEC performance in providing specialty services used by small CLECs, or nascent services (particularly, innovative "advanced services") that have not yet achieved high commercial volumes.

We hope that this letter will be useful to your company in preparing a successful section 271 application. We emphasize, however, that, while this letter sets forth the Bureau's major existing concerns about SWBT's performance assurance plan, it is likely that additional concerns will arise in the context of other section 271 proceedings. Also, any final determinations regarding this proposed Plan will be made by the Commission based on the record of SWBT's 271 application for the State of Texas.

For information purposes, a copy of this letter will be placed in CC Docket No. 98-121[1] and CC Docket No. 98-56.[2]

Sincerely,

Lawrence E. Strickling, Chief
Common Carrier Bureau
Federal Communications Commission

cc: Ms. Magalie Roman Salas
Secretary
Federal Communications Commission

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[1] Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana, CC Docket No. 98-121, Memorandum Opinion and Order, 13 FCC Rcd 20599 (1998).

[2] Performance Measurements and Reporting Requirements for Operations Support Systems, Interconnection, and Operator Services and Directory Assistance, CC Docket No. 98-56, Notice of Proposed Rulemaking, 13 FCC Rcd 12817 (1998).

Before the
KENTUCKY PUBLIC SERVICE COMMISSION
Frankfort, Kentucky

In re: Petition of ICG Telecom Group, Inc. for Arbitration with BellSouth Telecommunications, Inc. Pursuant to Section 252 of the Telecommunications Act of 1996	Docket No. 99-218

DIRECT TESTIMONY
OF BRUCE HOLDRIDGE
ON BEHALF OF
ICG TELECOM GROUP, INC.

ICG TELECOM GROUP, INC.

DIRECT TESTIMONY OF BRUCE HOLDRIDGE

BEFORE THE KENTUCKY PUBLIC SERVICE COMMISSION

DECEMBER 2, 1999

Q. PLEASE STATE YOUR NAME, ADDRESS AND EMPLOYMENT.

A. My name is Bruce Holdridge. I am the Vice President of Government Affairs of ICG Communications, Inc., which is the parent company of ICG Telecom Group, Inc. ("ICG"). My office is located at 180 Grand Avenue, Suite 800, Oakland, California 94612.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE WITH ICG.

A. I received a B.A. in Mass Communications/Telecommunications from University of California, Davis. From over 20 years of work in the telecommunications industry, I have acquired a substantial expertise in domestic and international local exchange carrier ("LEC") and interexchange carrier ("IXC") business and network operations. As ICG's Vice President of Government Affairs, I am responsible for the administration of existing, and the establishment of new, network interconnection agreements between ICG and both the Bell companies and independent local exchange telephone companies. Before being appointed Vice President of Government Affairs in May, 1999, I was Vice President and General Manager of ICG, Northern California, for almost two years. In my prior position, I was responsible for managing the daily network and business operations for numerous fiber optic and microwave transport systems and

network switches. I also managed a multi-million dollar budget and generated and directed annual EBIDTA growth. Prior to that position, I was Senior Director of ICG's Government Affairs department. In this position, I developed and advocated all company government and regulatory policies before the California Public Utilities Commission and the State of California. I was also responsible for implementing and maintaining company regulatory compliance and network interconnection agreements between ICG and Pacific Bell/GTE.

Q. FOR WHOM DID YOU WORK BEFORE JOINING ICG?

A. Before joining ICG, I was Vice President and General Manager for Time Warner Communications, Inc. ("Time Warner") where I established and directed the business and network development of Time Warner's Hawaii market. I held this position for nearly three years, during which I was involved in budget management, supervised 45 people and 35 contractors, and assisted with the expansion of network service to neighboring islands. Prior to my work with Time Warner, I spent almost two years as Director of Carrier Marketing for Citizens Telephone Company ("Citizens"). While at Citizens, I developed and maintained business relations between Citizens and IXCs. I increased the annual revenues of Citizens by over 5 million dollars, by implementing several new programs. Before my tenure at Citizens, I was employed by Sprint Corporation ("Sprint") for ten years, during which I held a variety of positions. I started at Sprint as the Supervisor of Network Traffic Planning, where I maintained access, egress, and IMT network of service. I was promoted to Senior Operations Analyst, thereafter to Corporate Marketing Product Manager and then to Corporate Market Manager. Before leaving Sprint, I became the National

