BELLSOUTH TELECOMMUNICATIONS, INC.

DIRECT TESTIMONY OF DAVID A. COON

BEFORE THE TENNESSEE REGULATORY AUTHORITY

DOCKET NO. 01-00193

JULY 16, 2001

I. INTRODUCTION AND ORGANIZATION OF TESTIMONY

Q. PLEASE STATE YOUR NAME, ADDRESS, AND POSITION WITH BELLSOUTH TELECOMMUNICATIONS, INC.

A. My name is David A. Coon. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375. I am Director - Interconnection Services for BellSouth Telecommunications, Inc. ("BellSouth") and am responsible for managing certain aspects of BellSouth's performance measurements.

Q. PLEASE SUMMARIZE YOUR BACKGROUND AND EXPERIENCE.

A. My career at BellSouth spans over 20 years and includes positions in Network, Regulatory, Finance, Corporate Planning, Small Business Services and Interconnection Operations. I received a Bachelors Degree in Civil Engineering from Ohio University and a Masters Degree in Engineering Administration from George Washington University.

Q. PLEASE PROVIDE A BRIEF SUMMARY OF YOUR TESTIMONY

A. This docket has its beginnings in the DeltaCom arbitration in which performance measurements were in dispute. After issuing a series of orders in that arbitration, the Authority determined that performance measurements should be established for Tennessee in a generic proceeding. The Authority also concluded that its DeltaCom decisions should constitute the starting point for analysis in that generic docket. Generally speaking, the Authority's DeltaCom decisions, taken together, adopted measurements that were based on a 1999 BellSouth proposal, modified to include additional measures created by the Texas Public Service Commission in a performance measurement proceeding conducted in Texas. The BellSouth plan was modified in other respects as well, such as by adopting the DeltaCom proposed penalty or fee schedule.

There are a number of provisions in the DeltaCom-based starting point for this docket that BellSouth agrees with. As an example, the basic document upon which the DeltaCom plan is based is the BellSouth 1999 Service Quality Measurement (SQM) plan, which, while somewhat dated, provides a sound starting point for any analysis in this docket. Matters concerning performance measures and enforcement plans have evolved since the 1999 plan was created, however, and I will discuss this point later in my testimony.

There are also a number of the Authority's findings with which we have disagreement. While our current SQM includes many of the measurements that the Authority identified in the DeltaCom decisions, it does not include all of them, for

such diverse reasons as redundancy and lack of necessity. I will discuss these points in my testimony, as well.

At the end of the day, what we will ask this Authority to do is to adopt the 2001 SQM that BellSouth will propose in my testimony as well as the enforcement plan that accompanies that SQM. In our testimony, we will urge the Authority to adopt a plan that is workable and that will provide the Authority with the information it and the Competitive Local Exchange Carriers (CLECs) need to insure that our competitors are being offered a fair opportunity to compete. We believe the Authority will agree that BellSouth's SQM plan is well suited for Tennessee since the TRA recently adopted the 2000 version of the BellSouth SQM in its July 10, 2001 decision in the Intermedia arbitration. We will also urge the Authority to reject plans, which we have seen offered by CLECs in other states, whose sole objective seems to be to handicap BellSouth so that it is never eligible to offer its own competitive long distance services to the citizens of Tennessee.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. In the first part of my testimony, I will briefly introduce BellSouth's Performance Measurements and the enforcement mechanism that BellSouth proposes. Next, I will discuss the DeltaCom-based performance measurements plan that the Authority has adopted as the starting point for this proceeding. In this context, I will discuss where BellSouth agrees and disagrees with the measurements and enforcement mechanisms adopted in the DeltaCom proceeding. In this context, I will also describe BellSouth's current proposal in more detail and discuss how it differs from the DeltaCom decision.

II. PURPOSE AND DESIRED OUTCOME OF THIS DOCKET

Q. WHAT IS THE PURPOSE OF THIS DOCKET?

A. The Tennessee Regulatory Authority ("TRA" or "Authority") established this docket for the purpose of determining the performance measurements and associated enforcement mechanisms necessary to ensure that BellSouth offers Tennessee CLECs interconnection and access to network elements on a nondiscriminatory basis, pursuant to the requirements of the Telecommunications Act of 1996 (1996 Act). Performance measurements are designed to capture data associated with the level of service provided to CLECs. An enforcement mechanism is intended as an incentive for Incumbent Local Exchange Carriers ("ILECs") such as BellSouth to avoid "backsliding" after interLATA authority is granted.

Q. WHAT DOES BELLSOUTH REQUEST OF THE AUTHORITY IN THIS PROCEEDING?

A. BellSouth requests that the Authority adopt the performance measurements and enforcement mechanism proposed by BellSouth. The 2001 SQM, attached to my testimony as Exhibit DAC-1, is a comprehensive compilation and explanation of all performance measurements proposed by BellSouth. As I mentioned above, the Authority has previously adopted a plan that was based in large part on the 1999 version of the SQM proposed by BellSouth. In the intervening two years, as BellSouth has learned more from the FCC and its decisions on interLATA

applications in other states, as well as from various state commissions, the 1999 SQM has evolved and expanded. The current 2001 SQM includes a definition of each measurement, the business rules associated with each and the levels of disaggregation, and performance standards in terms of retail analogs and benchmarks. Key measurements in the SQM are incorporated into BellSouth's proposed Self-Effectuating Enforcement Mechanism (SEEM). The documentation for SEEM, attached to my testimony as Exhibit DAC-2, is a detailed explanation of how BellSouth's enforcement plan is structured. I will address each of these in greater detail later in my testimony. In this proceeding, BellSouth requests that the Authority adopt, as the generic performance measures and enforcement mechanism in Tennessee, the SQM and enforcement plan proposed by BellSouth.

Q. WHY SHOULD THE AUTHORITY ADOPT BELLSOUTH'S SQM AND SEEM PLAN?

A. As already mentioned, BellSouth's SQM includes a comprehensive set of measurements that address all of the key facets of a CLEC's operation. The plan is integrated with SEEM, an enforcement mechanism that will ensure continued good performance after BellSouth receives inter-LATA authority. Specifically, BellSouth believes that its current proposal should be adopted for the following reasons:

- It is workable and reasonable. The plan and its predecessors are included in interconnection agreements with a large number of CLECs in all 9 states. Indeed approximately 100 CLECs certified to operate in Tennessee have BellSouth's measurement plan as part of their interconnection agreement. Major portions of the plan have been approved by Commission orders in

Georgia and Louisiana. In addition, it has been adopted on an interim basis in Florida and it is under consideration as a permanent plan in Florida.

- The plan includes provisions for electronically providing monthly performance data to CLECs. We have developed a database that can be used to collect the relevant information that is necessary to implement these measurements. BellSouth's proposal involves a massive amount of data, i.e., approximately 1200 sub-metrics (explained later) representing CLEC performance, and BellSouth's program can handle this information mechanically. No other plan we have seen in any of the other states is capable of being implemented in a reasonable time, if at all, by BellSouth's program.
- The SEEM contains specific and substantial consequences for substandard performance providing a strong incentive for compliant behavior after InterLATA authority is granted.
- The proposed performance measurements, the method of assessing compliance, the performance reporting system, and the enforcement plan provide an effective and integrated design.
- Finally, a structure is already in place that allows implementation in Tennessee within a reasonable period of time, if the Authority approves the plan as it is proposed. Based on performance measurement proceedings in other states, the CLECs will no doubt present a plan that even they will agree may not be capable of being implemented in a reasonable time, if at all.

III. DEFINITIONS

Q. BEFORE DISCUSSING THE DETAILS OF BELLSOUTH'S PLAN AND THE PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISMS ADOPTED IN THE DELTACOM ARBITRATION, PLEASE DEFINE SOME OF THE TERMS THAT ARE GOING TO BE USED IN THIS TESTIMONY, SUCH AS MEASUREMENT CATEGORIES, MEASUREMENTS AND SUB-METRICS.

A. A measurement category is a major grouping of the measurements themselves. In BellSouth's SQM there are a total of 11 measurement categories, including Operations Support Systems, Ordering, Provisioning, Maintenance & Repair, Billing, E911, Operator Services/Directory Assistance, Database Update Information, Trunk Group Performance, Collocation and Change Management.

The terms "measurements", "measures", and "metrics" are used synonymously in my testimony. Measurements (measures or metrics) are sub-parts of the measurement categories and, as examples, include "Percent Missed Installation Appointments" (in the Provisioning category) and "Firm Order Confirmation Timeliness" (in the Ordering category). There are a total of 68 measurements (including 2 informational reports) in the BellSouth SQM, and each one falls in one of the 11 measurement categories.

"Sub-metric" is the term applied to the result of further breaking down each of the 68 measurements into a multitude of sub-parts where performance data is actually captured. For instance, I have identified "Order Completion Interval" as a measurement in the "Provisioning" measurement category. "Order Completion Interval (OCI)" is further broken down into sub-metrics such as "Order Completion

Interval-2 wire Analog Loop, Design, dispatch." This further breakdown is often referred to as disaggregation.

What this means is that BellSouth collects the OCI performance data for 2 wire analog loops in a number of categories, including those that involve engineering design work and a "dispatch" of a technician. For instance, if BellSouth reports an order completion interval of 3 days for a UNE 2 wire analog order from a CLEC that required design work and a dispatch, the data will be grouped under this sub-metric, together with all other similar data involving orders that have the same characteristics.

Another example of a sub-metric would be "Percent Missed Installation Appointments – 2 wire Analog Loop Design." Essentially, every missed installation appointment for a CLEC order involving the installation of a 2 wire analog loop that required engineering design work on the loop would be captured in this sub-metric.

When these disaggregations are completed, the end result is approximately 1200 sub-metrics that quantify BellSouth's performance for CLECs in the BellSouth SQM.

To permit comparison to BellSouth's performance for its retail customers, another 600 sub-metrics quantifying BellSouth's own performance for its retail customers whose orders fall in these same categories are produced. There is a difference in the number of sub–metrics for BellSouth, when compared to the 1200 for the CLECs, because some of the CLEC sub-metrics are compared against

benchmarks, rather than BellSouth retail analogs, and because some of the CLEC sub-metrics are recorded for diagnostic reasons only.

A "retail analog" is used when BellSouth provides a comparable service to its own customers using processes, which are similar for both retail and CLEC customers. When that doesn't exist, a "benchmark" is used instead of an "analog." A benchmark is a target, such as answering 85% of all calls within 45 seconds**.** A "diagnostic" measurement is typically a secondary measurement that may measure a small part of a larger measured process and is not compared against a retail analog or a benchmark. An example of a diagnostic measurement is Percentage of Orders Given Jeopardy Notices. When there is a possibility that an order's due date cannot be met because facilities are not available, the order is placed in jeopardy status. This measurement calculates the number of orders placed in jeopardy status as a percentage of the total orders. However, just because the order goes into jeopardy, it does not mean the order's due date will be missed because the facility situation is frequently resolved before the due date. But if the order is missed due to the lack of a facility, the result will show up as a Missed Appointment and it will also lengthen the Order Completion Interval. Because the Percentage of Orders Given Jeopardy Notice is a measurement of part of the provisioning process and because problems in jeopardies affect the primary provisioning measurements of Percent Missed Installations and Order Completion Interval, the Jeopardy measurement is considered secondary and is referred to as a diagnostic.

Collectively, all of the terms described above can be referred to as performance measurements.

The term “measurements” is not only used in the SQM, but is also used in BellSouth’s enforcement plan, or SEEM. The measurements to which penalties apply are uniquely defined under SEEM. In some cases, the measurements are the same as a sub-metric in the SQM while in other cases the SEEM measurement is an aggregation of several sub-metrics in the SQM. To avoid confusion, I will use the term “SEEM measurement” when referring to measurements as defined under SEEM.

IV. DELTACOM DECISIONS - THE STARTING POINT FOR THIS DOCKET.

Q. HOW HAS THE AUTHORITY DEALT WITH PERFORMANCE MEASUREMENTS AND ENFORCEMENT TO DATE?

A. The issue of performance measurements came before the Authority in the context of an interconnection agreement arbitration between ITC^DeltaCom (“DeltaCom”) and BellSouth. DeltaCom filed a petition for arbitration with the Authority on June 11, 1999. The Authority subsequently received pre-filed testimony and held a hearing from November 1, 1999 through November 3, 1999. The Authority, then entered four orders that, read together, contain the performance measurements and enforcement mechanisms to be included in the BellSouth/DeltaCom Interconnection Agreement.

1. The *Interim Order of Arbitration Award*, issued on August 11, 2000, included the following decisions:

- BellSouth's SQM with associated definitions and business rules was adopted.
- The TRA adopted twenty-six (26) additional performance measurements from the Texas Plan and revised three (3) of BellSouth's 1999 SQMs.
- The Arbitrators held that all measurements should be at the Tennessee level.
- The parties were directed to submit final best offers on the remaining issues. In particular, regarding issue 1(a), which concerned measurements, these proposals were to include:
  - the electronic medium to be used in providing DeltaCom with access to the performance report and underlying data;
  - the process to be utilized to determine BellSouth's compliance or non-compliance with the standard (retail analogs or benchmarks);
  - specific and measurable standards for each measurement with a methodology for defining or calculating the performance standard for each measure;
  - enforcement mechanisms, categorized by tiers, specifically identifying the threshold at which the mechanism applies and the specific mechanism once the threshold is met.
  - circumstances that would warrant a waiver request from BellSouth and the time frame for submitting such request.

2. The *Second Interim Order of Arbitration Award*, issued on August 31, 2000, reflected resolution of some issues that were the subject of the final best offers. The

parties were ordered to resubmit final best offers related to the remaining performance measurement and enforcement plan issues.

3. On February 23, 2001, the Arbitrators issued the *Final Order of Arbitration* establishing interim performance measurements and an enforcement mechanism, based on the final best offers of BellSouth and DeltaCom. This decision is summarized below:

- The Arbitrators determined that BellSouth should provide DeltaCom with access to performance reports in a readily accessible manner such as the Internet, with the underlying raw data, capable of easy manipulation by commonly used software, an associated current and accurate user's manual and a knowledgeable single point of contact to assist CLEC users.
- The Arbitrators adopted the standards (retail analogs and benchmarks) proposed in DeltaCom's Final Best Offer for all the performance measurements previously approved by the Authority in its August 11, 2000 Order. The Arbitrators adopted BellSouth's statistical methodology referred to as the Truncated Z method with error probability balancing.
- While BellSouth's methodology was chosen, DeltaCom's parameter delta value of 0.25 was adopted; the delta value is used as part of the statistical evaluation.
- The enforcement mechanism adopted was a combination of the proposals of BellSouth and DeltaCom. The Arbitrators chose a two-tier remedy payment structure.

- Tier-1 payments are aimed at compensating individual CLECs for harm caused by noncompliant performance. Payments are in the form of liquidated damages and are made directly to the affected CLEC.
- Remedies at the Tier-2 level are triggered by three consecutive months of noncompliant performance by BellSouth and are paid directly to the Authority.
- BellSouth's measurement categories for Tier-1 liquidated damages and Tier-2 voluntary payments were selected; however the per transaction payment amounts for each measurement category were adjusted to incorporate payment levels from DeltaCom's plan. This rather complex issue is discussed later in my testimony.

- The Arbitrators set an absolute cap on the amount of annual payments by BellSouth under the voluntary enforcement plan.
  - Prior to §271 approval, the cap is set at twenty percent (20%) of BellSouth's Tennessee generated "Net Return" from local exchange service.
  - After §271 approval is granted, the cap would increase to thirty-six percent (36%). ARMIS reporting data is used as the basis for calculating the dollar amount associated with the cap.

4. On June 26, 2001, the Authority issued its *Order On Reconsideration and Denying Joint Motion*. After reviewing BellSouth's SQM and the Texas plan, the Authority found that seven of the Texas measurements were either duplicative or

otherwise unnecessary. To the extent that these measurements were required under the Final Order, they were vacated or replaced by the relevant BellSouth measure. These measurements are shown below:

- Percent Mechanized Rejects Returned Within One Hour of LASR
- Percent Busy in Local Service Center
- Percent Busy in Local Operations Center
- Percent Installations Completed within Industry Guidelines for LNP with Loop
- Directory Assistance Average Speed of Answer
- Operator Services Speed of Answer
- Percentage of Premature Disconnects (Coordinated Cutovers)

The Arbitrators further held that the performance measurements established in the DeltaCom Arbitration would serve both as an interim set of measurements and the starting point for this generic docket.

V. BELLSOUTH'S POSITION REGARDING THE CONTINUED APPROPRIATENESS OF THE DELTACOM PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISMS

Q. HAS BELLSOUTH DONE A COMPARISON OF ITS PROPOSED SQM AND THE PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISMS ADOPTED BY THE AUTHORITY AS THE STARTING POINT FOR THIS PROCEEDING?

A. Yes. Attached as Exhibit DAC-3, is a comparison of the performance measurements adopted in the DeltaCom Arbitration and BellSouth's proposed 2001 SQM. Exhibit DAC-3 has two columns. The left hand column contains the measurements from the 1999 BellSouth SQM with the additional 19 Texas Plan measurements added in the appropriate process area. As an example the Authority determined that the Texas Measurement "Average Response Time for Loop Make-up Information" should be added to the 1999 BellSouth SQM. Loop Make-up is a Pre-Ordering Measurement since loop makeup is requested prior to the CLEC placing an order. Consequently, "Average Response Time for Loop Make-up Information" is included in the first column of this exhibit as the third measurement in the Pre-Ordering group. (The first two measurements were already included in the 1999 BellSouth SQM.) By looking at the first column of this exhibit, therefore, you can see all of the measures that BellSouth understands to constitute the DeltaCom-based measures adopted as the starting point for this proceeding.

The right hand column of Exhibit DAC-3 contains the measurements reflected in the 2001 BellSouth SQM that BellSouth is proposing in this docket. Where the measurements on the left and right hand column are similar, both appear on the same row.

This exhibit can be used to highlight the additions and changes that BellSouth proposes should be made in the DeltaCom-based measures that form the starting point for this proceeding. The BellSouth 2001 SQM contains additional measures that were not required at the time of the DeltaCom decisions, and proposes the elimination of several of the measures included in the DeltaCom orders that

BellSouth believes should not be included in the final and permanent set of measures. The proposed additions and deletions can be quickly spotted using this exhibit. Where there is an entry in the left column and no corresponding entry on the right, BellSouth has proposed deleting a measure. Where there is a measure in the right column but not in the left, BellSouth has proposed adding a measure. I will explain BellSouth's basis for proposing these changes later in my testimony.

In addition to the proposed addition or deletion of individual measures, another major concern with any measurement proposal is the amount of "disaggregation" included in the plan. That is, each individual measurement, such as one involving Order Completion Intervals, is further broken down into what I can call sub-categories, or applications. For instance, BellSouth proposes reporting order completion intervals by a specified number of different products that BellSouth offers. Since determining the appropriate level of disaggregation is so important, BellSouth has prepared, as Exhibit DAC-4, a summary of the levels of disaggregation and the corresponding standards ordered by the Authority in the DeltaCom decisions. Exhibit DAC-5 is a similar summary of the measurements, disaggregation and standards included in the proposed BellSouth SQM (Exhibit DAC-1). A side-by-side comparison shows a number of similarities and several differences. These will also be discussed in some detail later in my testimony. The purpose of Exhibits DAC-3, 4 and 5 are to help organize and facilitate the Authority's analysis of the issues in this proceeding.

Importantly, while these exhibits clearly show that changes are needed in the DeltaCom-based measures that the Authority previously adopted, it should be

equally clear that the changes BellSouth proposes still retain the basic work that the Authority has done, and simply reflect changes that are principally based on the evolution of performance measures since the Authority previously considered this issue. BellSouth is not requesting that the Authority reinvent the wheel by discarding the efforts it has made to date and start over. In fact, BellSouth believes that in many ways, the Arbitration Order (as modified) has set the measurements, the performance standards and the enforcement mechanism as they should be. In other areas, BellSouth agrees in principle with the Authority's decision, but believes that some adjustments are necessary.

VI. AREAS OF AGREEMENT WITH THE ADOPTED PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISMS

Q. YOU STATED THAT BELLSOUTH AGREES WITH THE ARBITRATORS' DECISION IN SOME AREAS CAN YOU IDENTIFY THE AREAS OF AGREEMENT?

A. Yes. Indeed the areas of agreement are quite significant. BellSouth agrees with the DeltaCom arbitration decisions regarding the following issues:

- The adoption of BellSouth's 1999 SQM as the basis for performance measurements.
- The electronic medium to be used in providing CLECs access to performance reports and the underlying raw data.

- The statistical methodology used to determine compliance with established standards.
- The two-tier structure of the enforcement plan, should the Authority believe enforcement is necessary.
- The enforcement cap to be applied after interLATA authority is granted.
- The conditions allowing a waiver request by BellSouth.

I want to discuss each of these areas in more detail below. However, rather than discussing them in the order I have listed above, I want to defer the discussion of the adoption of the 1999 SQM and begin with a discussion of the other issues. While BellSouth agrees with the adoption of the 1999 SQM, the passage of time has made some changes in that document necessary, which will require some detailed explanations.

a. ELECTRONIC MEDIUM

Q. WHAT WAS THE AUTHORITY'S HOLDING REGARDING THE ELECTONIC MEDIUM TO BE USED IN PROVIDING CLECS WITH ACCESS TO PERFORMANCE REPORTS AND THE UNDERLYING RAW DATA?

A. The Authority determined that BellSouth should provide CLECs with access to performance reports in a readily accessible manner such as the Internet; provide access to the raw data used to build the reports; provide the data in a format allowing easy manipulation by commonly used software; maintain a current and accurate user's manual; and identify a knowledgeable single point of contact to

assist CLEC users. We are agreement with this finding. In fact, BellSouth currently provides performance data to CLECs in accordance with these findings.

Q. HOW DO CLECS CURRENTLY GAIN ACCESS TO BELLSOUTH'S PERFORMANCE REPORTS?

A. Performance reports for BellSouth's current SQM are available electronically on a monthly basis via BellSouth's web-site at https://pmap.bellsouth.com. Further, BellSouth commits to having these reports posted by the 30th day of the month for the preceding month's activity in electronic format after the SQM has been implemented.

Q. DO CLECS HAVE ACCESS TO THE UNDERLYING RAW DATA AS WELL AS THE ACTUAL PERFORMANCE REPORTS?

A. Yes, with regard to the raw data, the web-site I mentioned does allow CLECs to access the raw data underlying the reports electronically, to the extent such reports are derived from BellSouth's Performance Measurement Analysis Platform (PMAP). The format of this raw data is a flat file that can quickly be imported into a spreadsheet or a database management program for further analysis and processing by the CLEC. These reports include the most critical ordering, provisioning, and maintenance & repair measurements in which CLECs generally are interested, including, but not limited to, FOC Timeliness, Reject Interval, Percent Missed Installation Appointments, Average Completion Interval & Order Completion

Interval Distribution, Missed Repair Appointments, Customer Trouble Report Rate, and Maintenance Average Duration.

Q. ARE THERE ANY LIMITATIONS TO THE RAW DATA THAT CAN BE PROVIDED TO CLECS?

A. Yes, while every performance report is available electronically, BellSouth does not have the capability to make available electronically the raw data that does not reside in PMAP. The measurements that reflect the Speed of Answer in the Ordering Center and Speed of Answer in the Maintenance Center are good examples. These measurements reflect the time during which a call is in queue until a BellSouth representative answers the call. These work centers are regional in nature and serve all CLECs, which means that hundreds of thousands of calls are received in these centers each month. Although each call is individually timed and the averages for the month are posted in the SQM reports, it is not possible to electronically identify each and every CLEC call underlying these SQM reports.

b. STATISTICAL METHODOLOGY

Q. YOU INDICATED THAT BELLSOUTH AGREES WITH THE STATISTICAL METHODOLOGY ADOPTED BY THE AUTHORITY. WHAT METHODOLOGY WAS CHOSEN?

A. After reviewing the prospective statistical methodologies proposed by BellSouth and by DeltaCom, the Arbitrators found that BellSouth's "Truncated Z statistical

method with error probability balancing" is more detailed and provides continuity with the enforcement mechanisms. We, of course, agree that this statistical method is the appropriate tool for assessing the comparative levels of service provided to Tennessee CLECs, where retail analogs are available. This method is discussed in more detail in Dr. Mulrow's testimony.

c. ENFORCEMENT STRUCTURE

Q. CAN YOU COMMENT ON THE AUTHORITY'S DECISION IN THE DELTACOM ARBITRATION REGARDING THE PROPER ENFORCEMENT STRUCTURE?

A. BellSouth agrees with the Authority's decision to adopt a two-tier remedy plan and also with the Authority's decision that not every performance measure must be included in the enforcement plan adopted by the Authority.

