COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

INVESTIGATION CONCERNING THE) PROPRIETARY OF INTERLATA SERVICES) BY BELLSOUTH TELECOMMUNICATIONS,) INC., PURSUANT TO THE) TELECOMMUNICATIONS ACT OF 1996)	CASE NO. 2001-105

PREFILED TESTIMONY

OF KAREN KINARD

ON BEHALF OF WORLDCOM, INC.

July 9, 2001

C. Kent Hatfield, Esquire
Henry S. Alford, Esquire
MIDDLETON REUTLINGER
2500 Brown & Williamson Tower
Louisville, Kentucky 40202
(502) 584-1135

COUNSEL FOR WORLDCOM, INC.

1	Q.	**PLEASE STATE YOUR NAME.**
2	A.	My name is Karen Kinard. My business address is 8521 Leesburg Pike, Vienna,
3		Virginia 22182. I am employed by WorldCom, Inc. ("WorldCom") as a Senior
4		Staff Member within the ILEC Performance Advocacy group of WorldCom's
5		National Carrier Policy and Planning organization.
6 7 8	Q.	**PLEASE PROVIDE INFORMATION ON YOUR BACKGROUND AND EXPERIENCE.**
9	A.	I am responsible for performance measurement and remedy plan policy
10		development and advocacy for WorldCom, and I was a key developer of the
11		Local Competition Users' Group's ("LCUG's") version 7 Service Quality
12		Measurement document. I have held various positions since joining WorldCom's
13		(then MCI's) Local Initiatives group in June 1996, including leading a team that
14		provided subject matter expertise during the first round of interconnection
15		agreement negotiations.
16		

1   Before joining WorldCom, I was an editor for eleven years at

2   Telecommunications Reports ("TR"), covering technology, state regulation,

3   access charge issues, and jurisdictional cost separations policy.   I also held the

4   position of chief technology editor and other top editorial positions, including

5   serving as the principal editor of TR's Communications Business and Finance and

6   Cable-Telco Competition Report newsletters. I initiated TR's Communications

7   Billing Report newsletter before joining Phillips Business International's

8   Communications Today daily electronic newsletter in 1995 as its chief Federal

9   Communications Commission ("FCC") correspondent. From 1976 to 1984, I

10   served in various positions as an aide to the Congressman for the Seventh District

11   of Pennsylvania, including Press Secretary and Legislative Assistant for

12   telecommunications policy and banking.

13

14   I received my Masters of Science degree in Telecommunications Policy and

15   Management from George Washington University in 1984. I received a

16   Bachelors of Science degree in Communications from West Chester University in

17   1975. I also hold a paralegal certificate in Corporate Law from Widener

18   University.

19 Q.   **WHAT IS YOUR EXPERIENCE IN PERFORMANCE MEASUREMENTS**
20   **WORK IN OTHER JURISDICTIONS?**
21
22 A.   I have been WorldCom's lead representative in carrier-to-carrier performance

23   measurement and remedy collaboratives, have made metric presentations, and

24   have testified or filed comments in many state proceedings since 1998. State

3

1		proceedings in which I have participated include those held in Florida, Louisiana,
2		North Carolina, Tennessee, New York, Pennsylvania, Massachusetts, New Jersey,
3		Virginia, Maryland, Illinois, Michigan, Ohio, Indiana, Colorado and Arizona. I
4		also have filed declarations with the FCC on metric and remedy issues in the New
5		York and Massachusetts 271 proceedings, and I have made presentations and
6		informally discussed metrics and remedy issues with FCC and Department of
7		Justice staff at their request and in ex partes, either done jointly with other LCUG
8		members or solely for WorldCom.
9		
10	Q.	**WHAT IS THE PURPOSE OF YOUR TESTIMONY?**
11	A.	The immediate purpose of my testimony is to respond to the Testimony of
12		BellSouth witness Alphonso Varner filed with the Kentucky Public Service
13		Commission ("Commission") on May 18, 2001. Several major concerns about
14		BellSouth's Self-effectuating Enforcement Plan ("SEEM") also are expressed at
15		the end of my comments. My greater purpose is to assist the Commission in
16		determining whether BellSouth Telecommunications, Inc. ("BellSouth") has met
17		the requirements of 47 U.S.C. § 271 (c) (2) (B). The Commission has a
18		consultative role with respect to BellSouth's application, as described in 47
19		U.S.C. § 271 (d) (2) (B).
20 21 22	Q.	**WHAT PORTION OF MR. VARNER'S TESTIMONY DO YOU ADDRESS?**
23	A.	That portion that deals with the interim and permanent Service Quality
24		Measurements ("SQM") proposed by BellSouth. In so doing, I mainly focus on
25		the interim SQM.

1   Q.   **DOES THIS MEAN THAT WORLDCOM AGREES WITH THE REST OF**
2   **MR. VARNER'S TESTIMONY?**

3

4   A.   Not at all. Certainly WorldCom disagrees with the contention that interLATA

5   entry by BellSouth is in the public interest. WorldCom also agrees with AT&T

6   and other parties who take issue with BellSouth's proposed penalties. Moreover,

7   my focus in this testimony on the interim SQM does not mean that BellSouth's

8   proposed permanent SQM is adequate. Indeed, the opposite conclusion should be

9   drawn. BellSouth has proposed a "permanent" SQM that offers less protection to

10   CLECs than even the interim SQM provides. See Direct Testimony of Alphonso

11   J. Varner at p. 5. Thus BellSouth demonstrates that it intends to backslide from

12   even those commitments that it proposes in the interim SQM.

13

14   Performance measurements are vital to the development of local competition;

15   however, there are so many issues involved in a 271 proceeding that performance

16   measurements tend to get lost or may not be fully considered. Thus the

17   Commission should not approve any "permanent" SQM until a full and

18   independent proceeding for the purpose of determining appropriate performance

19   measurements is conducted. Moreover, as discussed below, the Commission

20   should approve permanent metrics *before* 271 approval is conferred. The

21   permanent metrics this commission should adopt need to go beyond BellSouth's

22   interim plan and not backtread on metrics and benchmarks already hard won by

23   CLECs before they have barely been reported.

24

1	Q.	**DOES WORLDCOM BELIEVE THAT ONLY THE GEORGIA THIRD**
2		**PARTY TEST SHOULD BE REVIEWED BY THE COMMISSION IN**
3		**DETERMINING IF BELLSOUTH'S PERFORMANCE IS ADEQUATE?**
4		
5	A.	No. Mr. Varner neglects to discuss the Florida Third Party OSS Test, which is

more comprehensive than the Georgia proceeding and actually tests the OSS that

CLECs like WorldCom will use. Moreover, BellSouth's performance with regard

to WorldCom's Georgia residential local service, which is an actual commercial

launch instead of a test whose parameters are set by BellSouth, provides and will

provide important information for this Commission to review. (See Lichtenberg

testimony provided by WorldCom.) This Commission at the very least should

await the Florida Public Service Commission's evaluation of the additional

Georgia metrics, and of the further disaggregations and new business rules

derived from the KPMG testing in both Georgia and Florida.

16	Q.	**DO YOU AGREE THAT THE INTERIM SQM SUBMITTED BY**
17		**BELLSOUTH, WHICH MR. VARNER STATES IS IN COMPLIANCE**
18		**WITH THE SQM APPROVED BY GEORGIA, PROVIDES ADEQUATE**
19		**METRICS WITH WHICH TO EVALUATE BELLSOUTH'S**
20		**PERFORMANCE (p. 4)?**
21		
22	A.	No. BellSouth's current metrics have flaws in business rules and calculations,

inappropriate retail analogs, lower benchmarks than most ILECs, and are missing

metrics that cover all the important dependencies CLECs operating in Kentucky

have on BellSouth's services, facilities and Operational Support Systems

("OSS").

27	Q.	**SHOULD THERE BE ADDITIONAL METRICS?**
28		
29	A.	Yes. Along with better pricing and improved OSS functionality, enhanced

performance measurements, standards and remedies will be critical factors in

1   enabling CLECs to enter the Kentucky local market, particularly the residential

2   market. Many of the metric revisions and new metrics (particularly those

3   involving software validation and error correction and timely completion notices)

4   are geared toward ensuring that CLECs' market entry does not run into many of

5   the same impediments encountered elsewhere. These impediments have slowed

6   CLECs' growth in the residential market. They also have harmed customers with

7   double billing and sometimes even local service termination when the ILEC

8   wrongly concluded that a customer was not paying its bills, when in fact the

9   customer had been switched to a CLEC and was paying the CLEC's bills.

10

11   Q.   **HOW WILL INADEQUACIES IN BELLSOUTH's METRICS AFFECT**
12   **WORLDCOM?**
13
14   A.   In mid-May 2001, the MCI division of WorldCom launched its first residential

15   service offering in BellSouth territory, using the unbundled network platform-

16   platform ("UNE-P") mode of delivery in Georgia. As Ms. Lichtenberg's

17   testimony notes, MCI UNE-P customers have experienced an alarmingly high

18   number of dialtone losses shortly after conversion. For conversion of an existing

19   BellSouth customer line to MCI using the UNE-P, the loss of dialtone should be

20   considered unacceptable, if not unfathomable.

21

22   Even though BellSouth's metric plan has a Trouble After Service Order

23   Completion metric, MCI is concerned that it will understate the problem. First,

24   MCI believes that a number of these problems are being wrongly classified as

25   CPE (Customers Premises Equipment) or TNF (Trouble Not Found) designations,

Why is TNF not the question?

1   which exclude them from the metric. Moreover, unlike Verizon and SBC,

2   BellSouth does not report on the number of exclusions for maintenance or

3   provisioning metrics so CLECs can monitor whether they seem unusually high,

4   thus requiring an examination of the raw data. Further, even if the lost dialtone

5   problems do get recorded as troubles, BellSouth judges parity by combining retail

6   residential and business services. By combining these services, more dispatch

7   orders that should be more likely than a UNE-P migration to result in dialtone

8   losses are involved. This will mask a problem that can cause new MCI customers

9   to revert to BellSouth. Also, MCI suspects that there is an unnecessary two-part

10 order process in which the "N" (New) and "D" (Disconnect) orders get out of

11 sequence and the line is physically disconnected before the CLEC is designated as

12 the new carrier for the customer. The problem is very similar to one MCI faced in

13 Texas, where such dialtone losses were understated in SBC-SWBT reporting by

14 the hundreds, due to this same exclusion process. Most importantly, BellSouth's

15 trouble closure reports provide narratives only and do not include the trouble

16 disposition and cause codes that drive these exclusions.

17

18 While the retail analog needs fixing and coding of CPE/TNF dispositions needs to

19 be reported and double-checked, MCI would like to see the process fixed so

20 problems will not put customers at risk of losing dialtone. A one-order process

21 will keep both the problem from recurring and BellSouth from paying any

22 remedies for Troubles within 30 Days of Service Order Activity for what should

23 be simple UNE-P migrations

24

Handwritten note in left margin: "Can Bell disaggregate"

Handwritten note in left margin: "?"

1	Q.	**WHY IS IT IMPORTANT FOR THE METRICS IN A PERFORMANCE**
2		**MEASUREMENT PLAN TO BE COMPREHENSIVE?**

3   A.   A performance measurement plan needs to be comprehensive because significant

4   gaps in coverage can make it extraordinarily difficult and time-consuming to

5   detect and deter below-parity performance. When an area of BellSouth's

6   performance is not covered by a metric, the primary tool available to a CLEC to

7   remedy poor performance is an action to enforce the parties' interconnection

8   agreement. Enforcement actions based on disparate treatment can be uphill

9   battles because the CLEC must prove that BellSouth is providing better service to

10   itself, its customers or its affiliates than to the CLEC. To make its case, the

11   CLEC must somehow obtain accurate internal BellSouth information concerning

12   the service it provides to itself, its customers or its affiliates. Even if this can be

13   done, an enforcement case can take a year or more to complete (at least without

14   the availability of expedited dispute resolution), which typically is far too long for

15   a CLEC attempting to solve an immediate problem affecting its business.

16   Comprehensive performance metrics therefore go hand in hand with the potential

17   for broad scale entry into the local market.

19   This is exactly the view provided by the Department of Justice in opposing

20   approval of BellSouth's Louisiana 271 application:

22   We find no evidence in the record that BellSouth has committed
23   itself in any significant way to specific levels of performance or
24   to any enforcement provisions to remedy inadequate
25   performance. Rather, it appears that, as a general matter, CLECs
26   who feel that BellSouth's performance is inadequate would
27   need to file complaints with the [state] PSC and then, in the
28   course of the resulting regulatory proceedings, establish the
29   appropriate level of performance, whether BellSouth had failed
30   to meet that performance level, and finally, establish the
31   remedy. To be most effective in preventing backsliding, such

1 issues should be resolved in advance, either in contracts
2 between BellSouth and its competitors or through regulatory
3 proceedings.

4

5 Evaluation of the U. S. Department of Justice at 39, filed in In re Application of

6 BellSouth Corporation Pursuant to Section 271 of the Communications Act of

7 1934, as amended, to Provide In-Region, InterLATA Services in Louisiana, CC

8 Docket No. 97-231.

9

10 Thus measurements should cover all problems that can and have arisen through

11 real market experience with:

12 (A) Service delivery methods such as resale and individual UNEs (such as

13 loops or transport); UNE combinations (such as enhanced extended

14 loops and platform); and facilities interconnection.

15 (B) Products and processes such as coordinated conversions, various

16 flavors of xDSL and line sharing and splitting services, local number

17 portability, loop acceptance testing and loop conditioning.

18 (C) Retail-wholesale relationships management such as OSS speed and

19 connectivity, help desk responsiveness, database update accuracy and

20 timeliness, and change management processes and software error

21 correction timeliness.

22 (D) Provisioning status notices such as acknowledgements, confirmations,

23 rejections, completion notices, jeopardy notices and loss notices.

1   (E) Maintenance responsiveness and capability in resolving customer

2   trouble reports.

3   (F) Billing accuracy and completeness for the end user customer and the

4   CLEC.

5 **Q.** **HOW DOES BELLSOUTH's PERMANENT PLAN (PP. 4-5) COMPARE**
6   **WITH ITS INTERIM PLAN?**

7 **A.**   BellSouth proposes a permanent SQM that has fewer metrics than its proposed

8   interim plan. See Direct Testimony of Alphonso J. Varner, pp. 54-55. The

9   shortcoming of the interim plan is not, as BellSouth contends, that it has too <u>many</u>

10   metrics. While it is preferable to the permanent plan, it too has missing metrics

11   and inadequate disaggregations (i.e., too few metrics), as well as flawed business

12   rules. Many of the metrics added to the interim metrics came from the Georgia

13   Public Service Commission's "rocket docket" decision released January 12, 2001.

14   As Cheryl Bursh's testimony for AT&T points out, BellSouth has not

15   implemented the Georgia commission's order properly and has not yet begun

16   providing all the BellSouth and CLEC reporting required by the Georgia order.

17

18   BellSouth has long standing business rules problems with its SQM and new

19   problems in its metrics ordered added by the Georgia commission. I describe the

20   former in my attachment KK-A and the latter in my attachment KK-B. BellSouth

21   also is missing various metrics important to CLECs (my attachment KK-C),

22   including as pertain to disaggregation (my attachments KK-D and KK-E) and

23   sufficient benchmarks to provide CLECs with a meaningful opportunity to compete

11

1 (my attachment KK-F). I also take issue with Mr. Varner's Exhibit AJV-4

2 (Correlated/Duplicated Measurements) (my comments are italicized, in my

3 attachment KK-G).

4

5 Further, the metrics added from the Georgia order have not been validated by the

6 Georgia commission's OSS Third-Party Test. In fact, the Georgia test has more

7 open and incomplete issue designations than any prior RBOC OSS test that has

8 passed 271 muster at the FCC.

9 Q. **SHOULD THE COMMISSION ADOPT PERMANENT METRICS**
10 **BEFORE OR AFTER 271 APPROVAL?**

11 A. The Commission should approve permanent metrics before 271 approval.

12 BellSouth has been less than cooperative in providing CLECs with the metrics,

13 business rules, disaggregation and benchmarks they need before 271 approval.

14 Thus it is reasonably anticipated that BellSouth would be even less cooperative

15 after 271 approval, thereby requiring even greater efforts, including litigation, to

16 gain adequate metrics. So far, the states in the BellSouth region that did adopt

17 metrics have ordered their implementation before 271 approval, to motivate

18 compliance with the Act's section 251 market opening requirements that are a

19 prerequisite for getting to the stage where a 271 application can be successful.

20

21 The FCC's previous decisions also stress that the oversight of state commissions

22 of these metric and remedy plans to ensure RBOCs are providing CLECs

23 adequate protection are a critical factor prompting its approval of such

1   applications. Kentucky regulators have not had a chance to rule on appropriate

2   metrics and remedies, let alone on a process for such review and improvement of

3   BellSouth's interim or permanent plan proposals. The Commission also has not

4   had a chance to specify the need for annual audits paid for by the dominant carrier

5   to ensure that the metrics are being reported accurately.[1] Clearly, at this point, the

6   type of state oversight regime for a Performance Assurance Plan as highlighted by

7   the FCC has not yet been put in place in Kentucky.The Commission needs to

8   establish a forum that will continue to review and refine the metrics based on

9   competitive experiences in the BellSouth region. New York and Texas have put

10   a lot of effort into improving metrics, adding new ones and deleting ineffective

11   ones post-271 approval. They also have had administrative law judges involved

12   in their pre-271 metric collaboratives to ensure that the ILECs made an effort

13   toward satisfying CLEC requests.

14

15   Although a couple of BellSouth states have held collaboratives, BellSouth has

16   done most of its negotiations on proper measurements and remedies with the FCC

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[1]   In the FCC's December 22, 1999, order approving Verizon-NY's 271 application, the FCC said:
"A number of state commissions, including New York, have established a collaborative process through
which they have developed, in conjunction with the incumbent and competing carriers, a set of measures,
or metrics, for reporting of performance in various areas. Through such collaborative processes, New
York has also adopted performance standards for certain functions, typically where there can be no
comparable measure based on the incumbent LEC's retail performance. We strongly encourage this type of
process, because it allows the technical details that determine how the metrics are defined and measured to
be worked out with the participation of all concerned parties. We also strongly support the efforts of state
commissions to build and oversee a process that ensures the development of local competition that
Congress intended. An extensive and rigorous evaluation of the BOC's performance by the states provides
greater certainty that barriers to competition have been eliminated and the local markets in a state are open
to competition." *In re: Application by Bell Atlantic New York for Authorization Under Section 271 of the
Communication Act to Provide In-Region, InterLATA Service in New York*, CC Docket No. 99-295,
Memorandum Opinion and Order ¶ 54 (released Dec. 22, 1999).

1   and Department of Justice. It rarely moves off its original starting point in

2   negotiations with CLECs. Both agencies do not have the same operational

3   expertise as real market competition to work out the details that close loopholes

4   and create effective metrics. The 271 process is no substitute for the detailed

5   give and take needed to craft an effective measure. BellSouth's only

6   improvements in standards for its metrics have resulted from orders of

7   commissions, not through responsiveness to CLEC requirements.

8

9   BellSouth's proposed permanent metrics are a perfect example of its total

10   unwillingness to respond to the reporting requests of its CLEC customers. While

11   BellSouth knows that the CLECs are actively litigating to gain further

12   disaggregation so that parity comparisons can be trusted, BellSouth touts its new

13   permanent plan as having even fewer metrics than it originally proposed. While

14   CLECs might agree to eliminate the interim number portability disaggregations,

15   they do not agree on many other of the 600 disaggregations BellSouth's

16   permanent plan would eliminate.

17 Q: **WHAT ARE SOME OF THE SPECIFIC DEFICIENCIES WITH**
18   **BELLSOUTH's PERMANENT SQM PROPOSAL?**

19

20 A.   These 271 proceeding filings are the first time CLECs have ever seen the changes

21   and reductions in benchmarks that BellSouth proposes. There has been no forum

22   to discuss these. Why does BellSouth suddenly want to change from the parity it

23   so often touts as the sole requirement of the Telecommunications Act of 1996

24   ("Act" or "FTA") for the three Daily Usage Feed metrics (B-4, B-5, and B-6)? Is

14

1   it because the CLECs do not get this information anywhere near parity?

2   BellSouth's vague claims of system differences does not support its case.

3

4   As for BellSouth's so-called stricter change management delay day benchmarks,

5   CLECs see no benefit of a 100% standard of no more than an 8 day delay. Eight

6   days late is what Verizon uses to trigger remedies for its much longer 93 (business

7   rule) and 66 (technical specification) documentation notifications as compared to

8   30 days. BellSouth complains about the time it takes to code for a new or

9   changed metric while it offers a CLEC as little as 22 days notice and

10   documentation to build to a major software change that could affect the CLECs'

11   entire preorder and ordering capabilities.

12

13   BellSouth's drastic change from a 15 minute to a 24 hour disconnect interval for

14   LNP is something subject matter experts need to work out in a face-to-face

15   collaborative, not in a rushed 271 ruling. This is a drastic change to proposed

16   without discussion with CLEC.

17

18   Speed of Answer in the Ordering Center needs a standard. A CLEC in the North

19   Carolina metric proceeding has testified about its repeated problems in reaching

20   the Ordering Center, including long hold times. This activity should be measured

21   at parity and as part of the remedy plan. CLECs call the Ordering Center when

22   they are having problems placing their customer orders. The Ordering Center is

1   undeniably as important to CLECs as the retail centers are to BellSouth's retail

2   customers.

3

4   As for the proposed change to the hot cut metric, BellSouth will not fix the

5   interval window as prescribed by the CLECs, but instead proposes an unspecified

6   longer interval for cuts involving IDLC. This also issue also is the type that

7   should be discussed in a collaborative with an ALJ presiding.

8

9   BellSouth is particularly arrogant in proposing to change the parity plus 2 second

10   PreOrder Response Time standard, to Parity Plus 4 seconds. The Georgia

11   Commission based its reconsideration of BellSouth's request to move away from

12   a pure parity standard to one that included some time for security functions on

13   OSS Test data.[2] BellSouth has not explained why it needs the additional two

14   seconds, which may not sound like much time but could more than double the

15   retail query times its representatives receive. Seconds are important in making a

16   sale and when performing multiple queries while the customer is on the line.

17

18   BellSouth's proposal to do away with the Percent Completions/Attempts without

19   Notice or Less than 24 Hours notice is also of great concern. I added this metric

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[2]   In its Docket No. 7892-U order on reconsideration and clarification of its performance
measurements and remedy decision, the Georgia commission found that: "The Commission Staff has
reviewed the Pre-Ordering data from the Third-Party Test and a January 16th filing by KPMG on this issue
and agrees that additional time for security measures and computer translations needed to process pre-order
inquires from CLECs are appropriate. Therefore the Commission orders Parity + 2 Seconds as the Retail
Analog for Pre-Order responses."

1   to the 1998 release of the LCUG SQM Version.7 after meeting with MCI service

2   delivery and sales representatives who deal with BellSouth. These representatives

3   noted that, in many circumstances, BellSouth delivers service with no or little

4   notice and this results in Customer Not Ready designations. CNRs are not

5   counted as missed appointments and are used as the end time for Order

6   Completion Intervals. Therefore, Mr. Varner is absolutely wrong that this

7   problem is picked up and thus resolved elsewhere.

8

9   The two Bona Fide Request metrics also should not be deleted. WorldCom finds

10   it challenging enough to gain off-the-shelf wholesale products without negotiating

11   delivery and prices of new products. Nevertheless, this is where the rubber will

12   hit the road, with CLECs distinguishing their local products from what BellSouth

13   currently offers or in obtaining greater efficiencies in delivering current products.

14   BellSouth should not be allowed to slow the early efforts of CLECs trying to

15   differentiate their local products and provide them efficiently.

16

17   CLECs might agree to let BellSouth move its separate LNP metrics to

18   disaggregation levels for other metrics, if BellSouth fully provides such

19   disaggregation for standalone LNP and LNP with two wire loop products.

20   BellSouth does not appear to be providing such disaggregation in its proposed

21   permanent SQM.

22

1　　And once again, BellSouth is trying to rid itself of the Georgia Order Accuracy

2　　metric, which needs improvements, as mentioned below, not elimination. The

3　　development of the Order Accuracy metric was critical in gaining the New York

4　　commission's endorsement of Verizon's 271 application.. Through the New York

5　　Carrier-to-Carrier monthly meetings, CLECs also have had continuing input to

6　　the final CSR (Customer Service Record) to compare to the original LSR (Local

7　　Service Request), to ensure that manual handling has not introduced errors.

8　　Discussions are even underway to move from a manual sampling to an automated

9　　100% comparison to detect errors. Once again BellSouth goes backwards before

10　　271 approval, when other ILECs move forward in improving metrics post-271

11　　approval.

12

13　　These are just a few of the problems with BellSouth's proposed permanent SQM.

14　　I will not go into them all as I hope the Commission can see through BellSouth's

15　　assurances that its just making the metrics easier for the Commission to review.

16　　The interim SQM, and not its permanent proposal, should be the starting point for

17　　any metric plan proceeding that adequately protects CLECs from BellSouth's

18　　incentives and ability to keep competitors from gaining inroads in its local

19　　markets. .