Account Senior Network Design Engineer. In this role, I was the lead technical consultant responsible for the design of custom voice, private line data, and switched-packet data networks to meet national account customer applications. I also designed and installed virtual private networks, packet data services, 800 and out WATS services, and dedicated private lines services. Prior to my work at Sprint, I worked for Mountain Bell for one year as a circuit layout record specialist.

Q. HAVE YOU TESTIFIED IN STATE REGULATORY PROCEEDINGS PREVIOUSLY?

A. Yes. In 1994, I testified in a limited proceeding before the State of Hawaii Public Utilities Commission on behalf of Time Warner. Specifically, my testimony sponsored Time Warner's application for a Certificate of Public Convenience and Necessity for local exchange authority. In 1996 and 1997, I provided various presentations, in limited and informal proceedings, on behalf of ICG to the State of California Public Utilities Commission on such issues as access to rights of way, central office collocation requirements, the need for Unbundled Network Elements ("UNEs"), and reciprocal compensation. I also have testified recently before the Alabama Public Service Commission, the Florida Public Service Commission and the North Carolina Utilities Commission on behalf of ICG in its arbitration proceedings with BellSouth.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address areas of disagreement between ICG and BellSouth not addressed by the other witnesses for ICG. My intention is to present ICG's position on each issue and the reasons that underlie that position.

Q. HOW WERE ICG'S NEGOTIATIONS WITH BELLSOUTH CONDUCTED?

A. The negotiations began before my involvement, but I am aware from my participation in the negotiations that ICG and BellSouth first entered into an interconnection agreement that became effective on October 27, 1997 and was scheduled to expire one year later on October 27, 1998. As contemplated by its terms, ICG and BellSouth have continued to operate, and are currently operating, pursuant to the Agreement. On December 18, 1998, pursuant to the provisions of the Interconnection Agreement, which invoke the procedures set forth in Section 252(b)(4)(c) of the Telecommunications Act of 1996 (the "Act"), BellSouth informed ICG that BellSouth would like to negotiate the terms of a new interconnection agreement pursuant to Section 251 of the Act. ICG seeks to complete a successor interconnection agreement that will replace the existing Agreement.

Q. HOW DID THE NEGOTIATIONS PROCEED?

A. BellSouth and ICG have held numerous meetings, both in person and by telephone, to discuss the rates, terms, and conditions pursuant to which BellSouth would provide interconnection and related services and facilities to ICG. During negotiations for a new interconnection agreement, ICG and BellSouth provided each other with proposed drafts. The Parties did not reach an agreement to adopt either proposed draft, but ICG believes that there is agreement with BellSouth on many of the issues raised, although specific language has not been explicitly agreed upon. Unfortunately, the Parties did not reach agreement on the specific issues that ICG is now arbitrating.

Q. ON WHICH ISSUES DO THE PARTIES CONTINUE TO DISAGREE?

A. ICG and BellSouth have disagreements in the following areas: (1) whether reciprocal

compensation should apply to calls to ISPs; (2) apart from calls to ISPs, what the appropriate rate should be for reciprocal compensation for the termination of any calls originated by BellSouth's end-users and terminated on ICG's facilities to ICG subscribers; (3) the availability of unbundled network elements ("UNEs") associated with packet-switching; (4) the availability of the enhanced extended link ("EEL") as a UNE; (5) the ability to enter into binding forecasts of traffic requirements; and (6) performance standards and the appropriate remedies for BellSouth's failure to meet these standards. ICG witnesses Cindy Schonhaut and Michael Starkey will address the reciprocal compensation issues. Philip Jenkins will address binding forecasts. Gwen Rowling, Michael Starkey and I will each testify about performance standards. I will discuss the remaining issues.