Q. CAN YOU COMMENT ON THE TWO TIERED STRUCTURE.

A. Under the plan adopted by the Authority and in BellSouth's current proposed enforcement plan, there are two tiers of measurements upon which penalties are paid. Tier-1 enforcement provides payments, in the form of liquidated damages, to adversely affected CLECs when a measure is missed. In addition to payments to individual CLECs, Tier-2 enforcement requires voluntary payments made directly to the Authority. Tier 2 payments are made to the Authority rather than to the individual CLECs because failures at the Tier 2 level are considered harmful to the industry in general. I would note that all of the measurements that are included in Tier 1 are

also included in Tier 2, but some of the Tier 2 measurements are not included in Tier 1. BellSouth believes this is a logical approach because those Tier 2 measurements that are not included in Tier 1 represent measurements that, if missed by BellSouth, would affect the entire industry rather than a single CLEC.

Q. IN TERMS OF STRUCTURE, THE AUTHORITY IN THE DELTACOM DECISIONS DID NOT REQUIRE THAT ALL OF THE PERFORMANCE MEASURES PROPOSED BY BELLSOUTH IN ITS SQM ALSO BE INCLUDED IN BELLSOUTH'S PROPOSED SEEM PLAN. CAN YOU ADDRESS WHY BELLSOUTH BELIEVES THAT THIS IS STILL APPROPRIATE?

A. Yes. The SEEM measurements set are generally key process measures in areas that affect customers. This current measurement set is patterned after those used in New York and Texas. The New York plan resulted in a "critical" measurement set, and the Texas plan identified a prioritized set of "high, medium, low" impact measures. As I understand it, the Texas and New York commissions charged the CLECs with identifying the measurement set that was the most "customer impacting."

BellSouth's experience in providing access to IXCs, combined with the outcome of prioritized measures from New York and Texas has resulted in BellSouth offering a similar key set of customer-impacting metrics. These enforcement measurements are listed in the SQM (Exhibit DAC-1), and summarized in Exhibit DAC-2. As an example, please refer to measurement P-3: Percent Missed Installation Appointments in Exhibit DAC-1, and in particular the SEEM sections listed for this

measurement. Percent Missed Installation Appointments is an indicator of BellSouth's ability to achieve commitments to its customers. The SEEM Measure table indicates that this is a Tier 1 and a Tier 2 measurement. Specific SEEM measurements for this SQM measurement category are listed in the SEEM Disaggregation Table for 7 product categories. When these product categories are compared to the retail analog, and if materially disparate performance is detected, a penalty payment amount is calculated and automatically paid.

Q. CAN YOU ADDRESS THE REASONS WHY NOT ALL OF THE PERFORMANCE MEASURES CONTAINED IN BELLSOUTH'S SQM ARE INCLUDED IN THE MEASURES USED IN THE PENALTY PLAN?

A. One very important reason is that some measurements included in the SQM are duplicative or "correlated" with other measurements. It would be inappropriately punitive to require BellSouth to pay more than once for the same infraction. Beyond the question of the interdependence of the measures, another reason for not including all the measurements from the SQM in SEEM is the fact that Tier 1 payments are made to individual CLECs. Thus, only those measurements where specific CLEC identification is possible can be included. In other instances, the measurement is simply a diagnostic measurement or measures a process that is in parity by design and obviously should not be included as a SEEM measurement.

Q IS THERE ANY PRECEDENT FOR THE AUTHORITY'S CONCLUSION THAT AN ENFORCEMENT PLAN SHOULD NOT INCLUDE ALL MEASUREMENTS IN THE SQM?

A. Yes, the FCC rejected the argument that all measures used to monitor performance be included in an enforcement plan by stating:

"We also believe that the scope of performance covered by the Carrier-to-Carrier metrics is sufficiently comprehensive, and that the New York Commission reasonably selected key competition-affecting metrics from this list for inclusion in the enforcement plan. We disagree with commenters who suggest that additional metrics must be added to the plan in order to ensure its effectiveness, and note that the New York Commission has considered and rejected similar arguments." Bell Atlantic Order, at ¶439.

Q. WHAT SEEM MEASUREMENTS DETERMINE WHETHER PAYMENTS UNDER TIER 1 ARE REQUIRED?

A. The measurements to be included in Tier 1 are listed in BellSouth's SEEM, attached as Exhibit DAC-2 to my testimony.

Q. HOW SHOULD THE AUTHORITY DETERMINE THE MEASUREMENTS TO INCLUDE IN AN ENFORCEMENT MECHANISM IF LESS THAN ALL OF THE MEASUREMENTS ARE INCLUDED?

A. The structure of an enforcement plan should include clearly articulated, pre-determined measurements and standards that encompass a comprehensive range of carrier-to-carrier performance. The enforcement plan should only include measurements of key outcomes where a failure to produce that outcome would

have a direct, significant effect on competition. The enforcement plan should not include measures that are interrelated because that simply penalizes BellSouth two, three or four times for the same event.

The enforcement plan clearly should not include all measurements that the Authority adopts in the SQM. We believe this enforcement plan will ensure that BellSouth continues to maintain service to CLECs at a level comparable to that which it provides to itself.

d. ENFORCEMENT CAP AFTER INTERLATA AUTHORITY

Q. YOU ALSO INDICATED THAT BELLSOUTH AGREED WITH THE AUTHORITY'S DECISION TO THE EXTENT THAT IT PROVIDES FOR AN ENFORCEMENT CAP AFTER INTERLATA AUTHORITY IS GRANTED. WHAT DID THE AUTHORITY DECIDE IN THIS REGARD?

A. The Authority adopted an absolute cap on annual payments made under the enforcement plan after § 271 authority is granted. The cap was set at thirty-six percent (36%) of BellSouth's Tennessee generated "Net Return" based on ARMIS reporting data.

Q. WHAT TYPE OF CAP IS BELLSOUTH CURRENTLY PROPOSING FOR INCLUSION IN THE ENFORCEMENT PLAN?

A. BellSouth~~'s~~ also proposes the use of an absolute cap of thirty-six percent (36%) of BellSouth's net operating revenues resulting from its Tennessee operations, to the extent that it only applies after interLATA authority is granted.

Q. HAS THE FCC DEALT WITH THE ISSUE OF AN ABSOLUTE CAP?

A. Yes, the FCC has now approved enforcement plans for five states and in each instance has imposed an absolute cap such as the one BellSouth proposes here, and as I already mentioned, the Authority adopted an absolute cap in Tennessee, as part of the DeltaCom Arbitration.

Q. IS THE THIRTY-SIX PERCENT CAP CONSISTENT WITH LIMITATIONS APPROVED BY THE FCC?

A. Yes. This 36% cap is consistent with the cap amounts approved by the FCC in the Long Distance applications of SBC and Bell Atlantic and more recently in the Kansas and Oklahoma applications. Clearly, this is a more than sufficient deterrent to "backsliding" and balances the interest of each group of stakeholders.

Q. FOR WHAT PERIOD SHOULD THE CAP APPLY?

A. Consistent with the Authority's current decision, BellSouth believes that an absolute cap should be applied on an annual basis.

Q. WHY SHOULD THE AUTHORITY ADOPT AN ABSOLUTE CAP OF THIRTY-SIX PERCENT ON A PERMANENT BASIS?

A. The purpose of this voluntary enforcement plan is to prevent "backsliding" when BellSouth obtains interLATA relief in Tennessee. An annual cap of thirty-six percent is a substantial amount and certainly sufficient enough to prevent backsliding. As mentioned, the FCC has found this level of at-risk net profit to be an appropriate deterrent to backsliding.

e. WAIVER REQUEST

Q. WHAT DID THE AUTHORITY ESTABLISH AS THE CONDITONS ALLOWING BELLSOUTH TO REQUEST A WAIVER OF LIABILTY UNDER THE ENFORCEMENT PLAN?

A. The Authority adopted DeltaCom's Final Best Offer, with noted modifications, proposing conditions under which BellSouth should be allowed to request a waiver of liability under the enforcement plan. Under this plan, the events allowing a waiver request would include: "1) force majeure; 2) an act or ~~co~~mission by DeltaCom that is contrary to any of its obligations under its interconnection agreement with BellSouth, the Act, or Tennessee law; 3) an act that is in bad faith; 4) non-BellSouth problems associated with third-party systems or equipment, which could not have been avoided by BellSouth in the exercise of reasonable diligence."

In addition, the Authority made the following modifications to the DeltaCom proposal: "1) the due date of the consequences [triggering a waiver request] is the due date of the performance report; 2) the Authority maintains the legal authority to enforce the interconnection agreement regardless of the parties agreement for commercial arbitration; 3) waivers for third-party failures shall not be limited to three times a year; and 4) all waivers are subject to approval by the Authority."

Q. WHAT IS BELLSOUTH'S POSTION ON THIS ISSUE?

A. BellSouth agrees that a waiver (or exclusion) is appropriate in the circumstances described above. Under the language of BellSouth's current plan, an automatic exclusion would apply in some of these circumstances, for example Force Majeure (see Exhibit DAC-2, Section 4.5.3). However, BellSouth acknowledges that the Authority has ruled on this issue and does not contest the Authority's decision that a waiver request must be filed in each instance. BellSouth does believe that the waiver process should be modified to allow thirty(30)days from the due date of the performance report in question to seek a waiver. This time is needed to adequately investigate the circumstances that merit a waiver request. BellSouth must review the monthly service results, just as the Authority and the CLECs do. If this review identifies a large disparity in performance, this will trigger further investigation. Sometimes the investigative process requires additional time to determine if there is a legitimate basis for an enforcement waiver request.

VII. PROPOSED CHANGES IN THE 1999 SQM ADOPTED BY THE AUTHORITY AS THE BASIS FOR THE DELTACOM PERFORMANCE MEASURES.

Q. YOU PREVIOUSLY DEFERRED YOUR DISCUSSION OF BELLSOUTH'S AGREEMENT WITH THE AUTHORITY'S ADOPTION OF THE BELLSOUTH 1999 SQM IN THE DELTACOM ARBITRATION. CAN YOU DISCUSS THIS ISSUE NOW?

A. Certainly. Essentially, BellSouth believes that the Authority did the right thing when it adopted the BellSouth 1999 SQM as the basis for defining performance measures. However, that SQM is now two years old, and there have been numerous state proceedings, federal proceedings and other activities that have suggested that BellSouth's 1999 SQM has to be updated. So while BellSouth agrees with the Authority's decision to adopt the 1999 SQM, BellSouth thinks that a number of changes are required in order to make that document the most appropriate one to use today.

Q. CAN YOU PROVIDE EXAMPLES OF WHAT YOU MEAN?

A. Perhaps the best way to start is to talk about what BellSouth has added to its 1999 SQM. In the DeltaCom arbitration, the Authority ordered the addition of certain measurements and levels of disaggregation that have now become a part of BellSouth's own SQM. For instance, BellSouth has done the following:

- Added measurement of Average Response Time for Loop Make-up Information
- Added Cageless Collocation to the Level of Disaggregation on BST's SQM "Collocation /Average Response Time"
- Added Cageless Collocation to the Level of Disaggregation on BST's SQM "Collocation /Average Arrangement Time"
- Added Cageless Collocation to the Level of Disaggregation on BST's SQM "Collocation /Percent of Due Dates Missed"

- Added measurement of Average Database Update Interval
- Added measurement of Percent of NXXs Loaded and Tested Prior to LERG Effective Date

Q. HAS BELLSOUTH MADE ANY ADDITIONAL CHANGES TO THE 1999 SQM BEYOND THOSE LISTED ABOVE?

A. Yes. BellSouth has made significant changes to the SQM beyond those listed above. We have added a number of new measurements to the SQM. These additional measures include the following:

- Acknowledgement Message Timeliness
- Acknowledgement Message Completeness
- CLEC LSR Information
- LSR Flow-Through Matrix
- Service Inquiry with LSR Firm Order Confirmation
- Firm Order Confirmation and Reject Response Completeness
- Coordinated Customer Conversions – Hot Cut Timeliness % Within Interval and Average Interval
- Coordinated Customer Conversions – Average Recovery Time
- Hot Cut Conversions - % Provisioning Troubles Received Within 7 Days of a Completed Service Order
- Cooperative Acceptance Testing - % of DSL Loops Tested
- LNP – Average Time of Out of Service for LNP Conversions
- LNP – Percentage of Time BellSouth Applies the 10-digit Trigger Prior to the LNP Order Due Date

- Mean Time to Notify CLEC of Network Outages
- Recurring Charge Completeness
- Non-Recurring Charge Completeness
- Percent Database Update Accuracy
- Timeliness of Change Management Notices
- Change Management Notice Average Delay Days
- Timeliness of Documents Associated with Change
- Change Management Documentation Average Delay Days
- Notification of CLEC Interface Outages

Q. ASIDE FROM THE ADDITIONAL MEASUREMENTS MENTIONED, HAS BELLSOUTH MADE ANY OTHER CHANGES TO THE 1999 SQM?

A. Yes, as a result of the evolution of the plan to its present stage, many changes have been made beyond the addition of more measurements. As I noted, BellSouth has participated in hearings, workshops and audits, and based on input from several state commissions, CLECs and the third-party auditing process, has made a number of other changes leading up to its 2001 SQM. For instance, the SQM definitions and business rules have changed significantly, largely based on recommendations from KPMG. KPMG is the third party auditing firm conducting reviews in Florida and Georgia. BellSouth has been very responsive in addressing exceptions identified in the auditing process and continues to make improvements to the SQM.

Additionally, BellSouth has applied the experience gained over the past years to determine suitable levels of disaggregation that provide a meaningful basis for comparing CLEC and BellSouth experience.

To illustrate these changes, I would like to pick a single measure from the 1999 SQM, and compare it to the version of the same measure in the 2001 SQM, and explain the differences. As the Authority is well aware, the SQM, both the 1999 version and the 2001 version are quite detailed and voluminous. I hope that by using examples, I can illustrate some of the changes that we have made and explain why the changes were made.

Q. BEFORE PROVIDING THE EXAMPLE THAT YOU MENTIONED, CAN YOU BRIEFLY COVER THE LAYOUT OF THE 2001 SQM SO THAT THE AUTHORITY CAN FOLLOW YOUR DISCUSSION OF THE CHANGES. SPECIFICALLY, PLEASE EXPLAIN WHAT THE SQM DOCUMENT PROPOSED BY BELLSOUTH CONTAINS AND HOW TO READ IT.

A. The BellSouth SQM document, attached as Exhibit DAC-1, is a comprehensive and detailed description of BellSouth's performance measurements that are calculated to evaluate the quality of service delivered to BellSouth's customers, both wholesale and retail. The SQM is divided into eleven (11) measurement categories, each one representing a different group of measurements relating to a specific area of BellSouth service performance for CLECs. For instance, section 1 contains six (6) distinct measurements dealing with access to Operations Support Systems for both pre-ordering and maintenance & repair. Section 2 contains twelve (12) measurements specifically directed at all phases of the ordering process. Another

section deals with provisioning, and so forth. The end result is eleven measurement categories totaling sixty-eight (68) measurements. When these 68 measurements are applied or "disaggregated" as BellSouth has proposed, there are approximately 1200 sub-metrics reflecting the performance provided to CLECs by BellSouth.

In addition, there are three (3) appendices, A-C. Appendix A, Reporting Scope, provides service groupings by categories, i.e., service order activity type, pre-ordering query type, maintenance query type, etc. Appendix B, Glossary of Acronyms and Terms, is just that, a glossary that provides definitions for the most commonly used acronyms and terms found throughout the document. Finally, Appendix C, BellSouth Audit Policy, sets forth BellSouth's audit policy for both internal and external audits of performance measurements.

Q. CAN YOU ILLUSTRATE WHAT IS CONTAINED IN EACH OF THE MEASUREMENTS WITHIN THE ELEVEN SECTIONS BY PROVIDING AN EXAMPLE?

A. Yes. Please refer to Section 1, page 1-1 of Exhibit DAC-1 and look at the first measurement, labeled "OSS-1" and the material related to that measurement. As you can see, this measurement, and all of the measurements, begins with a "Definition" that briefly describes exactly what the measurement is designed to demonstrate. In this case, the measurement calculates the average response time for queries submitted from pre-ordering Interfaces, such as LENS, TAG and RNS, to certain legacy systems. These queries are submitted by the CLEC and by BellSouth retail representatives to assess feature availability, validate addresses or

telephone numbers, reserve telephone numbers, and determine appointment availability.

Following the Definition are any "Exclusions" that identify certain characteristics or external factors that for various reasons should be excluded from the measurement. In this case there are none. However, if you turn to page 1-12 of Exhibit DAC-1, and look at the measurement labeled "Loop Makeup – Response Time – Manual", there is an example of an exclusion. Specifically, the exclusion for that measurement covers electronically submitted loop makeup inquiries. Obviously, it would be inappropriate to include electronically submitted inquiries in a measurement of inquiries submitted manually.

Returning to my discussion of the components of the measurement labeled OSS-1, next comes the "Business Rules" that describe the components of the measurement and how they interact. An example that is reflected under this measurement is the way the "start" and "stop" times are defined for the measurement.

Under the heading of "Calculation" is the actual mathematical formula for producing the measurement. This section also identifies each component of the formula, e.g. in this particular case, a = Date & Time of Legacy Response and b = Date & Time of Legacy Request.

The next section is labeled "Report Structure." The report structure provides a definition of the key dimensions of the report. For instance, in the example of the OSS Response Interval, OSS-1, OSS Response is a measurement of the response

interval for the aggregate of all CLECs in the BellSouth Region. As a result its report structure is a regional structure, as opposed to a CLEC-specific or a product-specific structure.

Following "Report Structure" is the "Data Retained" section that describes key elements of data for each measurement that is processed and retained from the back-end OSSs and Legacy Systems in order to produce the reports, i.e. the data must be correlated by month and there must be rules built into the structure of the data that defines methods for accessing the OSS and Legacy Systems.

BellSouth proposes to retain this data for a period not to exceed 18 months. The retention of this volume of data longer than 18 months would unnecessarily add to the tremendous size and cost to BellSouth in data storage and, therefore, would be unreasonable and overly burdensome. As I will discuss later in this testimony, the size of the database already approaches the size of the Internet in 1999.

Finally, the section entitled, "SQM Disaggregation – Analog/Benchmark," defines how each measurement is broken-down into sub-metrics in the report, i.e. in this case, by OSS and Legacy System, and the standard to which BellSouth compares each sub-metric of that measurement in order to detect disparate treatment. In this case, because there is not a retail equivalent for this function, BellSouth uses a benchmark of parity + 4 seconds.

Achieving an appropriate level of disaggregation is obviously important. Indeed, reporting of the raw data frequently occurs only at this level. To illustrate, please

refer to the measurement P-4, Order Completion Interval (OCI) & Order Completion Interval Distribution, starting on page 3-10 of Exhibit DAC-1. OCI measures how long it takes BellSouth to install a service, once a valid service order has been generated. Page 3-11 of Exhibit DAC-1 contains the SQM disaggregation and reporting level for this measurement. The first line of this table shows a line for Resale Residence and a retail analog of Retail Residence. This means that OCIs for services to be resold to a residence customer by a CLEC (Resale Residence) are compared to OCIs for services sold by BellSouth at retail to its residence customers (Retail Residence). This single comparison, however, is further broken down into sub-metrics of: 1) Dispatch, < 10 circuits; 2) Dispatch > 10 circuits; 3) Non- dispatch, < 10 circuits; and 4) Non-Dispatch > 10 circuits. These additional levels of disaggregation are reflected under the Report Structure section of the SQM for this measurement. Thus, there are 4 "volume" and "dispatch" levels of disaggregation in this instance. There are a total of 20 lines or products on the SQM Level of Disaggregation, meaning that there are approximately 20 times 4 (or approximately 80) sub-metrics of BellSouth's performance for CLECs for the single measurement, P-4, Order Completion Interval. In addition, BellSouth must produce another set of 80 sub-metrics reflecting BellSouth's performance for its retail customers for a total of 160 sub-metrics in this case.

Q. PLEASE DESCRIBE THE REMAINING SECTIONS OF THE SQM.

A. The two remaining sections describe the measurements addressed in BellSouth's Self-Effectuating Enforcement Mechanism (SEEM). SEEM should only include those measurements and associated sub-metrics that truly have a significant impact

on a CLEC's end user or on a CLEC's ability to compete and we have identified those measurements and sub-metrics in this portion of the SQM.

The first section is labeled "SEEM Measure," and indicates whether the measure is included in SEEM and thus has penalties associated with it. As I suggested earlier, not all measurements will have penalties. If the measure is included in SEEM, an indication is shown as to whether penalties apply under Tier 1 and/or Tier 2 of SEEM. Tier 1 penalties would be paid to individual CLECs and Tier 2 penalties would be paid to an agency of the State of Tennessee. In many cases the SEEM measurement falls into both categories, as Exhibit DAC-1 shows.

The second additional category is labeled "SEEM Disaggregation – Analog/Benchmark," and defines how the SEEM measurement is broken down in SEEM and what standard applies to each SEEM measurement. For example, referring to the SEEM sections of P-3, Percent Missed Installation Appointments, page 3-8, and O-9, Firm Order Confirmation Timeliness, page 2-24 of Exhibit DAC-1, there are several levels of product disaggregation. For the first one, Resale POTS, the comparison is to its equivalent Retail POTS. In the second example, O-9, the first level of disaggregation is fully-mechanized, which has a benchmark of 95% within 3 hours. I will discuss SEEM in more detail later in my testimony.

Q. RETURNING TO THE EXAMPLE THAT YOU WERE GOING TO PROVIDE TO ILLUSTRATE THE TYPES OF CHANGES THAT BELLSOUTH HAS INTRODUCED IN THE 2001 SQM AS COMPARED TO THE 1999 SQM, CAN YOU PROVIDE THAT NOW?

A. Yes. There are a number of changes, really enhancements, which have occurred since the 1999 version presented in the DeltaCom arbitration. I will discuss two changes: 1) a more comprehensive description of the measurement and its business rules; 2) additional product disaggregation.

1. To illustrate an improvement in the language of the measurement, please refer to the measurement Firm Order Confirmation Timeliness that was included in page 16 of the 1999 SQM. Under the business rules is the following statement:

> Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in LENS, EDI, TAG) until the LSR is processed and appropriate service orders are generated in SOCS.

Now please refer to this measurement on page 2-22 of the July 2001 SQM. This statement has been revised as follows:

> Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in EDI, LENS or TAG) until the LSR is processed, appropriate service orders are generated and a <u>Firm Order Confirmation is returned to the CLEC via EDI, LENS or TAG.</u>

The significant change is underlined. This change reflects a movement of the location of the ending time stamp closer to the CLEC. In 1999, the ending time stamp for a Firm Order Confirmation was placed inside the BellSouth Service Order

Control System (SOCS) when the service order was generated. While this change may yield minimal differences in the FOC Interval, it represents a more definitive description in the calculation of the measurement.

2. The number of products measured has increased. Referring again to Firm Order Confirmation Timeliness, on page 16 of the 1999 SQM, there are 8 products under the heading of Product Reporting Levels. In contrast, page 2-24 of the July 2001 SQM shows 21 products in the table labeled "SQM Level of Disaggregation" for the Firm Order Confirmation Timeliness.

By comparing the language of the 1999 SQM with the 2001 SQM in the manner that I have just used for this one example, all differences between the earlier SQM and the one that we urge the Authority to adopt now, can be fully identified.

VII. AREAS OF DISAGREEMENT WITH THE ADOPTED PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISMS

Q. ALTHOUGH IT IS CLEAR THAT THE BELLSOUTH 2001 SQM INCLUDES A NUMBER OF THE THINGS THAT THE AUTHORITY APPROVED IN THE DELTACOM SQM, THERE EVIDENTLY ARE OTHER CHANGES APPROVED BY THE AUTHORITY IN THAT PROCEEDING THAT BELLSOUTH BELIEVES SHOULD BE CHANGED OR ALTERED. CAN YOU DISCUSS THOSE ITEMS?

A. The things with which BellSouth disagrees in the earlier decision of the Authority include the following:

- Some of the performance measurements required
- Some of the additional levels of measurement disaggregation required.
- Some of the standards (retail analogs or benchmarks) adopted by the Authority.
- The initial choice of the parameter delta selected by the Authority.
- The appropriate level of remedy payments required by the Authority.
- The point at which the Authority required enforcement plan payments to begin.

I will address each of these issues in more detail below.

a. THE APPROPRIATE SET OF PERFORMANCE MEASUREMENTS

Q. BELLSOUTH DISAGREES WITH THE INCLUSION OF A NUMBER OF THE MEASUREMENTS THAT THE AUTHORITY ADOPTED IN THE DELTACOM ARBITRATION BASED ON WHAT HAD BEEN DONE IN TEXAS. CAN YOU ADDRESS THOSE CONCERNS?

A. As an initial matter, BellSouth believes that its current proposal, viewed as a whole, makes the Texas Plan modifications required by the Authority in DeltaCom unnecessary. As mentioned previously, BellSouth does not object to all of the additional measures that the Authority adopted from the Texas proceedings and, in

fact, BellSouth has included a number of them in its 2001 SQM. BellSouth still does object, to a number of others however.

Q. BEFORE DISCUSSING THE INDIVIDUAL MEASUREMENTS, CAN YOU ADDRESS AS A GENERAL MATTER, WHY BELLSOUTH BELIEVES THESE ADDITIONAL TEXAS PLAN MEASUREMENTS ARE UNNECESSARY?