20

21　Q..　**WHAT METRICS CRITICAL TO CLECs ARE MISSING FROM THE**
22　　　**INTERIM METRIC PROPOSAL?**

23

24　A.　A number of metrics still need to be added to BellSouth's interim SQM:

1

2 1. **Additional Ordering Measures**

3

4 <u>Mean Time to Provide Response to Request for BellSouth-to-CLEC Trunks</u>
5 <u>Percent Responses to Requests for BellSouth-to-CLEC Trunks Provided within 7</u>
6 <u>Days</u>
7 <u>Percent Negative Responses to Requests for BellSouth-to-CLEC Trunks</u>

8

9 CLECs cannot expand without adequate trunk capacity inbound from the ILEC as

10 well as outbound to the ILEC. ILEC delays in providing reciprocal trunks or

11 delays in providing CLECs a due date for such trunks force CLECs to delay

12 installing new customers. CLECs would rather manage a single customer's

13 expectation for a due date than install a customer that will cause further blocking

14 on inbound calls to all CLEC local customers in the area. ILEC delays on trunk

15 resizing keep CLECs from growing market share. The proposed measures in this

16 area should apply regardless of how a CLEC sends its request, whether via fax,

17 email or as an Access Service Request ("ASR").

18

19 The "Mean Time to Provide Response" measurement is key when comparing

20 service to affiliates for response to trunk requests. The "Percent Responses to

21 Requests for BellSouth-to-CLEC Trunks Provided Within 7 Days" metric

22 measures the response standard proposed by CLECs to be achieved 95% of the

23 time. Finally, the "Percent Negative Responses to Requests for BellSouth-to-

24 CLEC Trunks" metric would allow tracking of BellSouth rejections of CLEC

25 requests for more capacity. These are not rejections for CLEC errors but cases

26 where BellSouth argues that additional trunks are not needed. BellSouth's policy

27 is that it is appropriate to begin trunk augmentation of a final trunk group when

1   utilization reaches 75-85%. CLEC growth is more dynamic than BellSouth's and

2   a 50% fill can quickly move to blocking levels with the addition of one large

3   customer. That is, when utilization reaches 50%, it is prudent to plan for trunk

4   augmentation because merely adding one large customer can easily bump up

5   blockage levels to 85% or higher. The addition of customers with high inbound

6   calling volumes can bump even lower fill rates than 50% up to blocking levels.

7   These overall utilization rates also do not reflect blocking that would occur during

8   busy hours but not other times of day.

9 **2.   Additional Provisioning Measures**

10

11   Percent of Hot Cuts Not Working as Initially Provisioned

12   This metric captures when loops are provisioned on time but are not working.

13   Often CLECs cannot log a trouble report until the order is completed in the

14   ILEC's billing system, and that may take many hours or days. Consequently,

15   these provisioning troubles are undetectable by BellSouth's current performance

16   measures.

17   Mean Time to Restore a Customer to the ILEC
18   Percent of Customers Restored to the ILEC
19
20   These metrics measure the speed of restoring service to BellSouth when a

21   customer conversion fails and the percent of accurate port-backs to BellSouth

22   when necessary. Customers need to have service and may not be able to wait for

23   the conversion to work. Therefore, the customer would be ported back to

24   BellSouth. Restorations due to CLEC errors would need to be excluded from this

25   metric.

1 <u>Call Abandonment Rate – Ordering and Provisioning</u>
2 <u>Call Abandonment Rate -Maintenance</u>
3
4 BellSouth only captures the call center response time for customers who wait for

5 their calls to be completed. The number of customers who abandon the call

6 because of long waits in queue are not captured, thereby causing any problem in

7 the call center answer time metrics to be understated. There is a need for an

8 abandonment measurement to capture those calls where the CLEC gives up in

9 frustration.

10 <u>Percent Successful xDSL Service Testing</u>

11 BellSouth has omitted a measure of whether the cooperative tests conducted show

12 the loop to be working properly. CLECs need to have cooperative testing done on

13 xDSL loops to determine if BellSouth has done all the appropriate work to

14 provide connectivity. Like coordinated (hot) cuts, this acceptance process also

15 should be part of the end time measurement for Average Completion Interval and

16 Missed Appointment metrics for xDSL loops, but it is not in BellSouth's

17 proposal. In New York, Verizon measures for both CLECs that use and do not

18 use an acceptance process as part of its Missed Appointment metrics for xDSL

19 service.

20

21 BellSouth should measure the percent of successful xDSL cooperative testing.

22 Similar to the defective loop metric for coordinated cuts, this measure would pick

23 up how often an xDSL loop that is not working is delivered to the CLEC. Joint

24 testing between CLEC and ILEC is essential in providing timely working xDSL

25 service to the customer. Georgia ordered the Percent Tested metric that is

1   included in BellSouth's interim SQM, but this test does not show the percent of

2   times the testing showed the xDSL loop to be working when delivered.

3

4   <u>Percent Completion of Timely Loop Modification/Conditioning on xDSL loops</u>

5

6   Some loops require modification or conditioning before they can be used to

7   provide a customer with xDSL service. This metric measures BellSouth's

8   timeliness in making the needed modifications or performing the necessary de-

9   conditioning. There is the need for a metric or at least disaggregation for interval

10   metrics and held orders for loop provisioning where conditioning is required.

11   3.   **Additional Billing Measures**

12   <u>Percent Billing Errors Correct in X Days</u>

13   BellSouth's delays in providing adjustments to carrier bills or corrections of daily

14   usage feed errors can harm the CLEC and its customer in several ways. Errors

15   that do not get corrected promptly in the daily usage file either lead to the CLEC's

16   holding up charges or passing on wrong charges to the customer, for which the

17   CLEC has to expend resources to adjust later. BellSouth's invoice accuracy

18   measure does not capture whether errors are corrected within a reasonable time.

19

20   **Other Additional Measures**

21   <u>Percent Response Commitments Met On Time</u>

22   Even more important than how quickly BellSouth representatives answer the

23   phone is how quickly they answer questions or resolve problems. CLECs should

24   not have to wait days for BellSouth to respond to a problem that has stalled

25   production of orders for the CLEC. The addition of this metric would help

1 address issues with the slow response of BellSouth help desks. However, such a

2 measure would not help with issues regarding BellSouth representatives

3 accurately interpreting business rules. Help Desk responsiveness on missing

4 notifier (confirmations, rejection, completion) problems is also crucial to CLECs.

5 Verizon's problems in this area led to the introduction in the New York metrics of

6 a three-day standard for resolving such requests. The Commission should adopt a

7 measurement and standard for responsiveness to all help desk questions that

8 impede a CLEC's ability to place orders or response to customer status questions

9 about their order. BellSouth should be ordered to meet with CLECs to flesh out

10 the CLEC's proposed metric on help desk responsiveness and how to measure the

11 timeliness and adequacy of the response

12

13 Average Time Allotted To Proof Listing Updates Before Publication

14 CLECs need to ensure that their directory listings are printed without errors and

15 need equal time to proof those listing before publication. Errors in listings could

16 cause great inconvenience and often serious financial harm to CLEC customers.

17 This metric would only apply to those listings that CLECs do not have full control

18 over accuracy, i.e. where BellSouth directory representatives key in information

19 for the CLEC. Pennsylvania has ordered a directory proofing metric.

20
21 Percent ILEC vs. CLEC Changes Made
22
23 BellSouth has not yet included a metric in its SQM that tracks whether it responds

24 fairly to CLEC requests for changes and new functionalities on its interfaces.

25 While CLECs prioritize the change requests, BellSouth implements these changes

1   whenever it chooses, and it ignores the prioritization. Therefore, the Commission

2   needs to order BellSouth to measure the percentage of BellSouth changes made

3   versus the number of CLEC changes made to determine whether CLEC requests

4   for interface changes are being implemented in a fair and equitable manner.

5

6   BellSouth has said that the CLECs' proposed business rules would not accurately

7   track this problem. This may be so, but the problem is severe and needs to be

8   tracked and subjected to remedies if discrimination is detected. Perhaps what

9   needs to occur is to break the metric into parts that determine how long before

10   BellSouth accepts or rejects the CLEC Change Management proposal, how long it

11   takes to give each approved change a release date, and whether the release occurs

12   on the specified release date. Of particular importance is the length of time it

13   takes BellSouth to implement a type 6 change; that is, a software error causing

14   problems for the CLEC.

15

16   The Commission should require BellSouth to work with CLECs in a collaborative

17   process to provide a metric that enforces its fair treatment of change control

18   requests. CLECs are arguing for longer change notice intervals than are currently

19   part of BellSouth's proposed timeliness metrics for notices and documentation.

20   These changes should be adopted and all the notice types with different intervals

21   should be disaggregated for reporting purposes. Both these revisions to the

22   existing metrics and the new ones proposed could be developed in the same

23   change management metric collaborative.

1

Percent Software Certification Failures

2

3   This measurement provides some assurance that BellSouth will sufficiently test

4   before a system is rolled out. CLECs need to be sure that their existing systems

5   still will be able to function when BellSouth introduces software upgrades.

6   Software Problem Resolution Timeliness
7   Software Problem Resolution Average Delay Days
8
9   This metric examines how quickly BellSouth fixes software errors caused by

10   changes to an existing interface, establishment of a new query type or other

11   changes. Different standards are set based on whether there is a work-around for

12   the problem. If a CLEC is prevented from entering orders, extremely prompt

13   responses are required. The delay day measure captures the degree to which the

14   problem is allowed to continue. Georgia recently ordered BellSouth to add a

15   Software Error Correction timeliness metric, and the New York and Texas plans

16   also include such a metric. In addition, the New York plan includes a Software

17   Validation metric, to ensure that interfaces are not launched while still failing a

18   test deck of transactions that CLECs and Verizon have developed.

19   Q.   **FROM TIME TO TIME, SHOULD THE COMMISSION REVIEW THE**
20   **METRICS IT ADOPTS?**
21
22   A.   Yes. It is fair to say that the area of performance measurements still is evolving.

23   In some cases, for example, BellSouth may (and should) develop new

24   functionalities that will need to be measured. For instance, CLECs need timely

25   billing completion notices, which notify an CLEC that BellSouth's billing system

26   has been adjusted to account for the customer migrating to the CLEC, so the

25

1   CLEC may begin billing its customers, sending fulfillment information and

2   addressing any problems or issues its customer encounters. If the Commission

3   orders BellSouth to provide billing completion notices, then a metric should be

4   adopted (or an existing metric expanded) to measure BellSouth's performance in

5   this area. This is different from annual audits, which focus on whether the metric

6   is being reported properly with accurate coding of exclusions and adherence to

7   reporting guidelines. Metric and remedies plan review is designed to determine if

8   metrics and remedies are sufficient as they are or require additions, deletions or

9   modifications to promote competition. The scope of the review should include all

10   existing metrics.

11

12   Q.   **WHAT LEVEL OF DISAGGREGATION DO CLECS SEEK?**

13   A.   CLECs only seek the metrics needed to protect their business plans and

14   meaningful disaggregation to determine if discrimination exists. The geographic

15   disaggregation being sought is at the MSA (metropolitan statistical area) level

16   because CLECs are concerned that if rural and urban, competitive and non-

17   competitive areas of the state are combined, real disparities in performance will be

18   hidden. CLECs do not have the retail data to determine when geographical

19   disaggregation makes a difference and when it does not. If BellSouth

20   believes that disaggregation by MSA is meaningless, it should supply the data for

21   a period of time to show this, or it should have an unbiased third-party analyze the

22   relationship of performance to geographic location.

23

1   In the New York Third Party OSS test, KPMG recommended the disaggregation

2   for Special Services for metropolitan New York City from upstate New York

3   because KPMG's study of the data showed differences in performance between

4   Manhattan's highly competitive market and the rest of the state.[3] POTs services

5   already were disaggregated into five areas in New York for retail performance

6   reporting and the same areas were adopted for wholesale POTS (resale and UNE-

7   Platform) reporting. Such disaggregation is vital for provisioning and

8   maintenance metrics. The Commission should focus on whether the

9   disaggregation requested serves a purpose in making apples-to-apples

10   comparisons of services that compete with each other or products with similar

11   standard intervals.

12

13   There is another consideration: The CLECs do not want to have BellSouth use

14   excessive aggregation against them in a 271 proceeding by explaining that it is

15   missing average interval metrics repeatedly because of differences in order mix as

16   compared to CLECs. This concern is not conjecture on the CLECs' part, but is a

17   fact learned from Verizon's two successful applications for 271 approval, where

18   that ILEC claimed that failures of its average interval metrics were due to

19   differences in (1) order mix (CLECs were ordering more four-day interval

20   products and features and Verizon more one and two-day products and features)

21   and (2) geography. Verizon provided independent studies of samples of its retail

---

[3]   "In general, the metrics may be too aggregated, especially with regard to geography. The New York City area appears to get a different level of service than other parts of the state, and CLECs have their business concentrated in this area. The result can be that BA-NY is in parity overall, but out of parity

1   and wholesale service requests that the CLECs did not have time to analyze and

2   offer counter studies.[4] Disaggregation will protect BellSouth from wrongly being

3   accused of discrimination just as much as it will help the CLECs detect real

4   discrimination.

5

6   The CLECs cannot believe that the disaggregation they request can be more

7   demanding on computer processing and capacity[5] than the statistical testing down

8   to the end office that BellSouth has elected to do. There must be multiple,

9   possibly dozens of end offices in each MSA to examine. With the conduct of

10   permutation testing on small sample sizes, BellSouth must be using way more

11   capacity than the CLECs' further disaggregation proposals require. Perhaps if

---

region by region or vice versa." KPMG Consulting's New York final report released August 6, 1999, p. POP8 IV-20.

[4]   Bell Atlantic had claimed that statistically significant failures in its Average Interval metrics were the result of three issues. One of the issues concerned errors in excluding longer than standard interval requests. That issue now has been automated and eliminated, but the other two issues remain because of insufficient disaggregation.   These issues are (1) for dispatch orders, CLECs are ordering a relatively larger share of services and UNEs that have long standard intervals (the "order mix" problem), and (2) for dispatch orders, CLECs are ordering a relatively larger share of services in certain geographic areas and, as a result, reflect later available due date (the "geographic mix" problem). In its CC Docket No. 99-295 order approving Bell Atlantic New York's 271 application, released December 22, 1999, the FCC said: "In conjunction with its Average Completed Interval data, Bell Atlantic submits a study by Dr. Gertner and Dr. Bamberger (Gertner/Bamberger study) to support its claim that its Average Completed Interval data is flawed for these reasons. We note that although AT&T criticized some aspects of the Gertner/Bamberger study, no commenter disagrees with Bell Atlantic's assertions that its Average Competed Interval data is flawed. By submitting a study to substantiate its claims that the Average Completed Interval data is flawed, we note that Bell Atlantic's application is quite different from BellSouth's Louisiana II application. In that application, although BellSouth's data on its face consistently supported a general conclusion that BellSouth provided services to competing carriers' customers in twice the amount of time that it provided services to its retail customers, BellSouth offered no analysis or other evidence that purported to explain why these data might be flawed or to supplement BellSouth's showing on OSS provisioning." The Kentucky CLECs want to avoid this war of studies, and instead achieve like-to-like comparisons of geographic and order mix intervals in this proceeding.

[5] BellSouth claims there are excessive costs at a time when computer processing and database storage costs are declining dramatically. See Oracle press release, at
http://www.oracle.com/corporate/press/index.html?781743.html

1   BellSouth only did its testing down to the MSA level it could accommodate

2   CLECs' real needs for disaggregation and save computer costs.   Further, in the

3   Georgia Third Party OSS Test, KPMG found that BellSouth has the tools in place

4   that enable it to store data in an adequate fashion and scale its data collection

5   appropriately:

6

7   BLS has established procedures for monitoring its available
8   storage capacity for online systems, including the
9   legacy/source systems and the PMAP Systems as well as
10   procedures for monitoring back up capacity for all systems.
11   BLS has also established policies and procedures for
12   acquiring additional capacity. BLS monitors available
13   space on PMAP and can add additional within four weeks.
14

15   *KPMG Consulting's Final Report issued March 20, 2001, VIII-A-7.* KPMG also

16   noted that some of the databases that are part of the PMAP contain data that are

17   not required for current reporting, which could be causing the problems that the

18   CLECs have noted with the responsiveness of the PMAP website. In section

19   VIII-A-5 of its report, KPMG said:

20   BLS populates the tables in Staging with snapshots of Barney
21   data. These snapshots contain more data than is required for
22   production of the current SQMs. The PMAP production team
23   has been experiencing difficulty in creating these snapshots due
24   to space limitations in Barney and is working on loading data
25   directly into Staging without using Barney.
26

27   Q.   **DO CLECS HAVE PROBLEMS OPERATING PMAP TO OBTAIN**
28   **REPORTS?**
29

30   A: Yes. BellSouth only allows one submetric report to be pulled at a time. Each

31   report takes between 30 seconds and 2 minutes or greater to retrieve. Several

32   times the report could not be retrieved the first time, responding with a message

1   the page could not be found. To pull one month of metrics related to

2   WorldCom's UNE-P launch in Georgia took hours of attention as there is no way

3   a CLEC can just select the multiple metrics it wants in a report and then allow

4   the full report to download. Once the report has downloaded, the CLEC must

5   then decide whether to view the report on the screen, or download it to a

6   spreadsheet (which takes another 15 to 30 seconds.) Some of the reports are

7   incomplete so if the CLEC selects to view the on-screen display, it can be

8   tedious to try and find the data. If instead the analyst chooses to download a

9   report, additional formatting of the spreadsheet is required to fully view the data.

10   A CLEC cannot get anything remotely near the FCC format filed with

11   BellSouth's application that has all the metrics together and what standards of

12   performance apply.

13

14   When the site is taken down for maintenance, there is no message as to when the

15   PMAP site will be available. The time frame of this maintenance should be

16   added to the current message regarding the unavailability of the system.

17

18   Q.   **WHAT BUSINESS RULES PROPOSED BY BELLSOUTH ARE**

19   **DIFFERENT FROM THOSE OF OTHER ILECs THAT HAVE**

20   **RECEIVED 271 APPROVAL?**

21

22   A.   BellSouth's Order Completion Interval is measured from the receipt of the

23   confirmation and not from receipt of an error-free order. It surprisingly hangs on

24   to this flawed business rule, which is at odds with how Verizon or SBC measures

25   order completion intervals, and is notwithstanding that the FCC objected to it in

26   denying BellSouth's South Carolina and Louisiana 271 petitions. The FCC did

not agree with BellSouth's measurement of average intervals from the start time of confirmation issuance.

> We find here, as in the BellSouth South Carolina Order, that a far more meaningful measure of parity is one that measures the interval from when BellSouth first receives an order to when service is installed. From a customer's perspective, what is important is the average length of time it takes from when the customer first contacts the carrier for service to when that service is provided. This period of time is a crucial point of comparison between the incumbent's performance and the competing carrier's performance. Therefore, the most meaningful data would measure the interval from when BellSouth first receives an order to when service is actually installed, regardless of whether or not the order electronically flows through BellSouth's operational support systems. This interval can then be compared with the average time from when BellSouth's own service representatives first submit an order for service to when BellSouth completes provision of the service for its retail customers. Unlike the data BellSouth provides, which measure intervals that begin when orders are processed by SOCS, such a measure would expose any delays in the processing of orders. As we stated in the BellSouth South Carolina Order, we expect BellSouth to provide such a measure in future applications.

In the Matter of Application by BellSouth Corporation, et al., Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services In Louisiana, CC Docket No. 97-231, Memorandum Opinion and Order, released February 4, 1998, ¶ 44.

Also, BellSouth's hot cut timeliness metric for hot cuts, unlike Verizon and SBC, does not determine whether the cut ended on time. It only measures whether the cutover started on time. Also, it only reports an average time per loop, not cut-specific information on the cutover.

1   BellSouth's Order Accuracy metric also does not describe the sampling

2   number or process involved. CLECs cannot make a determination

3   whether their types of orders are being sampled at levels that provide

4   statistically valid results. BellSouth also often tries to eliminate this metric

5   when proposing permanent metrics, which leads to suspicions that order

6   accuracy is a problem area for BellSouth. BellSouth claims that the

7   billing accuracy metric does the same job, but that metric does not pick up

8   all errors, only those that require a reduction in charges on the bill. And

9   because BellSouth can delay adjustments to make billing performance

10   look better than it really is, the billing metric needs to be augmented by

11   the Billing Errors Corrected in X Days, as proposed by the CLECs.

12

13   BellSouth's flow through metric only covers orders *designed* to flow

14   through and has benchmarks different than those designated by Verizon

15   and SBC for Designed Flow-Through metrics. A total flow through

16   metric also is required, and BellSouth's proposed Achieved Flow Through

17   benchmarks are more appropriate for total flow through. The New York

18   Performance Assurance Plan applies a remedy if Verizon does not meet

19   either an 80% flow through rate or a 95% Achieved Flow-Through Rate.

20   In fact, BellSouth's overall performance standards are low. While only a

21   couple of metrics in the New York or Texas plans have benchmarks below

22   95%, about 50% of the metrics imported from the Georgia decision—

1   albeit much more than as originally proposed by BellSouth—have

2   benchmarks lower than 95%.

3

4   BellSouth's Change Control Notes and Documentation Timeliness metrics

5   have unbelievably short intervals of 30 days, particularly compared to

6   Verizon's 93 day (for business rule changes) and 66 days (for technical

7   documentation) notice and documentation intervals.

8
9
10   Q.   **ARE THE CLECs' DISSAGREGATION REQUESTS**
11   **REASONABLE IN JUDGING WHETHER PARITY SERVICE HAS**
12   **BEEN PROVIDED?**
13
14   A.   Yes. As noted above, CLECs are only requesting sufficient

15   disaggregation to make the metrics useful, accurate measurements of

16   whether discrimination in performance exists. CLECs also have

17   withdrawn some disaggregations requested based on Mr. Varner's

18   explanations. The CLECs' disaggregation requests do not even reach

19   5,000, far fewer than the number suggested by Mr. Varner. See Direct

20   Testimony of Alphonso J. Varner, pp. 63-64.

21
22   Q.   **DO YOU AGREE WITH BELLSOUTH THAT VARIOUS DSL**
23   **PRODUCTS SHOULD NOT BE DISAGGREGATED?**
24
25   A.   No. BellSouth needs to disaggregate its various xDSL products, since they cover

26   different service lengths and different provisioning processes. Data carriers need

27   to ensure that they are receiving the same treatment as BellSouth's data services

28   affiliate, and to do that they need to have their performance compared to that

1		provided by the affiliate on a product by product basis. Disaggregation for line
2		splitting also is required in addition to line sharing to ensure that BellSouth is not
3		favoring those data providers that use its voice services over those who use other
4		voice providers.
5	Q.	**WHAT OTHER PROBLEMS EXIST REGARDING BELLSOUTH's**
6		**DISAGGREGATION LEVELS AND RETAIL ANALOGS?**
7		
8	A.	There are a few areas that I would like to highlight for the Commission.
9		
10		Dispatch/Non-Dispatch
11		
12		For many of its provisioning and maintenance and repair measures, BellSouth
13		inappropriately compares UNE Loops to retail dispatch services. Physical work
14		done in a central office, which is all that is required of many UNE migration
15		orders, should not be compared to work done in the field, including at the
16		customer premises. If the provisioning of a UNE loop required field work as well
17		as central office work, then of course it would be classified as a dispatch out.
18		Provisioning and repair measures should be divided into three categories: 1)
19		Switch-based orders, 2) central office or "dispatch in," and 3) field work or
20		"dispatch out." Please note that these are the relevant major categories of
21		disposition codes, in addition to those related to excluded data such as
22		FOK/TOK/CPE, for which CLECs seek disaggregation (not all 145 disposition
23		codes as BellSouth misinterpreted our proposal to be in Florida).
24		
25		Loop Disaggregation
26		

1 DS1 loops should not be included with DS3 loops because BellSouth has different

2 intervals for DS1 and DS3 loops And in maintenance, DS-3's usually have a

3 higher priority restoral target because of the larger number of customers involved.

4
5 EEL Migration Benchmarks
6
7
8 Various CLECs have become concerned about the time it takes BellSouth to

9 convert special access circuits to enhanced extended loops ("EELs"). The

10 standard interval for migrations from special access to EELs should be 95%

11 within 10 days from receipt of an error-free request for conversion. The

12 benchmark for firm order confirmation timeliness and completion notices should

13 be 95% in 5 hours for electronic and 24 hours for manual for each metric. CLECs

14 also seek measurement of how quickly BellSouth would change billing rates from

15 special access to EELs, proposing a standard of 95% within 30 days from receipt

16 of an error-free order. At the very least, a level of disaggregation to monitor

17 EELs conversions should be measured in Kentucky as well.

18
19 Retail Analogs
20

21 BellSouth offers as its retail analog for "UNE Combo Other" the combination of

22 retail residence, business and design dispatch. Obviously a combination of every

23 service offered by BellSouth is not the appropriate analog for any particular

24 service.

25 Q. UNDER WHAT CIRCUMSTANCES WOULD IT BE APPROPRIATE TO
26   COMPARE BELLSOUTH's PERFORMANCE TO ITS AFFILIATES WITH
27   BELLSOUTH's PERFORMANCE TO CLECs?
28

1   A.   Any time BellSouth's affiliates resell BellSouth's retail services or buy the same

2   types of interconnection services or UNEs, it is appropriate to compare the

3   affiliate's treatment to the way BellSouth's CLP competitors are treated. The Act

4   requires BellSouth to provide interconnection with its network "that is at least

5   equal in quality to that provided by [BellSouth] to itself or to any subsidiary,

6   affiliate, or any other party to which [BellSouth] provides interconnection." Act, §

7   251(c)(2)(C). The Act also requires BellSouth to provide nondiscriminatory

8   access to network elements. Act, § 251(c)(3). The FCC has interpreted this

9   requirement to mean that the quality of a UNE and the quality of access to the

10   UNE that an ILEC provides to a requesting carrier must be the same for all

11   requesting carriers. *See* 47 C.F.R. § 51.311(a).