Q. DURING NEGOTIATIONS BETWEEN ICG AND BELLSOUTH REGARDING THE AVAILABILITY OF PACKET-SWITCHING CAPABILITIES AS UNES, DID BELLSOUTH STATE THAT IT WOULD NOT MAKE SUCH CAPABILITIES AVAILABLE AS UNES?

A. Yes. BellSouth's position in the initial negotiations with ICG was that BellSouth would provide a "finished frame relay service" under tariff and access to limited disaggregated segments of the service under a commercial services contract. BellSouth also represented that it would not allow a CLEC to purchase UNEs to access service to the BellSouth frame relay product unless the CLEC is physically collocated in the same central office as the BellSouth frame relay switch. Under this approach, if access between the non-contiguous central office and CLEC collocation site is required, the CLEC must purchase tariff-based access service.

Q. HAS BELLSOUTH CHANGED ITS POSITION ON THE AVAILABILITY OF PACKET-SWITCHING CAPABILITIES AS UNEs SINCE ITS NEGOTIATIONS WITH ICG?

A. Yes. BellSouth now states that it agrees "to provide packet-switching capabilities identified in Issue 3 of ICG's Petition for Arbitration at rates proposed by BellSouth pending the FCC issuing a final non-appealable order on rule 51.319." *See* BellSouth's September 29, 1999 response to ICG's Interrogatory No. 18.

Q. IS BELLSOUTH'S NEW POSITION ON THE AVAILABILITY OF PACKET-SWITCHING CAPABILITIES AS UNES ACCEPTABLE TO ICG?

A. ICG has not yet seen BellSouth's proposed pricing for Kentucky, but it is acceptable to the extent that ICG can obtain the capabilities at TELRIC rates. With regard to collocation, BellSouth should inform the Commission as to whether BellSouth maintains the position it took in negotiations that a carrier must physically collocate at the same central office as the Frame Relay switch in order for BellSouth to interconnect UNE packet-switching capabilities between BellSouth and ICG. Such a condition would not be acceptable to ICG.

Q. HAS THE FEDERAL COMMUNICATIONS COMMISSION ("FCC") ADDRESSED THE ISSUE OF PACKET-SWITCHING AS A UNE?

A. Yes. At a meeting on September 15, 1999 in CC Docket No. 99-41, the FCC adopted an order on UNEs ("UNE Order"). The full text of the FCC's UNE Order has not been released. According to an FCC press release, the FCC held in the UNE Order that as a general matter, it is not

requiring ILECs to unbundle packet-switching. However, the press release further noted that (1) ILECs "are required to provide access to combinations of loop multiplexing equipment/concentrating equipment and dedicated transport if they are currently combined" and (2) state commissions are permitted to require ILECs to unbundle elements other than those ordered unbundled by the FCC as long as such obligations are consistent with the requirements of Section 251 of the Act and the national policy framework instituted in the UNE Order. As a result of (1) and/or (2) above, the Commission has authority to direct that BellSouth offer packet-switching elements at UNE rates in Kentucky.

Q. WHICH PACKET-SWITCHING CAPABILITIES SHOULD BE REQUIRED TO BE MADE AVAILABLE AS UNES?

A. ICG would like to purchase both frame relay and ATM service in a UNE type arrangement from BellSouth. For example, ICG would like to be able to purchase from BellSouth, either in part(s) or in whole, and not limited to, the packet assembler/dis-assembler (PAD), the customer access circuit, any circuit link(s) between the customer serving central office and the central office in which the frame relay switch is located, and the frame relay switch port, as required per customer application.

Q. ARE THERE OTHER UNES THAT ICG REQUIRES TO BE ABLE TO OFFER COMPETITIVE PACKET-SWITCHING SERVICES?

A. Yes. ICG also requires a network to network interface ("NNI") at speeds ranging from 56 kbps to 44.736 Mbps. The NNI UNEs will allow ICG to provide facilities-based, packet-switching

services and efficiently interconnect its users with users of BellSouth packet-switching services. ICG also requires data link control identifiers ("DLCI") as UNEs that provide committed information rates ("CIRs") between O kbps and 20.072 Mbps so that ICG can efficiently utilize the UNEs and NNIs for competitive product offerings.