A. The most basic reason is that BellSouth is already measuring many of the events and processes that the Texas Plan measurements address - just in a different manner. There are several ways to measure the level of service provided to CLECs by BellSouth. Selection of the most practical metric to use is frequently based on the ILEC's processes and on the design of the ILEC's Operations Support Systems (OSS). Many of the measurements reflected in the Texas Plan may be appropriate for Texas but not necessarily for BellSouth's OSS and its performance reporting system platform. Stated another way, every company's systems are different and the way that Texas chose to measure certain things just isn't the most efficient way to measure the same thing when looking at BellSouth's performance.

Q. WOULD YOU ADDRESS THE INDIVIDUAL TEXAS MEASUREMENTS THAT THE AUTHORITY REQUIRED IN THE DELTACOM ARBITRATION THAT BELLSOUTH BELIEVES SHOULD NOT BE INCLUDED IN THE FINAL OUTCOME OF THIS GENERIC PROCEEDING.

A. Those measurements and the explanation of why they should be excluded are provided below:

1. Percent Firm Order Confirmation Returned Within Specified Time (Texas No. 5)

This measurement is simply duplicative of an existing BellSouth measure. BellSouth's existing "Firm Order Confirmation (FOC) Timeliness" measure captures the information that is required by the Texas measurement "Percent Firm Order Confirmation Returned Within Specified Time." It displays the Percentage of Firm Order Confirmations within a certain time interval. As an example, BellSouth's SQM for Firm Order Confirmation - Fully Mechanized orders measures the percentage of FOCs within 3 hours. The calculations are identical to the Texas Plan and the business rules are similar.

Like the Texas Plan, BellSouth's FOC Timeliness measurement reflects the percent of FOCs returned within specified time frames. These time frames include those supported in the Texas Plan plus additional time frames not currently calculated in the Texas Plan. For example, BellSouth's measurement specifies percentages of FOCs within 0 to15 minutes, 15 to 30 minutes, 30 to 45 minutes, etc. It displays more than just the percentage of FOCs meeting the single threshold of 3 hours. An average FOC interval is also included in BellSouth's measurement. BellSouth's measurement also provides for greater disaggregation of data by separating the performance for Manual, Fully Mechanized, and Partially Mechanized orders into these three separate categories.

Q. BEFORE MOVING TO THE NEXT MEASUREMENT, IF THE CURRENT BELLSOUTH MEASUREMENT MEASURES THE SAME THING AS THE TEXAS

MEASUREMENT, WHAT IS BELLSOUTH'S PROBLEM WITH SIMPLY INCLUDING THE TEXAS MEASUREMENT SO THAT THE AUTHORITY CAN BE ASSURED THAT THE RIGHT THING IS BEING MEASURED?

A. That is a good question and one that the Authority should be concerned about. The answer however, is pretty simple and hopefully the Authority will agree with BellSouth's logic. BellSouth has developed its performance plan over the past few years and, as I mentioned above, developed a database and programming to allow the data for the measures to be collected, analyzed and reported mechanically. The analysis is done based on the business rules and requirements of the BellSouth plan. If we simply shift to the Texas measure, the software that is currently used to compile the data in accord with BellSouth's plan will have to be rewritten. While that obviously can be done, the question is why the Authority should require such a step, with the attendant delay and expense, when the measure that is already included in the plan will do the job right now.

Q. CAN YOU RETURN TO THE SPECIFIC TEXAS MEASURES THAT YOU BELIEVE SHOULD BE EXLUDED FROM THE FINAL PRODUCT REACHED IN THIS DOCKET?

A. Of course. The list continues as follows:

2. Percent of Accurate and Complete Formatted Mechanized Bills (Texas No. 15)

This measurement is unnecessary. The main intent of this measurement is to simply produce a report that reflects whether all the components of the bill are added up correctly by the computer producing the bill. Thus this measurement does not reflect the accuracy of the numbers on the bill - only that the computer took whatever numbers were on the bill and added them up correctly. This is without regard as to whether or not the amount actually billed is correct. It is notable that the Texas Plan measurement applies only to EDI billing data, which further limits its usefulness.

By contrast, BellSouth's SQM for "Invoice Accuracy" measures the adjustment to total billed revenues based on the monthly adjustments in CLEC bills versus the monthly adjustment for BellSouth retail bills. This comparison provides a more accurate reflection of any discrepancies in the billing treatment for CLECs versus BellSouth retail than could possibly be obtained using the Texas Plan measurement.

Again, the question could be asked whether, if it is just a simple mathematical calculation, why not include the measure in the analysis. I would provide the same answer. While the measure appears to be as simple as it is useless, it is not simple to implement these measures when you are trying to make them as mechanical as possible in order to provide timely and accurate reports on the measures. There is no point in wasting limited resources on something that does not provide a benefit.

3. Billing Completeness (Texas No. 17)

This measurement also duplicates an existing BellSouth measure. The intent of this Texas Measurement is to determine if the billing for completed service orders is

posted in the billing systems on time. It is another example of how Texas and BellSouth measure the same process using different metrics.

BellSouth measures if billing for completed service orders is posted in the billing systems on time using two measurements. The BellSouth SQM includes the measurements for Recurring Charge Completeness and Non Recurring Charge Completeness which address the key billing processes needed. These measurements capture the percentage of fractional recurring and non-recurring charges appearing on the correct bill. Therefore there is no need to measure Billing Completeness, as defined in the Texas plan, since it will be measured by these two metrics.

4. Unbillable Usage (Texas No. 20)

This measurement is unnecessary. The measure is intended to determine unbillable usage as a percentage of total billed usage. The lower the percentage, the better. However, in the Texas Plan, the Unbillable Usage measurement is reported as the total for the CLECs and for SWBT. There is no distinction between the unbillable usage for the CLECs and the unbillable usage for the ILEC nor is there a benchmark or retail analog to use as a standard. In essence this measurement is of no value in detecting differences in performance between the CLECs and retail service. Apparently the Texas Commission reached this same conclusion since it recently eliminated this measurement from its' suite of measurements.

A similar circumstance exists in BellSouth. Unbillable usage is not separately identified between CLEC unbillable usage and the unbillable usage for BellSouth's retail customer. More importantly, if the usage is unbillable for the CLEC's end-user, it is also not being billed to the CLEC by BellSouth. This means the CLECs are not being harmed financially by the inability to pass along billing to their end-user.

From a more practical viewpoint, the amount of unbillable usage is very small. As an example, for the month of June 2001 in Tennessee, total unbillable usage was 0.23% of the total billed usage.

For all of the above reasons, BellSouth believes this measurement is of little value.

5. Percentage of LNP Only Due Dates Within Industry Guidelines (Texas No. 91)

This measurement is also unnecessary and in fact, doesn't make much sense. The purpose of this Texas Measurement is to determine if the interval for implementing LNP is within "Industry Guidelines."

The problem with the Texas Measurement is that it depends on establishing a due date within a fixed industry guideline. As an example, the Texas plan specifies a 3-day interval where the NXX has been previously opened. However, in actual day-to-day practice, the CLEC will place an order for a number port so that the due date meets the needs of the CLEC's customer. This due date may be 3 days or it could be some other interval. Thus, comparing a varying interval to a fixed benchmark of

3-days would be of questionable value, particularly if BellSouth delivered the service when it was requested.

The key question is "was the due date met?" BellSouth has a measurement for this. BellSouth believes that its measurement, "Percent Missed Installation Appointments for LNP", provides this Authority with the necessary information to identify any discrimination with respect to number portability. This measurement is now available and is described in greater detail in the attached copy of BellSouth's SQM.

BellSouth's measurement of the interval for LNP only implementation is the measurement "Average Completion Interval (OCI) & Order Completion Interval Distribution." This measurement includes, as one of the many products, LNP Standalone. LNP Standalone is equivalent to what Texas calls LNP only.

6. Percentage of Time the Old Service Provider Releases the Subscription Prior to the Expiration of the Second Nine Hour (T2) Timer (Texas No. 92)

7. Percentage of Time Customer Account Restructured Prior to LNP Due Date. (Texas No. 93)

These measurements provide another example of measuring the same process two different ways. The intent of these measurements is to be sure the ILEC performs certain administrative activities prior to a number port. These administrative activities include the release of a "subscription" to the Number Portability Administration Center (NPAC) and issuing a trigger order where required. BellSouth measures this with "LNP-Average time BellSouth Applies the 10-digit

trigger Prior to the LNP Order Due Date." With BellSouth's procedures, the release of the Subscription to NPAC and the issuance of the Trigger result from the same process. Therefore the BellSouth measurement LNP-Average time BellSouth Applies the 10-digit trigger Prior to the LNP Order Due Date is a substitute for the Texas measurement.

8. Percentage of Premature Disconnects for LNP Orders (Texas NO. 96)

This measurement is unnecessary. This Texas measurement identifies the percentage of LNP cutovers where the ILEC prematurely removes translations, including the 10-digit trigger, prior to the scheduled conversion time. BellSouth's proposed measurements, "LNP-Average time BellSouth Applies the 10-digit trigger Prior to the LNP Order Due Date" and "LNP – Average Time Out of Service for LNP Conversions" address any substantive issues regarding premature disconnects for LNP.

8. Average Days Required to Process a Request (Texas No. 106)

This measurement presents some practical problems to implement and, since there has been no evidence that this is even a problem area, it just doesn't warrant inclusion in the final performance measures. BellSouth does not currently capture the date when requests for access to poles, ducts, conduits, and rights-of-way are made or when such requests are processed. To develop this measurement as defined in the Texas Plan, would require BellSouth to implement a new system capability to capture the data, as well as to modify BellSouth's PMAP system to produce reports on the performance of the new system capability.

Finally, BellSouth would note that the FCC has already determined that BellSouth is in compliance in providing CLECs with access to poles, ducts, conduits, and rights of way. *Second Louisiana Order,* CC Docket 98-121, ¶ 174. The FCC made this determination based upon BellSouth's "nondiscriminatory procedures for access to poles, ducts, conduits and rights-of-way," without the need for data reflecting the "average days required to process a request."

9. Percentage of Updates Completed into the Database within 72 Hours for facility based CLECs (Texas No. 110)

This measurement is absolutely unnecessary. All directory assistance database updates are processed at the same time and in the same manner for BellSouth retail customers and CLEC customers. By definition this ensures that BellSouth is providing nondiscriminatory access to directory assistance and there really is not a need to set up a measurement to detect discrimination when, in fact, it cannot occur due to the architecture of the update process.

Nevertheless, BellSouth has included a similar measurement, "Average Database Update Interval" that measures how long it takes to update databases for CLECs. It is not restricted to facility- based CLECs as the Texas measurement is. This measure should suffice and eliminate the need for the Texas measurement.

10. Percentage DA Database Accuracy for Manual Updates (Texas No. 112)

This measurement is unnecessary. Under the Texas Plan, the data necessary to calculate this measurement is not captured by SWBT. Rather this data is provided by the various CLECs and it is then "verified" by SWBT prior to producing the

performance report. None of BellSouth's SQMs are dependent upon data furnished by CLECs. Requiring BellSouth to determine its performance based upon such data would be inconsistent with the Arbitrators' decision to approve the use of BellSouth data for all measurements and calculations (See, *Interim Order of Arbitration Award*, August 11, 2000, p.16).

Nevertheless, BellSouth's metric "Percent Database Update Accuracy" is intended to measure the accuracy of DA and LIDB database updates by BellSouth for all CLECs, including facility based CLECs.

11. Percentage of Missed Mechanized INP Conversions (Texas No. 116)

This measurement will be of limited utility in the very near future. Gathering performance data on Interim Number Portability conversions is of little value because Interim Number Portability has been replaced with LNP in nearly all areas of Tennessee where the CLECs have customers. At present**,** BellSouth has implemented LNP in 177 of the 201 wire centers in the State. The 24 wire centers where LNP has not been deployed are primarily in rural areas. These 24 wire centers serve less than 5% of BellSouth's access lines in the State. By the end of October, all of the remaining offices are scheduled to convert to LNP.

There is no reason to develop a measurement for a process that will simply go away this year. In fact, Texas recently eliminated this measurement and the Authority should do so as well.

12. Average Delay Days for NXX Loading and Testing (Texas No. 118)

This measurement is duplicative. Here is another example of a proposed Texas measurement that is essentially addressed by a BellSouth SQM. BellSouth's SQM, "Percent NXXs and LRNs Loaded by the LERG Effective Date" reflects BellSouth's performance in meeting the critical requirement, i.e., the LERG effective date. BellSouth measures the process which includes the loading and testing of NXXs. The benchmark for this measure is 100% completed by the LERG effective date. This means that if this benchmark is achieved, there are no delay days. If the benchmark is not met, this measurement will detect it. Adding the "Average Delay Days for NXX Loading and Testing" would simply detect the same failure. Thus there is little value in adding this measurement, as it would result in the detection of the same failure detected by missing the 100% benchmark for Percent NXX and LRN Loaded by LERG Effective Date.

13. Mean Time To Repair NXX Trouble Reports (Texas No. 119)

This measurement is unnecessary. The measurement simply calculates the mean time of repair of NXX trouble reports from the receipt of the customer trouble report to the time the trouble report is cleared.

Troubles related to NXXs are included in BellSouth's Maintenance Average Duration measurement. Thus there is no need to implement the above metric.

Again, consistent with BellSouth's position here, Texas recently eliminated this measurement.

14. Bona Fide Requests Processed within 30 Business Days and Percentage of Quotes Provided for Authorized BFRs/Special Requests within X (10,30,90) Days (Texas 120 & 121)

These measurements are unnecessary. Bona Fide Requests involve a manual process used by BellSouth to respond to a CLECs request for a nonstandard service or arrangement. However, there simply is not much activity to measure. During the period of January 2000 through October 2000, BellSouth received only seven Bona Fide Requests from CLECs across the entire region. While BellSouth could report its performance with respect to Bona Fide Requests on a manual basis, it is impossible to draw any conclusions about BellSouth's performance based upon such a limited number of transactions. Also, CLECs have not indicated that a substantial increase in the number of Bona Fide Requests in the future is likely. In fact, as the number of required UNEs has grown, the need for BFRs has declined. As mentioned above, a Bona Fide Request is a formal request by a CLEC for something outside of BellSouth's normal services or processes and can range from simple to extremely complex. It is unreasonable to attempt to measure BellSouth's performance in delivering a process that has such a broad range of complexity. Therefore, BellSouth does not believe it appropriate or necessary to add these measurements at this time.

Again, in a number of instances, I have said that the measure is duplicative of something already measured by BellSouth. I am sure that the Authority's natural inclination upon hearing such a thing is that the measure can't hurt anything, so why not include it. Every additional measure takes time to implement, uses limited

resources to collect data and analyze the data and should be avoided if these measures are going to be implemented in any sort of reasonable time frame.

Q. NOW THAT YOU HAVE CONCLUDED A DISCUSSION OF THE TEXAS MEASUREMENTS, ARE THERE ANY OTHER POINTS YOU WISH TO DISCUSS CONCERNING THE APPROPRIATE SET OF MEASUREMENTS?

A. Yes. BellSouth has a new measurement for calculating trunk blocking that is far superior to the measurement included in the 1999 SQM.

Q. BEFORE YOU DESCRIBE THE NEW MEASUREMENT, PLEASE DESCRIBE THE OLD MEASURMENT OF TRUNK BLOCKING IT REPLACES.

A. The 1999 Trunk Blocking Measurement can be found on pages 59 and 60 of the 1999 SQM. This measurement only reported the number of trunk groups that exceeded a certain blocking threshold. If, as an example, the blocking threshold was 3% and the actual result was 2.9%, the measurement would not detect it, even though blocking did occur. Also any trunk group with blocking of more than 3% would be reported as exceeding the threshold – regardless of whether the result was 3.1% or 31%. The 1999 measure did not address the relative volume of calls that experienced blocking.

Q. DOES THE NEW TRUNK BLOCKING MEASUREMENT PROVIDE MORE DETAILED INFORMATION?

A. Yes. The new trunk blocking measurements (one for CLEC aggregate and for each individual CLEC) are on pages 9-1 through 9-5 of Exhibit DAC-1. These measurements reflect the exact percentage of blocking on both CLEC and BellSouth trunk groups and permit a direct and accurate comparison. BellSouth proposes that the Authority adopt these trunk performance measurements in lieu of the trunk performance measurements from the 1999 SQM.

b. THE PROPER LEVELS OF DISAGGREGATION

Q. BEFORE DISCUSSING THOSE ASPECTS OF THE AUTHORITY'S DELTACOM DECISION RELATED TO LEVELS OF DISAGREGATION WITH WHICH BELLSOUTH DISAGREES, CAN YOU BEGIN BY DISCUSSING BELLSOUTH'S VIEW OF THE PURPOSE OF DISAGGREGATING MEASUREMENTS?

A. Disaggregation provides the Authority, CLECs, and BellSouth with a more granular measure of performance for a specific part of BellSouth's business. To illustrate, some measures are reported by product category such as two wire analog loops, or DS1 digital loops. In other measurements, the disaggregation goes even further below the product level to include a specific type of activity such as dispatch and non-dispatch, or the number of lines worked at one time, such as orders having greater than 10 lines and less than 10 lines. Disaggregation refers to all of these breakdowns, for reporting purposes, of measurements into specific sub-metrics, such as products, activity types, and volumes. Achieving an appropriate level of disaggregation is important because measurements and reporting frequently occur

only at this level. The rationale for a specific level of disaggregation should be a determination that such detail is necessary to evaluate nondiscriminatory access.

Another consideration should be the volume of transactions that would be reflected for the specific product. If the volume is low, the additional disaggregation provides no significant additional information because a small base of observations can only distort results. For example, if, for a particular measure and a specific level of disaggregation, there are only 3 transactions and one doesn't meet the requirements of the measurement being applied, but the others do, a success rate of only 67 percent would be reported. If this were a measure involving a benchmark and the benchmark was set at 85%, the benchmark could never be met unless all of the transactions were successful.

Q. WHY SHOULD THE AUTHORITY BE CONCERNED ABOUT LEVELS OF DISAGREGATION AT ALL?

A. The levels of disaggregation have been the principal sources of growth and complexity in the SQM. In particular, adding new levels of disaggregation have as much effect on the measurement production process as adding new measurements. I urge the Authority to carefully review requests for more or different disaggregation, and only grant such requests if they are absolutely necessary to determine nondiscriminatory access.

Q. WON'T MORE INFORMATION, IN THE FORM OF MORE DISAGGREGATION, HELP THE AUTHORITY ASSESS WHETHER BELLSOUTH IS PROVIDING NONDISCRIMINATORY SERVICE?

A. Not necessarily. More disaggregation may provide more information, but the additional information is not always useful. As I have said, the level of disaggregation is a very important component of BellSouth's SQM or, for that matter, any other measurement system. It can be important in identifying discriminatory treatment or, it may simply paralyze the analysis with an overabundance of numbers.

There are 68 measurements (including the informational reports) identified in the "Table of Contents" of BellSouth's proposed SQM. Data for these measurements is collected according to the levels of disaggregation for each measurement that define that measurement's sub-metric. In the BellSouth's proposal, the end result is the breakdown of these 68 measurements into the approximately 1200 sub-metrics of performance for CLECs. As you can see, the disaggregation level can generate a tremendous number of sub-metrics if it is not handled properly.

BellSouth's proposal provides more than enough sub-metrics to detect discriminatory treatment. Further disaggregation will result in increased amounts of additional data with no appreciable value. A complete, but concise number of sub-metrics will allow an efficient use of the Authority's time in reviewing BellSouth's service to CLECs.

Q. CAN CLECS FURTHER DIS AGGREGATE THE DATA PROVIDED BY BELLSOUTH IF THEY ARE NOT SATISFIED WITH THE DISAGGREGATION THAT BELLSOUTH PROVIDES?

A. Yes. BellSouth makes available the raw data utilized for many of the measurements and a comprehensive raw data user manual. This data and the user manual allow the CLECs to build customized reports and further disaggregate reports based on individual CLEC needs. I know of no other local exchange company that provides similar tools to the CLEC community. The CLECs can also compare this customized sub-metric to a standard such as an existing retail analog or a benchmark.

Q. TURNING TO THE AUTHORTY'S DECISION IN DELTACOM, CAN YOU ADDRESS BELLSOUTH'S AREAS OF DISAGREEMENT WITH THE DISAGREGGATION THAT THE AUTHORITY REQUIRED?

A. There are two basic concerns. The first concern is the Arbitrators' requirement that <u>all</u> measurements should be at the Tennessee level. The second concern involves certain product disaggregations from DeltaCom's plan adopted by the Arbitrators, below the State level.

Q. WHY IS IT NOT APPROPRIATE FOR BELLSOUTH TO DISAGGREGATE <u>ALL</u> PERFORMANCE DATA TO THE STATE LEVEL?

A. The vast majority of measurements in BellSouth's SQM already disaggregate performance data to the State level. However, certain performance measurements only capture regional data by virtue of the regional nature of the systems or processes involved. These regional performance measurements either cannot reasonably be disaggregated at the State level or can only be disaggregated to the State level at considerable time and expense, although there is no real benefit to doing so.

Q. WOULD YOU GIVE SOME EXAMPLES TO SHOW WHERE IT IS NOT APPROPRIATE TO DISAGGREGATE PERFORMANCE DATA TO THE STATE LEVEL?

A. Certainly. BellSouth's SQMs that measure the availability of Pre-Ordering and Maintenance and Repair interfaces are good examples. BellSouth's Operational Support Systems ("OSS") are regional in nature, in that they serve all nine states. The systems are either available or they are not, irrespective of the originating state. Today, there is simply no way to distinguish the availability of BellSouth's OSS for a transaction from Tennessee as opposed to a transaction from another state

The difficulty of disaggregating each and every SQM to the State level is also illustrated by the SQMs that measure the Average Response Time and Response Interval for BellSouth's Pre-Ordering and Maintenance & Repair OSS. Queries to BellSouth's Pre-Ordering and Maintenance & Repair interfaces originate from a regional Gateway to regional operations centers. In other words, pre-ordering

queries from a CLEC in Florida as well as those from a CLEC in Tennessee are directed to the same regional Gateway for processing.

There is currently no way to identify where the query originated beyond this Gateway. In fact, many CLECs utilize regional service centers of their own. Thus, a CLEC customer service representative sitting in Denver, Colorado may place a pre-ordering query while on the telephone with a prospective customer in Tennessee. As a result, there is no way to determine the location of the query, which would be required to report this data at the State level.

Q. PLEASE IDENTIFY WHICH MEASUREMENTS ARE REGIONAL IN NATURE?

A. BellSouth has identified the following measurements as regional in nature. These measurements either cannot be disaggregated to the Tennessee level, or if possible, would require extraordinary efforts to do so. This list of measurements includes several that did not exist at the time of the DeltaCom arbitration.

- Average Response Time and Response Interval (Pre-Ordering/Ordering)
- OSS Interface Availability (Pre-Ordering/Ordering)
- OSS Interface Availability (Maintenance & Repair)
- Response Interval (Maintenance & Repair)
- Acknowledgement Message Timeliness
- Acknowledgement Message Completeness
- Percent Flow-Through Summary
- Percent Flow-Through Detail
- Speed of Answer in the Ordering Center

- Average Answer Time- Repair Center
- Mean Time to Notify CLEC of Network Outages
- Usage Data Delivery Accuracy
- Usage Data Delivery Completeness
- Usage Data Delivery Timeliness
- Mean Time to Deliver Usage
- Recurring Charge Completeness
- Non-Recurring Charge Completeness
- Average Database Update Interval
- Percent Database Update Accuracy
- Percent NXXs and LRNs Loaded by the LERG Effective Date
- Timeliness of Change Management Notices
- Change Management Notice Average Delay Days
- Timeliness of Documents Associated with Change
- Change Management Documentation Average Delay Days
- Notification of CLEC Interface Outages

Q. DOES BELLSOUTH HAVE CONCERNS REGARDING THE DISAGGREGATION LEVELS REQUIRED BY THE DELTACOM ORDERS OTHER THAN THOSE MENTIONED ABOVE?

A. Yes. BellSouth believes the UNE Loop and UNE Combination product disaggregations should be restructured to reflect the fact that the CLECs are requesting different types of UNE Loops and UNE Combinations than had been experienced in 1999 when the 1999 SQM was adopted.

Q. LET'S DISCUSS THESE INDIVIDUALLY. PLEASE EXPLAIN WHY THE 1999 DISAGGREGATION FOR UNE LOOPS SHOULD BE CHANGED.

A. In the 1999 SQM, UNE Loops were divided into two groups: "UNE 2W Loop" and "UNE Loop Other." For each of these groups there was additional disaggregation for with and without Number Portability (NP) and for Design and Non Design. In 1999 the UNE Loop ordering activity was primarily SL1 or SL2 UNE Loop Service offerings and both of these were measured in the UNE 2w Loop category. There was minimal activity in digital loops or even xDSL.