12

13   The FCC has confirmed that a Bell Operating Company must establish that for

14   functions that it provides CLECs that are analogous to the functions it provides

15   itself, the BOC must provide access that is substantially the same as the level of

16   access the BOC provides to itself, its customers or its affiliates. *In re:*

17   *Application by Bell Atlantic New York for Authorization Under Section 271 of the*

18   *Communication Act to Provide In-Region, InterLATA Service in New York,* CC

19   Docket No. 99-295, Memorandum Opinion and Order (rel Dec. 22, 1999), ¶ 44

20   ("Bell Atlantic New York Order").

21

22   Q.   **HAVE OTHER STATES ADDRESSED THE ISSUE OF AFFILIATE**

23   **REPORTING?**

24

1   A.   Yes. The Michigan Public Service Commission recently required SBC Ameritech to

2   include comparisons to affiliate performance in its remedy plan.

3

> 4   The Commission concludes that the comparison to service provided to
> 5   Ameritech Michigan's affiliates as well as service to its own retail
> 6   customers should be part of the performance remedy plan. Section 251 of
> 7   the FTA requires that Ameritech not provide inferior service to the CLECs
> 8   as compared to its affiliates. It may be true that the matter could be
> 9   addressed in another manner, but the Commission finds no persuasive
> 10   reason for doing so. A comparison to the performance it provides its
> 11   affiliates or retail customers, whichever is better, shall therefore be part of
> 12   the remedy plan approved by this order.[6]

13

14   Earlier the Pennsylvania commission required such affiliate reporting and turned

15   down Bell Atlantic's claim that such reporting should only be applied to CLEC-

16   like affiliates, which Bell Atlantic did not even have:

17

> 18   As noted by the ALJs, BA-PA does not have any affiliates
> 19   operating under interconnection agreements; therefore, we find
> 20   that BA-PA's definition actually provides for no reporting at all.
> 21   This proceeding must provide this Commission, BA-PA, and the
> 22   CLEC community with sufficient information upon which to
> 23   objectively measure the delivery of non-discriminatory access to
> 24   CLECs. In order for this metric to provide any meaningful
> 25   measurement, it must include a broader definition than that
> 26   proposed by BA-PA. We agree with the ALJs that it is essential
> 27   that BA-PA report on the level of service it provides to its
> 28   affiliates, and we shall adopt the recommendation of the ALJs on
> 29   this issue. BA-PA shall report the service quality delivered to all
> 30   BA-PA affiliates and subsidiaries (CLEC and non-CLEC) which
> 31   order services, UNEs, or interconnection from BA-PA.[7]

32

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[6] Case No. U-11830, In the matter of Ameritech Michigan's submission on performance measures, reporting and benchmarks, pursuant to the October 2, 1998 order in Case No. U-11654, pp. 12-13.
[7] P-00991643, Joint petition of NEXTLINK Pennsylvania, Inc., RCN Telecommunications Services of Pennsylvania, Inc., Hyperion Telecommunication, Inc., ATX Telecommunications, Focal Communications Corporation of Pennsylvania, Inc., CTSI, Inc., MCI WorldCom, e.Spire Communications, and AT&T Communications of Pennsylvania, Inc., for an Order Establishing a Formal Investigation of Performance Standards, Remedies, and Operations Support Systems Testing for Bell Atlantic-Pennsylvania, p. 21.

1   Pacific Bell and Verizon California (legacy GTE) have been voluntarily reporting

2   all affiliate data for some time. The metric report structure for the California Joint

3   Partial Settlement metrics lists under reporting structure for the various metrics

4   "Individual CLECS, CLECs in the aggregate, By ILEC (if analog applies) and

5   *ILEC affiliates*." (Emphasis added).

6
7   BellSouth should include in its reporting all affiliates that buy interconnection or

8   unbundled elements or that resell BellSouth's services. Such affiliates would

9   include any future BellSouth long distance affiliate, to ensure it is not being given

10 more favorable treatment than BellSouth's combined local and long distance

11 competitors. Any affiliate, as affiliate is defined by the Communications Act,

12 which buys services similar to those purchased by CLECs should be included.

13
14 Q: **DO YOU AGREE THAT AN ILEC's PERFORMANCE WITH REGARD**
15   **TO ITS AFFILIATE PLAYS NO ROLE IN THE FCC's ANALYSIS?**
16
17 A: No. CLECs do not agree that the FCC would not consider discrimination in favor

18   of an affiliate in approving a 271 application. In analyzing the New York 271

19   order, the FCC does not state that it would not consider affiliate data, and there is

20   no basis for believing the FCC would not consider such data if available. The

21   New York commission had not addressed affiliate reporting when it first

22   developed its carrier-to-carrier guidelines and New York CLECs did not press the

23   issue because Verizon had virtually no affiliates with which they competed.

24   Since then, Verizon has entered the long distance business in New York through

25   two affiliates and has established a separate data affiliate. Recently the New York

38

1   commission has required that Verizon report its affiliate data separately from CLP

2   data for study on how it will be used in determining parity in the future.

3   In some limited cases for line sharing metrics, Verizon's data affiliate already is

4   designated by the New York commission for use in determining parity

5   performance. Specifically, in the Case 97 C 0139 *Order Adopting Revisions to*

6   *Inter-carrier Service Quality Guidelines,* issued and effective December 15, 2000,

7   the New York commission stated:

8   To provide meaningful information on parity performance of the
9   ILEC, the ILEC affiliate data should be reported separately. That is
10   if affiliate data is reported together all other competitor data, the
11   ILEC performance to competitors may be masked. As these data
12   may have competitive significance, the separately reported affiliate
13   data should be provided to the Carrier Working Group through the
14   existing protective order under which data are shared.
15

16 **Q,   IS IT REASONABLE FOR BELLSOUTH TO COMBINE ITS**
17 **AFFILIATES' DATA WITH OTHER CLECs ?**
18
19 A: Absolutely not. If the affiliate were receiving unlawfully preferred service, this

20   would only serve as a thumb on the scale to make the treatment of the competitors

21   look better as a whole than it actually is. Further, in its response to the CLEC

22   Coalition's motion for Clarification and Reconsideration in Georgia in Docket

23   7892-U, the Commission found that "BellSouth shall not include its Affiliate data

24   in the remedy calculation as it applies to industry-level remedies."

25
26
27 **Q.   ARE COMPARISONS OF PERFORMANCE TOWARD CLECS AND**
28 **AFFILIATES IRRELEVANT FOR BENCHMARKS?**
29
30
31 A.   No. When an affiliate is created and starts ordering through the same systems and

32   processes as the CLECs, this creates a retail analog where none existed before.

1   While the ILEC itself never ordered collocations, or received FOCs or Rejects, its

2   affiliate will order collocations and receive the same order status notices as the

3   CLECs. Thus, where the affiliate is ordering the same types of services as the

4   CLECs, its activities can either be used for parity comparisons or to reset a

5   benchmark to what might be more favorable intervals received by the affiliate.

6

7 Q. **DOES THE COMMISSION HAVE THE AUTHORITY TO ORDER A SELF-**
8   **EXECUTING REMEDY PLAN?**
9

10 A. Yes. .The Commission has the authority to order the implementation of a self-

11   executing remedy plan under the Act, with or without BellSouth's consent. By

12   enacting the Act, Congress mandated the opening of local telecommunications

13   markets to competition. Specifically, ILECs like BellSouth are obligated, among

14   other things, "to provide, to any requesting telecommunications carrier for the

15   provision of a telecommunications service, nondiscriminatory access to network

16   elements on an unbundled basis. . ." 47 U.S.C. §251(c)(3). The Commission has

17   oversight authority to ensure that ILECs, including BellSouth, provide

18   nondiscriminatory access to their OSS pursuant to Section 251. As the

19   Pennsylvania commission found "[t]his Commission's implementation of

20   performance measures and standards is a legitimate exercise of the Commission's

21   authority to ensure that BA-PA fulfills its Section 251 obligations." *Joint*

22   *Petition of NEXTLINK Pennsylvania, Inc., RCN Telecommunications Services of*

23   *Pennsylvania, Inc., Hyperion Telecommunications, Inc., ATX*

24   *Telecommunications, Focal Communications Corporation of Pennsylvania, Inc.,*

1   *CTSI, Inc., MCI WorldCom, e.spire Communications, and AT&T*

2   *Communications of Pennsylvania, Inc., for an Order Establishing Performance*

3   *Standards, Remedies, and Operations Support Systems Testing for Bell Atlantic-*

4   *Pennsylvania, Inc.,* Opinion and Order, Docket No. P-00991643, December 31,

5   1999 ("Pennsylvania Order"). The Commission has the authority to enforce

6   Section 251 and adoption of a self-executing remedies plan is simply an

7   enforcement technique.

8

9   Because the Commission's authority to establish performance measures, standard

10 and self-executing remedies is based on authority delegated to it by the Act, under

11 the Supremacy Clause any contrary state law would not preclude adoption of such

12 a plan. In MCI v. BellSouth, 112 F. Supp. 2d 1286 (N.D. Fla., 2000), the United

13 States District Court, Northern District of Florida, rejected BellSouth's

14 proposition that the Florida Commission has no authority to arbitrate a request for

15 a performance measurement plan.

16   [I]f a compensation mechanism were truly required by the
17   Telecommunications Act and could be adopted in some form
18   without imposing on the Florida Commission an unconstitutional
19   burden, see Printz v. United States, 521 U.S. 898, 117 S. Ct. 2365,
20   138 L.Ed. 2nd 914, (1997), then any contrary Florida law obviously
21   would not preclude adoption of such a provision. Under the
22   Supremacy Clause, see U.S. Const. Art. VI, the
23   Telecommunications Act, not any contrary Florida law, is the
24   supreme law of the land. *MCI Telecommunications Corporation, et*
25   *al. vs. BellSouth Telecommunications, Inc., et al,* Case No.
26   4:97cv141-R-H, issued June 6, 2000, pp. 35-36.
27
28

41

1   The Tennessee Regulatory Authority ("TRA") also has found that the Act gives it

2   the authority to arbitrate and to consider performance measurements, standards

3   and remedies in a generic proceeding. In moving (among other things) to adopt

4   enforcement mechanisms in the ITC^DeltaCom arbitration, Director Lynn Greer

5   explained at length why the TRA had the authority to do so. He noted that (i)

6   BellSouth tariffs approved by the TRA contain self-effectuating performance

7   measures and guarantees; (ii) the Department of Justice has concluded that the

8   issue of performance guarantees should be resolved through contracts or

9   regulatory proceedings; (iii) numerous courts have held that public service

10   commissions may impose performance guarantees in interconnection

11   agreements[8]; and (iv) the Act requires the TRA to arbitrate those issues brought

12   before it. *In re Petition for Arbitration of ITC DeltaCom Commnications, Inc.*

13   *with BellSouth Telecommunications, Inc. Pursuant to the Telecommunications Act*

14   *of 1996*, Docket No. 99-00430, Transcript at 7, 10-11 (April 4, 2000).

15

16   As Director Greer stated, "[t]he Act, the FCC, and the DOJ have concluded that

17   state commissions have the authority where the parties have not agreed to the

18   terms of agreement to impose enforcement mechanisms as a vehicle to ensure that

19   the telecommunications market is irreversibly open to competition in accordance

20   with congress's intent." Id., Transcript at 11-12. The TRA approved the motion

21   unanimously.

22

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[8]   *See, e.g., U S West Communications, Inc. v. TCG Oregon*, 31 F. Supp.2d 828 (D. Ore. 1998).

1 Although the decision was issued in an arbitration proceeding, a public service

2 commission's authority to require self-executing remedies is not limited to that

3 context. As Director Greer stated: "Performance measures provide the necessary

4 information to determine if BellSouth is complying with these requirements [of

5 Section 251(c) of the Act], and enforcement mechanisms encourage BellSouth to

6 meet the requirements of Section 251." Id. at 14. He continued: "I find the

7 Arbitrators should adopt performance measures with standards and benchmarks

8 and enforcement mechanisms. These measurement mechanisms should remain in

9 effect until this Authority conducts a generic proceeding to adopt permanent

10 performance measurements with standards and enforcement mechanisms

11 applicable to all CLECs." Id. The Tennessee and Pennsylvania decisions

12 demonstrate that this Commission has authority under Sections 251 and 252 of the

13 Act to require self-executing remedies. Such remedies may be required in

14 arbitration proceedings or in a generic docket such as this one.

15

16 BellSouth has taken the position that the Commission does not have the authority

17 to require BellSouth to implement a self-executing remedies plan, and therefore

18 the only plan the Commission may adopt is BellSouth's plan. BellSouth

19 essentially is saying "my way or the highway." BellSouth opines that the plan

20 should go into effect after it is given relief pursuant to section 271 of the Act.

21 Because the Commission is charged with ensuring nondiscriminatory treatment

22 pursuant to Section 251, the Commission can and must require BellSouth to

23 implement a self-effectuating remedies plan now, not just when BellSouth meets

43

1   the criteria for Section 271 approval. CLECs are entering the market now and

2   need immediate relief if there is nondiscriminatory treatment, rather than waiting

3   up to a year to resolve complaints for enforcement of interconnection agreements.

4   This Commission cannot be forced to accept BellSouth's plan. The Act gives the

5   Commission the authority to decide what the best plan should be and the

6   Commission should act now to require BellSouth to implement the best self-

7   effectuating remedies plan.

8

9   **Q.**   **IS BELLSOUTH'S REMEDY PLAN ADEQUATE?**

10   A.   No. BellSouth's per occurrence remedy plan and proposed parameter delta of 1

11   will ensure that remedies remain low even as competition is deterred. WorldCom

12   supports AT&T witness Cheryl Bursh's objections to the plan and alternative

13   proposal. The 1 delta is of particular concern to WorldCom, as we find even the

14   Georgia commission's more moderate proposals for Tier I and Tier II deltas

15   inadequate. WorldCom's comments and the attached paper by Auburn University

16   Economics Professor John Jackson (my Exhibits KK-H) discussing the problems

17   with an arbitrary delta to determine competitive significance. Dr. Jackson notes

18   that the parameter delta, when combined with an effort to balance Type I (BST

19   found guilty of discrimination when it is not) and Type II (BST found innocent of

20   discrimination when it is not) errors, weakens the chosen statistical test's ability

21   to detect discrimination in larger sample sizes.

22

23   This plan is markedly different from the New York, Texas and California plans

24   that have a fixed critical value for determining whether parity exists for all sample

1   sizes. While these plans have forgiveness tables for random variation, the delta

2   proposed by BellSouth would go beyond those forgivenesses for a set number of

3   metric failures and provide a wide range of discrimination to continue without

4   requiring even its minimum per occurrence payments. The CLEC's proposed .25

5   delta is more than generous compared with these other plans.

6

7   The Louisiana commission's adoption of the 1 delta was subject to trial. Yet the

8   commission delayed in voting on the order until February 21, 2001 and releasing

9   the order May 14, 2001 with a compliance filing not due yet. So there is no real

10   world data of the impact of this delta to examine in the BellSouth 271 full court

11   press. And WorldCom is sure it was planned that way. If a delta is tried, it

12   should be the CLEC delta as BellSouth is more likely to weather an error in

13   settling the delta, not the CLECs, particularly the small new entrants.

14

15   As the quotes below from the staff recommendation adopted by the Louisiana

16   PSC show, the 1 delta for CLEC specific and 0.5 delta were not solidly supported

17   nor has any trial yet begun:

18

19   Staff believes that the Commission should accept BellSouth's
20   proposed delta value of 1 for individual CLEC tests and .50 for
21   CLEC aggregate tests for an interim period review period. Staff
22   did not have sufficient evidence to conclude that a delta value of 1
23   produces reasonable results when examining actual performance
24   data and resulting pass fail statistics. Staff concludes that
25   additional analyses and data should be examined before drawing a
26   final conclusion concerning the delta value. BellSouth should be
27   ordered to use delta values of 1 and .50 for an interim period of
28   seven and one-half months (45 days to put its statistics and

1 remedy plan into full production mode and six months of
2 reporting); provide Staff with the amount of remedies produced
3 using these values; and to present the metric results as aggregated
4 under its remedy plan, Z-scores, Type I and Type II error
5 probabilities and balancing critical values that produced the
6 amount of remedies. This information should be made available to
7 Staff so that it can further evaluate the reasonableness of
8 BellSouth's proposed parameter delta value of 1 and .50.
9
10 This information should be supplied is a table as set forth below
11 for each submetric to which a remedy applies. An example is
12 included in the table.
13

Metric	P-3 Percent Missed Installation Appointments – UNE Loop and Port Combinations
Z-Score	-3.80
Balancing Critical Value	-1.70
Pass/Fail Indication	F
BST Metric Result	20%
CLEC Metric Result	30%
Type I Type II Error Probability	5%
Parity Gap	2.10
Total Transactions	1000
Transactions in Negative Cells	350
Transactions Possibly Remedied	100
Affected Volume	53
Remedy Amount	$400
Remedy Paid	$21,200

14

15 While BellSouth did produce some information of this nature in
16 the instant docket it was not given to Staff until June 7, 2000. More
17 importantly, however, is the information supplied to Staff only
18 related to four metrics[9] (out of a total 21 for which BellSouth
19 proposes to attach a remedy). While this information was helpful,
20 it did not contain the results of the metrics evaluated. In other
21 words, to better evaluate the impact of using a delta value of 1,
22 Staff would need to examine the metric results to determine if
23 there is a meaningful difference between performance to the CLEC
24 and BellSouth's retail customers and if a meaningful difference
25 translated into a meaningful remedy payment.
26 In addition, while BellSouth supported the proposed delta value of
27 1 by indicating that it produced a remedy payment over $12.0
28 million for these three metrics for the months of September,
29 October, and December 1999, this amount is incorrect. In fact, the

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[9] In addition, the data supplied by BellSouth only contained three modes of entry, yet BellSouth proposes to pay remedies on five modes of entry.

correct remedy payment for these metrics for the same time period is less than $2.0 million.

Finally, neither BellSouth nor the CLECs[10] have endorsed parameter values to be used with rate and proportion metrics, although both acknowledge that they could be developed in a manner similar to the delta value. For these parameter values, Staff recommends that the value for psi be set at 3 (Tier-1) and 2 (Tier-2), and epsilon be set at 2.5 (Tier 1 & Tier 2).

Order adopting Final Staff Recommendation, In re: BellSouth

Telecommunications, Inc., Service Quality Performance Measurements, Docket

No. 22252 Subdocket C (May 14, 2001).

Many other problems remain with the remedy plan. While all its per occurrence

remedies are two low, its $1 billing per occurrence remedies are ludicrous. In its

recent 271 proceeding, the Pennsylvania commission set per measure remedies

for billing accuracy and timeliness misses at $50,000 first month miss, $75,000

second month's miss, and $100,000 third month's miss. These remedies would

be paid per CLEC with no overall or monthly caps applied. BellSouth's plan only

gives the monies overcharged back to the CLEC without consideration for the

troubles in auditing bills, tracking expenditures in determining the projected

profitability of new launches, and soothing customers irate at errors in their end

user bills.

Q.   **SHOULD CLECs AWAIT CONTRACT INCLUSION FOR THE REMEDY AND METRIC PLAN REPORTING TO BECOME EFFECTIVE?**

---

[10]   In an ex parte filed with the FCC on June 7, 2000 AT&T proposed a formula for the development of a parameter value for proportions: $\text{delta} = 2(\arcsin(\sqrt{pCLEC}) = \arcsin(\sqrt{pILEC}))$.

1 A.   No. The remedies plan should take effect on a date certain as Georgia and the

2   Louisiana commissions have required. Awaiting contract inclusion can delay

3   CLEC access to metrics and remedies needed to support their local market entry.

4   WorldCom has experienced delaying tactics and linking of metrics/remedies

5   amendment plan inclusions to other onerous conditions in SBC territory. Verizon

6   plans all have taken place on a date certain, without requiring contract inclusion

7   for effectiveness.

8

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

10 A.   Yes.

Certificate of Service

A copy of the foregoing was served this 9th day of July, 2001, by first class, United States mail, postage prepaid, upon all parties of record.

C. Kent Hatfield

ARGUMENTS FOR CLEC BUSINESS RULE CHANGES

BellSouth Measurement	Business Rules, Exclusions, Calculations and Standards in Need of Immediate Change[1]
OSS-1. Average Response Time and Response Interval (Pre-Ordering)	Definition: The measurement time should begin when BellSouth receives the query from the CLEC and should end when BellSouth returns a response to the CLEC interface. BellSouth should be accountable for the period of time in which the query and its response are in its possession. Measuring a part of the process, as BellSouth does currently, provides inadequate and misleading information that does not reflect the CLEC experience or BellSouth's performance. The Commission should adopt a definition like that in the Texas plan, which states: "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."
	Business Rules: (1) BellSouth should exclude syntactically incorrect queries from the measure. The query type measurements should show how long it takes to return valid query information that is useful to the CLEC. Responses to invalid queries could come more quickly than a response to a valid query, thus diluting the results in terms of how quickly CLECs receive the information sought through a syntactically correct query. (2) BellSouth should not be allowed to drag its feet in measuring new query types and new interfaces. It should agree to report on such new queries and interfaces within six to eight weeks after they go into production. BellSouth will be well aware of a new query or interface coming on line long before that interface or query type goes into production for CLECs, so the timeline proposed is more than generous.
	Disaggregation: BellSouth must capture all interfaces used, including PSIMS, and it must measure the speed of rejected queries and the number of queries receiving time outs to capture all preorder response time issues of concern to CLECs. Numerous time outs and slow rejects, as well as the speed of other query responses, can add up and cause a customers to become frustrated while the CLEC is trying to sign them up to new service.
OSS-2. Interface Availability (Pre-Ordering)	Data Retained: BellSouth should be required to post its own scheduled hours of OSS availability on its web-site as it currently does for CLEC OSS availability. Parity of scheduled availability cannot be determined without this information. If CLECs do not know the starting point of this measure, the usefulness of the % schedule met is limited.
OSS-3. Interface Availability (Maintenance & Repair)	Disaggregation: BellSouth needs to disaggregate by all its OSS Systems, including those proposed by CLECs in the task force report. If any route to that OSS varies, then each interface route should be reported separately.

---

[1] Although some specific concerns about disaggregation and benchmarks are raised here, the full level of disaggregation and detailed information on analogs and benchmarks are described in other of my exhibits.

ARGUMENTS FOR CLEC BUSINESS RULE CHANGES

	Data Retention: BellSouth should be required to post its own scheduled hours of OSS availability on its web-site as it currently does for CLEC OSS availability. Parity of scheduled availability cannot be determined without this information. Without such understanding of the starting point of this measure, the usefulness of the % schedule met is limited. BST also must not do system maintenance more often in CLEC prime operational hours: 5 to 9 p.m. versus its own prime hours: 9 to 5 p.m.
OP-1. Percent Flow-through Service Requests (Summary) OP-2. Percent Flow-through Service Requests (Detail) OP-3. Flow-through Error Analysis	Exclusions: BellSouth's SQM should not exclude orders that fall to manual, through no fault of the CLEC, from the metric. It may measure whether the orders it has designed to flow through actually do, but it should also show the whole story on what orders have not yet been designed to flow through. The purpose of this measure should be to measure the percent flow-through capability of BellSouth's ordering systems. CLECs cannot improve the flow-through of error free orders, only BellSouth can. Therefore, it should be held accountable for its decision not to provide flow-through. Further, BellSouth is obligated to provide parity service. As it has provided no evidence that such orders fall out for manual processing for its retail operation, it should not be allowed to exclude such orders from its flow-through calculation for CLECs. In addition to the current level of discrimination, another consequence of allowing this exclusion is that BellSouth has no incentive, perhaps even a disincentive to improve its performance. Yet it is clear that the lack of flow-through causes additional delays, errors and costs. For example, FOC intervals are much longer for partially mechanized orders. It is also undisputed that having to re-key an order delays it and re-keying or otherwise manually handling an order increases the risk of error, which either causes the order to reject, creating more delay, or perhaps even to be provisioned incorrectly. CLECs request that the Commission reject this unjustified and discriminatory exclusion. At a minimum, the Commission should establish a timely sunset provision[2] on this exclusion to cause BellSouth to improve its flow-through performance. Fall out from errors occurring in SOCS should be included in the metrics, as should all fall out resulting from BST system issues. See Birch testimony. Additionally, BellSouth does not provide this report for LNP LSRs. Benchmark: BellSouth's benchmarks may be appropriate if total flow through is being measured, but if only orders designed to flow through as BellSouth currently proposes are counted then the benchmark should be a strict 98%. CLECs propose that both total and achieved/designed flow through performance should be measured.

---

[2] See Appendix H of the New York Inter-Carrier Service Quality Guidelines which sets forth a schedule of activities required to improve flow-through.