Q. WHY DOES ICG SEEK ACCESS TO PACKET-SWITCHING CAPABILITIES AS UNES?

A. Consistent with the innovation it has always shown in providing new services to its customers, ICG requires various packet-switching UNEs to provide competitive advanced services to its customers. A network element is defined in 47 U.S.C.§3(28) as follows:

> The term "network element" means a facility or equipment used in the provision of a telecommunications service. Such term also includes features, functions, and capabilities that are provided by means of such facility or equipment, including subscriber numbers, databases, signaling systems, and information sufficient for billing and collection or used in the transmission, routing, or other provision of a telecommunications service.

Packet-switched capabilities should be available as UNEs to ensure that the prices charged to ICG for these capabilities are TELRIC-based. ICG's ability to obtain packet-switching capabilities at TELRIC rates ensures, in turn, that the rates for the finished services ICG provides to its customers will be competitive with any potential offerings from BellSouth.

Q. WHAT IS BELLSOUTH'S POSITION WITH REGARD TO THE "ENHANCED EXTENDED LINK" ("EEL")?

A. BellSouth declined to provide the enhanced extended link ("EEL") to ICG as a UNE. By

using the EEL, if an ICG customer is served out of Central Office A, yet the ICG collocation site is in Central Office B, ICG can get from Central Office A to the ICG collocation site in Central Office B at a TELRIC rate. BellSouth offered to provide the EEL capability to ICG through BellSouth's "Professional Services Agreement" at rates that appear to be substantially higher than they would be under TELRIC. By declining to provide the EEL as a UNE, BellSouth forces ICG to pay a significantly higher rate for the EEL capability.

Q. WHY DOES ICG SEEK ACCESS TO THE EEL AS A UNE?

A. To offer advanced local exchange services that its customers increasingly demand, ICG requires the ability to obtain at reasonable, TELRIC-based rates, the unbundled elements at the DS0 or larger bandwidth level that will comprise the advanced services. BellSouth's provision of the EEL at retail prices significantly undercuts ICG's ability to introduce the innovative advanced services that ICG's customers want and forces ICG to incur the significant expense of collocating in BellSouth's central offices which would be unnecessary if the EEL were available at TELRIC rates. BellSouth's retail pricing of the EEL severely limits ICG's emergence as a competitor to BellSouth in the market for advanced services.

Q. DOES ICG INTEND TO USE THE EEL PRIMARILY TO OFFER LOCAL EXCHANGE SERVICE OR TO OFFER SPECIAL ACCESS?

A. ICG intends to use the EEL primarily for offering its customers local exchange service. Of course, to the extent ICG's customers demand the EEL for special access, ICG would expect to respond to that demand.

Q. ARE YOU AWARE OF ANY SERVICES THAT BELLSOUTH PROVIDES USING AN EEL?

A. Yes. It is my understanding that not all of BellSouth's switches have ISDN capability, but that BellSouth provides ISDN Basic Rate Interface ("ISDN-BRI") service, and possibly ISDN Primary Rate Interface ("ISDN-PRI") service, in all exchanges. In exchanges where the serving switch does not have ISDN capability, BellSouth provides ISDN by combining a loop from the serving central office with transport to an ISDN-capable switch.

Q. IS THIS ANALOGOUS TO THE USES FOR WHICH ICG WANTS TO BE ABLE TO OBTAIN EELS?

A. Yes. By using a loop and transport combination, BellSouth is able to offer ISDN services in exchanges where there is insufficient demand to justify the cost of installing an ISDN-capable switch. Similarly, by using a EEL, ICG would be able to offer its services to customers located within the serving area of a BellSouth central office where ICG has insufficient customers to justify the cost of collocation. In each case, the use of EEL permits more efficient use of network and switching resources than would be possible without the EEL.

Q. WHY IS IT NECESSARY FOR ICG TO OBTAIN THE EEL AS A UNE, RATHER THAN AS A TARIFFED SERVICE OR THROUGH A PROFESSIONAL SERVICES AGREEMENT?