Today there is significant activity in digital loops and xDSL. Consequently BellSouth believes it appropriate to have separate product measurements for digital loops, xDSL loops and analog loops. More specifically BellSouth proposes that the UNE Loop product groups be as follow:

- 2w Analog Loop (Design and Non Design)
- UNE Digital Loop < DS1
- UNE Digital Loop > DS1
- UNE xDSL (HDSL, ADSL, and UCL)

Q. SHOULD LOCAL NUMBER PORTABILITY (LNP) BE ALSO INCLUDED AS A PRODUCT?

A. Yes. LNP should appear in the ordering and provisioning measurements. However, because the processes for: 1) installing the loop, and 2) porting the

number are different, LNP should appear as a standalone product, rather than being associated with the Loop. It was shown this way in the 1999 SQM, when INP was the primary means of porting a number. As I mentioned earlier in my testimony, INP will be phased out in Tennessee by October 2001.

Q. NOW THAT YOU HAVE DISCUSSED THE UNE LOOP CATEGORY, PLEASE EXPLAIN WHY "COMBOs" SHOULD BE REVISED.

A. Certainly. As with UNE Loops, the local market for UNE combinations has changed in 2 years. In 1999, there were few orders for UNE Combinations. Consequently there was only one category for Combinations, called "Combos." The combos category had additional disaggregation for Dispatch and Non-Dispatch. Changes in the local market in the last two years have resulted in increased demand for UNE Combinations. Several Court and FCC rulings on UNE Combinations have also had a similar effect. Consequently, BellSouth proposes that there be two product groups for UNE Combinations:

- UNE Loop + Port Combinations
- UNE Combination Other

The disaggregation for Dispatch and Non-Dispatch would still apply.

c. THE APPROPRIATE STANDARDS FOR EACH MEASUREMENT

Q. PLEASE DESCRIBE YOUR APPROACH AND ASSUMPTIONS IN EVALUATING THE STANDARDS ORDERED BY THE AUTHORITY FOR EACH MEASUREMENT.

A. In its August 11, 2000 Order, the Authority adopted the BellSouth SQM for certain measurements and added several more from the Texas Plan. Each of the measurements adopted in this order had explicitly defined disaggregation levels, based on product type and other criteria (such as dispatch and non dispatch), that collectively define the submetric.

The next step is to determine the standards (retail analogs or benchmarks) that apply to these measurements and submetrics. In the Authority's February 23, 2001 Order the standards proposed by DeltaCom in the Final Best Order were adopted. At this point, determining the appropriate standard requires matching the measurements and submetrics from the August 11, 2000 order that adopted BellSouth's 1999 SQMs with the standard for that measurement and that submetric in DeltaCom's Final Best Offer, adopted in the Authority's February 23, 2001 order.

I have summarized the measurements, submetrics and the associated standard on Exhibit DAC-4.

Q. FOR EVERY MEASUREMENT AND SUBMETRIC OF THE AUGUST ORDER, WERE YOU ABLE TO FIND A MATCHING STANDARD IN DELTACOM'S FINAL BEST OFFER?

A. No. There were several instances where no DeltaCom proposed standard matched the measurements and submetrics of the BellSouth 1999 SQM, adopted in the August order.

Q. PLEASE DISCUSS ALL OF THOSE INSTANCES WHERE THIS OCCURRED.

A. There were two measurements where a measurement and submetric ordered by the TRA in the August Order did not have a corresponding standard in the DeltaCom Final Best Offer. These two measurements are Average Response Time and Response Interval and Percent Firm Order Confirmation Returned Within Specified Time (which is equivalent to BellSouth's "Firm Order Confirmation Timeliness").

Average Response Time and Response Interval

This metric measures how quickly BellSouth provides requested information needed by CLECs prior to issuing an LSR. An example is an electronic request issued by the CLEC to verify an end user's address or telephone number. The requested information is provided via access to certain of BellSouth's OSS. In the SQM adopted by the TRA in the August Order, this measurement has the following disaggregation:

- RSAG –address
- RSAG-TN
- ATLAS
- COFFI
- DSAP

- HAL/CRIS
- P/SIMS
- OASIS

However, the DeltaCom Final Best Offer included a standard for OSS Response Interval that included the following levels of disaggregation:

- Telephone Number (TN) Reservations 1 –30
- TN Reservations ≥ 31
- Address validation, due date, LIDB
- CSR
- Dispatch
- PIC and Directory Listings

Consequently, there was no standard in DeltaCom's proposal for the measurements and submetrics adopted in the August Order.

Since there is not a standard for these submetrics BellSouth proposes its standard of parity + 4 seconds, for OSS response interval. This standard is consistent with rulings by the FCC in the orders granting New York and Texas InterLata authority.

Q. YOU MENTIONED ABOVE THAT THE FIRM ORDER CONFIRMATION MEASUREMENT DID NOT HAVE A CORRESPONDING STANDARD. PLEASE ELABORATE.

A. <u>Percent Firm Order Confirmation Returned Within Specified Time</u>

Once an LSR is submitted by the CLEC, the most significant factor in determining how quickly a CLEC receives a Firm Order Confirmation ("FOC") is the level of

mechanization involved in the process. Therefore, the appropriate disaggregation should reflect whether the orders are fully mechanized, partially mechanized or non-mechanized. In the SQM adopted by the Authority in its August order were submetrics for fully mechanized, partially mechanized and non-mechanized FOCs for 8 different products.

However the DeltaCom Final Best Offer identifies disaggregation levels based on the following:

- Residence/business
- Complex business = 200 lines
- Complex business > 200 lines
- UNE Loop (1 – 49)
- UNE Loop = 50
- Switch Ports

Benchmarks are proposed for each of these classifications. However, this disaggregation completely ignores whether the LSR was submitted via a mechanized or non-mechanized process. Again, the level of mechanization involved is the primary determinant of how quickly an FOC is returned. Consequently there was not a standard for the measurements and submetrics from the August Order.

Since there is not a standard for these submetrics BellSouth proposes its standard of 95% within 3 hours for Mechanized. For partially mechanized BellSouth proposes 85% within 24 hours effective immediately, 85% within 18 hours after 3 months and 85% within 10 hours after 6 months. For non-mechanized, BellSouth proposes 85%

within 24 hours. These standards have been ordered in Georgia. BellSouth's proposal not only disaggregates according to the level of mechanization, but also includes additional disaggregation by twenty-one (21) product/service classifications. This measurement is much more appropriate and is substantially more comprehensive than the DeltaCom measurement.

Q. NOW, TURNING BACK TO THE SITUATION WHERE THE MEASUREMENTS AND SUBMETRICS OF THE AUGUST ORDER HAD A CORRESPONDING MATCH IN THE FEBRUARY ORDER, DOES BELLSOUTH AGREE WITH THE STANDARDS?

A. Yes, for many of the measurements. In particular, BellSouth agrees with the retail analogs and benchmarks set for the following 22 measurements:

- Interface Availability
- Percent Flow-Through for Service Requests (Summary)
- Percent Flow-Through for Service Requests (Detail)
- Reject Interval (Mechanized)
- Average Response Time for Loop Make-up Information (Manual)
- Mean Held Orders
- Average Jeopardy Notice Interval
- Percent Missed Installation Appointments
- Average Completion Notice Interval
- Percent Provisioning Troubles w/I 30 days
- Coordinated Customer Conversion Interval
- Percent of NXXs Loaded and Tested Prior to the LERG Effective Date

- Customer Trouble Report Rate
- Maintenance Average Duration
- % Repeat Troubles Within 30 Days
- OSS Interface Availability
- Invoice Accuracy
- Mean Time to Deliver Invoices
- Usage Data Delivery Accuracy
- Average Speed to Answer (Toll)
- Percent Answered within "X" Seconds (Toll)
- E911 Timeliness, Accuracy and Mean Interval

Q. DOES BELLSOUTH DISAGREE WITH ANY OF THE BENCHMARKS FROM THE FEBRUARY ORDER?

A. Yes. There are nine measurements for which the benchmarks specified are simply unrealistic and unlikely to be achieved. These measurements are identified below.

1. Reject Interval

BellSouth proposes a more stringent benchmark for mechanized orders than the benchmark adopted in the DeltaCom Arbitration. However, the benchmarks for partially mechanized and non-mechanized are inappropriate. When an order is processed manually (non-mechanized) or is submitted electronically and "falls out" for manual handling, the level of complexity in processing the order can vary significantly. While the benchmark for non-mechanized orders reflects a twenty-four hour standard, the benchmark for partially mechanized orders is reduced to five

hours. This is unreasonable, since once an order "falls out" for manual handling the process is essentially the same as the non-mechanized, except that the reject notice is returned electronically. For convenience, a comparison between BellSouth's and DeltaCom's benchmarks are shown below.

BENCHMARK CLASSIFICATION	**BELLSOUTH'S BENCHMARK**	**DELTACOM'S BENCHMARK**
Mechanized	97% within 1 hour	95% within 1 hour
Partially Mechanized	85% -18 hrs in 3 mths 85% -10 hrs in 6 mths	95% within 5 hours
Non-Mechanized	85% within 24 hours	95% within 24 hours
Interconnection Trunks	85% within 4 Days	-

Because the level of complexity can vary greatly in processing both no-mechanized and partially mechanized orders, BellSouth believes that its benchmarks are more reasonable. These benchmarks have been ordered by the Georgia and Louisiana Commissions.

2. Average Response Time for Loop Make-up Information

BellSouth's proposal contains two SQMs for Loop Make-up Information: Loop Make-up Response Time - Manual and Loop Make-up Response Time – Electronic. Both the BellSouth proposal and the DeltaCom Arbitration ruling reflect the same standard of 3 business days for Loop Make-up Response Time –Manual. There is however, a difference in Loop Make-up Response Time- Electronic. The

Arbitrators ordered DeltaCom's benchmarks for Loop Make-up Response Time – Electronic, which were listed in the February order as:

Actual Requested, actual received

12.6 seconds and 90% - 15 seconds; 95% - 25 seconds

Design requested, design received

10 seconds and 90% - 11.9 seconds; 95% - 20 seconds

While these benchmarks are not clear and somewhat open to interpretation, we interpret this to mean that, in general, the standard for providing Loop Make-Up information is an average of 12.6 seconds. Additional benchmarks are 90% returned in 15 seconds and 95% within 25 seconds. Where a loop design is required, the standard is an average of 10 seconds with additional benchmarks of 90% within 11.9 seconds and 95% within 20 seconds.

The benchmarks proposed by DeltaCom were taken from the Texas plan, but there was absolutely no reason given why these benchmarks are appropriate for BellSouth. In fact, it appears that the standards in the Texas plan apply to a process that is different from the one captured by the BellSouth measurement. Specifically the Texas measurement is entitled "Average Response Time for Loop Make-up Information." The definition, however, refers to the "average time required to provide loop qualification for ADSL." There is a significant difference between providing "Loop Qualification" and providing the much more extensive information to which the BellSouth measurement applies.

Loop Qualification Information is simply a determination of whether a loop can support a given service. However Loop Makeup Information is a detailed listing of

the electrical characteristics of a specific loop. This includes load coil placements, loop length, type of facility, bridge tap, etc. Loop Qualification can be provided in significantly less time than Loop Make-up Information. BellSouth proposes a benchmark of 90% within 5 minutes, for providing Loop Make-up Information. This is consistent with the processes required to provide Loop Make-up information, as opposed to Loop Qualification information.

While the standards from the Texas plan might be appropriate when applied to simple Loop Qualification, this time frame is unreasonable when applied to the substantially more complex process required to provide all loop information discussed above. The benchmark advocated by BellSouth was approved by the Georgia and Louisiana Commissions.

3. Speed of Answer in the Ordering Center

Among the standards ordered by the Authority is the benchmark for Speed of Answer in the Ordering Center. The benchmark is "greater than 95% of calls by center are answered within 20 seconds and 100% of all calls answered within 30 seconds." BellSouth objects to this very short interval for several reasons.

The ordering center, called the Local Carrier Service Center (LCSC), is really not an 'ordering center' in the traditional sense of a customer calling into a large call center to place an order. The fact is the LCSC's customers, the CLECs, do not submit their orders over the phone. Rather, orders are submitted electronically or by fax or other non-mechanized means. The primary purpose of the LCSC is to process orders and handle rejects and FOCs in a timely manner. There are several

measurements, Reject Interval and FOC Timeliness that measure the LCSC's effectiveness for these functions. The LCSC also functions as a help desk for the CLECs. The help desk function is typically to assist the CLECs with the understanding of BellSouth ordering practices and procedures, which are also available electronically.

There are some functions performed by the typical call center that the LCSC does not perform: The LCSC does not sell service to the CLEC's end user since the CLEC has already done that. The LCSC does not need to help the CLEC decide on which services to buy since the CLEC presumably has made that decision based on information received from the CLEC's end user. Further, the LCSC is not required to help a CLEC with the status of an order, since a CLEC can determine the status of an order electronically by accessing the CLEC Service Order Tracking System.

In short, the LCSC's answer speed has little affect on a CLEC's ability to sell, order services or grow its market. Therefore the LCSC should not have the stringent speed of answer criteria discussed above. In fact, BellSouth believes this measurement should be a diagnostic measurement since Speed of Answer is less important to measuring LCSC operations than Reject or FOC intervals.

4. Usage Data Delivery Completeness

5. Usage Data Delivery Timeliness

6. Mean Time to Deliver Usage

Although there are a number of instances in which benchmarks have been ordered even though retail analogs exist, these measurements are somewhat unique in that the Authority ordered a retail analog when, as discussed below, a benchmark is more appropriate.

The billing measures Usage Data Delivery Completeness, Usage Data Delivery Timeliness, and Mean Time to Deliver Usage indicate how long it takes to provide call detail records on the Daily Usage Files (DUF) to the CLECs. The intervals are measured from the moment that a call is made to the time the associated usage record is sent to the CLEC. The Authority accepted the DeltaCom standards, and for these measurements, the standard was a retail analog. At the time BellSouth filed its 1999 SQM, BellSouth also believed a retail analog was appropriate and used CMDS for this purpose. However BellSouth has since determined that that the CMDS process is so fundamentally different from the DUF process that a comparison of the two processes is not appropriate.

In the case of BellSouth usage data, in order to identify a usage record that needs to be included on a CMDS file, the system merely has to look at the NPA –NXX of the billing number. In the case of CLEC usage data, the CLEC's account information has to be accessed and a comparison made to determine whether the record should go on the DUF. The DUF contains usage records from all 12 processing on the same file. Therefore, the vast majority of CLECs records are basically transmitted twice. In the first instance, the records from 11 processing sites are sent to the collection site, then the entire set of aggregated records are transmitted to the CLEC.

Based on the significant differences in the way the two processes work, BellSouth submits that the use of a retail analog is simply not appropriate. Therefore, BellSouth proposes as an alternative the following benchmarks for these measurements.

Measurement	**Proposed Benchmark**
Mean Time to Deliver Usage	Less than or equal to 5 days
Usage Data Delivery Timeliness	95% within 6 calendar days
Usage Data Delivery Completeness	98% within 30 calendar days

7. Collocation Average Response Time

8. Collocation Average Arrangement Time

For the Collocation Average Response Time, the DeltaCom standard adopted by the Authority is 95% within 10 calendar days. BellSouth proposes various intervals, based on the type of collocation. These benchmarks follow:

- Virtual – 20 Calendar Days
- Physical Caged – 23 Business Days
- Physical Cageless – 23 Business Days
- Augments for Line Sharing or Line Splitting – 23 Business Days

For the Collocation Average Arrangement Time, the DeltaCom benchmarks adopted by the Authority are as follow:

- Physical Caged – 90 Calendar Days
- Cageless – 30 Days
- Virtual – 30 Calendar Days

BellSouth's proposal for Collocation Average Arrangement Time provides benchmarks more specifically targeted to the type of collocation. These benchmarks follow:

- Virtual – Ordinary – 50 Calendar Days
- Virtual – Extraordinary – 75 Calendar Days
- Physical Caged – Ordinary – 76 Business Days
- Physical Caged - Extraordinary– 91 Business Days
- Physical Cageless – Ordinary – 76 Calendar Days
- Physical Cageless – Extraordinary – 91 Calendar Days
- Augments for Line Sharing or Line Splitting – 45 Business Days

On August 10, 2000, the Federal Communications Commission (FCC) issued its *Collocation Reconsideration Order*, establishing national standards for processing and provisioning physical collocation orders. BellSouth filed a petition for waiver of the 90-day provisioning rule established in that Order on December 1, 2000. The FCC granted this waiver in its *Memorandum Opinion and Order* (released February 21, 2001), conditioned on BellSouth's adherence to collocation intervals established by the New York Public Service Commission and included in Verizon's collocation tariff.

The intervals approved by the FCC in this order are generally consistent with those proposed in the BellSouth SQM and are considerably longer than the intervals proposed by DeltaCom and adopted by the Authority. BellSouth believes that the

intervals approved in the FCC Order are reasonable and that the Authority should order intervals that are consistent with the FCC's ruling.

9. Collocation Percent of Due Dates Missed

This measure identifies the percent of total collocation arrangements, both virtual and physical, which BellSouth is unable to complete by the end of the committed due date. The DeltaCom standards adopted bu the Authority specifies zero missed committed due dates. This benchmark is clearly unreasonable; it leaves no room for unforeseen problems in meeting a prior committed due date. The level and complexity of collocation related activities can vary widely from wire center to wire center. Many of the factors that may threaten the chances of meeting established due dates are not discovered until much later in the process which means that they cannot be factored in at the time that dates are negotiated. Requiring a 100% on time completion standard is certain to trigger enforcement payments, although no discrimination is involved. Compliance with the intent of the 1996 Act requires parity, not perfection. BellSouth proposes a benchmark of 90% or greater on time completions.

d. THE INITIAL CHOICE OF THE PARAMETER DELTA

Q. THE NEXT AREA OF DISAGREEMENT WITH THE DELTACOM DECISION THAT YOU HAVE IDENTIFIED RELATES TO THE SELECTION OF A VALUE FOR THE PARAMETER "DELTA" THAT IS USED IN DETERMINING WHETHER BELLSOUTH IS PROVIDING SERVICE TO CLECS AT PARITY. WHAT VALUE DID THE AUTHORITY ADOPT FOR THE PARAMETER DELTA IN THE DELTACOM ARBITRATION AND WHAT IS BELLSOUTH'S POSITION REGARDING THIS CHOICE?

A. The Authority set the value of the parameter delta at 0.25. BellSouth believes that an initial choice of 0.25 for the parameter delta is inappropriate.

Q. BEFORE EXPLAINING WHY THE SELECTION OF 0.25 FOR THE PARAMETER DELTA IS INAPPROPRIATE, WOULD YOU FIRST EXPLAIN WHAT THE PARAMETER DELTA IS USED FOR?

A. Yes. Dr. Mulrow explains the use of the parameter "delta" in his testimony, but let me provide my layperson's explanation of what we are talking about. In order to compare performance levels between service provided to BellSouth's retail operation and the CLECs where the standard is a retail analog, the Truncated Z statistical test is used to determine whether any observed difference in CLEC versus BellSouth results is statistically significant. If it isn't, then there is no need to

pursue the issue of potential discrimination any further. However, if the observed difference is statistically significant, there is a further question. That question is whether the statistically significant difference is also material. The test of materiality requires use of a parameter called “delta” in the statistical formula. In general terms, this parameter delta provides a way to determine if the difference in the performance measure is material, requiring application of the appropriate enforcement mechanism.

Q. WHY IS IT NECESSARY TO ESTABLISH A VALUE TO BE USED TO DETERMINE MATERIALITY?

A. In the FCC’s Bell Atlantic Order, it was noted that random variation is inherent in the incumbent LEC’s process of providing interconnection and access to unbundled network elements. Consequently, the FCC recognized the appropriateness of determining whether or not a difference is, in fact, material. Remember, the standard that applies here is whether BellSouth provides service in substantially the same time and manner to CLECs and itself. Without a materiality component, any statistically significant difference in performance would be considered substantial. This is not always true. BellSouth’s use of the delta takes into account this very circumstance and creates a standard to determine when the variation should be treated as material.

Q. YOU INDICATED THAT THE DELTACOM DECISION IS BASED ON A DELTA VALUE OF 0.25. WHAT DELTA VALUE IS PROPOSED BY BELLSOUTH FOR THE SEEM?

A. In the Statistician's report *Statistical Techniques For The Analysis And Comparison Of Performance Measurement Data* filed with the testimony of Dr. Mulrow in this docket, the statisticians noted that the delta values should be different when evaluating individual CLEC results and CLEC Aggregate results. BellSouth addresses this by proposing a delta value of 1.0 to evaluate individual CLEC performance (Tier 1), and a delta value of 0.5 to evaluate CLEC aggregate results (Tier 2).

Q. WHAT DOES THIS MEAN?

A. Using Dr. Mulrow's formulas, a delta of 1.0 means that individual CLEC (Tier-1) results within one half standard deviation of BellSouth's results are not materially different. Likewise, a delta of 0.5 Tier 2 means that a difference of results within one-quarter standard deviation is not material. I say one half and one quarter because Dr. Mulrow's formulas take the assigned delta and divide the delta in half to get the number of standard deviations involved. BellSouth believes that its parameter choices, based on its reasoned business judgment, are appropriate.

Q. CAN YOU EXPLAIN THIS IDEA FURTHER USING AN ILLUSTRATION?

A. Yes. As an example, suppose the average Order Completion Interval for BellSouth retail residential services is 5 days with a standard deviation of one day. That means that 68% of BellSouth's Order Completion Intervals would fall in a range of four days and six days. Now suppose that the mean for resale residential service

provided to the CLECs was five days plus three and one-half hours. Just looking at the two numbers, assuming the difference was statistically significant, would suggest that the CLECs were receiving discriminatory treatment. However, since the CLEC number falls within half of a standard deviation of BellSouth's retail results (5 days and ½ of one day or 12 hours), the difference would not be material.

Q. TAKING THIS SAME EXAMPLE, WHAT IS THE IMPACT OF USING A DELTA OF 0.25 INSTEAD OF 1.0?

A. Using the same example as above, with the given standard deviation of one day, a delta of 0.25 means that the CLEC result has to be within one-eight of one standard deviation to be considered compliant. Remember, we are dividing the delta value, i.e., 0.25, in half. This requires the CLEC mean to be within five days, three hours to be considered not materially different. Therefore, the CLEC mean of five days, three and one-half hours that we identified, would be considered materially different, triggering enforcement payments.

Q. WHY HAVE YOU SELECTED THE VALUES FOR THE PARAMETER DELTA THAT YOU HAVE DESCRIBED?

A. The values for "delta" that I have recommended are consistent with the order by the Louisiana Public Service Commission in Docket U-22252, Subdocket C. The Louisiana Commission, after nearly two years of proceedings determined that delta should be set at 1.0 for Tier 1 and 0.5 for Tier 2 on an interim basis in order to

establish historical evidence as to the appropriateness of these values for delta. This is a perfectly logical approach here in Tennessee as well.

Q. YOU INDICATED THAT THE INITIAL SELECTION OF 0.25 AS THE PARAMETER DELTA VALUE IS INAPPROPRIATE. HOW IS THIS SELECTION INAPPROPRIATE?

A. As BellSouth suggested above, there is no way to proactively calculate the "right" delta value. Ideally delta, or the definition of materiality, should be determined as the level of disparate performance that causes the CLEC's end user to become dissatisfied. But there is not an equation that precisely relates customer satisfaction to the level of service being provided to the customer. This means that some experience will have to be gained in order to adjust it to the level that appropriately balances the interests of the parties. Setting delta too low, however, will simply result in a shift of money from BellSouth to the CLECs, even if BellSouth is providing nondiscriminatory service to the CLECs.

As already mentioned, a delta value of 0.25 means that an observed difference is considered material if individual CLEC results are greater than one-eight of one standard deviation based on BellSouth's retail results. This highly constrained enforcement threshold is likely to consistently result in remedy payments due to the identification of service results as discriminatory, when in fact parity exists.

Q. HAVE ANY OTHER STATE COMMISSIONS IN BELLSOUTH'S REGION ADOPTED A DELTA VALUE OF 0.25?

A. No, the delta value of 0.25, adopted in the DeltaCom Arbitration is the lowest valued adopted by any of the State Commissions in the BellSouth region to date.

Q. IF A VALUE IS SELECTED FOR THE PARAMETER DELTA INITIALLY, WHEN SHOULD THIS SELECTION BE REVIEWED?

A. After the Authority adopts parameter delta values in this proceeding, BellSouth recommends that the values of delta be reviewed after a period of six months to determine their validity and to make any necessary adjustments. This recommendation comes after nearly two years of workshops in Louisiana, and analysis involving CLECs, BellSouth and the Louisiana Commission. Given the complexity of this exercise, it would be beneficial to utilize the efforts of all parties in Louisiana instead of repeating those efforts.

e. THE APPROPRIATE LEVEL OF ENFORCEMENT PLAN REMEDIES

Q. BEFORE DISCUSSING THE DELTACOM DECISION AS IT RELATES TO ENFORCEMENT PLAN REMEDIES, PLEASE EXPLAIN HOW PENALTY PAYMENTS ARE CALCULATED IN BELLSOUTH'S PROPOSED SEEM PLAN?

A. The method of calculating payments is illustrated in Exhibit DAC-2, under "BST SEEM Remedy Procedure." The payment is determined by multiplying the fee per affected item (or transaction) from Appendix A of Exhibit DAC-2 by the appropriate number of transactions to be remedied. The volume of transactions is calculated as

described in Appendix E of Exhibit DAC-2. This is, of course a significant difference from the plan the CLECs' usually offer (essentially the same as DeltaCom's plan), which includes a single 'flat' penalty based on individual measurements, without regard to the number of transactions measured. We believe our "transaction" based approach is significantly better because it is scalable (i.e., the more transactions where disparate performance is detected, the higher the penalty).