ARGUMENTS FOR CLEC BUSINESS RULE CHANGES

OP-4 Percent Rejected Service Requests	Business Rules: BellSouth must identify all errors in orders in parallel, rather than catching and sending back each error one at a time. BellSouth's current serial process of rejecting orders extends the time for CLECs finally getting an order accepted. With BellSouth's long intervals for partially mechanized orders, repeated rejects can easily push out the due date for an order beyond the customer's toleration level. With numerous business rule changes and system update changes to learn, CLECs are apt to make mistakes. For them to quickly learn new rules a rapid rejection response catching all errors at once can speed up the CLEC's learning to avoid such errors in the future.
OP-5. Reject Interval	Business Rules: BellSouth's business rules and formula should be changed to require BellSouth to calculate this measure as follows. The measured interval should end upon delivery by BellSouth of a response to the CLEC interface. BellSouth should measure the entire interval up to the point that it returns the rejected LSR to the CLEC. BellSouth should be accountable for the time in which the rejection is in its possession. The Texas plan states as the end of its interval "the time the reject notice is *provided to EDI* (or LEX) and is *available* to the CLEC." BellSouth's SQM indicates that it uses the date/time stamp in LEO for mechanized orders. CLECs request that it be required to use the date/time stamp from the interface (LENs/TAG/EDI) as it does for the beginning of the interval. There is no justification for stopping short of delivery to the CLEC. For non-mechanized orders, BellSouth indicates that it is using LON, its order tracking system for non-mechanized orders. Again, BellSouth provides no justification and the CLECs request that BellSouth be required to use the actual stop time from the fax server as it uses the date/time stamp from the fax for the receipt of the order. Further, when a CLEC uses multiple OSS interfaces the reject interval should be measured for each one. Different interfaces can produce different rejection intervals, and disaggregated monitoring of such differences are needed. Standard: BellSouth's intervals for partially mechanized orders are too long. Such rejections should be received in 5 hours not 48. Totally manual orders may have a longer, 24 hour, intervals. These intervals should include trunks. BellSouth's proposed trunk rejection intervals—4 days—are too long to wait to learn that its order had not even been initiated yet.
OP-6. Firm Order Confirmation Timeliness	Business Rules: BellSouth's business rules and formula should be changed to require BellSouth to calculate this measure as follows: The measured interval should end upon delivery by BellSouth of a response to the CLEC interface. BellSouth should be accountable for the time in which the FOC is in its possession. and should be required to measure its performance as described in the Texas performance measures plan, which states "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."

BellSouth's SQM indicates that it uses the date/time stamp in LEO for mechanized orders. CLECs request that it be required to use the date/time stamp from the interface (LENs/TAG/EDI) as it does for the beginning of the interval. There is no justification for stopping short of delivery to the CLEC. For non-mechanized orders, BellSouth indicates that it is using LON, its order tracking system for non-mechanized orders. Again, BellSouth provides no justification and the CLECs request that BellSouth be required to use the actual stop time from the fax server as it uses the date/time stamp from the fax for the receipt of the order.

Also, if CLECs order inbound BellSouth to CLEC trunks through ASRs, the confirmation of those ASRs should be included in this metric. CLECs also have proposed a separate measure to capture how quickly BellSouth responds to inbound trunk requests whether made through ASRs to which BellSouth sends a confirmation or by a Trunk Group Service Request to which BellSouth responds by sending an ASR. Either as part of the confirmation or a separate metric, measurement of the time it takes BellSouth to respond is critical to monitor. CLECs often wait long times for ILECs to send the ASRs when capacity is inadequate to carry calls from ILEC customers to CLEC customers. CLECs seek to have adequate inbound trunk capacity in place before adding new customers that would cause blocking for new and existing customers. Current trunking measurements do not capture this missing response time on inbound trunks.

BellSouth also should confirm facilities availability for all orders, not just trunks, before issuing a confirmation. If CLECs cannot depend on the due date given them then confirmations are useless. Too often in BellSouth territory CLECs receive confirmations immediately followed by notice that the order is being held for facilities. Facilities checks should be a standard requirement for all orders.

Disaggregation: BellSouth needs to disaggregate reporting by electronic, partially electronic and manual and by volume category if confirmation times differ by the size of the order. It also should disaggregate by any order activity (dispatch and non-dispatch, for example) that would be subject to different standard intervals for confirmations.

Standards: While BellSouth and CLECs agree the interval for confirmation of fully mechanized or flow through orders, BellSouth has proposed extremely long intervals for confirming partially mechanized and trunk orders. BellSouth should establish intervals of five hours for partially mechanized orders, similar to the intervals agreed to by SBC's Pacific Bell and Ameritech affiliates. SWBT has a five hour confirmation interval for all electronic orders. Manual orders, including trunk orders should be confirmed in 24 hours.

ARGUMENTS FOR CLEC BUSINESS RULE CHANGES

OP-7 Speed of Answer (Ordering Center)	Disaggregation: The reports should be by each help desk center the CLECs call into as each may have different answering times. Benchmark: The CLEC recommend a response time of 95% in 20 seconds and 100% in 30 seconds. In no case should the standard be worse than the state's end user standard of 90% in 20 seconds for BellSouth's business and residence centers. These standards would require conversion of the metric to % in X seconds metric. If the Commission retains the measurement as an average, then the standards would need to be adjusted accordingly. CLECs need to get assistance from a representative quickly when calling with an ordering, provisioning or maintenance problem. Often a single call will be about a problem holding up numerous, not just a single order from being completed..
OP-8 Mean Held Order Interval and Distribution Intervals	Exclusions: BellSouth must not be allowed to exclude cancelled orders from these metrics. Often this will make performance look better than it is as CLECs cancel orders when it appears that BellSouth will not have the facilities to fill those orders for months. Further, customers may request cancellations themselves if the CLEC cannot tell them how long they have to wait for their order to be completed. If cancelled orders are excluded, the metric will not show the real story of how often CLEC orders are held for facilities or other reasons. Disaggregation: CLECs need to see how many orders are held by all products, including the various xDSL-capable loops with and without conditioning, line-sharing and splitting requests, etc. The results should also be disaggregated by the reason for the hold: "facilities," "load," and "other" at the very least.
OP-9 Average Jeopardy Notice Interval Percentage of Orders Given Jeopardy Notices	Exclusions: Cancelled orders should not be excluded from the measure. CLECs need to see all the orders receiving jeopardies, particularly those that may lead to a cancellation if the delivery date is going to be missed. BellSouth should be required to remove its exclusion of orders submitted to BellSouth through non-mechanized methods. The Commission should not allow BellSouth to discriminate against CLECs who place orders via non-mechanized means. Information regarding jeopardy situations for non-mechanized orders is just as critical to the CLEC and its customers as it is for mechanized orders. Further, in some cases, for example, xDSL services and enhanced extended loops (EELs), CLECs have no choice but to use non-mechanized ordering. Finally, BellSouth provides this information for other status measures such as FOCs and rejection notices. The Commission should require BellSouth to provide jeopardy notices, regardless of the means of ordering, and to report its performance accordingly. Business Rules: The elapsed time should continue through weekends and holidays to capture the full length of the notice interval.

ARGUMENTS FOR CLEC BUSINESS RULE CHANGES

	CLECs need to have an equivalent opportunity to plan with customers for situations where an order appears to be in jeopardy as does BellSouth. Therefore, if any BellSouth representative can check on the status of the order, then CLECs need access to that same information sent through electronic or manual notices as requested. Calculation: The calculation should be based on the orders placed in jeopardy not just those orders sent jeopardy notices. To calculate the metric as proposed by BellSouth would understate any problem in CLECs not receiving notices on orders that are going to be missed.
OP-10 Percent Missed Installation Appointments	Business Rules: Disconnect and From orders should be disaggregated and reported separately, rather than be excluded as BellSouth proposes. CLECs need to see that their requests to disconnect customers from service are timely as well. This will help avoid billing disputes with the terminated customer. This measure should be changed to include time, when time specific appointments are ordered by the CLEC. This measure should evaluate the level of service CLECs are paying for and to which BST is committing, i.e. if the appointment is time specific, the measurement should be time specific. The end time for xDSL orders should include successful continuity testing with the CLEC, particularly if the CLECs' proposed measure on acceptance testing is not adopted. For CLECs, the interval should end with the issuance of the completion notice. This is when the CLEC knows that the order is complete and fulfillment information can be sent to the customer and billing started. For BellSouth, the completion time is the time entered into BellSouth's OSS Systems or any other database from which representatives can obtain completion information. Disaggregation: CLECs need to see how many orders are held by all products, including the various xDSL-capable loops with and without conditioning, line-sharing and splitting requests, etc. BellSouth's July 2000 SQM seems to make some movement in this direction but only for Louisiana.
OP-11. Average Completion Interval (OCI) Interval Distribution	Business Rules: Disconnect and From as well as expedite orders should be disaggregated and reported separately, rather than be excluded as BellSouth proposes. These usually are very short intervals that can skew total results, but CLECs need to know the speed at which disconnect and expedite orders are being met. BellSouth should be required to modify its business rules and calculation to reflect the appropriate interval. The appropriate starting point for this measure is when BellSouth receives a valid LSR and the appropriate ending point is when a completion notice is sent to the CLEC. Both the New York and

	Texas performance measures plans begins this interval with the date that a valid service request is received, not when the order is entered into the SOC system as proposed by BellSouth. This would eliminate what could be considerable time from the interval, particularly for non-flow through orders. Disaggregation: Orders designated "pending facilities" should be a level of disaggregation, as well as the other proposed levels of disaggregation as described in my other exhibits. CLECs need to see if BellSouth's orders designated as pending facilities get completed at a faster pace than CLEC orders that were pending facilities. CLECs need to see disaggregation by the various xDSL-capable loops, line-sharing and splitting requests, etc. As mentioned above, information on whether these products also include conditioning should be a level of disaggregation. CLECs need to see if they are receiving line conditioning on orders in a non-discriminatory fashion.
OP-12. Average Completion Notice Interval	Exclusions: BellSouth should be required to remove its exclusion of non-mechanized orders. The Commission should not allow BellSouth to discriminate against CLECs who place orders via non-mechanized means. Information regarding completion of service orders for non-mechanized orders is just as critical to the CLEC and its customers as it is for mechanized orders. Further, in some cases, for example, xDSL services and enhanced extended loops (EELs), CLECs have no choice but to use non-mechanized ordering. Finally, BellSouth provides this information for other status measures such as confirmation and rejection notices. The Commission should require BellSouth to provide completion notices, regardless of the means of ordering, and to report its performance accordingly. Disconnections and From orders should be included in the measurement but reported separately to track performance. BellSouth should be required to modify its business rules and calculation formula to indicate the measured interval ends upon delivery by BellSouth of a notice of completion to the CLEC interface (LENS, EDI, or TAG) or, if manual, the date/time stamp from the fax machine or server. BellSouth should be accountable for the time in which the completion information is in its possession. BellSouth's current business rules have the ambiguous statement that "the end time is the time stamp the notice was submitted to the CLEC/BST system. CLECs request that the exact CLEC (not BST) system be identified as described above, so that, as in the Texas plan, the end interval measured is "the actual time (LEX) or *EDI received* the (SOC) notification and it is *available* to the client." Benchmark: Completion notices need to be delivered promptly after actual physical work completion so CLECs know when

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	they own new customers and must respond to their needs. If the retail analog selected operates at the interval stated by BellSouth in collaboratives (an hour to an hour and a half) that is acceptable but most completion notices need to be delivered at least one hour after work completion.
OP-13 Coordinated Customer Conversions Hot Cut Timeliness % within Interval and Average Interval	Exclusions: Cancelled orders should be included to capture all the hot cut activity (even those attempts that prompt the customer to cancel the order) in the metric. Business Rules: The CLECs request that this measurement be modified to include the entire hot cut interval or replaced with the early and late cuts measures requested by the CLECs in my direct testimony. It is important that not only the start time of the cut, but the entire interval, including acceptance testing with the CLEC be included in this measure. The loop should not be considered delivered until BellSouth and the CLEC have checked whether electrical continuity exists. Customers will not tolerate timely delivery of non-working loops. Disaggregation: Particularly with the advent of line sharing and splitting, disaggregation by all the types of digital and xDSL loops offered by BellSouth is critical to detect problem areas with hot cuts. Benchmarks: The interval for 1-10 lines should be 1 hour and for 11 or more lines 2 hours. BellSouth's interval represents a flawed calculation that does not depict the actual performance on each individual cut. In any event, BellSouth's 15 minutes per loop is excessive and even the CLEC's standard above is generous considering it should not take more than 5 minutes per loop for conversion.
OP-14 Percent Provisioning Troubles	Business Rules: The metric should include all trouble reports arising from the same order. A customer may experience several service disruptions related to provisioning problems and each should count as a provisioning trouble. Disaggregation: Disaggregation by trouble type and service type will help pick up problems described in Access Integrated Network's testimony regarding coordination of D & N orders.
OP-15 Total Service Order Cycle Time (TSOCT)	I did not analyze this measure.
MR-1 Missed Repair Appointments	Exclusions: BellSouth may exclude customer provided or CLEC equipment troubles from the metric but it should report the number of exclusions monthly. This will enable the CLEC to monitor whether the exclusions seem high and perhaps were wrongly coded. In New York and Pennsylvania, such exclusions are reported separately by Verizon. Business Rules: The end time should be when the CLEC receives notice that the service is restored . This will enable the CLEC to notify BellSouth promptly if it disagrees that the service has been restored.
MR-2 Customer Trouble Report Rate	See MR-1. Standard: The standard should be parity or no worse than the

	end user standard in N.C. Otherwise CLECs will not be able to meet the end user standard.
MR-3 Maintenance Average Duration	Exclusions: Customer and CLEC equipment troubles may be excluded but should be reported separately for the reasons stated in MR-1. BellSouth also should not exclude troubles that have lasted more than 10 days. There is no reason to exclude the longest or the shortest duration from this metric. Doing so only provides an inaccurate metric report. Business Rules: The trouble report should not be considered closed or service restored until the CLEC is given notice. "Restore" means to return to the normally expected operating parameters for the service and verification by the CLEC that the service has been restored. CLECs must be able to verify when informed that the trouble is closed that service has been restored to the customer. This will reduce the number of repeat trouble reports for services that were prematurely closed by BellSouth, but the CLEC customer's service is still impaired. Disaggregation: All maintenance metrics should be disaggregated by trouble type so CLECs can ascertain the specific types of problems (Central Office, Loop, etc.) where they may not be receiving parity service. This also protects BellSouth as dispatch troubles generally take longer than central office troubles and could make the metric look out of parity only because the CLEC had more dispatch troubles. So such disaggregation is particularly crucial for trouble duration.
MR-4 Percent Repeat Troubles in 30 Days	Business Rules: Customer and CLEC equipment trouble exclusions should be reported separately (See MR-1). Calculation: The denominator for the metric should be all repeat troubles received in the month, rather than all troubles closed. Using BellSouth's calculation could understate the problem for a month in which numerous troubles have not been closed by the end of the month. Standard: The standard should be parity or no worse than the state's end user standard. Otherwise the CLEC could not meet that standard.
MR-5 Out of Service (OOS) > 24 hrs.	CLECs have no changes for this metric.
MR-6 Average Answer Time (Repair Center)	Disaggregation: If there is more than one maintenance center, then the results of both centers should be shown separately to monitor each center's performance. Standard: 95% calls should be answered in 20 seconds, and 100% in 30 seconds to ensure prompt taking of trouble reports. In no case, should the answer time be worse than the end user requirement.
BL-1. Invoice Accuracy	Invoice accuracy should not be based on adjustment dollars, as BellSouth is in control of whether or not it grants an adjustment, and is therefore in control of the outcomes of this measurement. CLECs request that the Commission order the additional billing measures in my direct testimony to address wholesale bill performance.
BL-2. Mean Time to Deliver Invoices	This measure should be modified to be based on percent

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	invoices received on time, or the Commission should adopt the Percent On-Time Mechanized Local Service Invoice Delivery measure recommended by the CLECs.
BL-3 Usage Data Delivery Accuracy	Calculation: CLECs believe the metric should reflect the number of records not data packs delivered accurately. This is more in line with how accuracy has been calculated in the past for usage data.
BL-4 Usage Data Delivery Completeness	No changes for this measure.
BL-5 Usage Data Delivery Timeliness	No changes for this measure.
BL-6 Mean Time to Deliver Usage	Business Rule: CLECs believe that the measurement should begin with the generation of data by the CLEC retail customer or CLEC access customer (by the AMA recording equipment associated with the CLEC switch.). This will ensure that all usage (local and associated access) are covered by this metric.
OD-1 OS/DA Speed to Answer Performance/ Average Speed to Answer	Exclusions: BellSouth should not exclude call abandonment times. The customers likely abandoned the call because of lengthy waits for a response and such time should be included in the metric calculation. If the Commission adopts the CLECs' proposed new measure on call abandonment then this issue is moot.

Standard: CLECs propose that 95% of calls be answered in 10 seconds. The metric would have to be changed from an average measure to a Percent in 10 Seconds to suit this benchmark. Otherwise the benchmark needs to be restates as an acceptable average. In no case, should the standard be worse than the end user standard for answering such calls, as the CLECs need to meet the end user standard. |
| OD-2 OS/DA Speed to Answer Performance/Percent Answered in X Seconds | CLECs propose that OS/DA performance be measured with a single metric, but disaggregated for OS and DA. |
| E-1 E911 Timeliness E-2 E911 Accuracy E-3 E911 Mean Interval | CLECs have no changes to these measures but want third-parity verification of BellSouth's claims that its E911 update processes are parity by design. |
| TG-1 Trunk Group Performance - Aggregate | Business Rules: CLECs are seeking the inclusion of 911 trunks in this measure along with the OS/DA trunks that BellSouth has agreed to add.

Disaggregation: BellSouth must disaggregate reporting by trunk type and design type. Combining trunks built to different blocking standards can hide blocking problems.

Calculations: BellSouth's SQM appears to make some changes in the calculation of this metric that CLECs will need to obtain further clarification. These clarifications may raise additional issues regarding this metric.

Standards: BellSouth's 0.5% buffer is not acceptable. The measure should be based on parity in not exceeding the various blocking design levels. |
TG-2 Trunk Group Performance – CLEC Specific	See TG-1.
TG-3 Trunk Group Service Report	No comment.
TG-4 Trunk Group Service Detail	No comment.
CO-1 Collocation Average Response Time	Business Rules: Augments of existing collocations should be

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	included in this metric. CLECs require timely responses when seeking to augment existing collocations as well to initiating new collocation construction. BellSouth's SQM appears to be making some movement toward better collocation disaggregation, but it still is missing some key areas such as remote and adjunct collocations. Standards: CLECs agree to accept the intervals established in the Commission's separate collocation proceeding, including a definition of what CLEC changes would and would not stop the clock on measuring time intervals.
C-2. Collocation Average Arrangement Time	Business Rules: BellSouth should not be permitted to remove permit time. BellSouth should be accountable for the intervals for which it is responsible for having work completed. Removing permit time removes any incentive for BellSouth to conduct parallel work activities or work with government agencies for expeditious issuance of permits. Neither the performance plan of New York or Texas provides for such exclusions. Further, a collocation should not be considered complete until the CLEC accepts the collocation and associated cable assignment information is provided. This definition has been adopted in New York and other states in the Verizon region. Disaggregation: Disaggregation should be by each collocation type and by augment type (additions with intervals of 30 day, 45 day, 60 day etc.). BellSouth's SQM appears to be making some movement toward better collocation disaggregation, but it still is missing some key areas such as remote and adjunct collocations Standards: See CO-1.
C-3 Collocation Percent Due Dates Missed	See CO-1 and C0-2.

LNP ISSUES SUBMITTED REGARDING BellSouth SQM

OP-9. LNP-Percent Rejected Service Request	Exclusions: BellSouth should be required to remove the exclusion of non-mechanized LSRs. It provides this information for other types of services and should not be allowed to discriminate.
OP-10. LNP-Reject Interval Distribution & Average Reject Internal	See OP-9 above.
O-11. LNP-Firm Order Confirmation Timeliness Interval Distribution & Firm Order confirmation Average	See OP-9. BellSouth's SQM does not specifically exclude, but it also does not specifically exclude non-mechanized LSRs.

OP-10. LNP –Percent Missed Installation Appointments	Exclusions: The measure should be modified to include non-mechanized orders. The Commission should not allow BellSouth to discriminate against CLECs who place orders via non-mechanized means. Further, while some loop ordering is available to LENS users, LNP is not. BellSouth's performance for services ordered via non-mechanized means is obviously just as critical to the CLEC and its customers as it is for mechanized orders. Further, it is inconceivable that BellSouth can defend the exclusion of orders from a provisioning measure, such as missed appointments, simply based on how the service was ordered. The Commission should require BellSouth to capture performance data for all its measures, regardless of the means of ordering, and to report its performance accordingly

OP-11. LNP-Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution	Business Rules: BellSouth should be required to actually perform the disconnect activity before completing the service order in SOCs. Exclusions: BellSouth should be required to include non-mechanized orders. See OP-9 above.
OP-12. LNP-Total Service Order Cycle Time	Business Rules: See OP-11 above. Exclusions: See OP-9.

O-9: Firm Order Confirmation Timeliness	Benchmarks should be at least 95% in 5 hours for partially mechanized orders and 24 hours for non-mechanized orders. BellSouth should be required to do electronic facilities checks to ensure that the due dates delivered in FOCs can be relied upon.
O-10: Service Inquiry With LSR Firm Order Confirmation (FOC) Response Time Manual	The benchmark for this metric should combine the interval for Manual Loop Qualification with the appropriate FOC interval. At most, the benchmark should be 95% in 3 days for electronic orders and 4 days for manual orders.
O-11: Firm Order Confirmation and Reject Response Completeness	BellSouth should include partially and non-mechanized orders.
O-12: Speed of Answer in Ordering Center	This metric should not be diagnostic. The benchmark should be 95% in 20 seconds and 100% in 30 seconds.
O-13: LNP-Percent Rejected Service Requests	BellSouth has added manual LNP orders to its metric, which resolves one of the outstanding issues.
O-14: LNP-Reject Interval Distribution & Average Reject Interval	BellSouth has added manual LNP orders to its metric, which resolves one of the outstanding issues.
0-15: LNP – Firm Order Confirmation Timeliness Interval Distribution & Firm Order Confirmation Average Interval	Non-mechanized should be developed quickly and CLECs' proposed intervals for FOCs should be applied.
P-4: Average Completion Interval	BellSouth's proposed intervals for xDSL with and without conditioning are too long. Interval for conditioning should be no more than 5 days.
P-6A: Coordinated Customer Conversions -- Hot Cut Timeliness % Within Interval and Average Interval	Metric should be clarified to make clear that an early cut would be included as a missed appointment if cut was restarted within original window. Thirty minute buffer is excessive. Different intervals for IDLC are inappropriate and unjustified. The benchmark should be 95% completed within

	cutover window. BellSouth only appears to be measuring whether the cut started on time, but does not measure whether it finished within the cutover window proposed by the CLECs.
P6-B: Coordinated Customer Conversions – Average Recovery Time	Only verified end user and CLEC caused reasons should be excluded. (i.e., the CLEC has to agree). Outages during and before the cut are included, not just those that can be reported after order completion through maintenance systems. BellSouth may separate out the later group of restorals and measure them as a disaggregation of Maintenance Average Duration with the same benchmark if it prefers.

The benchmark should be 98% in 1 hour and 100% in 2 hours. These outages were caused by BellSouth's cut-over errors and, thus, should be easy for it to diagnose and resolve. |
| P-6C: Coordinated Customer Conversions - % Provisioning Troubles Received Within 7 days of a completed Service Order | The benchmark should be 1%, not 5 % as BellSouth proposes. |
| P-7: Cooperative Acceptance Testing - % of xDSL Loops Tested | BellSouth should report the number of exclusions (CLEC caused failures monthly) so CLECs can determine whether their reports do not match up.

The benchmark should be 99.5%. |
M&R-3: Maintenance Average Duration	BellSouth should clarify what it means by a "correct" repair request and how a CLEC is informed that reporting of trouble is incorrect.
M&R-6: Average Time - Repair Centers	Benchmark should be the better of parity or at least the end user standard
M&R-7: Mean Time to Notify CLEC of Network Outages	Parity by design needs to be confirmed by KPMG. If confirmed, no metric is needed, just information on how to get the same notices at the same time as BellSouth.
B-2: Mean Time to	Bills rejected because of BellSouth formatting or

Deliver Invoices	content errors should be included.
D-1: Average Database Update Interval	Parity by design needs to be confirmed by KPMG.
D-3: Percent NXXs and LRNs Loaded by LERG Effective Date	BellSouth's business rules should not define the interval by the completion of initial interconnection trunk groups when that happens after the LERG effective date. Otherwise, BellSouth could delay delivery of trunks to cover late LERG updates. The LERG effective date should be the end time in all cases.
CM-2: Change Management Notice Average Delay Days	Benchmark should be 95% in 5 days. For 30 days it should be a shorter delay day interval of no more than 3 days.
CM-3: Timeliness of Documents Associated with Change	BellSouth's proposed exclusion for dates that slip less than 30 days "for reasons outside BellSouth control" is too broad.