A. If ICG is forced to pay BellSouth the significantly higher EEL prices in BellSouth's tariffs or its Professional Services Agreements, ICG will not be able to achieve the same efficiencies as

BellSouth, and ICG will be forced to collocate in order to serve customers in cases where the cost of doing so is not truly justified. By charging ICG prices for EELs that exceed the TELRIC rates applicable to UNEs, BellSouth would in effect capture for itself the cost savings resulting from ICG's use of EELs.

Q. SHOULD BELLSOUTH GIVE ICG VOLUME AND TERM DISCOUNTS FOR UNES?

A. Yes. ICG should receive the benefit of any reduced costs that BellSouth experiences from provisioning service either in high volumes within a specified period or for extended terms. This is addressed in greater detail in Michael Starkey's testimony.

Q. DID ICG PROPOSE PERFORMANCE STANDARDS IN ITS NEGOTIATIONS WITH BELLSOUTH?

A. Yes. ICG proposed to include in the Agreement an attachment addressing performance standards. The Performance Standards would have establish liquidated damages for ICG in the event that BellSouth fails to meet its obligations under the Agreement.

Q. DID BELLSOUTH ACCEPT THAT PROPOSAL?

A. No. BellSouth did not.

Q. HOW DOES ICG PROPOSE THAT THE KENTUCKY COMMISSION ADDRESS THIS ISSUE?

A. As explained in Ms. Rowling's testimony, fully effective performance measures and enforcement mechanisms are critical to the entire CLEC industry. The Texas Utility Commission

("Texas Commission") has adopted such effective performance measures and enforcement mechanisms. Therefore, as stated in Ms. Rowling's testimony, ICG asks this Commission to adopt the same performance measures and enforcement mechanisms adopted by the Texas Commission.

Q. WHY ARE ENFORCEMENT MECHANISMS NECESSARY AND APPROPRIATE?

A. Enforcement mechanisms are necessary for the following reasons. BellSouth, although obliged by law to provide competitive carriers service on a parity with its retail customers, has a strong, inherent economic incentive not to do so. By providing competitors inadequate service for use of its bottleneck facilities -- whether through understaffing, or cumbersome systems that lead to installation delays, trunk blockage, uncoordinated cut-overs, etc. -- BellSouth makes it more difficult for those competitors to lure away BellSouth customers. BellSouth knows that every day it can delay or hinder a competitor's entry into its market is another day it can retain its monopoly revenues.

Moreover, given BellSouth's behavior since the passage of the Act, the incentive of entering the long distance market has not been sufficiently strong for BellSouth to provide an adequate level of service to competitive carriers. Its economic incentive to retain its monopoly local exchange revenues appears to heavily outweigh its desire to enter a long distance market where profit margins have been rapidly shrinking in recent years.

Accordingly, competitive carriers need leverage in the form of liquidated damages and/or penalties in their interconnection agreements to provide incentive to BellSouth to perform its obligations in a satisfactory manner. That incentive will be all the more important once BellSouth

is given the reward of entering the long distance market. It is also important to appreciate how critically important it is to ICG that it obtain timely and high quality services from BellSouth. Absent such a level of service, ICG will not be able to attract or retain the customers it needs to grow its business.

Q. HAS BELLSOUTH ACKNOWLEDGED THAT AN ENFORCEMENT MECHANISM MIGHT BE APPROPRIATE FOR ENSURING IT MEETS THE PERFORMANCE STANDARDS TO WHICH IT AGREES?

A. Yes, it has. BellSouth recently filed a "Proposal for Self-Effectuating Enforcement Measures" on an *ex parte* basis with the Federal Communications Commission ("FCC"). In its proposal, BellSouth recognizes the need for monetary damages to be paid to a competitive carrier for failure to meet performance standards. It is worth noting that in negotiations with ICG, BellSouth specifically declined to follow the approach outlined in its proposal, even when ICG specifically referred BellSouth to the proposal.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes, it does.