Q. HOW IS THE AFFECTED VOLUME OF TRANSACTIONS DETERMINED WHERE A BENCHMARK APPLIES?

A. The affected volume is determined by a simple comparison of the performance provided to the individual CLEC to the benchmark applicable to the SEEM measurement. Since the benchmark represents the minimum level of acceptable performance, performance that does not meet the benchmark is considered to indicate material discrimination under SEEM. Thus, penalties would apply to the number of transactions by which BellSouth missed the benchmark. For example, assume BellSouth could be late in returning no more than 10 FOCs in a month to meet the material nondiscrimination benchmark. Further assume that BellSouth returned 13 FOCs late in that month. BellSouth would pay a penalty on 3 transactions, which is the number of missed FOCs in excess of the 10 defined as material nondiscriminatory performance. This number of transactions by which BellSouth missed the performance standard, e.g., 3 in the above example, is called the affected volume. This affected volume is then multiplied by the appropriate per

transaction penalty from the fee schedule (Appendix A of Exhibit DAC-2) to arrive at the amount of the penalty to be paid.

Q. HOW IS THE AFFECTED VOLUME OF TRANSACTIONS DETERMINED WHERE A RETAIL ANALOG APPLIES?

A. For those enforcement sub-metrics where BellSouth provides a similar service to its retail operations, a formula, which is reflected in Appendix E of my Exhibit DAC-2 is used. Basically, the formula is applied to the number of total transactions involved for the period for the particular measure to determine how many transactions penalties should be paid on.

Q. YOU EXPLAINED HOW PENALTY PAYMENTS ARE CALCULATED UNDER BELLSOUTH'S SEEM PLAN, WHAT DID THE AUTHORITY ADOPT IN THE DELTACOM ARBITRATION?

A. As mentioned previously in my testimony, the Authority adopted BellSouth statistical methodology and the remedy calculation methodology used for SEEM enforcement. The Authority also adopted BellSouth's measurement categories taken from the BellSouth's "VSEEM" plan, which was the current version at the time of the arbitration. However, BellSouth's fee schedule, which lists the per transaction unit payments, was radically adjusted based on DeltaCom's recommended payment amounts.

Q. DOES THAT PRESENT A PROBLEM?

A. It does, because the Authority did not take into account the fundamental differences in the two plans that affected the size of the penalty payments each plan adopted. Specifically, while the BellSouth plan was based on the number of transactions for which penalties should be paid, the DeltaCom plan only paid penalties based on whether a measurement was missed, irrespective of how many transactions were involved. To illustrate this, take the example of a plan that had a singe measurement, and for a particular time period there were 1000 transactions covered by that measurement. Under BellSouth's plan, if the standard applied to the measurement was a benchmark, and if the service would have had to be improved on 500 of the transactions in order to make the benchmark, under BellSouth's plan it would pay a separate penalty amount on each of the 500 transactions. Under the DeltaCom plan, irrespective of how many transactions were involved, whether it was 1 or a thousand, a failure would result in the payment of one penalty. In these circumstances, it makes some sense that the penalty amount where there is a single payment per measurement would be higher than the penalty amount where there might be 500 individual payments for a failure under a single measurement. In DeltaCom, however, the Authority took the DeltaCom recommended penalty payments, which were intended to apply to measures and not transactions, and applied the penalties to BellSouth's transaction based plan. In other words, the Authority took a very high penalty, calculated to be appropriate for payment in the event a measurement was missed, and applied it to individual transactions involved in that measurement. The Authority essentially mixed apples and oranges and came up with a fee schedule that is simply out of line with what the parties were trying to accomplish.

Q. WOULD YOU ILLUSTRATE THE IMPACT OF THIS ENFORCEMENT PLAN IN CALCULATING REMEDY PAYMENTS?

A. Yes. The following example demonstrates one of the potential problems from this combination.

Example: Pre-Ordering OSS Average Response Time

Taking DeltaCom's benchmarks for *Pre-Ordering OSS Average Response Time*, as an example, it is easy to see where a transaction based Enforcement Mechanism, such as BellSouth's, pays astronomical penalties when applying the per measure analysis ordered by the Authority.

OSS Average Response Time is the measurement of the time required for a CLEC to electronically validate a customer's address, reserve a telephone number, query installation appointment availability, or request other information from the customer's service record. The CLEC enters the request and the information is returned to the CLEC electronically, typically in a matter of several seconds.

A CLEC, as part of the normal 4-5 day business procedure of processing a resold service would utilize an electronic interface such as LENS or TAG to query for this information. Certain security screening needs to take place to make sure a CLEC is entitled to view customer information and to prohibit one CLEC from viewing the information for another CLEC's customer. This security screening takes a few extra seconds. Clearly, a few seconds during this process would not impact the CLECs

ability to compete with BellSouth. However the financial impact associated with not meeting the benchmark prescribed by the Authority is extremely high. In particular, the Arbitrators adopted DeltaCom's benchmark of 5 seconds rather than the BellSouth proposal of Parity + 4 seconds, the time the FCC has allowed as reasonable for OSS firewall security.

In July 2000, BellSouth processed 148,978 CLEC CSR queries in an overall average of 7.64 seconds. Although 55.11% of these queries occurred in $\leq$ 6.3 seconds, 44.89 % or 66,876 of these queries would have missed the 5 second benchmark. If only 10% or 6,687 of these CSR queries were from DeltaCom in TN, using the BellSouth Enforcement Methodology for this one measure, *Pre-Ordering OSS Average Response Time*, for CSR, with a Benchmark of 5 seconds, BellSouth has calculated the July 2000 payout, based on the remedy amounts in Table 1 of Exhibit A of the Final Order of Arbitration, would have been (6687 units) *($2500/unit) = $16,717,500. Clearly, the penalty proposed by the Authority cannot be seriously considered as compensation for damages but rather is punitive in nature. This payment level goes well beyond any harm that could possibly be caused by the few seconds of delay experienced.

f. THE PROPER TIMING FOR SEEM ENFORCEMENT

Q. WHEN DOES BELLSOUTH PROPOSE THAT ITS ENFORCEMENT PLAN TAKE EFFECT?

A. Under BellSouth's proposal, any necessary payment of penalties to CLECs in Tennessee that have incorporated into their Interconnection Agreement the enforcement plan that results from this proceeding will commence at such time as BellSouth obtains interLATA relief in Tennessee.

Q. HASN'T THE AUTHORITY ALREADY DETERMINED THAT BELLSOUTH SHOULD BE SUBJECT TO AN ENFORCEMENT MECHANISM PRIOR TO BELLSOUTH'S OBTAINING SECTION 271 RELIEF?

A. Yes. In its February 23, 2001 Order in Docket No. 99-00430 (the ITC^DeltaCom/BellSouth arbitration), the Authority addressed the issue of when an enforcement mechanism should become effective. In that proceeding, BellSouth proposed a 20% cap on penalties, and further proposed that the enforcement mechanism take effect after BellSouth gains section 271 relief. ITC^DeltaCom proposed a 36% cap on penalties, and further proposed that the enforcement mechanism take effect immediately. The Authority determined that the enforcement mechanism should take effect immediately with a 20% cap on penalties pre-271 and a 36% cap post-271. BellSouth concurs that a 36% cap is acceptable, but contends that no penalties should apply until after BellSouth gains approval to enter the long distance market. Whether the TRA has the legal authority to order implementation of an enforcement mechanism without BellSouth's consent is a legal matter that I do not address, but which BellSouth will address in its post-hearing brief. My testimony focuses on the reasons that the TRA should not order an enforcement plan and attendant penalties to take effect pre-271, even assuming that the TRA has the legal authority to do so.

As discussed below, an enforcement mechanism provides an additional incentive to ensure that the BOC continues to provide nondiscriminatory performance after it has received long-distance approval. Moreover, the FCC rulings to-date make it clear that pre-271 implementation of penalties is inconsistent with the purpose of a self-effectuating enforcement mechanism. Therefore, it is appropriate that no part of an enforcement mechanism proposal be required to take effect until the plan is necessary to serve its purpose – i.e., until after BellSouth receives interLATA authority in Tennessee.

Q. WHAT IS THE PURPOSE OF A SELF-EFFECTUATING ENFORCEMENT MECHANISM?

A. As the Federal Communications Commission ("FCC") has made clear, the primary - if not the sole - purpose of a self-effectuating enforcement mechanism is to guard against a Bell Operating Company ("BOC") backsliding after the BOC begins to provide interLATA services. In its Bell Atlantic New York Order[1], the FCC stated:

> Although the Commission strongly encourages state performance monitoring and post-entry enforcement, we have never required BOC applicants to demonstrate that they are subject to such mechanisms as a condition of section 271 approval. The Commission has, however, stated that the fact that a BOC will be

[1] *Application of Bell Atlantic New York for Authorization Under Section 271 of the Communications Act to Provide In-Region InterLATA Service in the State of New York, CC Docket No. 99-295, Memorandum Opinion and Order* (Released December 22, 1999) ("Bell Atlantic New York Order").

> subject to performance monitoring and enforcement mechanisms would constitute probative evidence that the BOC will continue to meet its section 271 obligations and that its entry would be consistent with the public interest.

(Bell Atlantic New York Order, ¶ 429, emphasis added; *See also* Southwestern Bell Texas Order[1], ¶ 420; Southwestern Bell Kansas/Oklahoma Order[2], ¶ 269; and Verizon Massachusetts Order[3], ¶ 236).

Indeed, the FCC noted that "[t]he New York Commission also has required Bell Atlantic to submit to a comprehensive performance enforcement mechanism upon receiving authorization to provide interLATA services under section 271." (Bell Atlantic New York Order at ¶ 432, emphasis added). Most recently, in its Verizon Massachusetts Order, the FCC stated that "in all the applications that have been granted to date, each contained an enforcement plan to protect against backsliding after entry into the long-distance market." (¶ 236, emphasis added).

Q. HOW HAS THE FCC ADDRESSED THE ISSUE OF ENFORCEMENT

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[1] *Application by SBC Communications, Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communication Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Texas,* CC Docket No. 00-65, Memorandum Opinion and Order, Released June 30, 2000) ("Southwestern Bell Texas Order").

[2] *Joint Application by SBC Communications, Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc., d/b/a/ Southwestern Bell Long Distance for Provision of In-Region, InterLATA Services in Kansas and Oklahoma,* CC Docket No. 00-217, Memorandum Report and Order (Released January 22, 2001) ("Southwestern Bell Kansas/Oklahoma Order").

[3] *Application of Verizon New England Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions) And Verizon Global Networks Inc., For Authorization to Provide In-Region, InterLATA Services in Massachusetts,* CC Docket No. 01-9, Memorandum Opinion and Order (Released April 16, 2001) ("Verizon Massachusetts Order").

MECHANISMS IN ITS 271 APPLICATION APPROVALS?

A. In its Bell Atlantic New York Order, the FCC noted that it approached its "analysis of the New York performance monitoring plan and enforcement mechanisms from a different angle than the Department of Justice." (footnote 1325 to ¶433). The FCC did not support the Department of Justice's position that enforcement mechanisms must be sufficient to "ensure the rapid *completion* of necessary market-opening measures." (*Id*., emphasis in original). Rather, the FCC stated that its assessment focused on the "predicted impact of these monitoring and enforcement mechanisms on Bell Atlantic's ability to *maintain* compliance with section 271." (*Id*., emphasis in original).

The FCC further noted that "the performance plans adopted by the New York Commission do not represent the only means of ensuring that Bell Atlantic continues to provide nondiscriminatory service to competing carriers." (Id. at ¶ 435). Additional consequences that a BOC faces if it fails to sustain a high level of service to competing carriers include federal enforcement action pursuant to section 271(d)(6) and remedies associated with antitrust and other legal actions. (*Id*.).

The FCC appears to consider the fact that a BOC will be subject to an enforcement mechanism as an important factor when granting 271 relief. Clearly, however, the FCC's opinion is that such a mechanism is not required prior to 271 relief.

Q. DIDN'T BELLSOUTH REACH AGREEMENT WITH ITC^DELTACOM THAT PENALTIES WILL APPLY PRIOR TO BELLSOUTH'S GAINING 271 RELIEF?

A. Yes, as a result of negotiations, BellSouth and ITC^DeltaCom agreed to incorporate into ITC^DeltaCom's new Interconnection Agreement the performance measurements that BellSouth proposed in the current generic performance measurements proceeding in North Carolina. As a part of the normal compromise that occurs in negotiations, BellSouth and ITC^DeltaCom agreed that the enforcement mechanism would take effect upon approval of the agreement by the Authority. The performance measurements plan and enforcement mechanism to which the parties agreed is very similar to the proposal BellSouth makes to the Authority in this generic proceeding. I would note that, pursuant to Section 252(i) of the Act and FCC Rule 51.809 ("most favored nation" or "pick and choose"), any other CLEC can adopt this portion of the ITC^DeltaCom agreement.

Q. HAVING REACHED AGREEMENT ON THIS ISSUE WITH ITC^DELTACOM, WHY DOES BELLSOUTH TAKE A DIFFERENT POSITION IN THIS PROCEEDING?

A. I want to be clear that BellSouth's position has always been, and continues to be, that enforcement mechanisms are intended to prevent backsliding and should become effective after long distance relief is granted. As explained above, BellSouth and ITC^DeltaCom negotiated an agreement that allowed for the early implementation of remedy payments in the context of the total agreement between the parties. However, in establishing a generic performance plan that will be available to all CLECs (without the attending compromises of the ITC^DeltaCom agreement), the Authority should establish an enforcement mechanism that comports with the FCC's stated intention for such a mechanism.

VIII. IMPLEMENTATION ISSUES BASED ON THE DELTACOM PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISM

Q. YOU HAVE DISCUSSED THE AREAS OF THE DELTACOM DECISION WHERE BELLSOUTH AGREES AND DISAGREES WITH THE DECISION REACHED BY THE AUTHORITY. ARE THERE OTHER ISSUES THAT THE AUTHORITY SHOULD BE CONCERNED ABOUT IN DETERMINING WHETHER TO ADOPT BELLSOUTHS'S 2001 SQM AS OPPOSED TO SIMPLY READOPTING THE DELTACOM DECISION?

A. Yes. There is a major point that should not be overlooked by the Authority in resolving this generic proceeding. There is a complex relationship between the way performance measurements are defined and structured, the accessibility of data that needs to be collected for the measurement, the process involved in properly formatting the data collected, the method and timing of reporting performance results and the determination of enforcement application if performance results are inadequate. All of these processes are implicated when additions or modifications to the SQM are made. While I do not know yet what will happen in this proceeding, in other states the CLECs have offered their own "performance measure plans" and no doubt they will do so here. However, when questioned about whether their plans could actually be implemented, the CLECs have been forced to concede that their "plans" have not been implemented anywhere, and in fact, the CLECs have no idea

whether their plan could actually be implemented. This point should not be overlooked.

Q. HOW IS DATA FOR BELLSOUTH'S SQM COLLECTED AND HOW ARE THE RESULTS REPORTED?

A. As I mentioned earlier in my testimony, BellSouth has been involved in developing an SQM for several years as a result of work being done in states such as Louisiana and Georgia. In connection with the development of the SQM, in early 1998, BellSouth began designing a system that could be used to collect, process, and report performance data to correspond to the performance measurements reflected in the SQMs. This system is called BellSouth's Performance Measurement and Analysis Platform (PMAP). PMAP was fully deployed in March 1999, and it has since been continually enhanced. Importantly, PMAP is designed to work with BellSouth's SQM. Additions or modifications to BellSouth's SQM require corresponding enhancements and changes to PMAP.

I want to make it clear that BellSouth is not saying that it has developed a system to collect data that only relates to its proposed SQM, nor are state commissions obligated to adopt BellSouth's position. However, everyone should recognize that with any SQM, whether it is BellSouth's, the CLECs' or someone else's, the data has to be collected and if it can't be done electronically, there is simply no way to gather all of the data that has to be analyzed and reported. As other states have given BellSouth direction regarding the appropriate SQM to use, BellSouth's data collection process has been adapted to those measures. BellSouth's collection

process can be modified to collect additional (or different) data, but each change requires varying levels of modifications to PMAP. The practical effect of adopting a plan with hundreds of thousands of sub-metrics, which is what the CLECs have proposed in other states, must be considered and weighed in terms of the data collection problems against the incremental benefit the additional sub-metrics would provide.

Q. CAN YOU DESCRIBE THE SIZE OF THE DATABASE?

A. Yes. For example, for the March 2001 production cycle, which produced data for February 2001 performance, 86 million records composing 110 Gigabytes of data had to be transported and processed. To put this in perspective, one page of my testimony would require about 2 Kilobytes of storage. PMAP, therefore, processes the equivalent of 55 million pages each month. In other words, considering that a typical case of copy paper contains 8 packages of 500 sheets each, totaling 40,000 sheets, PMAP processes approximately the equivalent of 1,375 cases of paper each month.

In addition to monthly processing, data must be stored for multiple months in the PMAP database. The current PMAP database is approximately 2.5 Terabytes in size. This translates to 1.25 billion pages of text documents or the equivalent of 31,250 cases of paper. To put this into perspective, a 1999 study by Sarnoff Corporation on behalf of the US government put the size of the entire Internet in 1999 at approximately 3 Terabytes (http://*www.wavexpress.com/faq.html*). Obviously because of the already enormous size of the database, the addition of

any new reporting requirements must be carefully evaluated to insure that they provide real value.

Lastly, and most importantly, BellSouth's performance measurements have nearly exhausted the capability of the existing PMAP system. As a result, BellSouth is implementing a next generation PMAP platform, PMAP-NG, which is currently in development. When implemented, PMAP-NG will start processing the data on a daily basis as opposed to taking a snapshot of all the data once a month and then processing that data over a two-week period, which is what PMAP does currently. Consequently, BellSouth estimates that PMAP-NG will process 1,250 million records composing over 400 Gigabytes of data and the PMAP-NG database is estimated to be 4.5 Terabytes in size.

Q. PLEASE ELABORATE FURTHER ON THE IMPACTS OF ADDING NEW PERFORMANCE MEASURES OR MODIFYING EXISTING MEASURES IN TERMS OF PMAP.

A. The measurements used in any given State must reflect the requirements set by that State's regulatory authority. To the extent commission rulings differ from state to state, PMAP must capture these differences, which means that PMAP may have to contain multiple versions of at least some measurements.

Each new or modified performance measurement also necessitates the development of new viewing formats on BellSouth's web-site. What may appear to be a simple request to add or modify a measurement nearly always involves a much

larger effort. The impacts to PMAP of adding or modifying the SQMs can be roughly categorized along three dimensions: (i) development impacts; (ii) operational impacts; and (iii) system impacts:

- Development impacts address the requirements definition, software development, and unit/system testing that must occur from end-to-end to report the new information required by a new performance measure.
- Operational impacts are concerned with how the processing cycle is impacted by the addition of computer processing routines.
- System impacts address requirements for additional disk space, database changes, processor loading, system reporting, security and staffing.

Q. IS PMAP CURRENTLY BEING USED TO PROVIDE PERFORMANCE REPORTS TO CLECS?

A. Yes, currently, PMAP is used to generate performance reports based on measurements that are included in earlier SQMs adopted in other states. These reports are available to CLECs across BellSouth's region. PMAP is used to maintain the raw data files used to generate such reports. Reports are produced on a CLEC-specific and CLEC-aggregate basis for each BellSouth state and on a regional basis, with applicable information concerning BellSouth's retail performance. The raw data maintained in PMAP is CLEC-specific and allows each CLEC to drill down to the individual service order or the individual trouble ticket. Each CLEC can download its raw data file and create a spreadsheet to assess its performance data.

Q. HOW SHOULD THE AUTHORITY VIEW CHANGES TO THE SQM?

A. First, let me state that BellSouth will comply with the direction of the TRA. By highlighting the real implementation issues above, all that BellSouth is suggesting is that the Authority should take into account the fact that the process we are talking about is incredibly complex. The CLECs have been represented in every state proceeding that has brought the SQM to its present position.

There may be CLECs in this proceeding that did not participate in Louisiana, Georgia or Florida, but it is difficult to claim, given the level of participation by CLECs in those proceedings, that their interests were not adequately represented. In evaluating any proposed changes, BellSouth only asks that the Authority evaluate whether the change results in an incremental benefit that aids the detection of discriminatory treatment, versus the delay that will occur in obtaining such reports. There is clearly a trade off.

BellSouth will do what it is lawfully directed to do, but it wants to insure that all parties involved understand that this is not a simple process or one that is accomplished overnight.

VIX SUMMARY

Q. YOU HAVE IDENTIFIED SEVERAL ASPECTS OF THE DELTACOM ARBITRATION DECISION THAT BELLSOUTH AGREES WITH, POINTS OF

DISAGREEMENT, THE PRACTICAL ISSUES INVOLVED IN IMPLEMETING THE DELTACOM PERFORMANCE MEASUREMENTS AND ENFORCEMENT MECHANISMS, AND WHEN SEEM ENFORCEMENT SHOULD BECOME EFECTIVE. CAN YOU SUMMARIZE WHAT BELLSOUTH IS ASKING THE AUTHORITY TO DO?

A. Obviously, BellSouth believes very strongly that the appropriate service quality measures to be reported by BellSouth are those contained in the attached SQM (Exhibit DAC-1). BellSouth's measurements are the result of several years of work with direction provided by state commissions, the FCC and Department of Justice (DOJ) and input from various CLECs. This SQM is more than sufficient to allow the Authority and the CLECs to monitor BellSouth's performance and to determine that nondiscriminatory access to BellSouth's Operations Support Systems (OSSs) is being provided to CLECs in Tennessee. As a result, BellSouth requests that the Authority adopt its proposed 2001 SQM.

Q. WHY DO YOU BELIEVE THAT BELLSOUTH'S SQM IS MORE THAN SUFFICIENT TO SERVE THE PURPOSE FOR WHICH IT IS OFFERED?

A. BellSouth is convinced that the SQM is more than sufficient for the Authority to determine whether nondiscriminatory access is being provided to the CLECs given its broad coverage of CLEC experiences. The current performance reports contain a massive amount of data, i.e. 1200 sub-metrics representing CLEC performance and an additional 600 sub-metrics representing BellSouth retail performance. Where appropriate, sub-metrics are reported at the individual CLEC level and are

also aggregated into totals for all CLECs in the state. As can be seen from the scope of the "measurement categories" included in the attached SQM, every area of BellSouth's operations is addressed and in some cases the same activity is measured multiple times and in several different ways.

In fact, the SQM may already be too large for a regulatory body to use effectively. This is a point that the Authority should not take lightly. In evaluating the adequacy of BellSouth's SQM, the Authority should assess it relative to the purpose for which it is being created. In particular, the SQM should be sized, in terms of its scope and complexity, to permit the Authority to analyze the data for determining compliance with the 1996 Act. The point is that too much data renders the reports useless for their intended purpose.

Now, the CLECs will no doubt ask for more measurements or changes to existing ones. If past experience is any teacher, they will propose thousands upon thousands of sub-metrics. Essentially, if allowed to have their way, they will simply paralyze the process and make the entire issue of service quality measurements unworkable.

BellSouth is not suggesting that the Authority should not consider what the CLECs have to say, but suggests that based on prior experience, the CLECs may ask for things that simply cannot be accomplished in any reasonable time and that have no significant incremental benefit in terms of determining whether BellSouth is providing nondiscriminatory treatment.

Q, IF THE AUTHORITY ADOPTS BELLSOUTH'S PROPOSED SQM, AS REFLECTED IN EXHIBIT DAC-1, WHEN SHOULD THE MEASUREMENT DATA BECOME AVAILABLE?

A. Assuming that the TRA issues an order in this proceeding adopting the SQM proposed by BellSouth, BellSouth will produce all data and measurements included in the BellSouth proposal within three months.

Q. WHAT REVIEW PROCESS, IF ANY, SHOULD BE INSTITUTED TO CONSIDER REVISIONS TO THE PERFORMANCE MEASUREMENTS THAT ARE ADOPTED BY THIS AUTHORITY?

A. During the first two years of implementation, BellSouth proposes to participate in six-month review cycles starting six months after the date the TRA order in this proceeding is implemented by BellSouth. A collaborative work group, which will include BellSouth, interested CLECs and the Authority will review the SQM for any desired additions, needed deletions or other modifications. After two years from the date of the order, the review cycle may, at the discretion of the Authority, be reduced to an annual review.

These reviews are not the exclusive means to address changes in the SQM. From time-to-time, BellSouth could be ordered by the Authority to modify or amend the SQM or enforcement measurements if experience indicated that a change was required. Nothing will preclude any party from participating in any proceeding

involving BellSouth's SQM or enforcement measures or from advocating that those measures be modified.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes

AFFIDAVIT

STATE OF: Georgia
COUNTY OF: Fulton

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared David A. Coon –Director – Interconnection Services, BellSouth Telecommunications Inc., who, being by me first duly sworn deposed and said that:

He is appearing as a witness before the Tennessee Regulatory Authority in Docket No. 01-00193 on behalf of BellSouth Telecommunications, Inc., and if present before the Authority and duly sworn, his testimony would be set forth in the annexed testimony consisting of 103 pages and 5 exhibit(s).