A Five day interval for documentation changes is too short for CLECs to be able to implement changes. CLECs recommend 30 days for documentation changes, unless it is for error correction, which should be provided within the five day timeframe. Further, if the documentation is associated with software changes, 90 days or more is needed for major releases. |
| CM-4: Change Management Documentation Average Delay Days | Benchmark should be 98% in 5 days. |
| CM-5: Notification of CLEC Interface Outages | BellSouth should explain how it verifies outage and the interval between first notice of outage and verification. If this interval is long, the notice could be delayed and still appear to be on time because of "verification" condition. |

Additional Measures Proposed by CLECs

Report/Measurement:
Timeliness of Response to Requests for BellSouth-to-CLEC Trunks Mean Time to Provide Response % Within 7 Days % Negative Responses
Definition:
Measures the time it takes for BST to provide the CLEC with a firm due date for inbound trunks.
Exclusions:
• CLEC cancelled orders
Business Rules:
Time begins with date the CLEC sends a complete ASR or Trunk Group Sizing Request via email or fax. The interval ends with the date the ILEC sends a FOC in response to a complete ASR or sends an ASR in response to a TGSR. Any queries regarding CLEC transmission should occur within five days. A query or a negative response to request. Neither queries or negative responses should stop the clock for this metric if (1) the query is invalid and CLEC request included all clearly required information and (2) the existing inbound trunks are operating at least at a 50% utilization level. BST will count the percent of requests receiving negative responses by reason (lack of facilities, need questioned, etc.).
Calculation:
Mean: (Date FOC/ASR returned – Date ASR/TGSR)/Number of Requests in Reporting Period % On Time: (Number of FOCs/ASRs sent in 7 or less business days/all requests for inbound trunks in reporting period) x 100. % Negative: (Number of requests denied/Total Requests Submitted in Reporting Period) x 100
Report Structure:
• CLEC Specific • CLEC Aggregate • BST Aggregate
Level of Disaggregation:
• Company • Affiliate(s) • CLEC Specific • CLEC Aggregate • Interface Type (fax, email, ASR) • Negative Response Reason Type
Retail Analog/Benchmark:
If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete: • 95% in 7 days

Additional Measures Proposed by CLECs

Report/Measurement:
Percent Service Order Accuracy

Definition:
Customers expect that their service provider will deliver precisely the service ordered and all the features specified. A service provider that is unreliable in fulfilling orders will not only generate ill-will with customers when errors are made, but will also incur higher costs to rework orders and to process customer complaints. This measurement monitors the accuracy of the provisioning work performed by the ILEC in response to CLEC orders. When the ILEC provides the comparable measure for its own operation, it is possible to know if provisioning work performed for CLECs is at least as accurate as that performed by the ILEC for its own retail local service operations.

Exclusions:
- Orders canceled by the CLEC
- Order Activities of the ILEC associated with internal or administrative use of local services.
- For resubmissions impact on due date measure, ILEC would not have to comply if tying final accepted order to original order is technically infeasible (but feasibility issue will be revised as systems are upgraded.)

Business Rules:

For CLEC Results:
- For each order completed during the reporting period, the original account profile and the order that the CLEC sent to the ILEC are compared to the services and features reflected upon the account profile as it existed following completion of the order by the ILEC. An order is "completed without error" if all service attribute and account detail changes (as determined by comparing the original and the post order completion account profile) completely and accurately reflect the activity specified on the original and any supplemental CLEC orders. "Total number of orders completed" refers to the total number of order completion notices sent to the CLEC by the ILEC for each reporting dimension identified below.

Calculation:

Percent Order Accuracy = [(Σ Orders Completed w/o Error)/(Σ Orders Completed)] x 100

Report Structure:
- CLEC Specific
- CLEC Aggregate

Level of Disaggregation:
- Company
- Interface Type
- Standard Product Categories
- Volume Category

Retail Analog/Benchmark:
- Completed CLEC Orders, By Reporting Dimension, Are Accurate No Less Than 99.0 Percent Of The Time.

Additional Measures Proposed by CLECs

Report/Measurement:
- Call Abandonment Rate – Ordering & Provisioning (similar for Maintenance)

Definition:
When CLECs experience operational problems dealing with ILEC processes or interfaces, prompt responses by ILEC support centers are required to ensure that the CLEC customers are not adversely affected. Any delay in responding to CLEC center requests for support (e.g., request for a vanity telephone number) will, in turn, adversely impact the CLEC retail customer who may be holding on-line with the CLEC customer service agent. This measure monitors the ILEC's handling of support calls from CLECs to determine if responsiveness is at parity with the service the ILEC provides its retail customers seeking assistance.

Exclusions:
None

Business Rules:
For CLEC Results: The Call Abandonment Rate is based on the number of calls received by the call distribution system of the ILEC center for the reporting period, regardless of whether the call is actually transferred to ILEC personnel for processing. In addition, a count is accumulated of all calls that are subsequently terminated by the calling party or dropped due to equipment failure before transfer to the service agent for processing. The accumulated count of calls abandoned (terminated) is divided by the total count of calls received at the monitored center. Call Abandonment Rate is monitored through the call management technology utilized to distribute calls to ILEC agents supporting CLEC activities (i.e. call receipt personnel staffing ILEC support centers intended for CLEC use). Results for each measure are to be provided separately for each center handing CLEC inquiries. If centers deployed by the ILEC support multiple functions (e.g. both maintenance and provisioning) then the results for each function supported should be separately reported.

Calculation:
Call Abandonment Rate = [(Count of Calls Terminated Before Answer During the Reporting Period)/(Count of All Calls Placed in Queue During the Reporting Period)] x 100

Report Structure:
• CLEC Specific • CLEC Aggregate • BST Aggregate

Level of Disaggregation:
• Support Center Type (i.e., Center supporting CLEC maintenance, Center supporting CLEC provisioning, ILEC Center supporting retail customer maintenance calls, ILEC Center supporting business office inquiries)

Retail Analog/Benchmark:
• Less than 1% are calls are abandoned from queue.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent Completions/Attempts without Notice or with Less Than 24 Hours Notice.

Definition:
CLECs need adequate notice of order completion activities. They can be made to look disorganized by ILECs providing service without such advance notice: Customers and CLECs may even be unable to schedule necessary vendors on the scene to complete the installation, resulting in ILEC technicians being turned away and customer frustration with the CLEC. An ILEC could cause a great deal of harm to the CLEC competitively, yet look like it is providing parity or above parity service by the results other provisioning measures. A measurement capturing any non-parity in the occurrence of surprise or short-notice service deliveries also is critical to affording CLECs a reasonable opportunity to compete.

Exclusions:
• Completions or Attempts Without Notice or With less than 24-hours' notice delivery that the CLEC specifically requested.

Business Rules:
For CLEC Results: Calculation would exclude any successful or unsuccessful service delivery that CLEC was informed of at least 24 hours in advance. ILEC may also exclude from calculation deliveries on less than 24 hours' notice that CLEC requested.   **For ILEC Results:**   The ILEC reports completions for which ILEC technicians delivered service to customers without giving sufficient advance notice to customers, sales or to internal account team to arrange for appropriate vendors to be on hand. Calculation of insufficient notice is similar to CLEC calculation (none or less than 24 hours). Similar surprise service deliveries are calculated for ILEC affiliate's account representatives.

Calculation:
Percent Completions or Attempts without Notice or with Less Than 24 Hours Notice = [(Completion Dispatches (Successful and Unsuccessful) With No FOC or FOC Received Within 24 Hours of Due Date)/(All Completions)] X 100

Report Structure:
• CLEC Specific   • CLEC Aggregate   • BST Aggregate

Level of Disaggregation: (See Exhibit KK-2)
• Company   • Product Type   • MSA   • Dispatch in/Dispatch out/Non-dispatch

Retail Analog/Benchmark:
If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete: • >98 Percent Of Completion And Completion Attempts Should Receive More Than 24 Hours Notice.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent On Time Hot Cut Performance

Definition:
Customers must not be subjected to unscheduled service disruptions because of lengthy or uncoordinated cutovers of loops with interim or permanent number portability or the provision of any other UNEs that require disconnection and reconnection of a customer.

Exclusions:
•   • Cancelled orders   • CLEC caused delays

Business Rules:
The start time for this measure is the frame due time (FDT) indicated on the Firm Order Confirmation. The end time is the when the CLEC is notified by phone that the hot cut is complete. Orders disconnected early are considered not met.

Calculation:
Percent On Time Hot Cuts = [(Customer Conversions completed within commitment window)/(All Customer Conversions Completed During Reporting Period)] x 100

Report Structure:
• CLEC Specific   • CLEC Aggregate   •

Level of Disaggregation: (See Exhibit KK-2)
• Company   • Type of Loop or UNE Combination Cutover and Type of NP involved (i.e. ILNP, PNP or ILNP-to-PNP conversion).   • MSA   • Volume Category Dispatch in/Dispatch out/Non-dispatch

/Benchmark:
:   • 95% of coordinated cutovers completed within the following window   • 1-10 lines – 1 hour   • 10 to 20 lines – 2 hours   • more than 20 lines – negotiated.   • If an order is cut more than 15 minutes prior to frame due time, it is not met.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent of Orders Cancelled or Supplemented at the Request of the ILEC
Definition:
Prior to or during the cutover, the ILEC may encounter internal problems with its network which make it impossible to perform the cutover at the agreed upon time. This results in significant inconvenience to the customer. As a result, the percent of orders that are cancelled or supped by the CLEC at the request ILEC must be measured. This measurement must be expressed as a fraction to understand both the number and the percent of times that the order must be supped at the ILEC Request.
Exclusions:
• None
Business Rules:
For CLEC Results:
The percent of orders that are supplemented or cancelled due to a jeopardy and network problems attributable to the ILEC. The ILEC will track the number of orders that they request to be supplemented or changed. The total number of supplements and cancels from the CLEC will also be tracked. The ratio will be calculated by dividing the number of orders supplemented or cancelled at the request of the ILEC divided by the total supplements or cancels by the CLEC. For this formula, the resulting ratio will be expressed as a percentage.
For ILEC Results:
ILECs would use retail residential or business POTS outside move activity as an analog. An outside move occurs when a customer, with existing service, moves from one premises to another within the same central office area without disconnecting and reconnecting service. With inside moves the customer keeps their own phone number. Although an outside move involves disconnecting an existing loop from an operating port and reconnecting a different loop (within the same office) to that same port, the work involved is very similar (i.e. coordinated re-termination).
Calculation:
Percent of Orders Cancelled or Supplemented at the Request of the ILEC = [(Number of Orders Cancelled or Supplemented at the Request of the ILEC During Reporting Period)/(Number of Cancels and Supplements During the Reporting Period)] x 100
Report Structure:
• CLEC Specific • CLEC Aggregate • BST Aggregate
Level of Disaggregation: (See Exhibit KK-2)
• Company • Product Type • MSA • Volume Category • Dispatch in/Dispatch out/Non-dispatch
Retail Analog/Benchmark:
If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete: • <1.0 Percent Of Orders Supped Or Cancelled At The Request Of The ILEC.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent of Coordinated Cuts Not Working as Initially Provisioned
Definition:
Customers may experience either a full or partial loss of service due to defective ILEC facilities where the CLEC is reusing the customer's existing loop, or due to the switching platform not being properly set up with the 10 Digit / 6 Digit trigger being applied. To ensure that the CLEC's customers are not disproportionately losing dial tone, the percent of ILEC caused service interruptions outside of the initial customer cutover must be measured.
Exclusions:
• Cut-overs where service disruption is caused due to end-user or CLEC reasons
Business Rules:
For CLEC Results: The ILEC will track the number of Coordinated Cuts that are not working as initially provisioned by the number of provisioning troubles by the CLEC during the cutover process that are ultimately attributable to the ILEC. The measurement will be calculated by dividing the number of troubles by the total number of Coordinated Cuts provisioned for the CLEC during the reporting period.
Calculation:
Percent of Coordinated Cuts Not Working as Initially Provisioned = [(Number of Troubles Attributable to the ILEC on Initial Customer Cutover)/(Number of Coordinated Cuts Provisioned During The Reporting Period)] X 100
Report Structure:
• CLEC Specific • CLEC Aggregate • BST Aggregate
Level of Disaggregation: (See Exhibit KK-Dissag
• Company • Type of Loop or UNE Combination Cutover and Type of NP involved (i.e. ILNP, PNP or ILNP-to-PNP conversion). • MSA • Volume Category • Dispatch in/Dispatch out/Non-dispatch
Retail Analog/Benchmark:
 • <1 Percent Of All Coordinated Cuts Not Working As Initially Provisioned.

Additional Measures Proposed by CLECs

Report/Measurement:
Average Recovery Time
Definition:
Customers do not expect lengthy service outages due to problems experienced during the coordinated cut process. If problems do occur, the ILEC should work to minimize the customer outage. If a problem is found and can be isolated to the ILEC side of the network, the time between notification and resolution by the ILEC must me measured to ensure that CLEC customers do not experience unjustifiably lengthy service outages.
Exclusions:
• Cut-overs where service disruption is caused due to end-user or CLEC reasons
Business Rules:
For CLEC Results: When there is a problem during the porting process, the ILEC will track the average duration of each service outage or trouble. The duration time is defined as the time from the initial trouble notification until the trouble has been restored and an index number issued by the CLEC. For each trouble, the ILEC will track the duration of the trouble. The sum of all time associated with the troubles will be divided by the number of troubles. Average recovery time does not include time restoring a customer to the ILEC.
Calculation:
Average Recovery Time = Σ {[(Date & Time That Provisioning Trouble is Closed By CLEC)–(Date & Time Initial Provisioning Trouble is Opened With ILEC)]/(Number of Troubles Referred to the ILEC)}
Report Structure:
• CLEC Specific   • CLEC Aggregate   •
Level of Disaggregation: (See KK Disagg)
• Company   • Type of Loop or UNE Combination Cutover and Type of NP involved (i.e. ILNP, PNP or ILNP-to-PNP conversion).   • MSA   • Volume Category   • Dispatch in/Dispatch out/Non-dispatch
Retail Analog/Benchmark:
:   • 98.0 Percent Of Customer Recoveries (Troubles During The Porting Process) Resolved Within 1 Hour And 100 Percent Within 2 Hours.

Report/Measurement:
Percent Successful xDSL Loops Cooperatively Tested
Definition:
The percent of xDSL loops tested that pass the tests.
Exclusions:
None.
Business Rules:
When a BellSouth technician finishes delivering an xDSL loop at the customer premise, he is to call a toll free number to the CLEC's testing center. The tech and the CLEC representative at the center then test the line. As an example of the type of testing performed, the testing center may ask the tech to put a short on the line, so that the center can run a test to see if it can identify the short.
Calculations:
Percent Successful xDSL Cooperative Service Testing on First Attempt = [(Number of xDSL Loops Functional on First Test)/(Number of xDSL Loops Tested During Reporting Period)] x 100 Percent Successful xDSL Cooperative Service Testing on Second Attempt = [(Number of xDSL Loops Functional on Second Test)/(Number of xDSL Loops Tested During Reporting Period)] x 100 Percent Successful xDSL Cooperative Service Testing on Third Attempt = [(Number of xDSL Loops Functional on all subsequent attempts)/(Number of xDSL Loops Tested During Reporting Period)] x 100
Report Structure:
CLEC Specific
Disaggregation:
Company Type of Loop MSA
Retail Analog/Benchmark:
99.5% of loops should pass on the first series of tests.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent Completion of Timely Loop Modification/De-Conditioning on xDSL loops:
Definition:
Some xDSL Loops Require Loop Modification/De-Conditioning to support xDSL services, including the removal of load coils, removal of excessive bridged tap, and removal of repeaters.
Exclusions:
Requests cancelled by CLEC
Business Rules:
Calculations:
[(Number of xDSL Loops on Which Loop Modification/De-Conditioning was Completed within established interval)/(Number of xDSL Loops On Which Loop Modification/De-Conditioning Is Requested)]
Report Structure:
• CLEC Specific • Specific as to the type of loop tested
Level of Disaggregation:
• Company • MSA • Type of loop
Retail Analog/Benchmark:
95% within 5 business days

Additional Measures Proposed by CLECs

Report/Measurement:
Percent Billing Errors Corrected in X Days
Definition:
Measures the timely correction of DUF errors and timely carrier bill adjustments.
Exclusions:
•   Adjustments disputed by ILEC (but must be reported separately)
Business Rules:
• This measurement applies to the daily usage feed and carrier wholesale bill adjustments.   • Performance for the DUF measurement is measured at two levels: ▪ Severity 1 Bill Affecting where X = 24 hours with a maximum of 5 business days to correct error   ▪ Severity 2 Non-Bill Affecting where X = 3 business days with a maximum of 10 business days to correct error   • Elapsed time is measured in business days/hours. Clock starts when ILEC receives the CLEC's query or request for an adjustment (whether in electronic, written or voice form) and the clock stops when the CLEC receives the correct usage record from the ILEC.   • The ILEC shall send correct usage record within X days/hours of receipt of a query.   • The ILEC will adjust bill within X days (generally next CLEC bill unless adjustment request received after middle of the month).   • Only usage records fully corrected to the CLEC's specifications will be considered timely.   • Excluded situations: ▪ CLEC may agree to exclude adjustments disputed by ILEC from metric. If ILEC does not wish to pursue mutual agreement on such exclusion, ILEC must report separately the number of queries in dispute at end of the month as separate sub-metric
Calculation:
Percent Billing Errors Corrected in X Days = Σ [(Number of ILEC Responses in X Days/Hours) / (Total Number of Queries in Reporting Period)] x 100
Report Structure:
•   CLEC Specific   •   CLEC Aggregate   •   BST Aggregate   •   BST Affiliates
Level of Disaggregation:
•   Company   •   Bill Type (DUF, Carrier Wholesale Bill)   •   Severity Type
Retail Analog/Benchmark:
If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete: DUF: •   Severity 1 = 90% corrected in 24 hours and 100% in 5 business days   •   Severity 2 = 90% corrected in 3 business days and 100% in 10 business days   Carrier Wholesale Bill   •   100%l corrected within 45 Days.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent Response Commitments Met (On-Time)
Definition:
This measures whether the ILEC has kept commitment in contracts, business rules or provided on the initial phone for a substantive answer to a CLEC question or final resolution of the CLEC's problem. Different intervals may be appropriate based on the severity of the issue with problems stopping the CLECs ability to access pre-order and ordering systems or address a severe customer problem (i.e thousands of missing orders, confirmations or completions...
Exclusions:
• None
Business Rules:
ILEC must report on whether or not time committed to CLEC in contracts, separate agreements or at time of call are being kept by ILEC's support centers. For instance, if contract requires a response to a billing inquiry in 24 hours, then on-time responses would be those received within 24 hours after the CLEC places a query to the appropriate point of contact and compared to all the responses to billing queries due that reporting period. If an ILEC account representative promises a response in X amount of time, the metric would address whether that commitment was met compared with all the other committed answers due that month. The measurement would be equivalent to an Estimated Time to Repair or Repair Appointment Met metric applied to non-maintenance types of problems. Missed commitments are those days/hours between the time the response was due and the time the response was actually received. For ILEC retail measurement, time to respond to end user bill questions and other business office queries would be measured.

- All queries answered while the CLEC or ILEC retail customer is on the phone will be considered on time for this metric.
- Responses do not necessarily have to resolve issue but must provide additional information on the status of resolving the query. Any new response commitment provided during the partial response must be measured for on-time performance as well and will be counted as a new commitment.
- If CLEC poses more than one question on same call, ILEC may provide different response commitments for each query and measure each query separately.
- CLEC and ILEC may devise a priority rating system for measurement by which the CLEC will identify the type of query upon reaching a representative at the CLEC center and the type of response interval required for such a query. (i.e., questions regarding problems with an OSS gateway blocking order placement or pre-order queries may receive a higher priority than a question to explain a business rule that is not impeding order activity.)
- If ILEC is uncertain about whether response qualified as meeting the commitment interval, ILEC may seek CLEC agreement that response commitment has been met. Responses that no action has been taken yet on a query do not count as timely.
  If a question is posed to the wrong center, the center receiving the query will direct the CLEC immediately to the appropriate center to respond to the question Otherwise start time begins with initial call..

Calculation:
Percent Response Commitments Met = Σ [(Number of Response Commitments Met) / (Number of Responses Due in Reporting Period)] x 100
Report Structure:
• CLEC Specific • CLEC Aggregate • BST Aggregate • BST Affiliate
Level of Disaggregation:

Additional Measures Proposed by CLECs

• Company (If dedicated representatives assigned to specific CLECs)
• Each CLEC Help Desk/Support Center (PreOrder, Ordering, Billing, etc.)
• Severity Type

Retail Analog/Benchmark:
• Billing = 100% in 24 hours of request for information
• Pre-Ordering/Ordering Help Desk = 98% within response commitment provided by ILEC
• Other = 95% within response commitment provided by ILEC
• 100% within 3 business days.

Additional Measures Proposed by CLECs

Report/Measurement:
Percent Software Certification Failures
Software Problem Resolution Timeliness and Average Delay Days.
Definition:
The first metric measures whether ILEC goes into production with software change that still leads to ILEC-software causing failures to CLEC test deck. The second measures the time it takes the ILEC to fix software problems its changes have caused. Third metric captures how long it takes to repair problems once the resolution standard is passed.
Exclusions:
• CLEC caused software failures (with notification and agreement from CLEC.)
Business Rules:
• ILEC test deck may either represent regression testing of a new software release or progression testing of software being released for the first time. A regression test deck is a collection of test scenarios designed to verify that functionality in a software release that was available in a previous release continues to work as prescribed. A progression test deck is a collection of test scenarios designed to verify that functionality in a software release that is being introduced for the first time (or is being removed) works as prescribed.
• Test scenario is a description of a business event and the systems transactions performed to accomplish the business event. Test scenarios also include pre-conditions, input date and expected results.
• During a 30 day period following release to production, ILEC will track the number of changes required as a result of CLEC experiencing malfunctions during the execution of transactions directly related to the pre-defined conditions in the test desk.
• A transaction is defined as failed if the request cannot be submitted or processed or results in incorrect or improperly formatted data.
• Software validation procedures, test deck scenarios and error correction standards are to be agreed to by CLEC and the ILEC, with this metric monitoring adherence to that agreement.
• ILEC may exclude any CLEC malfunctions if both parties agree that malfunctions were CLEC's fault. If parties cannot agree on fault, then ILEC must report the number of malfunction incidents in dispute.
• Problem resolution timeliness will reflect the percentage of preorder and order transaction rejections resolved within the timeframe agreed to by CLEC and the ILEC for both errors with and without work-around.
• Problem resolution time will start being measured from time problem reported to help desk to time CLEC concurs that problem no longer exists as confirmed on resolution notice call from the ILEC's help desk.
Calculation:
Software Certification Failures = Σ [(Number of Test Transactions in Test Deck – Count of Changes Required Due to CLECs Experiencing Malfunctions) / (Number of Test Transactions in Test Deck)] x 100
Software Problems Resolved On-Time = Σ [Number of Times Problem Resolved on Time / Number of Problems Resolved] x 100
Average Delay Hours/Days for Software Problem = Σ [(Date and Time Problem Resolution Confirmed by CLEC – Date and Time Problem Resolution Due) / (Total Number of Problems Resolved)]
Report Structure:

Additional Measures Proposed by CLECs

• CLEC Specific
• CLEC Aggregate
• BST Aggregate
• BST Affiliates

Level of Disaggregation:

• Company
• Interface Type
• Severity Type (Work Around, No-Workaround)

Retail Analog/Benchmark:

If the ILEC does not deliver direct comparative results or the ILEC has not produced benchmark levels based upon a verifiable study of its own operation as agreed to with the CLEC, then result(s) related to the CLEC operation should be provided according to the following levels of performance in order to provide the CLEC with a meaningful opportunity to compete:

- No more than 0.1% of test deck transactions should result in CLEC problems
- Software errors with no work-around should be corrected in 24 hours.
- Software errors with work-arounds should be corrected in 72 hours
- Parity with ILEC affiliate on Delay Days or Standard of 100% in 48 for problems with no workaround and 100% within five days for problems with work-arounds...

KK-D

CLEC Proposed Disaggregation
(Process Level)

Disaggregation
A. Pre-Order OSS Responsiveness
1. Feature Function Availability/Service Availability
2. Facility Availability Qualification of Loops for Advanced Digital Services
3. Street Address Validation
4. Appointment Scheduling
5. Customer Service Records
6. Telephone Number
7. Rejected or Failed Queries (regardless of type)
8. Timeouts (measured as a percent not an interval)
9. Any new query type in 4 to 6 weeks of production.
B. Maintenance & Repair OSS Responsiveness
1. Create (or confirm logging of) a Maintenance Request
2. Obtain Status
3. Obtain Test Results
4. Cancel Request
5. Rejected of Failed Queries (regardless of type)
6. Clearance Notification
7. Closure Notification
8. Any new Query type in 4-6 weeks of production.
C. Collocation
1. Physical Caged
2. Shared Caged
3. Cageless
4. Adjacent On-Site
5. Adjacent Off-Site
6. Augment to Physical (Disaggregated by standard interval—i.e. 90 day vs. 45 day augments).
7. Virtual
8. Augment to Virtual (Disaggregation by standard interval—i.e. 90 day vs. 45 augments).
9. Remote Terminal
D. Multi-Functional Disaggregation
1. Interface type—for preordering, ordering, billing and maintenance and repair OSS, for some metrics the specific electronic interface is required, for others the general interface type fully electronic or mechanized, partially electronic or mechanized and manual (fax) are all that is required.
2. Dispatch in, dispatch out, and non-dispatch—for provisioning and maintenance measures
3. Volume—for ordering, provisioning, and maintenance measures (a) 1-5 lines, (b) 6-14 lines, and (c) 15+ lines
4. Geographic --All measures should be disaggregated to a state level, if the data is available. Additionally, provisioning and maintenance measures should be disaggregated to the MSA level. MSA and Non-MSA areas where performance and geography is similar can be combined if BST shows this similarity.
5. By CLEC, BST, and all BST affiliates for all measures
6. Center—for OS/DA, ordering & maintenance service center measures
E. Billing

Disaggregation
1. Recrd Type (resale, interconnection, UNE) CABS and CRIS

F. Product Level Disaggregation for (Ordering, Provisioning, and Maintenance & Repair)	Disaggregation, Analogs and Benchmarks	
	Benchmark-- 95% within x Days unless otherwise noted for Order Completion Interval and Missed Appointments	Retail analog for other provisioning and maintenance and repair measures
1. Resold Residence POTS	1. Retail Analog	1. Retail Residential
2. Resold Business POTS	2. Retail Analog	2. Retail Business
3. Resale Design	3. Retail Analog	3. Retail Designed
4. Resale PBX	4. Retail Analog	4. Retail PBX
5. Resale Centrex	5. Retail Analog	5. Retail Centrex POTS
6. Resold BRI ISDN	6. Retail Analog	6. Retail Analog
7. Resold PRI ISDN	7. Retail Analog	7. Retail Analog
8. Resold DID Trunks	8. Retail Residential POTS	8. Retail Residential Analog
9. UNE Platform	9. 3, 7, and 10 days, for a ,b, and c, volumes respectively	9. Retail Residential POTS
10. UNE Channelized DS1 (DS1 loop + multiplexing)	10. Retail DS0	10. Retail DS0
11. UNE DS0	11. Retail DS1	11. Retail DS1
12. UNE DS1	12. Retail DS3 and greater	12. Retail DS3 and OCns
13. UNE DS3 and greater	13. 3, 7, and 10 days for a, b, c volumes	13. Retail Residential POTS
14. Unbundled 8 dB Analog Loops	14. Same as above	14. Retail Residential POTS
15. Unbundled ISDN BRI	15. Same as above	15. Retail Residential POTS
16. Unbundled ISDN PRI	16. Same as above	16. Retail Residential POTS
17. Unbundled ADSL Loops	17. Same as above	17. Retail Business POTS
18. Unbundled HDSL Loops	18. Same as above	18. Retail POTS
19. UCL (short and long)	19. Same as above	19. Retail POTS
20. Unbundled 2 wire xDSL Loop	20. Same as above	20. Retail Business POTS
21. Unbundled 4 wire xDSL Loop	21. Same as above	21. Retail POTS
22. Other Unbundled Loops	22. Same as above	22. ISDN
23. Unbundled UDC/IDSL loop	23. 2 days	23. POTS
24. UNE Switch Port	24. 3, 7, and 10 days, for a ,b, and c, volumes respectively	24. ISDN
25. UNE Dedicated Transport	25. DS1	25. DS1
26. Interconnect Trunks (DS0s, DS1s and DS3s,)	26. ILEC Trunks (excluding trunks for IXCs)	26. ILEC Trunks
27. Two-Way Trunking or Inbound BST-to-CLEC trunks	27. ILEC Trunks (excluding trunks for IXCs)	27. ILEC Trunks
28. Line-sharing/High Frequency Spectrum UNE	28. 3, 5 and 7 days for a, b and c, volumes	28. Retail POTS
29. Line-splitting/High Frequency Spectrum UNE	29. 3, 5, 7, 10 days for a, b, and c, volumes	29. Retail POTS
30. Loop Modification/Loop Conditioning	30. 5 business days	30. Retail POTS
31. Enhanced Extended Loops	31. Special Access or ISDN PRI	31. Special Access or ISDN PRI
32. Special Access to EELs Conversion	32. 10 business days	32. N/A

F. Product Level Disaggregation for (Ordering, Provisioning, and Maintenance & Repair)	Disaggregation, Analogs and Benchmarks	
	Benchmark-- 95% within x Days unless otherwise noted for <u>Order Completion Interval</u> and <u>Missed Appointments</u>	Retail analog for other provisioning and maintenance and repair measures
33. Projects	33. Retail Large Volume Equivalents	33. Retail Large Volume Equivalents

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CLEC REQUESTED DISAGGREGATION

Metric	BST Disaggregation	CLEC Disaggregation	Total Number
OSS/PREORDER			
OSS-1 Average Response Time and Response Interval (Pre-Ordering/Ordering)	1. Address (RSAG) 2. TN Reservation (ATLAS) 3. Appointment Scheduling (DSAP) 4. Customer Service Record (HAL/CRIS) 5. Feature/Service Availability (P/SIMS, COFFI and OASIS)	Same Plus 6. Failed Queries (those generating an error message that can be used to distinguish from other queries) 7. Percent Time Outs	7 multiplied by CLEC Interface Types (TAG, LENS) = 14 (Add EDI interface as queries are built to it.)
OSS-2 Interface Availability (Pre-Ordering/Ordering)	1. TAG 2. LENS 3. DOE 4. SOCS 5. ATLAS 6. RSAG 7. DSAP 8. BOCRIS 9. SONGs 10. HAL 11. P/SIMS 12. LEO Mainframe 13. LEO Unix 14. LESOG 15. EDI (ROS, RNS are only used by BellSouth retail. Benchmark makes reporting uncecessary. DOE is used in Southern Bell states and SONGs in South Central Bell states)	Same plus 16. LNP Gateway 17. XDSL Gateway (CLECs assume that entire route of middleware and backend systems accessed through TAG, LENS and EDI interfaces are covered by system availability metric.)	16
OSS-3 Interface Availability Maintenance and Repair	1. TAFI 2. ECTA (Backend and middleware of LMOS HOST, MARCH, SOCS, CRIS, PREDICTOR, LNP)	(CLECs assume that entire route of middleware and backend systems accessed through TAG, LENS and EDI interfaces are covered by system availability metric.)	2
OSS-4 Response Interval Maintenance and Repair	11 systems listed in reports	Create (or confirm logging of) a Maintenance Report; Obtain Status; Obtain Test Results; Cancel Request;	7 (fewer if BST has not yet built to CLEC proposed query types, multiplied by interface) x 2 interfaces (TAFI, ECTA) = 14

CLEC REQUESTED DISAGGREGATION

		Rejected or Failed Queries (regardless of type); Clearance Notification; Closure Notification	
PO-1 Loop Make Up Response (Manual)	Loop Make Up	Same	1
PO-2 Loop Make Up Response (Electronic)	Loop Make UP	Same	1 (multiplied by EDI, LENs interfaces) = 2
OSS 102 Percent Software Certification Failures	NA	All weighted test deck failures aggregated together	1
OSS 103 Software Problem Resolution Timeliness	NA	Problems with Work-Arounds; Problems without Work-Arounds	2
OSS 104 Software Problem Resolution Delay Hours/Days	NA	Problems with Work-Arounds; Problems without Work-Arounds	2
MI Percent Response Commitments Met on Time – Help Desk	NA	Each Ordering/Provisioning /Systems Help Desk	3
ORDERING			
O-1 Acknowledgement Message Timeliness	1. EDI 2. TAG	Same	2
O-2 Acknowledgement Message Completeness	1. EDI 2. TAG	Same	2
O-3 Percent Flow Through Total	1. Residence (Resale) 2. Business (Resale) 3. LNP 4. UNE	Same But: Instead of (Aggregated) UNE: 4.. UNE-Platform 5. UNE Loops	5
O-4 Percent Flow Through Designed	1. Residence (Resale) 2. Business (Resale) 3. LNP 4. UNE	Same but: Instead of (Aggregated) UNE: 4. UNE-Platform 5. UNE Loops	5
O-5 Percent Flow Through Error Analysis		This is supporting data, not a performance report	
O-6 CLEC LSR Information		This is raw data not a performance report	
O-7 Percent Rejected Service Request	21 Services	Same. But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops	31

		5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Resale DID trunks:	
O-8 Reject Interval	1. Fully Mechanized 2. Partially Mechanized 3. Non-Mechanized 4. And 21 Product Types	Same. But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI	31 x 3 order types = 93

CLEC REQUESTED DISAGGREGATION

		15. Resale DID trunks	
O-9 FOC Timeliness	1. Fully Mechanized 2. Partially Mechanized 3. Non-Mechanized Trunks And 21 Product Types	Same But: Instead of UNE xDSL loop: 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Resale DID trunks	31 x 3 order types = 93
O-10 Service Inquiry with LSR/FOC Response	1. xDSL (includes UNE unbundled ADSL, HDSL, and UNE Unbundled Copper Loops) 2. Unbundled Interoffice transport.	Same but: Replace xDSL with: 2. Unbundled UNE-derived ADSL Loop 3. Unbundled UNE-derived HDSL loop 4. UCL Loops Long and Short 5. Other 2 wire xDSL loops 6. Other 4 wire xDSL loops.	6

CLEC REQUESTED DISAGGREGATION

O-11 FOC/Reject Completeness	21 Products Fully Mechanized Partially Mechanized Non-mechanized	Same But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 16. Special Access to EELs Migration Replace Resale ISDN: 17. Resale ISDN PRI 18. Resale ISDN BRI 19. Resale DID trunks 1.	31 x 3 order types = 93
O-12 Speed of Answer in Ordering Center	CLEC Local Carrier Service Center	Same (unless BST has other preorder, order, system help desks serving NC carriers)	3 (Varner testimony)
OP-113 Call Abandonment Rate	NA	CLEC Local Carrier Service Center (and any other help desk service N.C. carriers)	3 (Varner testimony)
O-13 LNP- Percent Rejected	Stand Alone LNP UNE loop and LNP	Same.	2
O-14 LNP – Reject Interval Distribution and Average Reject Interval	Stand Alone LNP UNE loop and LNP	Same	2
O-15 LNP – FOC Timeliness Distribution/FOC Average Interval	Stand Alone LNP UNE loop and LNP	Same	2
OP-114 Mean Time to Provide Response to Request for BST-to-CLEC trunks	NA	Inbound Trunks requested with TGSR/ ASR(BST ACNA)	1

CLEC REQUESTED DISAGGREGATION

OP-115 Percent Responses to Requests for BST-to-CLEC Trunks Provided in 7 Days	NA	Inbound Trunks requested with TGSR/ ASR (BST ACNA)	1
OP-116 Percent Negative Responses for BST-to-CLEC trunks	NA	Inbound Trunks requested with TGSR/ASR(BST ACNA)	1
PROVISIONING:			
P-1 Mean Held Order Interval & Distribution	21 Products	Same But: Instead of UNE xDSL loop: 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Add: Resold DID Trunks 16. Inbound BST-to-CLEC trunks.	32 x 3 geographic disaggregations = 96 (But BST should provide information to the Commission to determine the appropriate number of geographic disaggregations to capture regional differences: urban and rural and degree of competition—heavy or moderate.
P-2 Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notice	21 Products	See above. Plus Projects	33 x 3 geographic disaggregations = 99
P-3 Percent Missed Installation Appointments		See above. Plus Projects	33 x 3 geographic disaggregations = 99 Report CNA (Customer Not Ready) exclusions as diagnostic

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CLEC REQUESTED DISAGGREGATION

P-4 Average Completion Interval (OCI) & Order Completion Interval Distribution		See above. Plus Projects	33 x 3 = 99 x 3 (Dispatch, Non-Dispatch, Software Change) =297 x 3 (Volume Category) = 891
P-5 Average Completion Notice Interval		See above. Plus Projects	33
OP-121 Percent Billing Completion Notices Sent Within Two Days of Work Completion		See above Plus Projects	33
P-6 Percent Completions/Attempts without Notice or <24 Hours Notice		1. UNE loop-hot cuts 2. UNE 2 wire xDSL 3. UNE 4 wire xDSLUNE-P-dispatch	4
P-7 CCC Interval			
P-7a CCC Hot Cut % Within Interval and Average Interval (CLEC on time metric includes OP-106 early and OP-107 late cuts)	NA	UNE-loop hot cut (two volume categories)	2 x 3 geographic disaggregations = 6
P-7b CCC-Average Recovery Time		UNE-loop hot cut	1
OP-111 and 112 Mean Time and Percent of Customers Restored to ILEC	NA	UNE-loop hot cut	1
P-7c Hot Cut Provisioning Troubles in 7 Days	Hot Cut	UNE-loop hot cut	1 x 3 geographic disaggregations = 3
OP-108 Percent Orders Cancelled or Supplemented at the Request of the ILEC	NA	Hot cuts	1
OP-109 Percent of Hot Cuts Not Working as Initially Provisioned.	NA	Hot cut loop	1
OP-118 Percent Successful xDSL Cooperative Service Testing	NA	2 wire xDSL 4 wire xDSL line sharing line splitting	4 x 3 geographic disaggregations = 12
P-8 Cooperative Acceptance Testing Percent xDSL Loops Tested	xDSL	2 wire xDSL 4 wire xDSL line sharing line splitting	4 x 3 geographic disaggregations = 12
OP-120 Percent Successful Completion of Modification/ Conditioning for xDSL Loops	NA	2 wire xDSL 4 wire xDSL line sharing line splitting	4 x 3 geographic disaggregations = 12
P-9 Percent Provisioning Troubles in 30 Days of	21	Same. But instead of UNE xDSL loop	33 x 3 geographic disaggregations = 99

CLEC REQUESTED DISAGGREGATION

Order Completion		1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Add Resale DID trunks 16. BST-to-CLEC trunks 17. Projects .	
P-10 Total Service Order Cycle Time		Not requested by CLECs.	0
OP-104 (O-11 in GA) Service Order Accuracy	NA	1. Resale Residential 2. Resale Business 3. Resale ISDN-PRI 4. Resale Centrex 5. UNE- 2 wire voice loop 6. UNE-2 wire xDSL loops 7. UNE-4-wire xDSL loops 8. UNE-platform 9. UNE-other	9
P-12 LNP-Percent Missed Installation Appointments	Hot Cut with LNP Hot Cut without	Hot Cut with LNP Stand Alone LNP	2 x 3 geographic disaggregations. = 6
P-13 LNP-Average	LNP	LNP with Loop	2

CLEC REQUESTED DISAGGREGATION

Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution		Stand Alone LNP	
P-14 LNP-Total Service Order Cycle Time		Not requested by CLECs.	0
MAINTENANCE & REPAIR			
M&R-1 Missed Repair Appointments	21 products	Same. But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting 7. Replace UNE Digital Loop > DS1 with: 8. UNE DS1. 9. UNE DS3 and higher Replace UNE ISDN with: 10. UNE ISDN PRI 11. UNE ISDN BRI Replace UNE Combos Other with: 12. Enhanced Extended Loop (Dispatch) 13. Special Access to EELs Migration Replace Resale ISDN: 14. Resale ISDN PRI 15. Resale ISDN BRI 16. Resale DID trunks	31 x 3 disposition codes (software change, dispatch in and dispatch out) x 3 geographic areas = 279
M&R-2 Customer Trouble Report Rate	21 Products	Same. But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital	31 x 3 geographic areas = 93

		Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Resale DID trunks	
M&R-3 Maintenance Average Duration	21 Products	Same. But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 1. Resale DID trunks	31 x 3 disposition codes (software change, dispatch in and dispatch out) x 3 geographic areas = 279.
M&R-4 Percent Repeat Troubles within 30 Days	15 products	Same. But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-	25 x 3 geographic areas = 75

		derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch) 12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Resale DID trunks	
M&R-5 Out of Service > 24 Hours	21 products	But instead of UNE xDSL loop 1. Unbundled UNE-derived ADSL Loop 2. Unbundled UNE-derived HDSL loop 3. UCL Loops Long and Short 4. Other 2 wire xDSL loops 5. Other 4 wire xDSL loops. 6. Line Splitting Replace UNE Digital Loop > DS1 with: 7. UNE DS1 8. UNE DS3 and higher Replace UNE ISDN with: 9. UNE ISDN PRI 10. UNE ISDN BRI Replace UNE Combos Other with: 11. Enhanced Extended Loop (Dispatch)	31x 3 geographic areas = 93

CLEC REQUESTED DISAGGREGATION

		12. Special Access to EELs Migration Replace Resale ISDN: 13. Resale ISDN PRI 14. Resale ISDN BRI 15. Add Resale DID trunks	
M&R-6 Average Answer Time-Repair Center	Regional Repair Center	Each Repair Center	3
M&R-7 Mean Time to Notify CLEC of Network Outage	All FCC Reportable Outages	Same	1
MR-101 Call Abandonment Rate (Maintenance)	Regional Repair Center	Regional Repair Center	3
BILLING			
B-1 Invoice Accuracy	Resale UNE Interconnection	Same	3
B-2 Mean Time to Deliver Invoices	Resale UNE Interconnection	Replace with: CRIS CABS	2
B-3 Usage Data Delivery Accuracy	Region	Resale UNE-P Interconnection	3
B-4 Usage Data Delivery Completeness	Region	CABs CRIS	2
B-5 Usage Data Delivery Timeliness	Region	CABs CRIS	2
B-6 Mean Time to Deliver Usage	Resale UNE Interconnection	CABs CRIS	2
B-7 Recurring Charge Completeness	Resale UNE Interconnection	CABs CRIS	2
B-8 Non-Recurring Charge Completeness	Resale UNE Interconneciton	CABs CRIS	2
B-105 Percent Billing Errors Correcting in X Days	NA	DUF Customer Bill Impacting Non-Customer Bill Impacting Invoice	3
OPERATOR SERVICES AND DIRECTORY ASSISTANCE			
OS-1 Speed of Answer/Average Speed of Answer-Toll	One Center	One Center if there is only one	1
OS-2 Speed of Answer/Percent Answered in X Seconds	One Center	One Center is there is only 1	1
DA-1 Speed of Answer/Average Speed	One Center	One Center if there is only 1	1

of Answer-DA			
DA-2 Speed of Answer/ Percent Answered within X Seconds	One Center	One Center if there is only 1	1
DATABASE UPDATE INFORMATION			
D-1 Average Database Update Interval;	LIDB DL DA	Same	3
D-2 Percent Database Update Accuracy	LIDB DL DA	Same	3
D-3 Percent NXXs and LRNs Loaded by LERG Effective Date		Same	1
MI-102 Average Time Allotted to Proof Listing Updates Before Publication	NA	By Directory Closing	12 (Estimated closings where there is competitions)
E911			
E-1 Timeliness	E911	Same	1
E-2 Accuracy	E911	Same	1
E-3 Mean Interval	E911	Same	1
TRUNK GROUP PERFORMANCE			
TGP-1 Trunk Group Performance-Aggregate	None	DesignType: 2% 1% 0.5% blocking	3
TGP-2 Trunk Group Performance-CLEC Specific	NONE	See above	3
COLLOCATION			
C-1 Collocation Average Response Time	Virtual Initial Virtual Augment Physical Caged-Initial Physical Caged-Augment Physical Cageless – Initial Physical Cageless-Augment	Same but replace Physical Caged Augment with: Physical Caged 45-day augment. Physical Caged 60-day augment Remote	8 x 3 geographic = 24
C-2 Collocation Average Arrangement Time	Virtual Initial Virtual Augment Physical Caged-Initial Physical Caged-Augment Physical Cageless – Initial Physical Cageless-Augment	Same but replace Physical Caged Augment with: Physical Caged 45-day augment. Physical Caged 60-day augment And Remote	8 x 3 geographic = 24
C-3 Collocation Percent Missed Due Dates	See Above	Same plus Remote	7 x 3 geographic = 21
CHANGE MANAGEMENT			
CM-1 Timeliness of	None	Emergency	6

CLEC REQUESTED DISAGGREGATION

Change Management Notices			Regulatory Requirement Industry Recommended Major Minor CLEC Initiated BST Initiated	
CM-2 Change Management Notice Average Delay Days	None		Same as above	6
CM-3 Timeliness of Documents Associated with Change	None		Same as above.	6
CM-4 Change Management Documentation Average Delay Days	None		Same as above.	6
CM-5 Notification of CLEC Interface Outages	EDI CSOTS LENS TAG ECTA TAFI		Same	6
CM-6 Percent ILEC vs. CLEC Changes Made	NA		CLEC Initiated BST Initiated	2
BONA FIDE/NEW BUSINESS REQUEST PROCESS				
BFR-1 Percentage of BFR/NBR Requests Processed Within 30 Business Days.	BFR		Same	1
BFR-2 Percentage of Quotes Provided for Authorized BFR/NBRs Processed in 10./30/60 Business Days	BFR		Same	1

TOTAL = 2778

CLEC PERFORMANCE STANDARDS BY MEASURE

Measure	Standard/Benchmark
1. Average Response Time and Response Interval (Pre-Ordering) 2. Interface Availability (Pre-Ordering) 3. Interface Availability (Maintenance & Repair) 4. Response Interval (Maintenance & Repair) 5. Loop make-up manual 6. Loop make-up electronic	1. Retail analogs by function. 2. 99.5 % availability for all OSS interfaces. 3. 99.5% availability for all OSS interfaces. 4. Retail analogs by function. 5. 95% within 72 hours 6. 95% within 1 minute
1. Percent Flow-through Service Requests 2. Order Acknowledgement Timeliness 3. Order Acknowledgement Completeness 4. Percent Rejected Service Requests 5. Reject Interval 6. Firm Order Commitment Timeliness 7. Firm Order Commitment/Rejection Response Completeness 8. Speed of Answer in Ordering Center 9. Percent Order Accuracy 10. Timeliness of response for BST to CLEC trunks 11. LNP Percent Rejected Service Requests 12. LNP Reject Interval 13. LNP Firm Order Commitment Timeliness 14. Call Abandonment Rate	1. 98% flow-through, with an improvement plan if BST's current methodology is not rejected by the Commission. 2. 98% of all Mechanized Acknowledgements Are Returned Within 15 Minutes of Receiving LSR 3. Mechanized Acknowledgements Are Sent 100% of Time 4. Diagnostic 5. 95% or greater within: mechanized-- 1 hour, partially mechanized—5 hours, non-mechanized—24 hours 6. 95% or greater within: mechanized-- 1 hour, partially mechanized—5 hours, non-mechanized—24 hours 7. Firm Order Commitments or Reject Responses are Returned on 100% of LSRs. 8. 95% within 20 seconds, 100% within 30 seconds 9. 99% of Completed CLEC Orders Are Accurate 10. 95% response in 7 days 11. Diagnostic 12. 95% or greater within: mechanized—1 hour, partially mechanized -- 5 hours, non-mechanized –24 hours. 13. 95% or greater within: mechanized—1 hour, partially mechanized -- 5 hours, non-mechanized –24 hours. 14. <1% of calls are abandoned from queue.
1. Mean Held Order Interval & Distribution Intervals 2. Average Jeopardy Notice Interval & % of Orders Given Jeopardy	1. Retail Analog 2. Retail Analog

CLEC PERFORMANCE STANDARDS BY MEASURE

Measure	Standard/Benchmark
Notices	
3. Percent Orders Completed On Time (or missed appointment)	3. Retail Analog
4. Average Completion Interval	4. Benchmark or analog
5. Average Completion Notice Interval	5. Retail Analog
6. Coordinated Customer Conversions	6. < 5 minutes per loop
7. Hot cut timeliness with interval	7. 95% within + or – 15 minutes of schedule start time
8. % Provisioning Troubles w/i 30 days of Service Order Completion	8. Retail analog
9. Percent Completions/Attempts without Notice or with Less Than 24 Hours Notice	9. ≥ 98 percent of completions and completion attempts should receive more than 24 hours notice via a FOC
10. % on time hot cuts	10. 95% of coordinated cutovers complete no later than 1 hour past the committed due date and time on FOC for 1-10 lines and no later than 2 hours for greater than 10 lines.
11. Percent of Orders Cancelled or Supplemented at the Request of the ILEC	11. < 1.0% Supped or Cancelled at Request of ILEC
12. Percent of Hot Cuts Not Working as Initially Provisioned	12. < 1.0% of All Coordinated Cuts Not Working as Initially Provisioned
13. Average Recovery Time	13. 98% of Customer Recoveries Done Within 1 Hour/ 100% of Customer Recoveries Done Within 2 Hours
14. Mean Time to Restore Customer to the ILEC	14. 98% of Customers Restored to the ILEC Completed within 1 hour and 100% within 2 hours.
15. % Customer Restored to ILEC	15. <1 per cent of all cuts restored to ILEC
16. % Cooperative Acceptance Testing	16. 98% of lines should be tested
17. % successful xDSL loops cooperatively tested	17. 99.5% of loops should pass on first series of tests
18. % completion of timely loop modification	18. 95% within 5 days
19. LNP missed appointments	19. Retail analog
20. LNP Disconnect Timeliness	20. 95%< 15 minutes
1. Customer Trouble Report Rate	1. Retail Analog
2. Maintenance Average Duration	2. Retail Analog
3. Percent Repeat Troubles w/i 30 days)	3. Retail Analog
4. Average Answer Time - Repair Centers	4. 95% within 20 seconds, 100% within 30 seconds
5. Mean Jeopardy Interval for Maintenance & Trouble Handling	5. Retail Analog
6. Percent Missed Repair Appointments	6. Retail Analogue
7. Mean Time To Answer Calls(Repair Service Center)	7. > 95% of calls, by center, are answered within 20 seconds, all calls within 30 seconds.
1. Usage Data Delivery Accuracy	1. Retail Analog