David A. Coon

Sworn to and subscribed
before me on July 16, 2001

NOTARY PUBLIC

MICHEALE F. HOLCOMB
Notary Public, Douglas County, Georgia
My Commission Expires November 3, 2001

BELLSOUTH®

EXHIBIT DAC-1

BellSouth Service Quality Measurement Plan (SQM)

Tennessee Performance Metrics

Measurement Descriptions

Version 0.02

Issue Date: July 16, 2001

Introduction

The BellSouth Service Quality Measurement Plan (SQM) describes in detail the measurements produced to evaluate the quality of service delivered to BellSouth's customers both wholesale and retail. The SQM was developed to respond to the requirements of the Communications Act of 1996 Section 251 (96 Act) which required BellSouth to provide non-discriminatory access to Competitive Local Exchange Carriers (CLEC)[1] and their Retail Customers. The reports produced by the SQM provide regulators, CLECs and BellSouth the information necessary to monitor the delivery of non-discriminatory access.

This plan results from the many divergent forces evolving from the 96 Act. The 96 Act, the Georgia Public Service Commission (GPSC) Order (Orders of 12/30/97 and 1/12/01 in Docket 7892-U), LCUG 1-7.0, the FCC's NPRM (CC Docket 98-56 RM9101 04/17/98), the Louisiana Public Service Commission (LPSC) Order (Docket U-22252 Subdocket C 04/19/98), numerous arbitration cases, LPSC sponsored collaborative workshops (10/98-02/00), and proceedings in Alabama, Mississippi, and North Carolina have influenced and continue to influence the SQM.

The SQM and the reports flowing from it must change to reflect the dynamic requirements of the industry. New measurements are added as new products, systems, and processes are developed and fielded. New products and services are added as the markets for them develop and the processes stabilize. The measurements are also changed to reflect changes in systems, correct errors, and respond to both 3rd Party audit requirements and regulatory requirements.

This document is intended for use by someone with knowledge of telecommunications industry, information technologies and a functional knowledge of the subject areas covered by the BellSouth Performance Measurements and the reports that flow from them.

Once it is approved, the most current copy of this document can be found on the web at URL: https://pmap.bellsouth.com in the Help folder.

Report Publication Dates

Each month, reports will be posted to BellSouth's SQM web site (www.pmap.bellsouth.com). Final validated SQM reports will be posted by 8:00 A.M. on the last day of the month.

Report Delivery Methods

CLEC SQM and SEEM reports will be considered delivered when posted to the web site. The Tennessee Public Service Commission (TN PSC) will be given access to the web site. In addition, a copy of the Monthly State Summary reports will be filed with the TN PSC as soon as possible after the last day of each month.

1. Alternative Local Exchange Companies (ALEC) and Competing Local Providers (CLP) are referred to as Competitive Local Exchange Carriers (CLEC) in this document.

Contents

Section 1: Operations Support Systems (OSS)

OSS-1: Average Response Time and Response Interval (Pre-Ordering/ Ordering)

Definition

Average response time and response intervals are the average times and number of requests responded to within certain intervals for accessing legacy data associated with appointment scheduling, service & feature availability, address verification, request for Telephone numbers (TNs), and Customer Service Records (CSRs).

Exclusions

None

Business Rules

The average response time for retrieving pre-order/order information from a given legacy system is determined by summing the response times for all requests submitted to the legacy systems during the reporting period and dividing by the total number of legacy system requests for that month.

The response interval starts when the client application (LENS or TAG for CLECs and RNS or ROS for BellSouth) submits a request to the legacy system and ends when the appropriate response is returned to the client application. The number of accesses to the legacy systems during the reporting period which take less than 2.3 seconds, the number of accesses which take more than 6 seconds, and the number of accesses which are less than or equal to 6.3 seconds are also captured.

Calculation

Response Time = (a - b)

- a = Date & Time of Legacy Response
- b = Date & Time of Legacy Request

Average Response Time = c ÷ d

- c = Sum of Response Times
- d = Number of Legacy Requests During the Reporting Period

Report Structure

- Not CLEC Specific
- Not Product/Service Specific
- Regional Level

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Legacy Contract (per reporting dimension) • Response Interval • Regional Scope	• Report Month • Legacy Contract (per reporting dimension) • Response Interval • Regional Scope

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• **RSAG – Address** (Regional Street Address Guide-Address) – stores street address information used to validate customer addresses. CLECs and BellSouth query this legacy system. • **RSAG – TN** (Regional Street Address Guide-Telephone number) – contains information about facilities available and telephone numbers working at a given address. CLECs and BellSouth query this legacy system. • **ATLAS** (Application for Telephone Number Load Administration and Selection) – acts as a warehouse for storing telephone numbers that are available for assignment by the system. It enables CLECs and BellSouth service reps to select and reserve telephone numbers. CLECs and BellSouth query this legacy system. • **COFFI** (Central Office Feature File Interface) – stores information about product and service offerings and availability. CLECs query this legacy system. • **DSAP** (DOE Support Application) – provides due date information. CLECs and BellSouth query this legacy system. • **HAL/CRIS** (Hands-Off Assignment Logic/Customer Record Information System) – a system used to access the Business Office Customer Record Information System (BOCRIS). It allows BellSouth servers, including LENS, access to legacy systems. CLECs query this legacy system. • **P/SIMS** (Product/Services Inventory Management system) – provides information on capacity, tariffs, inventory and service availability. CLECs query this legacy system. • **OASIS** (Obtain Available Services Information Systems) – Information on feature and rate availability. BellSouth queries this legacy system.	• Parity + 4 seconds

Table 1: Legacy System Access Times For RNS

System	Contract	Data	< 2.3 sec.	> 6 sec.	≤ 6.3 sec.	Avg. Sec.	# of Calls
RSAG	RSAG-TN	Address	x	x	x	x	x
RSAG	RSAG-ADDR	Address	x	x	x	x	x
ATLAS	ATLAS-TN	TN	x	x	x	x	x
DSAP	DSAP	Schedule	x	x	x	x	x
CRIS	CRSACCTS	CSR	x	x	x	x	x
OASIS	OASISCAR	Feature/Service	x	x	x	x	x
OASIS	OASISLPC	Feature/Service	x	x	x	x	x
OASIS	OASISMTN	Feature/Service	x	x	x	x	x
OASIS	OASISBIG	Feature/Service	x	x	x	x	x

Table 2: Legacy System Access Times For R0S

System	Contract	Data	< 2.3 sec.	> 6 sec.	≤6.3 sec.	Avg. sec.	# of Calls
RSAG	RSAG-TN	Address	x	x	x	x	x
RSAG	RSAG-ADDR	Address	x	x	x	x	x
ATLAS	ATLAS-TN	TN	x	x	x	x	x

Table 2: Legacy System Access Times For R0S

System	Contract	Data	< 2.3 sec.	> 6 sec.	≤6.3 sec.	Avg. sec.	# of Calls
DSAP	DSAP	Schedule	x	x	x	x	x
CRIS	CRSOCSR	CSR	x	x	x	x	x
OASIS	OASISBIG	Feature/Service	x	x	x	x	x

Table 3: Legacy System Access Times For LENS

System	Contract	Data	< 2.3 sec.	> 6 sec.	≤6.3 sec.	Avg. sec.	# of Calls
RSAG	RSAG-TN	Address	x	x	x	x	x
RSAG	RSAG-ADDR	Address	x	x	x	x	x
ATLAS	ATLAS-TN	TN	x	x	x	x	x
DSAP	DSAP	Schedule	x	x	x	x	x
HAL	HAL/CRIS	CSR	x	x	x	x	x
COFFI	COFFI/USOC	Feature/Service	x	x	x	x	x
P/SIMS	PSIMS/ORB	Feature/Service	x	x	x	x	x

Table 4: Legacy System Access Times For TAG

System	Contract	Data	< 2.3 sec.	> 6 sec.	≤6.3 sec.	Avg. sec.	# of Calls
RSAG	RSAG-TN	Address	x	x	x	x	x
RSAG	RSAG-ADDR	Address	x	x	x	x	x
ATLAS	ATLAS-TN	TN	x	x	x	x	x
ATLAS	ATLAS-MLH	TN	x	x	x	x	x
ATLAS	ATLAS-DID	TN	x	x	x	x	x
DSAP	DSAP	Schedule	x	x	x	x	x
CRIS	CRSECSRL	CSR	x	x	x	x	x
CRIS	CRSECSR	CSR	x	x	x	x	x

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

Note: CLEC specific data is not available in this measure. Queries of this sort do not have company specific signatures.

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• **RSAG – Address** (Regional Street Address Guide-Address) – stores street address information used to validate customer addresses. CLECs and BellSouth query this legacy system. • **RSAG – TN** (Regional Street Address Guide-Telephone number) – contains information about facilities available and telephone numbers working at a given address. CLECs and BellSouth query this legacy system. • **ATLAS** (Application for Telephone Number Load Administration and Selection) – acts as a warehouse for storing telephone numbers that are available for assignment by the system. It enables CLECs and BellSouth service reps to select and reserve telephone numbers. CLECs and BellSouth query this legacy system. • **COFFI** (Central Office Feature File Interface) – stores information about product and service offerings and availability. CLECs query this legacy system. • **DSAP** (DOE Support Application) – provides due date information. CLECs and BellSouth query this legacy system. • **HAL/CRIS** (Hands-Off Assignment Logic/Customer Record Information System) – a system used to access the Business Office Customer Record Information System (BOCRIS). It allows BellSouth servers, including LENS, access to legacy systems. CLECs query this legacy system. • **P/SIMS** (Product/Services Inventory Management system) – provides information on capacity, tariffs, inventory and service availability. CLECs query this legacy system. • **OASIS** (Obtain Available Services Information Systems) – Information on feature and rate availability. BellSouth queries this legacy system.	• Parity + 4 seconds

SEEM OSS Legacy Systems

System	BellSouth	CLEC
Telephone Number/Address		
RSAG-ADDR	RNS, ROS	TAG, LENS
RSAG-TN	RNS, ROS	TAG, LENS
ATLAS	RNS,ROS	TAG. LENS
Appointment Scheduling		
DSAP	RNS, ROS	TAG, LENS
CSR Data		
CRSACCTS	RNS	
CRSOCSR	ROS	
HAL/CRIS		LENS
CRSECSRL		TAG
CRSECSR		TAG
Service/Feature Availability		
OASISBIG	RNS, ROS	

System	BellSouth	CLEC
Service/Feature Availability		
PSIMS/ORB		LENS

OSS-2: Interface Availability (Pre-Ordering/Ordering)

Definition

Percent of time applications are functionally available as compared to scheduled availability. Calculations are based upon availability of applications and interfacing applications utilized by CLECs for pre-ordering and ordering. “Functional Availability” is defined as the number of hours in the reporting period that the applications/interfaces are available to users. “Scheduled Availability” is defined as the number of hours in the reporting period that the applications/interfaces are scheduled to be available.

Scheduled availability is posted on the Interconnection web site: (www.interconnection.bellsouth.com/oss/oss_hour.html)

Exclusions

- CLEC-impacting troubles caused by factors outside of BellSouth's purview, e.g., troubles in customer equipment, troubles in networks owned by telecommunications companies other than BellSouth, etc.
- Degraded service, e.g., slow response time, loss of non-critical functionality, etc.

Business Rules

This measurement captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems. Only full outages are included in the calculations for this measure. Full outages are defined as occurrences of either of the following:

- Application/interfacing application is down or totally inoperative
- Application is totally inoperative for customers attempting to access or use the application. This includes transport outages when they may be directly associated with a specific application

Comparison to an internal benchmark provides a vehicle for determining whether or not CLECs and retail BellSouth entities are given comparable opportunities for use of pre-ordering and ordering systems.

Calculation

Interface Availability (Pre-Ordering/Ordering) = (a ÷ b) X 100

- a = Functional Availability
- b = Scheduled Availability

Report Structure

- Not CLEC Specific
- Not Product/Service Specific
- Regional Level

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Legacy Contract Type (per reporting dimension) • Regional Scope • Hours of Downtime	• Report Month • Legacy Contract Type (per reporting dimension) • Regional Scope • Hours of Downtime

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Regional Level	• ≥ 99.5%

OSS Interface Availability

Application	Applicable to	% Availability
EDI	CLEC	x
TAG	CLEC	x
LENS	CLEC	x
LEO	CLEC	x
LESOG	CLEC	x
LNP Gateway	CLEC	x
COG	CLEC	Under Development
SOG	CLEC	Under Development
DOM	CLEC	Under Development
DOE	CLEC/BST	x
SONGS	CLEC/BST	x
ATLAS/COFFI	CLEC/BST	x
BOCRIS	CLEC/BST	x
DSAP	CLEC/BST	x
RSAG	CLEC/BST	x
SOCS	CLEC/BST	x
CRIS	CLEC/BST	x

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Regional Level	• ≥ 99.5%

SEEM OSS Interface Availability

Application	Applicable to	% Availability
EDI	CLEC	x
HAL	CLEC	x
LENS	CLEC	x
LEO Mainframe	CLEC	x
LESOG	CLEC	x
PSIMS	CLEC	x
TAG	CLEC	x

OSS-3: Interface Availability (Maintenance & Repair)

Definition

Percent of time applications are functionally available as compared to scheduled availability. Calculations are based upon availability of applications and interfacing applications utilized by CLECs for maintenance and repair. “Functional Availability” is defined as the number of hours in the reporting period that the applications/interfaces are available to users. “Scheduled Availability” is defined as the number of hours in the reporting period that the applications/interfaces are scheduled to be available.

Scheduled availability is posted on the Interconnection web site: (www.interconnection.bellsouth.com/oss/oss_hour.html)

Exclusions

- CLEC-impacting troubles caused by factors outside of BellSouth's purview, e.g., troubles in customer equipment, troubles in networks owned by telecommunications companies other than BellSouth, etc.
- Degraded service, e.g., slow response time, loss of non-critical functionality, etc.

Business Rules

This measurement captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems. Only full outages are included in the calculations for this measure. Full outages are defined as occurrences of either of the following:

- Application/interfacing application is down or totally inoperative.
- Application is totally inoperative for customers attempting to access or use the application. This includes transport outages when they may be directly associated with a specific application.

Comparison to an internal benchmark provides a vehicle for determining whether or not CLECs and retail BellSouth entities are given comparable opportunities for use of maintenance and repair systems.

Calculation

OSS Interface Availability (a ÷ b) X 100

- a = Functional Availability
- b = Scheduled Availability

Report Structure

- Not CLEC Specific
- Not Product/Service Specific
- Regional Level

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Availability of CLEC TAFI • Availability of LMOS HOST, MARCH, SOCS, CRIS, PREDICTOR, LNP and OSPCM • ECTA	• Availability of BellSouth TAFI • Availability of LMOS HOST, MARCH, SOCS, CRIS, PREDICTOR, LNP and OSPCM

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Regional Level	• ≥ 99.5%

OSS Interface Availability (M&R)

OSS Interface	% Availability
BellSouth TAFI	x
CLEC TAFI	x
CLEC ECTA	x
BellSouth & CLEC	x
CRIS	x
LMOS HOST	x
LNP	x
MARCH	x
OSPCM	x
PREDICTOR	x
SOCS	x

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Regional Level	• ≥ 99.5%

OSS Interface Availability (M&R)

OSS Interface	% Availability
CLEC TAFI	x
CLEC ECTA	x

OSS-4: Response Interval (Maintenance & Repair)

Definition

The response intervals are determined by subtracting the time a request is received on the BellSouth side of the interface from the time the response is received from the legacy system. Percentages of requests falling into each interval category are reported, along with the actual number of requests falling into those categories.

Exclusions

None

Business Rules

This measure is designed to monitor the time required for the CLEC and BellSouth interface system to obtain from BellSouth's legacy systems the information required to handle maintenance and repair functions. The clock starts on the date and time when the request is received on the BellSouth side of the interface and the clock stops when the response has been transmitted through that same point to the requester.

Note: The OSS Response Interval BellSouth Total Report is a combination of BellSouth Residence and Business Total.

Calculation

OSS Response Interval = (a - b)

- a = Query Response Date and Time
- b = Query Request Date and Time

Percent Response Interval (per category) = (c ÷ d) X 100

- c = Number of Response Intervals in category "X"
- d = Number of Queries Submitted in the Reporting Period

where, "X" is ≤ 4, > 4 ≤ 10, ≤ 10, > 10, or > 30 seconds

Report Structure

- Not CLEC Specific
- Not Product/Service Specific
- Regional Level

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• CLEC Transaction Intervals	• BellSouth Business and Residential Transactions Intervals

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Regional Level	• Parity

Legacy System Access Times for M&R

System	BellSouth & CLEC	Count				
		≤ 4	> 4 ≤ 10	≤ 10	> 10	> 30
CRIS	x	x	x	x	x	x
DLETH	x	x	x	x	x	x

System	BellSouth & CLEC	Count				
		≤ 4	> 4 ≤ 10	≤ 10	> 10	> 30
DLR	x	x	x	x	x	x
LMOS	x	x	x	x	x	x
LMOSupd	x	x	x	x	x	x
LNP	x	x	x	x	x	x
MARCH	x	x	x	x	x	x
OSPCM	x	x	x	x	x	x
Predictor	x	x	x	x	x	x
SOCS	x	x	x	x	x	x
NIW	x	x	x	x	x	x

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

PO-1: Loop Makeup - Response Time – Manual

Definition

This report measures the average interval and percent within the interval from the submission of a Manual Loop Makeup Service Inquiry (LMUSI) to the distribution of Loop Makeup information back to the CLEC.

Exclusions

- Inquiries, which are submitted electronically.
- Designated Holidays are excluded from the interval calculation.
- Weekend hours from 5:00PM Friday until 8:00AM Monday are excluded from the interval calculation.
- Canceled Inquiries.

Business Rules

The CLEC Manual Loop Makeup Service Inquiry (LMUSI) process includes inquiries submitted via mail or FAX to BellSouth's Complex Resale Support Group (CRSG).

This measurement combines three intervals:

1. From receipt of the Service Inquiry for Loop Makeup to hand off to the Service Advocacy Center (SAC) for "Look-up."
2. From SAC start date to SAC complete date.
3. From SAC complete date to date the CRSG distributes loop makeup information back to the CLEC.

The "Receive Date" is defined as the date the Manual LMUSI is received by the CRSG. It is counted as day Zero. LMU "Return Date" is defined as the date the LMU information is sent back to the CLEC from BellSouth. The interval calculation is reset to Zero when a CLEC initiated change occurs on the Manual LMU request.

Note: The Loop Make Up Service Inquiry Form does not require the CLEC to furnish the type of Loop. The CLEC determines whether the loop makeup will support the type of service they wish to order or not and qualifies the loop. If the loop makeup will support the service, a firm order LSR is submitted by the CLEC.

Calculation

Response Interval = (a - b)

- a = Date and Time LMUSI returned to CLEC
- b = Date and Time the LMUSI is received

Average Interval = (c ÷ d)

- c = Sum of all Response Intervals
- d = Total Number of LMUSIs received within the reporting period

Percent within interval = (e ÷ f) X 100

- e = Total LMUSIs received within the interval
- f = Total Number of LMUSIs processed within the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - State
  - Region
- Interval for manual LMUs:
  0 – ≤1 day
  >1 – ≤2 days
  >2 – ≤3 days
  0 – ≤3 days
  >3 – ≤6 days
  >6 – ≤10 days

> 10 days
- Average Interval in days

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Total Number of Inquiries • SI Intervals • State and Region	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Loops	Benchmark • 95% in 3 Business Days

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Loops	Benchmark • 95% in 3 Business Days

PO-2: Loop Make Up - Response Time - Electronic

Definition

This report measures the average interval and the percent within the interval from the electronic submission of a Loop Makeup Service Inquiry (LMUSI) to the distribution of Loop Makeup information back to the CLEC.

Exclusions

- Manually submitted inquiries
- Designated Holidays are excluded from the interval calculation
- Canceled Requests
- Scheduled OSS Maintenance

Business Rules

The response interval starts when the CLEC's Mechanized Loop Makeup Service Inquiry (LMUSI) is submitted electronically through the Operational Support Systems interface, LENS, TAG or RoboTAG. It ends when BellSouth's Loop Facility Assignment and Control System (LFACS) responds electronically to the CLEC with the requested Loop Makeup data via LENS, TAG or RoboTAG Interfaces.

Note: The Loop Make Up Service Inquiry Form does not require the CLEC to furnish the type of Loop. The CLEC determines whether the loop makeup will support the type of service they wish to order or not and qualifies the loop. If the loop makeup will support the service, a firm order LSR is submitted by the CLEC. EDI is not a pre-ordering system, and, therefore, is not applicable in this measure.

Calculation

Response Interval = (a - b)

- a = Date and Time LMUSI returned to CLEC
- b = Date and Time the LMUSI is received

Average Interval = (c ÷ d)

- c = Sum of all response intervals
- d = Total Number of LMUSIs received within the reporting period

Percent within interval = (e ÷ f) X 100

- e = Total LMUSIs received within the interval
- f = Total Number of LMUSIs processed within the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - State
  - Region
- Interval for electronic LMUs:
  0 – 1 minute
  >1 – 5 minutes
  0 - ≤ 5 minutes
  > 5 – 8 minutes
  > 8 – 15 minutes
  > 15 minutes
- Average Interval in minutes

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Legacy Contract • Response Interval • Regional Scope	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Loops	Benchmark • 90% in 5 Minutes (Reassess after 6 months - new system)

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Loop	• 90% in 5 Minutes (Reassess after 6 months - new system)

Section 2: Ordering

O-1: Acknowledgement Message Timeliness

Definition

This measurement provides the response interval from the time an LSR or transmission (may contain multiple LSRs from one or more CLECs in multiple states) is electronically submitted via EDI or TAG respectively until an acknowledgement notice is sent by the system.

Exclusions

- Scheduled OSS Maintenance

Business Rules

The process includes EDI & TAG system functional acknowledgements for all messages/Local Service Requests (LSRs) which are electronically submitted by the CLEC. Users of EDI may package many LSRs into one transmission which will receive the acknowledgement message. EDI users may place multiple LSRs in one "envelope" requesting service in one or more states which will mask the identity of the state and CLEC. The start time is the receipt time of the message at BellSouth's side of the interface (gateway). The end time is when the acknowledgement is transmitted by BellSouth at BellSouth's side of the interface (gateway). If more than one CLEC uses the same ordering center (aggregator), an Acknowledgement Message will be returned to the "Aggregator", however, BellSouth will not be able to determine which specific CLEC or state this message represented.

Calculation

Response Interval = (a - b)

- a = Date and Time Acknowledgement Notices returned to CLEC
- b = Date and Time messages/LSRs electronically submitted by the CLEC via EDI or TAG respectively

Average Response Interval = (c ÷ d)

- c = Sum of all Response Intervals
- d = Total number of electronically submitted messages/LSRs received, from CLECs via EDI or TAG respectively, in the Reporting Period.

Reporting Structure

- CLEC Aggregate
- CLEC Specific/Aggregator
- Geographic Scope
  - Region
- Electronically Submitted LSRs
  0 – ≤10 minutes
  > 10 – ≤20 minutes
  > 20 – ≤30 minutes
  0 – ≤ 30 minutes
  > 30 – ≤45 minutes
  > 45 – ≤60 minutes
  > 60 – ≤120 minutes
  > 120 minutes
- Average interval for electronically submitted messages/LSRs in minutes

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Record of functional acknowledgements	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• EDI	• EDI – 90% within 30 minutes (6 months – 95% within 30 minutes)
• TAG	• TAG – 95% within 30 minutes

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• EDI	• EDI – 90% within 30 minutes (6 months – 95% within 30 minutes)
• TAG	• TAG – 95% within 30 minutes

O-2: Acknowledgement Message Completeness

Definition

This measurement provides the percent of transmissions/LSRs received via EDI or TAG respectively, which are acknowledged electronically.

Exclusions

- Manually submitted LSRs
- Scheduled OSS Maintenance

Business Rules

EDI and TAG send Functional Acknowledgements for all transmissions/LSRs, which are electronically submitted by a CLEC. Users of EDI may package many LSRs from multiple states in one transmission. If more than one CLEC uses the same ordering center, an Acknowledgement Message will be returned to the "Aggregator". However, BellSouth will not be able to determine which specific CLEC this message represented. The Acknowledgement Message is returned prior to the determination of whether the transmission/ LSR will be partially mechanized or fully mechanized.

Calculation

Acknowledgement Completeness = (a ÷ b) X 100

- a = Total number of Functional Acknowledgements returned in the reporting period for transmissions/LSRs electronically submitted by EDI or TAG respectively
- b = Total number of electronically submitted transmissions/LSRs received in the reporting period by EDI or TAG respectively

Report Structure

- CLEC Aggregate
- CLEC Specific/Aggregator
- Geographic Scope
  - Region

Note: The Acknowledgement message is generated before the system recognizes whether this electronic transmission will be partially or fully mechanized.