2

CLEC PERFORMANCE STANDARDS BY MEASURE

Measure	Standard/Benchmark
2. Mean Time to Deliver Usage	2. Retail Analog
3. % Billing Errors Corrected in X Days	3. Retail analog
4. Usage Timeliness	4. Retail analog
5. Recurring charge completeness	5. Retail analog for resale UNE 90% complete.
6. Non recurring charge completeness	6. Retail analog for resale UNE 90% complete
7. % on time mechanized invoice delivery	7. within 10 calendar days 98% of time
8. Invoice accuracy	8. Retail analog
1. Mean Time To Answer(OS/DA)	1. >90% of Calls Answered in 10 Seconds
2. E-911 Timeliness	1. Parity
3. E-911 Accuracy	2. Parity
4. E-911 Mean Interval	3. Parity
1. Percent Call Completion (Trunking)	1. Dedicated trunk groups not to exceed blocking standard of B.01. Common Trunk Groups: Where CLEC/LD traffic share common ILEC trunks: No more than 1% of end offices may have more than 2% blockage a month based on Erlang B.01 scale. Where CLEC traffic traverses a separate common network from ILEC traffic: No more than 2% of end offices may have more than 2% blocking.
1. Collocation Average Response Time	1. 95% within 10 calendar days
2. Collocation Average Arrangement Time	2. Physical-90 calendar days; physical augment-90; physical augment 45 calendar days virtual 60 calendar days; virtual augment 60; virtual augment 90; cageless 60; remote 45 calendar days
3. Collocation % of Due Dates Missed	3. 0 misses of committed due date
1. Database Average Update Interval	1. 99.99% Completed in 24 Hours
2. Database Percent Update Accuracy	2. >99.99% Accurate
3. NNX and LRN loaded by LERG Effective Date	3. 99% by LERG effective date
% on time response commitments	100% within 3 business days
Mean Time to notify CLEC of network outages	Parity
% on time notification of interface outages	97% in 15 minutes
1. % Change Management Notices Sent on Time	1. 98% on time

3

CLEC PERFORMANCE STANDARDS BY MEASURE

Measure	Standard/Benchmark
2. % Change Management Documentation Sent on Time	2. 98% on time
3. Average Delay Days for Change Notices	3. No more than 5 days
4. Average Delay Days for Documentation	4. No more than 5 days
5. ILEC vs CLEC Changes Made	5. Parity
1. % Software Certification Failures	1. No more than 0.1% failures
2. % Software Problems Resolved on Time	2. With no workaround 24 hours/with workaround 72 hours

4

KK-G

<u>*WORLDCOM RESPONSE*: CORRELATED/DUPLICATED MEASUREMENTS</u>

BST wrongly claims that these metrics are correlated and only one should be part of the remedy plan. See Varner Exhibit AVJ-4. WorldCom strongly disagrees. See responses below

Section 1: Operations Support Systems (OSS)

OSS1: Average Response Time Pre-Ordering/Ordering – *This impacts customers in a different way than the other metrics. This metric shows how long it takes to pull up queries with information to place their order while the customer is on the phone with a sales agent.*
OSS2: Interface Availability Pre-Order/Ordering - *This shows whether there were any outages that kept the CLECs from placing orders at all. Excessive outages can keep the CLEC from placing orders in time to receive the standard intervals quoted on the phone to those customers. This does not capture the speed of the query responses as the metric above does.*
CM-5: Notification of CLEC Network Outages - *This metric shows how well BellSouth kept CLECs apprised that there was a problem with notices, particularly those of the kind that estimate when the interface problem will be resolved. This is different than system availability, which does not show if BellSouth gave CLECs information about outages so that work-around procedures (use GUI if EDI down, or fax) can be implemented where outages are not expected to be cleared up quickly..*

OSS3: Interface Availability – Maintenance – *Again this measures whether a CLEC can gain access to BellSouth's systems to log a maintenance trouble ticket. This is a harm separate from that which could befall CLECs waiting long times to log troubles on the system, as the metric below captures.*
OSS4: Response Interval – Maintenance - *An entirely different metric, this measures the response times busy maintenance workers receive in trying to log troubles. It does not capture that an entire system is down and that no troubles can be logged in either a fast or slow manner.*

Section 2: Ordering

O-3: Percent Flow-Through Service Request (Summary) - *This metric relates to aggregate CLEC performance.*
O-4: Percent Flow-Through Service Request (Detail) – *This metric relates to individual CLEC performance. If BellSouth replaces its current metrics with a total and an appropriate achieved flow through metrics, both should be in the remedy plan. Application of remedies to total flow through ensures BellSouth keeps designing more services to flow through. Remedies applied to the designed to flow*

through metric ensures that BellSouth is vigilant in ensuring that those orders designed to flow through do not run into glitches that keep them from doing so.

O-9:   Firm Order Confirmation Timeliness – *This metric is in the two remedy plans that cleared the FCC so far, and it shows whether a CLEC received a confirmation when it was due so it can specify an expected due date to the customer.*
P-9:   Total Service Order Cycle Time – *This is not a measure requested by CLECs. It shows the total time to process orders on average but not whether the steps occurred at their proper times when expected.*
P-12:   LNP – Total Service Order Cycle Time – *This also was not requested by CLECs but also is a compilation of averages rather than showing the percentage of on-time performance.*
O-10:   Service Inquiry with FOC Response Time - *This measure covers the process DLECs must follow in obtaining a facilities check along with a confirmation response until they have built their interface to conduct a mechanized loop qualification and even after that for areas with loop make up information not entered into the mechanized system. This process does not overlap on a CLEC specific basis because of different ordering processes among DLECs.*
O-15: LNP - Firm Order Confirmation Timeliness Interval Distribution & Firm Order Confirmation Average Interval –*To measure disparity in LNP confirmations, both on time and average performance. Since one of the metrics is a distribution it can serve both purposes—showing how many were provided within the 95% interval proposed by the CLECs and when BellSouth reached 95% for affiliates.*

O-8:   Reject Interval – *The timeliness of rejections is critical so that the CLEC can get the order through promptly to obtain the due date it told the customer it hoped to get.*
O-14:   LNP Reject Interval - *This is a disaggregation for the above interval, and does not overlap unless BellSouth has not, as it should, excluded LNP reject intervals from the other intervals above.*

Section 3: Provisioning

P-1:   Mean Held Order Interval & Distribution Interval - *This metric and distribution tells the magnitude of held orders for the CLEC. BellSouth, its affiliate and CLECs could have the same number of missed appointments, but if the CLECs' orders are held longer.*
P-2:   Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notices - *The first jeopardy metric shows how much notice the CLEC in determining alternatives with a customer if an appointment is going to be missed. The second metric should show how many missed appointments received jeopardies for the CLEC versus missed appointments for retail customers. BellSouth can miss one metric without missing the other, and the two together gives a view on whether CLEC customers are receiving a fair warnings when service delivery is in jeopardy.*
P-3:   Percent Missed Installation Appointments - *Here again, this metric and the one below give a better view into whether there is discriminatory service*

delivery. *BST could meet all its appointments and still be discriminating by giving the CLECs due date longer than the standard interval. Both metrics should be examined together for a product to determine if there is discrimination. Also missed appointment metrics include all service requests, even those shorter and longer than the standard interval, while the average completion interval only measures when the standard interval is requested.*

P-4:   Average Order Completion Interval (OCI) & Order Completion Interval Distribution - See above. *This metric can show another aspect of discrimination that would be hidden if only Missed Appointments are in the remedy plan.*

P-5:   Average Completion Notice Interval – *The completion notice interval measures whether the change of the customer from ILEC to CLEC ownership was updated in the billing system. If the change errors out of the billing system when double billing can occur,*

P-9:   Total Service Order Cycle Time – *This is not a metric requested by CLECs.*

P-12:   LNP – *Total Service Order Cycle Time – Not a measure requested by CLECs. It just appears to add averages for different segments of the ordering and provisioning process together for LNP requests.*

Section 4: Maintenance & Repair

M&R-1: Missed Repair Appointments - *This measures how dependable is in estimating the repair intervals that are relayed to customers. This metric is different than the ones below because both the metrics below can be at parity yet this metric be missed, leaving CLEC customers dissatisfied that repair estimates were not met.*

M&R-3: Maintenance Average Duration - *This metric shows how much time the repair actually took. If disaggregated appropriate by appropriate activity -- software problems, dispatch in and dispatch out--it can be a very accurate determinant of parity.*

M&R-5: Out of Service (OOS) > 24 Hours - *This shows one critical dispersion, while this does overlap with the average duration metric, that can warrant added remedies as customers' expectations of how long a repair should take are greatly taxed.*

M&R-2: Customer Trouble Report Rate – *This metric gives an overall view of the quality of the network in general.*
M&R-4: Percent Repeat Troubles Within 30 Days *While this may overlap the trouble rate, this gives a picture of repair quality. This is a different evaluation than the first metric, which might pick up if CLECs are receiving inferior facilities all around, while this one shows whether the trouble is cleared or missed by maintenance staff.*
M&R-6: Average Answer Time – Repair *This shows how quickly the ILEC responds to CLEC trouble calls and has nothing to do with trouble rates or repair quality.*
P-8: % Provisioning Troubles Within 30 Days of Service order completion - *This metric shows installation quality, and generally is an indication if the loop or other product was installed properly. Any one of these metrics could be missed without triggering another, so they are not related and all deserve to be in a remedy plan as measurements of customer-impacting discrimination.*

Section 5: Billing

B-4:   Usage Data Delivery Completeness - *This metric, and the two below, all need to be examined to ensure that CLECs are receiving parity service. This one captures whether any data is missing.*
B-5:   Usage Data Delivery Timeliness - *This measure captures whether the delivery was on time and can be looked at with the metric below, which shows whether the on-time performance interval can improved upon by reducing the standard interval.*
B-6:   Mean Time to Deliver Usage - *This measure shows whether the on-time performance was actually discriminatory as the ILEC provides usage data more rapidly on average to itself.*

Section 6: Operator Services and Directory Assistance

OS-1:   Speed to Answer Performance/Average Speed to Answer – Toll - *Again this is a coupling of on-time and average time metrics that need to be looked at together to see if parity performance is being given. The average shows whether BellSouth and CLEC calls are answered in the same average amount of time.*
OS-2:   Speed to Answer Performance/Percent Answered in "X" Seconds – Toll *This shows the percentage of time that the on-time standard was met, but not whether the time interval was parity with what BellSouth customers receive.*

OS-3:   Speed to Answer Performance/Average Speed to Answer – Directory Assistance - *(See above.)*
OS-4:   Speed to Answer Performance/Percent Answered in "X" Seconds – Directory Assistance

Section 7: Database Update Information

> M&R-2: Customer Trouble Report Rate - *This measure and the ones below capture various aspects of problems with databases. This metric would capture on a disaggregated basis, NXX or other troubles caused by inaccuracy, albeit after the fact.*
> D-1: *Average Database Update Interval - This captures how fast the data gets into the database, and whether it occurs at parity with BellSouth retail.*
> D-2: Percent Database Update Accuracy - *This sampling of accuracy can capture errors before they become troubles reported by the CLEC customer.*
> D-3: Percent NXXs Loaded by the LERG Effective Date - *This also is a proactive measure to ensure than no end user troubles will occur because of late NXX loading.*

Section 8: E911

> E-1: Timeliness - *Again on-time does not mean that the CLEC received the same interval as the ILEC did for itself.*
> E-3: Mean Interval – *The mean performance, or better yet the distribution, needs to be examined to determine whether updates are being done at an equal pace.*

Section 9: Trunk Group Performance

> TGP-1: Trunk Group Performance – Aggregate - *The capture of aggregate CLEC performance clearly is a different matter than the capture of individual CLEC performance (the metric below).*
> TGP-2: Trunk Group Performance – CLEC Specific - *BST appears to be disputing a major tenet of ILEC remedy plans to cover harm to individual CLECS and competition in general.*

Section 10: Collocation

> C-2: Collocation Average Arrangement Time – *This metric captures parity in performance when compared to BellSouth's data affiliate, or whether a benchmark can be improved upon.*
> C-3: Collocation Percent of Due Dates Missed – *This shows whether the existing benchmark was missed, but not whether the interval is reasonable.*

Section 11: Change Management

> CM-1: Timeliness of Change Management Notices - *This metric shows whether the notice was delivered on time.*
> CM-2: Change Management Notice Average Delay Days - *This metric shows for those that were late, the degree to which they were late.*

CM-3: Timeliness of Documents Associated with Change - *This metric shows whether documents were delivered on time.*

CM-4: Change Management Documentation Average Delay Days - *This shows that when the due date for the document was missed, the degree to which it was missed.*
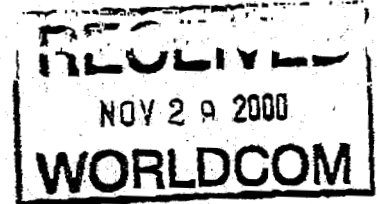
EXHIBIT "KK-H"

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into the	)	
Establishment of Operations	)	
Support Systems Permanent	)	Docket No. 000121-TP
Performance Measures for	)	
Incumbent Local Exchange	)	Filed: November 22, 2000
Telecommunications Companies	)	

WORLDCOM'S COMMENTS CONCERNING
STAFF'S DRAFT PERFORMANCE ASSESSMENT PLAN

WorldCom, Inc. ("WorldCom") submits these comments in response to Staff's

Draft Performance Assessment Plan ("Draft Plan"):

INTRODUCTION

The Draft Plan provides a good starting point in the development of a Florida

remedies plan. WorldCom supports a number of features in the plan, such as the

requirement that BellSouth pay ALECs directly when it fails to meet performance

standards; the implementation of a procedural, rather than an absolute cap on remedies;

and the requirement that the Plan commence within a set time independently of whether

BellSouth has been granted in-region long distance authority. There are a number of

other parts of the Draft Plan, however, that WorldCom submits should be modified to

ensure BellSouth is given the proper incentives to open its Florida local market. In that

regard, WorldCom generally agrees with the comments being filed by AT&T on the

Draft Plan. WorldCom files these separate comments to emphasize certain statistical and

structural modifications that would improve the plan.[1]

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[1] These comments are by no means exhaustive, and the focus on certain statistical and structual issues here
is not intended to suggest that other issues are not also critical. Several other issues will be addressed in the

COMMENTS

A.   <u>Statistical Modifications</u>

WorldCom is most concerned about the choice of a parameter delta in the Draft Plan. WorldCom only has supported AT&T's parameter delta of .25 as the upper limit on what would be acceptable as a crude decision rule on competitive significance. For aggregate (i.e., Tier II) ALEC results, a .10 parameter delta should be chosen because of the larger sample sizes that would be involved. As the attached paper from Auburn University Economics Professor John D. Jackson notes, for larger sample sizes a large parameter delta can cut off major differences in means from the remedy scheme. As a result, the high parameter delta proposed in the Draft Plan would substantially limit the remedies BellSouth would be called upon to pay. Thus, a lower parameter delta should be adopted. Alternatively, competitively significant margins should be defined for each metric based actual market experience. These margins would have to be reexamined as competition develops and customers' reactions to differences in performance change.

B.   <u>Structural Modifications</u>

WorldCom's strong preference is that remedies be assessed on a per measure basis rather than on a per occurrence basis. Per occurrence plans may work when competition is robust and few new products are coming to market, but in Florida, where competition is still struggling for a foothold, a per occurrence plan could generate low remedies that BellSouth readily would pay rather than open the doors to local competition. Per occurrence plans keep remedies the lowest when ALECs are just

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testimony WorldCom will file in this docket. WorldCom also will address the issues raised in these comments more comprehensively in that testimony.

beginning to ramp up in a market or launching new services in competition with ILECs. ALEC reputations and financial resources are most vulnerable in those early stages of market entry or of a product offering. Competitors could be driven out of the market long before per occurrence remedies would reach levels to motivate BellSouth to spend money for human and capital resources to fix problems, let alone offset BellSouth's powerful incentive to retain existing local profits, new high-margin advanced digital service profits, and eventually long distance profits.

If the Commission nonetheless determines that a per occurrence plan should be implemented, a number of steps can be taken to ameliorate the problem of insufficient remedies during the early stages of competition. First, the Commission should require a minimum payment for each measure for which BellSouth fails to provide satisfactory performance. Such minimum payments would help give sufficient incentive for BellSouth to comply with its duty to provide parity and a meaningful opportunity to compete even when activity levels are low. Second, the Commission should increase the per occurrence remedies proposed in the Draft Plan. The base remedy amounts proposed are too low to provide an adequate incentive for BellSouth to cooperate with its competitors in the local market, and would have little impact on a company the size of BellSouth. Third, remedies should increase substantially for severe and repeated violations. The Draft Plan does not take into account the magnitude of poor performance by BellSouth, but rather only the number of customers that have been harmed. For example, the Draft Plan does not distinguish whether a performance standard was exceeded by 1 day for 100 customers or 30 days for 100 customers. In both instances the same remedy would apply. And although the Tier I remedy amounts do increase for

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repeated violations, those increases are not substantial enough to provide a sufficient incentive to provide good performance.

Structural problems also exist for Tier II. For example, Tier II remedy payments are not triggered unless BellSouth has discriminated against the entire ALEC community for three consecutive months. But even one month of poor performance, such as during an ALEC's ramp-up before it has established a reputation in the local market, can erode prospects for local competition. And it is difficult to imagine that two consecutive months of poor performance would not have a serious impact on an ALEC at any stage of market entry. Under the Draft Plan, it is possible for BellSouth to provide discriminatory service in eight out of twelve months and still pay no penalty. Thus, the Tier II remedies may rarely, if ever, be triggered, leaving BellSouth with only the prospect of paying Tier I remedies. Moreover, under Tier II (as under Tier I) BellSouth pays the same remedy regardless of the severity of the violation.
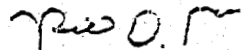
Finally, the Tier III remedy in the Draft Plan is too easy for BellSouth to avoid. So long as it did not fail any twelve or more of twenty-six performance standards for three consecutive months, BellSouth would remain free to market and sell long distance services, assuming it previously had been granted 271 authority. Thus, even if BellSouth provided atrocious performance on eleven performance measurements that thwarted ALECs' efforts to compete in the local market, the Tier III remedy would not be triggered. WorldCom respectfully submits that a more stringent test should be applied.

CONCLUSION

For the foregoing reasons, and those expressed in the Comments of AT&T, WorldCom respectfully requests the Commission to modify the Draft Plan. WorldCom

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will describe in more detail the modifications it believes are appropriate in the testimony

it plans to file in this docket.

Respectfully submitted, this 22nd day of November, 2000.

Richard D. Melson
Hopping Green Sams & Smith, P.A.
P.O. Box 6526
Tallahassee, FL 32314
(850) 425-2313

Donna Canzano McNulty
WorldCom, Inc.
325 John Knox Road, Ste. 105
Tallahassee, FL 32303
(850) 422-1254

Dulaney L. O'Roark III
WorldCom, Inc.
Six Concourse Parkway
Suite 3200
Atlanta, GA 30328
(770) 284-5498

Attorneys for WorldCom, Inc.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing was furnished to the following parties by U.S. Mail or Hand Delivery (*) this 22nd day of November, 2000.

Marsha Rule
AT&T Communications
101 North Monroe St. Suite 700
Tallahassee, FL 32301

Nancy B. White
c/o Nancy H. Sims
BellSouth Telecommunications, Inc.
150 S. Monroe St., Suite 400
Tallahassee, Fl 32301

Michael A. Gross
Florida Cable Telecommunications Assn.
246 E. 6th Avenue
Tallahassee, FL 32303

Kimberly Caswell
Verizon Select Services Inc.
P.O. Box 110, FLTC0007
Tampa, FL 33601

Scott Sapperstein
Intermedia Communications, Inc.
1 Intermedia Way
Tampa, FL 33647

Nanette Edwards/Brian Musselwhite
ITC^ Deltacom
4092 S. Memorial Parkway
Huntsville, AL 35802

Peter Dunbar/Karen Camechis
Pennington Law Firm
P.O. Box 10095
Tallahassee, FL 32302-2095

Mark Buechele
Supra Telecom
1311 Executive Center Drive, Suite 200
Tallahassee, FL 32301

Carolyn Marek
Time Warner Telecom of Florida, L.P.
233 Bramerton Court
Franklin, TN 37069

Tim Vaccaro
Division of Legal Services
Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399

Susan Masterton/Charles Rehwinkel
Sprint Communications Company
P.O. Box 2214
MC: FLTLH00107
Tallahassee, FL 32316-2214

Catherine F. Boone
Covad Communications Company
10 Glenlake Parkway
Suite 650
Atlanta, Ga 30328-3495

Donna C. McNulty
MCI WorldCom
325 John Knox Road
The Atrium Suite 105
Tallahassee, Fl 32303

139639.2

Patrick Wiggins
Charles Pellegrini
Katz Kutter Law Firm
106 E. College Ave. - 12th Floor
Tallahassee, FL 32301

Jeffrey Wahlen
Auslet Law Firm
P.O. Box 391
Tallahassee, FL 32302

Monica Barone
Birch Telecom of the South
8001 Fairlake Drive
Wake Forest, NC 27587

Jonathan Canis/Michael Hazzard
Kelley Law Firm
1200 19th St. NW, Fifth Floor
Washington, DC 20036

Joseph McGlothlin/Vicki Kaufman
McWhirter Law Firm
117 S. Gadsden Street
Tallahassee, FL 32301

Floyd Self
Messer Law Firm
P.O. Box 1876
Tallahassee, FL 32302

Kenneth Hoffman/John Ellis
Rutledge Law Firm
P.O. Box 551
Tallahassee, FL 32302

John Rubino/George S. Ford
Z-Tel Communications, Inc.
601 S. Harbour Island Blvd.
Tampa, FL 33602

Jeremy Marcus/Elizabeth Braman
Blumenfeld & Cohen
1625 Massachusetts Ave. NW, Suite 300
Washington, D.C. 20036

_____
                              Attorney

CRUCIAL SHORTCOMINGS OF THE "BALANCING CRITICAL VALUE" APPROACH TO PERFORMANCE APPRAISAL

by
John D Jackson, Professor of Economics,
Auburn University, Auburn, AL 36830

I. Introduction

Section 271 of the Telecommunication Act of 1996 provided for ILEC entry into the long distance telephone service market if CLECs were allowed to enter the various local telephone service markets. This CLEC entry, in turn, is predicated upon the CLECs' ability to purchase from the ILEC various services crucial to their ability to compete in the local market. Consequently, the Act further requires that the ILEC provide these services to the CLECs at a quality level *at least equal* to that they provide to their own customers or affiliates. Thus, the evaluation of parity in local service provision has become a central issue in all proceedings concerning ILECs' 271 approval. Statistical means difference tests, typically based on (some version of) the LCUG Z statistic, have become the cornerstone in the evaluation of service quality provision. Indeed, test results are not only used to determine whether the ILEC has discriminated against the CLEC in service quality provision, they also enter into the determination of the magnitude of the penalty involved according to several performance assurance plans (such as those proposed by SBT, BST, and AT&T). It is this latter use that has led to the development of a "balancing critical values" approach to parity testing and performance appraisal.

When one makes a decision concerning the presence or absence of parity in service provision based on a statistical test, he or she can err in one of two possible ways. They could conclude that discrimination in service provision exists when in fact it does not, or they could conclude that discrimination does not exist when in fact it does. Because the null hypothesis of the test assumes "no discrimination," the former error involves the rejection of a true null. It is called a type I error, and the probability (or risk) of committing such an error is called α. The latter error involves the acceptance of a false null. It is called a type II error, and the probability (or risk) of committing such an error is called β. The BCV approach to parity testing amounts to determining a critical value of the test statistic called a balancing critical value (BCV), that equates α with β. This principle was first enunciated by LCUG in the early (pre 1998) stages of parity testing discussions, but the current version is the result of joint efforts of BST's statistical discussions from Ernst and Young and AT&T's (now retired) statistical expert Colin Mallows. Indeed, a BCV has become an integral part of both AT&T and BST's Performance Assurance Plans (PAPs).

In principle, an equal chance of error approach is attractive for (at least) two reasons. First, it remedies a number of difficulties encountered by the alternative approach. A number of PAPs, e.g., SBT's Texas plan, employ a fixed critical value of the test statistic and a K-table in lieu of BCV. Without going into a detailed criticism, the K-table corrects for random variation in the test statistic by allowing the ILEC to fail "k" tests per month without penalty. Many CLECs object to this approach because the table is

derived based on an unrealistic alternative (that the ILEC always provides parity service) and because it ignores type II errors. The BCV approach avoids these criticisms (and handles the random variation problem) by employing a critical value of the test statistic that equates the probabilities of committing type I and type II errors.

Second, the BCV approach dovetails neatly with the objective of unbiased penalty assessment. An optimal statistical decision would be one that equates the costs of making a type I error with the costs of making a type II error. ILEC representatives are typically more than willing to disclose how much a type I error costs them. CLECs, on the other hand, have a more difficult time determining how much a type II error costs them. These costs involve not only the foregone penalty payment and the cost to their reputation; they also entail the cost to society of having to continue monopolistic service provision while losing the benefits of competition. Since these costs are difficult to calculate, it is not reasonable to expect an optimal statistical decision. The BCV, however, accomplishes the next best thing. Since, the probability that the ILEC would have to pay a fine when it is not discriminating is equal to the probability that it will not have to pay a fine when it is discriminating, the long run expected value of inappropriate net penalty payments is zero.

It is indisputable that the BCV approach has a definite allure for parity testing and performance appraisal. Unfortunately, operationalizing the BCV approach, putting the principle into practice, exposes a major flaw which can open Pandora's Box in terms of allowing the ILEC to thwart meaningful CLEC competition at the local level. The problem relates to the key role played by a parameter δ in determining what critical values of the test statistic will lead to the rejection of parity. The flaw is that the value given to δ is arbitrarily determined; Pandora's Box is opened when δ is set equal to "large" values; and all the evidence suggests that ILECs are intent on pursuing exactly this strategy.

II. The Importance of Specifying Delta

To apply the BCV approach, one must (a) determine an expression for the value of α assuming the null hypothesis is true, (b) determine an expression for the value of β assuming the alternative hypothesis is true, and (c) set these two expressions equal to each other so as to solve for the balancing critical value (BCV) of the test statistic that equates α and β. Step (a) is easy because the CLEC and ILEC population means are assumed to be equal -- it does not matter what value they are equal to, just that they are equal to each other. The procedure becomes problematic at step (b) because we must have a specific value for the difference between the CLEC and ILEC population means in order to compute β. This is the point in the argument at which statisticians typically cop out. Ideally, we would like to compute β based on a means difference that is only just large enough to be marginally "competitively significant." Statisticians argue that they are in no position to gauge how large means differences should be in order to be marginally competitive significant, this matter should be left to "telephony experts." But given a measure of this difference, they can easily compute the BCV and hence implement an equal probability of Type I and Type II errors. The AT&T/BST statisticians capsulize the problem as follows:

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$$H_0: \mu_C = \mu_I; \sigma_C^2 = \sigma_I^2$$
$$H_A: \mu_C = \mu_I + \delta \bullet \sigma_I; \sigma_I^2 = \lambda \sigma_C^2 \qquad (1)$$

(Clearly, parity service provision requires both equality of means and equality of variances. The second set of equalities in H_0 and H_A above allow for discrimination in the form of the CLEC variance exceeding the ILEC variance by a multiplicative factor λ, $\lambda > 1$; i.e., the ILEC provides the CLEC more variable service than it provides itself. While this is certainly an important source of discrimination, it is of only tangential importance to the problem at hand. Thus, in what follows, the variances are assumed to be equal; i.e., $\lambda = 1$.) In this view, the CLEC and ILEC means are equal under H_0 and differ by an amount equal to $\delta \bullet \sigma_I$ under H_A. Analytically, under these assumptions, steps (a), (b), and (c) lead to the formula

$$BCV = \frac{\text{Expected Value of Test Statistic Assuming Means Differ by } \delta \cdot \sigma_I - \text{Expected Value of Test Statistic Assuming Means do not Differ}}{\text{Variance of Test Statistic Assuming Means Differ by } \delta \cdot \sigma_I - \text{Expected Value of Test Statistic Assuming Means do not Differ}} \qquad (2)$$

Thus δ is a measure, in units of the ILEC standard deviation, of the extent to which the ILEC mean exceeds the CLEC mean (or, conversely). As such, specifying δ specifies the difference between the CLEC and ILEC means that would be marginally competitively significant in affecting local service competition. Further, specifying delta is integral to determining the BCV. It follows immediately that, since parity is rejected if the computed value of the test statistic "exceeds" the BCV, the value chosen for δ can determine the outcome of the test.

While the statistician may not be in a position to accurately specify δ, he or she is certainly able to evaluate the impact of choosing a particular δ on parity testing. Before turning to this question, however, let us examine briefly the ability of "telephony experts" to specify δ. In the past, BST "experts" have suggested that δ should equal 1; more recently (in the Florida Strawman proposal) a value of 0.5 has been put forward. No explanation has been offered as to how these numbers were derived. The following scenario is not out of the question: One day the chief ILEC negotiator phones one of his engineers and asks, "Hey Joe, suppose our average service provision was about one standard deviation better than what we provide the CLECs on average. Would that difference be competitively significant?" Joe thinks for a minute and responds, "Yeah, it probably would be, but let me check with Bill to see what he thinks. Hey, Bill..." To make a long story short, let's suppose that Bill and whoever else he consults concur. The value of δ has now been established, in the ILEC's mind, as 1. Admittedly, there is no real evidence to support this conjecture; but equally, there is no real evidence refuting it, either. That is one of the problems, ILECs provide no evidence from their "telephony experts" at all.

Charitably, the ILEC may simply have asked its experts the wrong question. It is probably true that selecting $\delta = 1$, produces a means difference, $1 \bullet \sigma$, that is competitively significant. But the important question is whether this is the least possible means difference that would be competitively significant. If one is willing to accept values of δ that lead to inframarginal differences in competitive significance, then there is an infinity of equally legitimate values that δ could take on. For example, if $\delta = 1$ results in a competitively significant means difference ($1 \bullet \sigma$), then so would values of $\delta = 2, 3, 4, \ldots$, because they would lead to larger means differences than that given by $\delta = 1$ (i.e., $2 \bullet \sigma$,

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$3 \cdot \sigma$, $4 \cdot \sigma$, ...). Thus, specifying inframarginal values for δ becomes completely arbitrary, so that such values can contribute nothing to the solution of parity testing problems. **The real question is how *small* can δ be made and the resulting means difference be competitively significant.** Is it possible for means differences resulting from δ values of 0.5, 0.25, or 0.1 to be competitively significant differences? **It is the value of δ that leads to the marginally competitively significant means difference that we require, because it is the only unique, unambiguous, meaningful value to assign to δ if competitive significance is to be the criterion by which we determine Type II error.** *For this reason, establishing the δ that leads to marginally competitively significant means difference should be the subject of considerable research on the part of economists and statisticians as well as engineers and other "telephony experts."* The CLECs are aware of no models that have been estimated, no experiments that have been conducted by the ILECs. Indeed, the ILEC is typically in a uniquely poor position to conduct tests and experiments to establish the extent of marginally competitively significant differences in the provision of local telephone service because, generally speaking, it does not "compete" in local markets. In fact, a sound argument can be made that it is not possible at this time to accurately establish such values, because up to now, local telephone markets in the U.S. have not seen vigorous competition between the CLECs and the ILEC. Until such competition is the rule of the day, determining "competitive significance" can be based on nothing but conjecture.

     III.   The Statistical Consequences of Choosing a δ That is "Too Large"

     Now consider the impact on parity testing of the ILEC's choice of $\delta=1$ rather than some, more appropriate, smaller number. The answer, in a nutshell, is this: the larger δ, the more extensive is the ILEC's carte blanche to thwart local competition. The rationale is as follows: (i) Larger values of δ indicate larger differences in SQM means. (ii) The larger the means difference, the less likely the commission of a type II error, i.e., the lower is β. (iii) Smaller values of β require smaller values of α to balance the two risks. (iv) Since α is not only the probability of committing a type I error but also the level of significance of the test, smaller values of α imply larger critical values of the test statistic. (v) Since larger means differences imply greater discrimination and since larger critical values of the test statistic make rejection of parity less likely, larger values of δ permit greater discrimination by the ILEC without its incurring a penalty. To see points (i)- (iv) more clearly, consider the Figure 1. The figure contains three sets of graphs with two graphs in each set. For each set, the upper graph can be considered as the distribution of ILEC sample means and the lower graph, as the distribution of CLEC sample means. The service being analyzed is assumed to be one in which larger numbers mean worse performance. Thus, in accordance with equations 1, the mean of the ILEC distribution is μ and the mean of the CLEC distribution is $\mu+\delta \cdot \sigma$. In the upper set of graphs, $\delta=1$, in the middle set, $\delta=0.5$, and in the lowest set, $\delta=0.25$.

     Graphically, determining the balancing critical value is easy. The probability of a type I error is simply the area under the ILEC curve to the right of X^* (ILEC sample means so large that they give the appearance of non-parity when parity is in fact the case), and the probability of a Type II error is the area under the CLEC curve to the left

of X* (CLEC sample means so small that they give the appearance of parity when it is not truly the case). Determining the balancing critical value simply amounts to adjusting the dashed vertical line -- the one labeled BCV and the one that defines X* -- so as to equalize these two areas. Also note that even though the distributions are not normalized, it still follows that larger α (=β) areas imply smaller (in absolute value) critical values, and conversely.

Now consider the upper set of graphs which have been constructed under the hypothesis that $\delta=1$. Here, the CLEC mean is a relatively large distance above the ILEC mean. Thus the BCV will determine α and β errors that are relatively small, indicating that the BCV itself will be relatively large in absolute value. Intuitively, since the CLEC mean is a relatively large distance above the ILEC mean, we are not very likely to commit a Type II error, that is, β is likely to be small. Consequently, α must also be small to equal β, and small α's correspond to large (in absolute value) critical values of the test statistic.

In comparison, consider the middle set of graphs. All factors are assumed to be the same as in the upper set except that now the CLEC mean is closer to the ILEC mean, $\delta=0.5$ rather than $\delta=1$. Relative to the first case, this increased proximity will lead to an increased β-risk and a BCV that cuts off larger areas in the tails of both distributions. Note that the larger α would correspond to a smaller (in absolute value) critical value of the test statistic.

Finally, note that the lowest set of graphs reinforces these notions. Again, everything is assumed to be the same as in the two earlier cases except that now the CLEC mean is closer still to the ILEC mean, $\delta=0.25$. Again, because of this increased proximity, the α- and β-risks are higher and the resulting BCV lower (in absolute value) than in the previous cases.

This analysis clearly demonstrates that, in general, the larger δ, the larger the critical value of the test statistic associated with the rejection of parity, *ceteris paribus*. Based on this result, it would not be difficult to accept a value of δ of 1 if the α- and β-risks were of a reasonable size; i.e., if the critical values of the test statistic were of reasonable magnitudes. Unfortunately, this is not the case for $\delta=1$, nor even for $\delta=0.5$. *The problem is that the AT&T/BST approach guarantees that, given δ, the α-risk will equal the β-risk, but it has nothing to say about the magnitude of risk at which they will be equal. As a result, many tests have critical values that balance risks, but at infinitesimal risk levels. In fact, these levels of significance are so small as to make a mockery of parity testing.*

Based on the hypothesis test defined in (1)

$$H_0: \mu_C = \mu_I; \sigma_C^2 = \sigma_I^2$$

$$H_A: \mu_C = \mu_I + \delta \bullet \sigma_I; \sigma_I^2 = \lambda \sigma_C^2$$

(1')

Begin by assuming that $\lambda=1$. BST has suggested a simplified formula for approximating the BCV for the truncated Z statistic. (It should be noted that what BST calls the truncated Z is in fact a standard normal variate -- the truncated Z minus its mean and divided by its standard deviation -- so that its critical values are those of a traditional Z statistic).

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FIGURE 1
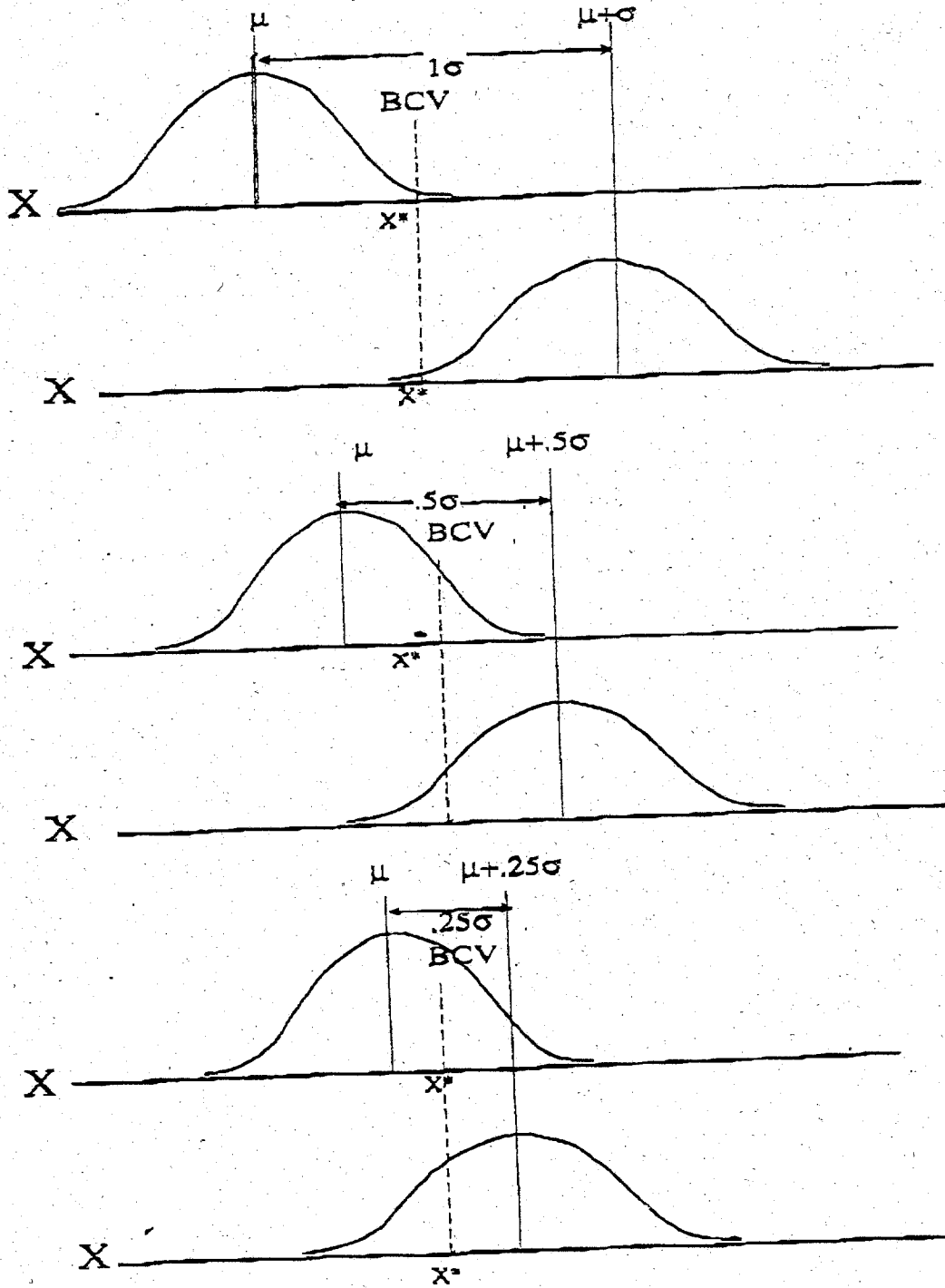
$$BCV = \frac{-\delta}{2\sqrt{\dfrac{1}{n_C} + \dfrac{1}{n_I}}} \qquad\qquad (3)$$

Let us begin by assuming that $\delta=1$, and let us assume that the ILEC sample size is sufficiently large so that the term $(1/n_I)$ in the denominator of (3) can be taken to be zero. Under these assumptions, the BCV depends only on δ and the CLEC sample size. Consider some typical CLEC sample size values, and note the implied values of BCV and the concomitant level of significance α $(=\beta)$:

$$n_C = 50 \Rightarrow BCV = -3.54 \Rightarrow \alpha = \beta = .0002$$
$$n_C = 100 \Rightarrow BCV = -5.00 \Rightarrow \alpha = \beta = .0000003$$
$$n_C = 300 \Rightarrow BCV = -8.66 \Rightarrow \alpha = \beta = 2.2 * 10^{-16}$$
$$n_C = 500 \Rightarrow BCV = -11.18 \Rightarrow \alpha = \beta = 2.5 * 10^{-28}$$
$$n_C = 1000 \Rightarrow BCV = -15.81 \Rightarrow \alpha = \beta = 1.3 * 10^{-54}$$

It should be clear that, for very reasonable CLEC sample sizes, when $\delta=1$, the AT&T/BST BCV approach yields unacceptably large (in absolute value) critical values and unacceptably small levels of significance. Put into perspective, the FCC has suggested that $\alpha=0.05$ (CV=-1.645) is a reasonable significance level to undertake statistical tests of parity. Some ILEC proposals have suggested $\alpha=0.025$ (CV=-1.96) or even $\alpha=0.01$ (CV=-2.365). But no *bona fide* statistician could honestly recommend that it would be reasonable to conduct a simple means difference test at anything smaller than the $\alpha=0.01$ level of significance -- that is, until now. By requiring $\delta=1$, BST has implicitly required that the level of significance be 1/50th of the minimum acceptable level and 1/250th of an appropriate level -- in their best case scenario ($n_C = 50$). For more reasonable sample sizes, the implications are even more outrageous. And these results are not an artifact of the simplifying assumptions used in the above analysis. BST analyzed 84 parity tests on two SQMs using April 1999 data for the state of Louisiana, with $\delta=1$. They report a minimum BCV of -73 (!) and a median BCV of -3.74, implying that half of the tests were undertaken at a level of significance less than .00009. Indeed, roughly 3/4[th]s of the tests were undertaken at less than the recommended .05 level of significance. These results indicate that, regardless of the opinion of the "telephony experts," the idea that $\delta=1$ can be rejected based on its statistical implications alone.

These same conclusions also obtain in the case of $\delta=0.5$, although to a lesser degree. Recall that this is the value of δ that BST has put forward in their Florida "Strawman" proposal. If we repeat the above experiment with $\delta=0.5$, we find the following:

$$n_C = 50 \Rightarrow BCV = -1.77 \Rightarrow \alpha = \beta = .038$$
$$n_C = 100 \Rightarrow BCV = -2.50 \Rightarrow \alpha = \beta = .0062$$
$$n_C = 300 \Rightarrow BCV = -4.33 \Rightarrow \alpha = \beta = .000007$$
$$n_C = 500 \Rightarrow BCV = -5.59 \Rightarrow \alpha = \beta = .00000001$$
$$n_C = 1000 \Rightarrow BCV = -7.91 \Rightarrow \alpha = \beta = 1.3 * 10^{-13}$$

Again, except for the $n_C=50$ case, all significance levels are less than the minimum acceptable level, and even for the $n_C=50$ case, the significance level is less than the recommended .05 level. Thus, for the reasons mentioned above, $\delta=0.5$ must be rejected

on the grounds of its statistical implications as too big. (We acknowledge that these numbers do not dovetail with those in examples found in Appendix D of the BST proposal. They do, however, dovetail with the numbers we compute using that same data but appropriate, exact, formulae from other sources.)

Finally, prior to his retirement, AT&T's Colin Mallows recommended a value of 0.25 for δ. Replicating the above experiment for $\delta=0.25$ yields

$$n_C = 50 \Rightarrow BCV = -0.88 \Rightarrow \alpha = \beta = .19$$
$$n_C = 100 \Rightarrow BCV = -1.25 \Rightarrow \alpha = \beta = .106$$
$$n_C = 300 \Rightarrow BCV = -2.16 \Rightarrow \alpha = \beta = .015$$
$$n_C = 500 \Rightarrow BCV = -2.80 \Rightarrow \alpha = \beta = .0026$$
$$n_C = 1000 \Rightarrow BCV = -3.95 \Rightarrow \alpha = \beta = .00004$$

Judged by the implied level of significance of the test, these results are considerably more credible than the two previous cases. Still, for instances where $n_C > 100$, the levels of significance are just too low. This inference is particularly important since both AT&T and BST plans recommend aggregating the test statistics up through many deep testing categories before comparing them to the BCV, so that large CLEC sample sizes are to be expected. (To illustrate, the relevant sample sizes in the previously mentioned BST examples are in excess of $n_C=300$.)

IV. Implications for Parity Testing, Performance Appraisal, and the Prospects for Operationalizing Equal Risk

The practical import the above statistical results concerning parity testing should be obvious: The larger the value of δ, the greater the means difference, i.e., the greater the extent of discrimination against the CLEC, permitted the ILEC before it is subject to a penalty payment. An example will illustrate: The ILEC owes a penalty when the computed value of the test statistic exceeds the BCV. For simplicity, assume the test statistic is the LCUG Z and that $n_{ILEC} \rightarrow \infty$. Thus a penalty is owed if

$$\frac{\overline{X}_{CLEC} - \overline{X}_{ILEC}}{\sigma_{ILEC}\sqrt{\dfrac{1}{n_{CLEC}}}} \geq BCV \qquad (3)$$

Substituting equation (2) for BCV and rearranging terms, a penalty will be owed if

$$\overline{X}_{CLEC} \geq \overline{X}_{ILEC} + 0.5 \cdot \delta \cdot \sigma_{ILEC} \qquad (4)$$

Now suppose the ILEC mean repair interval is, say 3 days with a standard deviation of 8. If $\delta = 1$, the CLEC mean repair interval would have to be _more than 7 days_ (as compared to the ILEC's 3 days) before the ILEC would owe a penalty. Indeed, if $\delta = 0.5$, as suggested in the Florida Strawman, the CLEC mean repair interval would have to be _more than 5 days_ (as compared to the ILEC's 3 days) before the ILEC would owe a penalty. Interestingly, if $\delta = 0.15$, the implied means difference would be 0.6 days, about the same as that implied by the critical Z value of 1.645 (with $n_{CLEC} = 400$) suggested by the FCC (0.67 days).

This example should make it clear why ILECs want large values of δ and CLECs want small values of δ. It should also make it clear why δ has become such an important bargaining chip in 271 negotiations. _It is impossible to emphasize strongly enough how_

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regrettable this outcome is. The value of δ is not something to be bargained over any more than the value of π is something to be voted on. As pointed out in section II, δ is the difference between mean CLEC and ILEC performance levels, measured in units of the ILEC standard deviation, that would be marginally competitively significant. Ideally, its value for many different SQMs would be the subject of serious study by statisticians, economists, engineers, and industry experts. To make δ subject to negotiation is to destroy the logical underpinnings of parity testing and performance appraisal – to make these underpinnings rest on the relative bargaining power of the participants rather than statistical science. Yet this result is as inevitable as night following day. Because we have not seen at the local level the kind of vigorous competition among providers that would allow an appropriate calculation of δ, the only methods available for specifying δ are conjecture and negotiation, hopefully tempered with a little statistical sanity.

     Problems arising from the acceptance or rejection of parity are not the only practical problems arising from attempts to apply the BCV approach. Such problems are magnified when the BCV approach enters into the determination of the magnitude of penalties. Consider for example the penalty structure in the Florida Strawman proposal. In that plan, the computed value of the (truncated) Z (call it Z*) and the BCV (the parity gap) is divided by 4 and the resulting percentage (called the "volume proportion," it cannot be >=1) which is then multiplied by the number of impacted CLECs to determine the "Affected Volume." This number multiplied by the per-occurrence penalty determines the payment to the CLEC for discriminatory service. Since penalties are owed only when Z*>BCV, increases in δ increase the BCV, which decreases the parity gap (for a given Z*), which decreases the volume proportion, which decreases the affected volume (for a given number of impacted CLECs), and hence lowers the penalty payment -- or the likelihood of a penalty being owed. *This means that by manipulating δ, the ILEC can manipulate penalty payments in such a way as to circumvent the intent of even the most adroit state oversight agencies.* Other plans involving δ and the BCV (e.g., AT&T's), while more reasonable, have similar potential of not reflecting the harm of disparity in a real world environment. CLECs like WorldCom have agreed in joint CLEC remedy proposals to .25 as a generous trial as a BCV individual CLEC results. But WorldCom is becoming increasingly alarmed, as it should well be, that regulators are splitting the difference between ILEC and CLEC proposals for BCV's without any considered analysis of the impact of this "guess" of competitive significance on the marketplace.

V. Can Equal Risk Be Made Operational?

     In principle, the BCV approach is indeed a beautiful dream. It eliminates the problem of random variation, and it reduces to zero the expected value of inappropriate penalty payments. Unfortunately, the crucial parameter δ cannot be unambiguously determined, there is an incentive on the part of the ILEC (CLECs) to inflate (deflate) δ, and making the value of δ a bargaining chip destroys the statistical legitimacy of parity testing and performance appraisal. The ILEC cannot be expected to make an enlightened choice of δ because it has scant experience with competition. The CLECs cannot be expected to make an enlightened choice of δ because they have limited experience in terms of contracting with the ILEC and with providing services in the local market. Since the kind of research needed to obtain an enlightened choice of δ is not possible at

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the present time, and since conjecture and negotiation clearly incorporate incentives to game the system, some CLECs (in particular, WorldCom) *worry that a one-size-fits-all BCV can ever be made operational*

For a moment, let us suspend disbelief and suppose that a BCV -- even with all its potential pitfalls -- is adopted. Would this be a good thing for the CLECs, the ILECs, the state regulatory agencies, or society as a whole? Even ignoring all of the problems brought to light up to now, the answer is still, "No!" Here is why: Suppose that in spite of all the impediments that the various BCV plans place before it, competition still develops. Increased competition implies larger CLEC orders, and larger CLEC orders imply lower probabilities if type II errors, *ceteris paribus*. But lower values of β imply lower balancing values of α, which in turn imply larger BCVs. Consequently, under the BCV approach, increased competition will make it less likely to judge a given means disparity as indicative of discrimination. This consequence is clearly unacceptable. A given difference in the quality of services provided by the ILEC to its own customers versus what it provides to those of the CLEC is either discriminatory or it is not. The extent of CLEC/ILEC competition should have nothing to do with this inference. For this reason, the long run acceptability of BCVs is even more uncertain than its short run acceptability.

It remains but to conclude that implementing a BCV approach is a risky strategy indeed. The CLECs support AT&T's proposal of a BCV approach only to the extent that it's proposed value of $\delta = 0.25$ is taken to be a *maximum* acceptable trial value of that parameter for individual CLEC results. This position is based on statistical sanity; conjecture, bargaining, or further alterations to increase the BCV are not acceptable. If state regulatory commissions find this position too intransigent, then some method other than the BCV approach must be found to deal with random variation and competitive significance.