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Record of Functional Acknowledgements	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• EDI • TAG	• Benchmark: 100%

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• EDI • TAG	• Benchmark: 100%

O-3: Percent Flow-Through Service Requests (Summary)

Definition

The percentage of Local Service Requests (LSR) and LNP Local Service Requests (LNP LSRs) submitted electronically via the CLEC mechanized ordering process that flow through and reach a status for a FOC to be issued, without manual intervention.

Exclusions

- Fatal Rejects
- Auto Clarification
- Manual Fallout
- CLEC System Fallout
- Scheduled OSS Maintenance

Business Rules

The CLEC mechanized ordering process includes all LSRs, including supplements (subsequent versions) which are submitted through one of the three gateway interfaces (TAG, EDI and LENS), that flow through and reach a status for a FOC to be issued, without manual intervention. These LSRs can be divided into two classes of service: Business and Residence, and two types of service: Resale, and Unbundled Network Elements (UNE). The CLEC mechanized ordering process does not include LSRs which are submitted manually (for example, fax and courier) or are not designed to flow through (for example, Manual Fallout.)

Definitions:

Fatal Rejects: Errors that prevent an LSR, submitted electronically by the CLEC, from being processed further. When an LSR is submitted by a CLEC, LEO/LNP Gateway will perform edit checks to ensure the data received is correctly formatted and complete. For example, if the PON field contains an invalid character, LEO/LNP Gateway will reject the LSR and the CLEC will receive a Fatal Reject.

Auto-Clarification: Clarifications that occur due to invalid data within the LSR. LESOG/LAUTO will perform data validity checks to ensure the data within the LSR is correct and valid. For example, if the address on the LSR is not valid according to RSAG, or if the LNP is not available for the NPA NXX requested, the CLEC will receive an Auto-Clarification.

Manual Fallout: Planned Fallout that occur by design. Certain LSRs are designed to fallout of the Mechanized Order Process due to their complexity. These LSRs are manually processed by the LCSC. When a CLEC submits an LSR, LESOG/LAUTO will determine if the LSR should be forwarded to LCSC for manual handling. Following are the categories for Manual Fallout:

1. Complex*
2. Special pricing plans
3. Some partial migrations
4. New telephone number not yet posted to BOCRIS
5. Pending order review required
6. CSR inaccuracies such as invalid or missing CSR data in CRIS
7. Expedites (requested by the CLEC)
8. Denials-restore and conversion, or disconnect and conversion orders
9. Class of service invalid in certain states with some types of service
10. Low volume such as activity type “T” (move)
11. More than 25 business lines, or more than 15 loops
12. Transfer of calls option for the CLEC end users
13. Directory Listings (Indentions and Captions)

*See LSR Flow-Through Matrix following O-6 for a list of services, including complex services, and whether LSRs issued for the services are eligible to flow through.

Total System Fallout: Errors that require manual review by the LCSC to determine if the error is caused by the CLEC, or is due to BellSouth system functionality. If it is determined the error is caused by the CLEC, the LSR will be sent back to the CLEC for clarification. If it is determined the error is BellSouth caused, the LCSC representative will correct the error, and the LSR will continue to be processed.

Z Status: LSRs that receive a supplemental LSR submission prior to final disposition of the original LSR.

Calculation

Percent Flow Through = a ÷ [b - (c + d + e + f)] X 100

- a = The total number of LSRs that flow through LESOG/LAUTO and reach a status for a FOC to be issued
- b = the number of LSRs passed from LEO/LNP Gateway to LESOG/LAUTO
- c = the number of LSRs that fall out for manual processing
- d = the number of LSRs that are returned to the CLEC for clarification
- e = the number of LSRs that contain errors made by CLECs
- f = the number of LSRs that receive a Z status

Percent Achieved Flow Through = a ÷ [b-(c+d+e)] X 100

- a = the number of LSRs that flow through LESOG/LAUTO and reach a status for a FOC to be issued.
- b = the number of LSRs passed from LEO/LNP Gateway to LESOG/LAUTO
- c = the number of LSRs that are returned to the CLEC for clarification
- d = the number of LSRs that contain errors made by CLECs
- e = the number of LSRs that receive Z status

Report Structure

- CLEC Aggregate
  - Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Total Number of LSRs Received, by Interface, by CLEC - TAG - EDI - LENS • Total Number of Errors by Type, by CLEC - Fatal Rejects - Auto Clarification - CLEC Caused System Fallout • Total Number of Errors by Error Code • Total Fallout for Manual Processing	• Report Month • Total Number of Errors By Type - BellSouth System Error

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark[a]
• Residence	• Benchmark: 95%
• Business	• Benchmark: 90%
• UNE	• Benchmark: 85%
• LNP	• Benchmark: 85%

a. Benchmarks do not apply to the "Percent Achieved Flow Through."

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark[a]
• Residence	• Benchmark: 95%
• Business	• Benchmark: 90%
• UNE	• Benchmark: 85%
• LNP	• Benchmark: 85%

a. Benchmarks do not apply to the "Percent Achieved Flow Through."

O-4: Percent Flow-Through Service Requests (Detail)

Definition

A detailed list, by CLEC, of the percentage of Local Service Requests (LSR) and LNP Local Service Requests (LNP LSRs) submitted electronically via the CLEC mechanized ordering process that flow through and reach a status for a FOC to be issued, without manual or human intervention.

Exclusions

- Fatal Rejects
- Auto Clarification
- Manual Fallout
- CLEC System Fallout
- Scheduled OSS Maintenance

Business Rules

The CLEC mechanized ordering process includes all LSRs, including supplements (subsequent versions) which are submitted through one of the three gateway interfaces (TAG, EDI, and LENS), that flow through and reach a status for a FOC to be issued, without manual intervention. These LSRs can be divided into two classes of service: Business and Residence, and three types of service: Resale, and Unbundled Network Elements (UNE). The CLEC mechanized ordering process does not include LSRs, which are submitted manually (for example, fax and courier) or are not designed to flow through (for example, Manual Fallout.)

Definitions:

Fatal Rejects: Errors that prevent an LSR, submitted electronically by the CLEC, from being processed further. When an LSR is submitted by a CLEC, LEO/LNP Gateway will perform edit checks to ensure the data received is correctly formatted and complete. For example, if the PON field contains an invalid character, LEO/LNP Gateway will reject the LSR and the CLEC will receive a Fatal Reject.

Auto-Clarification: Clarifications that occur due to invalid data within the LSR. LESOG/LAUTO will perform data validity checks to ensure the data within the LSR is correct and valid. For example, if the address on the LSR is not valid according to RSAG, or if the LNP is not available for the NPA NXXX requested, the CLEC will receive an Auto-Clarification.

Manual Fallout: Planned Fallout that occur by design. Certain LSRs are designed to fallout of the Mechanized Order Process due to their complexity. These LSRs are manually processed by the LCSC. When a CLEC submits an LSR, LESOG/LAUTO will determine if the LSR should be forwarded to LCSC for manual handling. Following are the categories for Manual Fallout:

1. Complex*
2. Special pricing plans
3. Some partial migrations
4. New telephone number not yet posted to BOCRIS
5. Pending order review required
6. CSR inaccuracies such as invalid or missing CSR data in CRIS
7. Expedites (requested by the CLEC)
8. Denials-restore and conversion, or disconnect and conversion orders
9. Class of service invalid in certain states with some types of service
10. Low volume such as activity type “T” (move)
11. More than 25 business lines, or more than 15 loops
12. Transfer of calls option for the CLEC end users
13. Directory Listings (Indentions and Captions)

*See LSR Flow-Through Matrix following O-6 for a list of services, including complex services, and whether LSRs issued for the services are eligible to flow through.

Total System Fallout: Errors that require manual review by the LCSC to determine if the error is caused by the CLEC, or is due to BellSouth system functionality. If it is determined the error is caused by the CLEC, the LSR will be sent back to the CLEC for clarification. If it is determined the error is BellSouth caused, the LCSC representative will correct the error, and the LSR will continue to be processed.

Z Status: LSRs that receive a supplemental LSR submission prior to final disposition of the original LSR.

Calculation

Percent Flow Through = a ÷ [b - (c + d + e + f)] X 100

- a = The total number of LSRs that flow through LESOG/LAUTO and reach a status for a FOC to be issued
- b = the number of LSRs passed from LEO/LNP Gateway to LESOG/LAUTO
- c = the number of LSRs that fall out for manual processing
- d = the number of LSRs that are returned to the CLEC for clarification
- e = the number of LSRs that contain errors made by CLECs
- f = the number of LSRs that receive a Z status.

Percent Achieved Flow Through = a ÷ [b-(c+d+e)] X 100

- a = the number of LSRs that flow through LESOG/LAUTO and reach a status for a FOC to be issued.
- b = the number of LSRs passed from LEO/LNP Gateway to LESOG/LAUTO
- c = the number of LSRs that are returned to the CLEC for clarification
- d = the number of LSRs that contain errors made by CLECs
- e = the number of LSRs that receive Z status

Report Structure

Provides the flow through percentage for each CLEC (by alias designation) submitting LSRs through the CLEC mechanized ordering process. The report provides the following:

- CLEC (by alias designation)
- Number of fatal rejects
- Mechanized interface used
- Total mechanized LSRs
- Total manual fallout
- Number of auto clarifications returned to CLEC
- Number of validated LSRs
- Number of BellSouth caused fallout
- Number of CLEC caused fallout
- Number of Service Orders Issued
- Base calculation
- CLEC error excluded calculation

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Total Number of LSRs Received, by Interface, by CLEC - TAG - EDI - LENS • Total Number of Errors by Type, by CLEC - Fatal Rejects - Auto Clarification - CLEC Errors • Total Number of Errors by Error Code • Total Fallout for Manual Processing	• Report Month • Total Number of Errors by Type - BellSouth System Error

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark[a]
• Residence	• Benchmark: 95%

SQM Level of Disaggregation	SQM Analog/Benchmark[a]
• Business	• Benchmark: 90%
• UNE	• Benchmark: 85%
• LNP	• Benchmark: 85%

a. Benchmarks do not apply to the "Percent Achieved Flow Through."

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

O-5: Flow-Through Error Analysis

Definition

An analysis of each error type (by error code) that was experienced by the LSRs that did not flow through or reached a status for a FOC to be issued.

Exclusions

Each Error Analysis is error code specific, therefore exclusions are not applicable.

Business Rules

The CLEC mechanized ordering process includes all LSRs, including supplements (subsequent versions) which are submitted through one of the three gateway interfaces (TAG, EDI, and LENS), that flow through and reach a status for a FOC to be issued. The CLEC mechanized ordering process does not include LSRs which are submitted manually (for example, fax and courier).

Calculation

Total for each error type.

Report Structure

Provides an analysis of each error type (by error code). The report is in descending order by count of each error code and provides the following:

- Error Type (by error code)
- Count of each error type
- Percent of each error type
- Cumulative percent
- Error Description
- CLEC Caused Count of each error code
- Percent of aggregate by CLEC caused count
- Percent of CLEC caused count
- BellSouth Caused Count of each error code
- Percent of aggregate by BellSouth caused count
- Percent of BellSouth by BellSouth caused count

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Total Number of LSRs Received • Total Number of Errors by Type (by Error Code) - CLEC Caused Error	• Report Month • Total Number of Errors by Type (by error code) - BellSouth System Error

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Not Applicable	• Not Applicable

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

O-6: CLEC LSR Information

Definition

A list with the flow through activity of LSRs by CC, PON and Ver, issued by each CLEC during the report period.

Exclusions

- Fatal Rejects
- LSRs submitted manually

Business Rules

The CLEC mechanized ordering process includes all LSRs, including supplements (subsequent versions) which are submitted through one of the three gateway interfaces (TAG, EDI, and LENS), that flow through and reach a status for a FOC to be issued. The CLEC mechanized ordering process does not include LSRs which are submitted manually (for example, fax and courier).

Calculation

NA

Report Structure

Provides a list with the flow through activity of LSRs by CC, PON and Ver, issued by each CLEC during the report period with an explanation of the of the columns and content. This report is available on a CLEC specific basis. The report provides the following for each LSR.

- CC
- PON
- Ver
- Timestamp
- Type
- Err #
- Note or Error Description

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Record of LSRs Received by CC, PON and Ver • Record of Timestamp, Type, Err # and Note or Error Description for Each LSR by CC, PON and Ver	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Not Applicable	• Not Applicable

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

LSR Flow-Through Matrix

Product	F/T[3, 5]	Complex Service	Complex Order	Planned Fallout For Manual Handling[1]	EDI	TAG[2]	LENS[4]	Comments
2 wire analog DID trunk port	No	UNE	Yes	NA	N	N	N	
2 wire analog port	Yes	UNE	No	No	Y	Y	N	
2 wire ISDN digital line side port	No	UNE	Yes	NA	N	N	N	
2 wire ISDN digital loop	Yes	UNE	Yes	No	Y	Y	N	
3 Way Calling	Yes	No	No	No	Y	Y	Y	
4 wire analog voice grade loop	Yes	UNE	Yes	No	Y	Y	N	
4 wire DS0 & PRI digital loop	No	UNE	Yes	NA	N	N	N	
4 wire DS1 & PRI digital loop	No	UNE	Yes	NA	N	N	N	
4 wire ISDN DSI digital trunk ports	No	UNE	Yes	NA	N	N	N	
Accupulse	No	Yes	Yes	NA	N	N	N	
ADSL	Yes	UNE	No	No	Y	Y	N	
Area Plus	Yes	No	No	No	Y	Y	Y	
Basic Rate ISDN	No	Yes	Yes	Yes	Y	Y	N	
Call Block	Yes	No	No	No	Y	Y	Y	
Call Forwarding-Variable	Yes	No	No	No	Y	Y	Y	
Call Return	Yes	No	No	No	Y	Y	Y	
Call Selector	Yes	No	No	No	Y	Y	Y	
Call Tracing	Yes	No	No	No	Y	Y	Y	
Call Waiting	Yes	No	No	No	Y	Y	Y	
Call Waiting Deluxe	Yes	No	No	No	Y	Y	Y	
Caller ID	Yes	No	No	No	Y	Y	Y	
CENTREX	No	Yes	Yes	NA	N	N	N	
DID WITH PBX ACT W	No	Yes	Yes	Yes	Y	N	Y	
DID ACT W	No	Yes	Yes	Yes	Y	N	Y	
Digital Data Transport	No	UNE	Yes	NA	N	N	N	
Directory Listing Indentions	No	No	No	Yes	Y	Y	Y	
Directory Listings Captions	No	No	Yes	Yes	Y	Y	Y	
Directory Listings (simple)	Yes	No	No	No	Y	Y	Y	
DS3	No	UNE	Yes	NA	N	N	N	
DS1 Loop	Yes	UNE	Yes	No	Y	Y	N	
DSO Loop	Yes	UNE	Yes	No	Y	Y	N	
Enhanced Caller ID	Yes	No	No	No	Y	Y	Y	
ESSX	No	Yes	Yes	NA	N	N	N	
Flat Rate/Business	Yes	No	No	No	Y	Y	Y	
Flat Rate/Residence	Yes	No	No	No	Y	Y	Y	

LSR Flow-Through Matrix

Product	F/T[3, 5]	Complex Service	Complex Order	Planned Fallout For Manual Handling[1]	EDI	TAG[2]	LENS[4]	Comments
FLEXSERV	No	Yes	Yes	NA	N	N	N	
Frame Relay	No	Yes	Yes	NA	N	N	N	
FX	No	Yes	Yes	NA	N	N	N	
Ga. Community Calling	Yes	No	No	No	Y	Y	Y	
HDSL	Yes	UNE	No	No	Y	Y	N	
Hunting MLH	No	C/S[4]	C/S	Yes	Y	Y	N	
Hunting Series Completion	Yes	C/S	C/S	No	Y	Y	Y	
INP to LNP Conversions	No	UNE	Yes	Yes	Y	Y	N	
LightGate	No	Yes	Yes	NA	N	N	N	
Line Sharing	Yes	UNE	No	No	Y	Y	N	
Local Number Portability	Yes	UNE	Yes	No	Y	Y	N	
LNP with Complex Listing	No	UNE	Yes	Yes	Y	Y	N	
LNP with Partial Migration	No	UNE	Yes	Yes	Y	Y	N	
LNP with Complex Services	No	UNE	Yes	Yes	Y	Y	N	
Loop+INP	Yes	UNE	No	No	Y	Y	N	
Loop+LNP	Yes	UNE	No	No	Y	Y	N	
Measured Rate/Bus.	Yes	No	No	No	Y	Y	Y	
Measured Rate/Res.	Yes	No	No	No	Y	Y	Y	
Megalink	No	Yes	Yes	NA	N	N	N	
Megalink-T1	No	Yes	Yes	NA	N	N	N	
Memory Call	Yes	No	No	No	Y	Y	Y	
Memory Call Ans. Svc.	Yes	No	No	No	Y	Y	Y	
Multiserv	No	Yes	Yes	NA	N	N	N	
Native Mode LAN Interconnection (NMLI)	No	Yes	Yes	NA	N	N	N	
Off-Prem Stations	No	Yes	Yes	NA	N	N	N	
Optional Calling Plan	Yes	No	No	No	Y	Y	Y	
Package/Complete Choice and area plus	Yes	No	No	No	Y	Y	Y	
Pathlink Primary Rate ISDN	No	Yes	Yes	NA	N	N	N	
Pay Phone Provider	No	No	No	NA	N	N	N	
PBX Standalone ACT A,C, D	No	Yes	Yes	Yes	Y	Y	N	
PBX Trunks	No	Yes	Yes	Yes	Y	Y	N	
Port/Loop Combo	Yes	UNE	No	No	Y	Y	Y	
Port/Loop PBX	No	No	No	Yes	Y	Y	N	
Preferred Call Forward	Yes	No	No	No	Y	Y	Y	
RCF Basic	Yes	No	No	No	Y	Y	Y	
Remote Access to CF	Yes	No	No	No	Y	Y	Y	
Repeat Dialing	Yes	No	No	No	Y	Y	Y	
Ringmaster	Yes	No	No	No	Y	Y	Y	
Smartpath	No	Yes	Yes	NA	N	N	N	
SmartRING	No	Yes	Yes	NA	N	N	N	

LSR Flow-Through Matrix

Product	F/T[3, 5]	Complex Service	Complex Order	Planned Fallout For Manual Handling[1]	EDI	TAG[2]	LENS[4]	Comments
Speed Calling	Yes	No	No	No	Y	Y	Y	
Synchronet	No	Yes	Yes	Yes	Y	Y	N	
Tie Lines	No	Yes	Yes	NA	N	N	N	
Touchtone	Yes	No	No	No	Y	Y	Y	
Unbundled Loop-Analog 2W, SL1, SL2	Yes	UNE	No	No	Y	Y	Y	
WATS	No	Yes	Yes	NA	N	N	N	
XDSL	Yes	UNE	No	No	Y	Y	N	
XDSL Extended LOOP	No	UNE	Yes	NA	N	N	N	
Collect Call Block	Yes	No	No	No	Y	Y	Y	
900 Call Block	Yes	No	No	No	Y	Y	Y	
3rd Party Call Block	Yes	No	No	No	Y	Y	Y	
Three Way Call Block	Yes	No	No	No	Y	Y	Y	
PIC/LPIC Change	Yes	No	No	No	Y	Y	Y	
PIC/LPIC Freeze	Yes	No	No	No	Y	Y	Y	

Note[1]: Planned Fallout for Manual Handling denotes those services that are electronically submitted and are not intended to flow through due to the complexity of the service.

Note[2]: The TAG column includes those LSRs submitted via Robo TAG.

Note[3]: For all services that indicate 'No' for flow-through, the following reasons, in addition to errors or complex services, also prompt manual handling: Expedites from CLECs, special pricing plans, denials restore and conversion or disconnect and conversion both required, partial migrations (although conversions-as-is flow through for issue 9), class of service invalid in certain states with some TOS e.g. government, or cannot be changed when changing main TN on C activity, low volume e.g. activity type T=move, pending order review required, more than 25 business lines, CSR inaccuracies such as invalid or missing CSR data in CRIS, Directory listings – Indentions, Directory listings – Captions, transfer of calls option for CLEC end user – new TN not yet posted to BOCRIS. Many are unique to the CLEC environment.

Note[4]: Services with C/S in the Complex Service and/or the Complex Order columns can be either complex or simple.

Note[5]: EELs are manually ordered.

O-7: Percent Rejected Service Requests

Definition

Percent Rejected Service Request is the percent of total Local Service Requests (LSRs) received which are rejected due to error or omission. An LSR is considered valid when it is submitted by the CLEC and passes edit checks to insure the data received is correctly formatted and complete.

Exclusions

- Service Requests canceled by the CLEC prior to being rejected/clarified
- Scheduled OSS Maintenance

Business Rules

Fully Mechanized: An LSR is considered "rejected" when it is submitted electronically but does not pass LEO edit checks in the ordering systems (EDI, LENS, TAG, LEO, LESOG, LNP Gateway and LAUTO) and is returned to the CLEC without manual intervention. There are two types of "Rejects" in the Mechanized category:

A **Fatal Reject** occurs when a CLEC attempts to electronically submit an LSR but required fields are either not populated or incorrectly populated and the request is returned to the CLEC before it is considered a valid LSR.

Fatal rejects are reported in a separate column, and for informational purposes ONLY. Fatal rejects are excluded from the calculation of the percent of total LSRs rejected or the total number of rejected LSRs.

An **Auto Clarification** occurs when a valid LSR is electronically submitted but rejected from LESOG or LAUTO because it does not pass further edit checks for order accuracy.

Partially Mechanized: A valid LSR, which is electronically submitted (via EDI, LENS, TAG) but cannot be processed electronically and "falls out" for manual handling. It is then put into "clarification" and sent back (rejected) to the CLEC.

Total Mechanized: Combination of Fully Mechanized and Partially Mechanized LSRs electronically submitted by the CLEC.

Non-Mechanized: LSRs which are faxed or mailed to the LCSC for processing and "clarified" (rejected) back to the CLEC by the BellSouth service representative.

Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs). ASRs are submitted to and processed by the Local Interconnection Service Center (LISC). Trunk data is reported separately.

Calculation

Percent Rejected Service Requests = (a ÷ b) X 100

- a = Total Number of Rejected Service Requests in the Reporting Period
- b = Total Number of Service Requests Received in the Reporting Period

Report Structure

- Fully Mechanized, Partially Mechanized, Total Mechanized, Non-Mechanized
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State
  - Region
- Product Specific Percent Rejected
- Total Percent Rejected

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Total Number of LSRs • Total Number of Rejects • State and Region • Total Number of ASRs (Trunks)	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Mechanized, Partially Mechanized and Non-Mechanized • Resale - Residence • Resale - Business • Resale – Design (Special) • Resale PBX • Resale Centrex • Resale ISDN • LNP • 2W Analog Loop Design • 2W Analog Loop Non-Design • UNE Loop + Port Combinations • UNE Switch Ports • UNE Other Non-Design • UNE Other Design • UNE Digital Loop < DS1 • UNE Digital Loop ≥ DS1 • UNE Combination Other • UNE xDSL (ADSL, HDSL, UCL) • Line Sharing • UNE ISDN Loop • Local Interoffice Transport • Local Interconnection Trunks	• Diagnostic

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

O-8: Reject Interval

Definition

Reject Interval is the average reject time from receipt of an LSR to the distribution of a Reject. An LSR is considered valid when it is submitted by the CLEC and passes edit checks to insure the data received is correctly formatted and complete.

Exclusions

- Service Requests canceled by CLEC prior to being rejected/clarified
- Designated Holidays are excluded from the interval calculation
- LSRs which are identified and classified as "Projects"
- The following hours for Partially mechanized and Non-mechanized LSRs are excluded from the interval calculation:

  Residence Resale Group – Monday through Saturday 7:00PM until 7:00AM
  From 7:00 PM Saturday until 7:00 AM Monday

  Business Resale, Complex, UNE Groups – Monday through Friday 6:00PM until 8:00AM
  From 6:00 PM Friday until 8:00 AM Monday

  The hours excluded will be altered to reflect changes in the Center operating hours. The LCSC will accept faxed LSRs only during posted hours of operation.

  The interval will be the amount of time accrued from receipt of the LSR until normal closing of the center if an LSR is worked using overtime hours.

  In the case of a Partially Mechanized LSR received and worked after normal business hours, the interval will be set at one (1) minute.

- For ASRs processed in the Local Interconnection Service Center (LISC), weekends and holidays are excluded from the calculation. The exclusion of weekends begins at 12:01 AM Saturday until 12:00 midnight Sunday. Holidays are excluded from 12:01 AM until midnight.
- Scheduled OSS Maintenance

Business Rules

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in EDI, LENS or TAG) until the LSR is rejected (date and time stamp or reject in EDI, TAG or LENS). Auto Clarifications are considered in the Fully Mechanized category.

Partially Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in EDI, LENS or TAG) until it falls out for manual handling. The stop time on partially mechanized LSRs is when the LCSC Service Representative clarifies the LSR back to the CLEC via LENS, EDI, or TAG.

Total Mechanized: Combination of Fully Mechanized and Partially Mechanized LSRs which are electronically submitted by the CLEC.

Non-Mechanized: The elapsed time from receipt of a valid LSR (date and time stamp of FAX or date and time mailed LSR is received in the LCSC) until notice of the reject (clarification) is returned to the CLEC via LON.

Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs). ASRs are submitted to and processed by the Local Interconnection Service Center (LISC). Trunk data is reported separately. All interconnection trunks are counted in the non-mechanized category.

Calculation

Reject Interval = (a - b)

- a = Date and Time of Service Request Rejection
- b = Date and Time of Service Request Receipt

Average Reject Interval = (c ÷ d)

- c = Sum of all Reject Intervals
- d = Number of Service Requests Rejected in Reporting Period

Reject Interval Distribution = (e ÷ f) X 100

- e = Service Requests Rejected in Interval
- f = Total Service Requests Rejected in the Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Fully Mechanized, Partially Mechanized, Total Mechanized, Non-Mechanized
- Geographic Scope
  - State
  - Region
- Mechanized:
  0 - ≤ 4 minutes
  > 4 - ≤ 8 minutes
  > 8 - ≤ 12 minutes
  > 12 - ≤ 60 minutes
  0 - ≤ 1 hour
  > 1 - ≤ 4 hours
  > 4 - ≤ 8 hours
  > 8 - ≤ 12 hours
  > 12 - ≤ 16 hours
  > 16 - ≤ 20 hours
  > 20 - ≤ 24 hours
  > 24 hours
- Partially Mechanized:
  0 - ≤ 1 hour
  > 1 - ≤ 4 hours
  > 4 - ≤ 8 hours
  > 8 - ≤ 10 hours
  0 - ≤ 10 hours
  > 10 - ≤ 18 hours
  0 - ≤ 18 hours
  > 18 - ≤ 24 hours
  > 24 hours
- Non-mechanized:
  0 - ≤ 1 hour
  > 1 - ≤ 4 hours
  > 4 - ≤ 8 hours
  > 8 - ≤ 12 hours
  > 12 - ≤ 16 hours
  > 16 - ≤ 20 hours
  > 20 - ≤ 24 hours
  0 - ≤ 24 hours
  > 24 hours
- Trunks:
  ≤ 4 days
  > 4 - ≤ 8 days
  > 8 - ≤ 12 days
  > 12 - ≤ 14 days
  > 14 - ≤ 20 days
  > 20 days

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
Report Month • Reject Interval • Total Number of LSRs • Total Number of Rejects • State and Region • Total Number of ASRs (Trunks)	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale – Residence • Resale – Business • Resale – Design (Special) • Resale PBX • Resale Centrex • Resale ISDN • LNP • 2W Analog Loop Design • 2W Analog Loop Non-Design • UNE Loop + Port Combinations • UNE Switch Ports • UNE Other Design • UNE Other Non-Design • UNE Digital Loop < DS1 • UNE Digital Loop ≥ DS1 • UNE Combination Other • UNE xDSL (ADSL, HDSL, UCL) • Line Sharing • UNE ISDN Loops • Local Interoffice Transport	• Fully Mechanized: - 95% within 1 Hour • Partially Mechanized: - 85% within 24 Hours - 85% within 18 Hours in 3 Months - 85% within 10 Hours in 6 Months • Non-Mechanized: - 85% within 24 Hours
• Local Interconnection Trunks	• Trunks: - 85% within 4 Days

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Fully Mechanized	• 95% ≤ 1 hour

O-9: Firm Order Confirmation Timeliness

Definition

Interval for Return of a Firm Order Confirmation (FOC Interval) is the average response time from receipt of valid LSR to distribution of a Firm Order Confirmation.

Exclusions

- Rejected LSRs
- Designated Holidays are excluded from the interval calculation.
- LSRs which are identified and classified as "Projects"
- The following hours for Partially Mechanized and Non-mechanized LSRs are excluded from the interval calculation:

  Residence Resale Group – Monday through Saturday 7:00PM until 7:00AM

  From 7:00 PM Saturday until 7:00 AM Monday.

  Business Resale, Complex, UNE Groups – Monday through Friday 6:00PM until 8:00AM

  From 6:00 PM Friday until 8:00 AM Monday.

  The hours excluded will be altered to reflect changes in the Center operating hours. The LCSC will accept faxed LSRs only during posted hours of operation.

  The interval will be the amount of time accrued from receipt of the LSR until normal closing of the center if an LSR is worked using overtime hours.

  In the case of a Partially Mechanized LSR received and worked after normal business hours, the interval will be set at one (1) minute.

- For ASRs processed in the Local Interconnection Service Center (LISC), all hours outside of Monday - Friday, 8:00-4:30 CST, should be excluded.
- Scheduled OSS Maintenance

Business Rules

- **Fully Mechanized:** The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in EDI, LENS or TAG) until the LSR is processed, appropriate service orders are generated and a Firm Order Confirmation is returned to the CLEC via EDI, LENS or TAG.
- **Partially Mechanized:** The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in EDI, LENS, or TAG) which falls out for manual handling until appropriate service orders are issued by a BellSouth service representative via Direct Order Entry (DOE) or Service Order Negotiation Generation System (SONGS) to SOCS and a Firm Order Confirmation is returned to the CLEC via EDI, LENS, or TAG.
- **Total Mechanized:** Combination of Fully Mechanized and Partially Mechanized LSRs which are electronically submitted by the CLEC.
- **Non-Mechanized:** The elapsed time from receipt of a valid paper LSR (date and time stamp of FAX or date and time paper LSRs received in LCSC) until appropriate service orders are issued by a BellSouth service representative via Direct Order Entry (DOE) or Service Order Negotiation Generation System (SONGS) to SOCS and a Firm Order Confirmation is sent to the CLEC via LON.
- **Interconnection Trunks:** Interconnection Trunks are ordered on Access Service Requests (ASRs). ASRs are submitted to and processed by the Local Interconnection Service Center (LISC). Trunk data is reported separately.

Calculation

Firm Order Confirmation Interval = (a - b)

- a = Date & Time of Firm Order Confirmation
- b = Date & Time of Service Request Receipt

Average FOC Interval = (c ÷ d)

- c = Sum of all FOC Intervals
- d = Total Number of Service Requests Confirmed in Reporting Period

FOC Interval Distribution (for each interval) = (e ÷ f) X 100

- e = Service Requests Confirmed in interval
- f = Total Service Requests Confirmed in the Reporting Period

Report Structure

- Fully Mechanized, Partially Mechanized, Total Mechanized, Non-Mechanized
  - CLEC Specific
  - CLEC Aggregate
- Geographic Scope
  - State
  - Region
- Fully Mechanized:
  0 - ≤ 15 minutes
  > 15 - ≤ 30 minutes
  > 30 - ≤ 45 minutes
  > 45 - ≤ 60 minutes
  > 60 - ≤ 90 minutes
  > 90 - ≤ 120 minutes
  > 120 - ≤ 180 minutes
  0 - ≤ 3 hours
  > 3 - ≤ 6 hours
  > 6 - ≤ 12 hours
  > 12 - ≤ 24 hours
  > 24 - ≤ 48 hours
  > 48 hours
- Partially Mechanized:
  0 - ≤ 4 hours
  > 4 - ≤ 8 hours
  > 8 - ≤ 10 hours
  0 - ≤ 10 hours
  > 10 - ≤ 18 hours
  0 - ≤ 18 hours
  > 18 - ≤ 24 hours
  0 - ≤ 24 hours
  > 24 - ≤ 48 hours
  > 48 hours
- Non-Mechanized:
  0 - ≤ 4 hours
  > 4 - ≤ 8 hours
  > 8 - ≤ 12 hours
  > 12 - ≤ 16 hours
  > 16 - ≤ 20 hours
  > 20 - ≤ 24 hours
  > 24 - ≤ 36 hours
  0 - ≤ 36 hours
  > 36 - ≤ 48 hours
  > 48 hours
- Trunks:
  0 - ≤ 5 days
  > 5 - ≤ 10 days
  0 - ≤ 10 days
  > 10 - ≤ 15 days
  > 15 - ≤ 20 days
  > 20 days

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Interval for FOC • Total Number of LSRs • State and Region • Total Number of ASRs (Trunks)	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale – Residence • Resale – Business • Resale – Design (Special) • Resale PBX • Resale Centrex • Resale ISDN • LNP • 2W Analog Loop Design • 2W Analog Loop Non-Design • UNE Loop + Port Combinations • UNE Switch Ports • UNE Other Design • UNE Other Non-Design • UNE Digital Loop < DS1 • UNE Digital Loop ≥ DS1 • UNE Combination Other • UNE xDSL (ADSL, HDSL, UCL) • Line Sharing • UNE ISDN Loops • Local Interoffice Transport	• Mechanized: 95% within 3 Hours • Partially Mechanized: - 85% within 24 hours - 85% within 18 Hours in 3 Months - 85% within 10 Hours in 6 Months • Non-Mechanized: 85% within 36 hours
• Local Interconnection Trunks	• Trunks: - 95% within 10 days

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Fully Mechanized	• 95% within 3 hours

O-10: Service Inquiry with LSR Firm Order Confirmation (FOC) Response Time Manual[1]

Definition

This report measures the interval and the percent within the interval from the submission of a Service Inquiry (SI) with Firm Order LSR to the distribution of a Firm Order Confirmation (FOC).

Exclusions

- Designated Holidays are excluded from the interval calculation.
- Weekend hours from 5:00PM Friday until 8:00AM Monday are excluded from the interval calculation of the Service Inquiry.
- Canceled Requests
- Electronically Submitted Requests
- For ASRs processed in the Local Interconnection Service Center (LISC), all hours outside of Monday - Friday, 8:00 - 4:30 CST, should be excluded.
- Scheduled OSS Maintenance

Business Rules

This measurement combines four intervals:

1. From receipt of Service Inquiry with LSR to hand off to the Service Advocacy Center (SAC) for Loop 'Look-up'.
2. From SAC start date to SAC complete date.
3. From SAC complete date to the Complex Resale Support Group (CRSG) complete date with hand off to LCSC.
4. From receipt of SI/LSR in the LCSC to Firm Order Confirmation.

Calculation

FOC Timeliness Interval = (a - b)

- a = Date and Time Firm Order Confirmation (FOC) for SI with LSR returned to CLEC
- b = Date and Time SI with LSR received

Average Interval = (c ÷ d)

- c = Sum of all FOC Timeliness Intervals
- d = Total number of SIs with LSRs received in the reporting period

Percent Within Interval = (e ÷ f) X 100

- e = Total number of Service Inquiries with LSRs received by the CRSG to distribution of FOC by the Local Carrier Service Center (LCSC)
- f = Total number of Service Inquiries with LSRs received in the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - State
  - Region
- Intervals
  0 – ≤ 3 days
  > 3 – ≤ 5 days
  0 – ≤ 5 days
  > 5 – ≤ 7 days
  > 7 – ≤ 10 days
  > 10 – ≤ 15 days
  > 15 days
- Average Interval measured in days

1. See O-9 for FOC Timeliness

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Total Number of Requests • SI Intervals • State and Region	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• xDSL (includes UNE unbundled ADSL, HDSL and UNE Unbundled Copper Loops) • Unbundled Interoffice Transport	• 95% Returned within 5 Business days

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

O-11: Firm Order Confirmation and Reject Response Completeness

Definition

A response is expected from BellSouth for every Local Service Request transaction (version). More than one response or differing responses per transaction is not expected. Firm Order Confirmation and Reject Response Completeness is the corresponding number of Local Service Requests received to the combination of Firm Order Confirmation and Reject Responses.

Exclusions

- Service Requests canceled by the CLEC prior to FOC or Rejected/Clarified
- Scheduled OSS Maintenance

Business Rules

Mechanized – The number of FOCs or Auto Clarifications sent to the CLEC from LENS, EDI, TAG in response to electronically submitted LSRs (date and time stamp in LENS, EDI, TAG).

Partially Mechanized – The number of FOCs or Rejects sent to the CLEC from LENS, EDI, TAG in response to electronically submitted LSRs (date and time stamp in LENS, EDI, TAG), which fall out for manual handling by the LCSC personnel.

Total Mechanized – The number of the combination of Fully Mechanized and Partially Mechanized LSRs.

Non-Mechanized – The number of FOCs or Rejects sent to the CLEC via FAX Server in response to manually submitted LSRs (date and time stamp in FAX Server).

For CLEC Results:

Firm Order Confirmation and Reject Response Completeness is determined in two dimensions:

Percent responses is determined by computing the number of Firm Order Confirmations and Rejects transmitted by BellSouth and dividing by the number of Local Service Requests (all versions) received in the reporting period.

Percent of multiple responses is determined by computing the number of Local Service Request unique versions receiving more than one Firm Order Confirmation, Reject or the combination of the two and dividing by the number of Local Service Requests (all versions) received in the reporting period.

Calculation

Firm Order Confirmation/Reject Response Completeness = (a ÷ b) X 100

- a = Total Number of Service Requests for which a Firm Order Confirmation or Reject is Sent
- b = Total Number of Service Requests Received in the Report Period

Firm Order Confirmation/Reject Response Completeness (Single Response) = [(a + b) ÷ c] X 100

- a = Total Number of Single Firm Order Confirmations Per LSR Version
- b = Total Number of Single Reject Responses Per LSR Version
- c = Total Number of Service Requests (All Versions) Responded to in the Reporting Period

Report Structure

Fully Mechanized, Partially Mechanized, Total Mechanized, Non-Mechanized

- State and Region
- CLEC Specific
- CLEC Aggregate
- BellSouth Specific

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
Report Month • Reject Interval • Total Number of LSRs • Total Number of Rejects	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence • Resale Business • Resale Design • Resale PBX • Resale Centrex • Resale ISDN • LNP Standalone • 2W Analog Loop Design • 2W Analog Loop Non – Design • UNE Loop and Port Combinations • UNE Switch Ports • UNE Other Design • UNE Other Non-Design • UNE Digital Loop ≤ DS1 • UNE Digital Loop ≥ DS1 • UNE Combination Other • UNE xDSL (ADSL, HDSL, UCL) • Line Sharing • UNE ISDN Loops • Local Interoffice Transport	• 95% Returned

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Fully Mechanized	• 95% Returned

O-12: Speed of Answer in Ordering Center

Definition

Measures the average time a customer is in queue.

Exclusions

None

Business Rules

The clock starts when the appropriate option is selected (i.e., 1 for Resale Consumer, 2 for Resale Multiline, and 3 for UNE-LNP, etc.) and the call enters the queue for that particular group in the LCSC. The clock stops when a BellSouth service representative in the LCSC answers the call. The speed of answer is determined by measuring and accumulating the elapsed time from the entry of a CLEC call into the BellSouth automatic call distributor (ACD) until a service representative in BellSouth's Local Carrier Service Center (LCSC) answers the CLEC call.

Calculation

Speed of Answer in Ordering Center = (a ÷ b)

- a = Total seconds in queue
- b = Total number of calls answered in the Reporting Period

Report Structure

Aggregate

- CLEC – Local Carrier Service Center
- BellSouth
  - Business Service Center
  - Residence Service Center

Note: Combination of Residence Service Center and Business Service Center data under development

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Mechanized tracking through LCSC Automatic Call Distributor	• Mechanized tracking through BellSouth Retail center support system.

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
Aggregate • CLEC – Local Carrier Service Center • BellSouth - Business Service Center - Residence Service Center	• Diagnostic

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Section 3: Provisioning

P-1: Mean Held Order Interval & Distribution Intervals

Definition

When delays occur in completing CLEC orders, the average period that CLEC orders are held for BellSouth reasons, pending a delayed completion, should be no worse for the CLEC when compared to BellSouth delayed orders. Calculation of the interval is the total days orders are held and pending but not completed that have passed the currently committed due date; divided by the total number of held orders. This report is based on orders still pending, held and past their committed due date at the close of the reporting period. The distribution interval is based on the number of orders held and pending but not completed over 15 and 90 days. (Orders reported in the ≥ 90 day interval are also included in the ≥ 15 day interval.)

Exclusions

- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders, Test Orders, etc.). Order types may be N, C or T.
- Disconnect (D) & From (F) orders
- Orders with appointment code of 'A' for Rural orders.

Business Rules

Mean Held Order Interval: This metric is computed at the close of each report period. The held order interval is established by first identifying all orders, at the close of the reporting interval, that both have not been reported as completed in SOCS and have passed the currently committed due date for the order. For each such order, the number of calendar days between the earliest committed due date on which BellSouth had a company missed appointment and the close of the reporting period is established and represents the held order interval for that particular order. The held order interval is accumulated by the standard groupings, unless otherwise noted, and the reason for the order being held. The total number of days accumulated in a category is then divided by the number of held orders within the same category to produce the mean held order interval. The interval is by calendar days with no exclusions for Holidays or Sundays.

CLEC Specific reporting is by type of held order (facilities, equipment, other), total number of orders held, and the total and average days.

Held Order Distribution Interval: This measure provides data to report total days held and identifies these in categories of ≥ 15 days and ≥ 90 days. (Orders counted in ≥ 90 days are also included in ≥ 15 days).

Calculation

Mean Held Order Interval = a ÷ b

- a = Sum of held-over-days for all Past Due Orders with a BellSouth Missed Appointment from the earlier BellSouth Missed Appointment.
- b = Number of Past Due Orders Held and Pending But Not Completed and past the committed due date

Held Order Distribution Interval (for each interval) = (c ÷ d) X 100

- c = # of Orders Held for ≥ 15 days or # of Orders Held for ≥ 90 days
- d = Total # of Past Due Orders Held and Pending But Not Completed

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Circuit Breakout < 10, ≥ 10 (except trunks)

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Order Number and PON (PON) • Order Submission Date (TICKET_ID) • Committed Due Date (DD) • Service Type (CLASS_SVC_DESC) • Hold Reason • Total Line/Circuit Count • Geographic Scope **Note**: Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Order Number • Order Submission Date • Committed Due Date • Service Type • Hold Reason • Total Line/Circuit Count • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• LNP	• Retail Residence and Business (POTS)
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop-Non-Design	• Retail Residence and Business - POTS (Excluding Switch-Based Orders)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN (Includes UDC)	• Retail ISDN - BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice
• Local Interconnection Trunks	• Parity with Retail

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

P-2: Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notices

Definition

When BellSouth can determine in advance that a committed due date is in jeopardy for facility delay, it will provide advance notice to the CLEC.

The interval is from the date/time the notice is released to the CLEC/BellSouth systems until 5pm on the commitment date of the order. The Percent of Orders is the percentage of orders given jeopardy notices for facility delay in the count of orders confirmed in the report period.

Exclusions

- Orders held for CLEC end user reasons
- Disconnect (D) & From (F) orders
- Non-Dispatch Orders
- Orders with Jeopardy Notice when jeopardy is identified after 5pm on the due date (technician on premise has attemped to provide service but must refer to Engineering or Cable Repair for facility jeopardy).

Business Rules

When BellSouth can determine in advance that a committed due date is in jeopardy for facility delay, it will provide advance notice to the CLEC. The number of committed orders in a report period is the number of orders that have a due date in the reporting period. Jeopardy notices for interconnection trunks results are usually zero as these trunks seldom experience facility delays. The Committed due date is considered the Confirmed due date. This report measures dispatched orders only. If an order is originally sent as non-dispatch, and it is determined there is a facility delay, the order is converted to a dispatch code so the facility problem can be corrected. It will remain coded dispatched until completion.

Calculation

Jeopardy Interval = a - b

- a = Date and Time of Jeopardy Notice
- b = Date and Time of Scheduled Due Date on Service Order

Average Jeopardy Interval = c ÷ d

- c = Sum of all jeopardy intervals
- d = Number of Orders Notified of Jeopardy in Reporting Period

Percent of Orders Given Jeopardy Notice = (e ÷ f) X 100

- e = Number of Orders Given Jeopardy Notices in Reporting Period
- f = Number of Orders Confirmed (due) in Reporting Period)

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Dispatch Orders
- Mechanized Orders
- Non-Mechanized Orders

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Order Number and PON • Date and Time Jeopardy Notice Sent • Committed Due Date • Service Type **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Order Number • Date and Time Jeopardy Notice Sent • Committed Due Date • Service Type

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark:
% Orders Given Jeopardy Notice	
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• LNP	• Retail Residence and Business (POTS)
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non-Design	• Retail Residence and Business - (POTS Excluding Switch-Based Orders)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Business and Residence
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN (Includes UDC)	• Retail ISDN BRI
• UNE Line Sharing	• ADSL Provided to Retail
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice
• Local Interconnection Trunks	• Parity with Retail
• Average Jeopardy Notice Interval (Electronic only)	• 95% ≥ 48 Hours

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

P-3: Percent Missed Installation Appointments

Definition

"Percent missed installation appointments" monitors the reliability of BellSouth commitments with respect to committed due dates to assure that the CLEC can reliably quote expected due dates to their retail customer as compared to BellSouth. This measure is the percentage of total orders processed for which BellSouth is unable to complete the service orders on the committed due dates and reported for Total misses and End User Misses.

Exclusions

- Canceled Service Orders
- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders Test Orders, etc.). Order types may be N, C or T.
- Disconnect (D) & From (F) orders
- End User Misses on Local Interconnection Trunks

Business Rules

Percent Missed Installation Appointments (PMI) is the percentage of orders with completion dates in the reporting period that are past the original committed due date. Missed Appointments caused by end-user reasons will be included and reported separately. The first commitment date on the service order that is a missed appointment is the missed appointment code used for calculation whether it is a BellSouth missed appointment or an End User missed appointment. The "due date" is any time on the confirmed due date. Which means there cannot be a cutoff time for commitments, as certain types of orders are requested to be worked after standard business hours. Also, during Daylight Savings Time, field technicians are scheduled until 9PM in some areas and the customer is offered a greater range of intervals from which to select.

Calculation

Percent Missed Installation Appointments = (a ÷ b) X 100

- a = Number of Orders with Completion date in Reporting Period past the Original Committed Due Date
- b = Number of Orders Completed in Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Report in Categories of <10 lines/circuits ≥ 10 lines/circuits
- Dispatch/Non-Dispatch

Report Explanation: The difference between End User MA and Total MA is the result of BellSouth caused misses. Here, Total MA is the total percent of orders missed either by BellSouth or CLEC end user. The End User MA represents the percentage of orders missed by the CLEC or their end user.

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Order Number and PON (PON) • Committed Due Date (DD) • Completion Date (CMPLTN DD) • Status Type • Status Notice Date • Standard Order Activity **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Order Number • Committed Due Date (DD) • Completion Date (CMPLTN DD) • Status Type • Status Notice Date • Standard Order Activity • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• LNP	• Retail Residence and Business (POTS)
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence and Business - (POTS Excluding Switch-Based Orders) - Dispatch - Non-Dispatch (Dispatch In)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based	• Retail Residence and Business - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence, Business and Design Dispatch (Including Dispatch In and Dispatch Out) - Dispatch - Non-Dispatch (Dispatch In)
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN (Includes UDC)	• Retail ISDN - BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice
• Local Interconnection Trunks	• Parity with Retail

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design

SEEM Disaggregation	SEEM Analog/Benchmark
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

P-4: Average Completion Interval (OCI) & Order Completion Interval Distribution

Definition

The "average completion interval" measure monitors the interval of time it takes BellSouth to provide service for the CLEC or its own customers. The "Order Completion Interval Distribution" provides the percentages of orders completed within certain time periods. This report measures how well BellSouth meets the interval offered to customers on service orders.

Exclusions

- Canceled Service Orders
- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders, Test Orders, etc.). Order types may be N, C or T.
- Disconnect (D&F) orders (Except "D" orders associated with LNP Standalone)
- "L" Appointment coded orders (where the customer has requested a later than offered interval)
- End User-Caused misses

Business Rules

The actual completion interval is determined for each order processed during the reporting period. The completion interval is the elapsed time from when BellSouth issues a FOC or SOCS date time stamp receipt of an order from the CLEC to BellSouth's actual order completion date. The clock starts when a valid order number is assigned by SOCS and stops when the technician or system completes the order in SOCS. Elapsed time for each order is accumulated for each reporting dimension. The accumulated time for each reporting dimension is then divided by the associated total number of orders completed. Orders that are worked on zero due dates are calculated with a .33-day interval (8 hours) in order to report a portion of a day interval. These orders are issued and worked/completed on the same day. They can be either flow through orders (no field work-non-dispatched) or field orders (dispatched).

The interval breakout for UNE and Design is: 0-5 = 0-≤ 5, 5-10 = >5-≤ 10, 10-15 = >10-≤ 15, 15-20 = >15-≤20, 20-25 = >20-≤25, 25-30 = >25-≤30, and > 30.

Calculation

Completion Interval = (a - b)

- a = Completion Date
- b = FOC/SOCS Date/Time Stamp (Application Date)

Average Completion Interval = (c ÷ d)

- c = Sum of all Completion Intervals
- d = Count of Orders Completed in Reporting Period

Order Completion Interval Distribution (for each interval) = (e ÷ f) X 100

- e = Service Orders Completed in "X" days
- f = Total Service Orders Completed in Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Dispatch/Non-Dispatch categories applicable to all levels except trunks
- Residence & Business reported in day intervals = 0,1,2,3,4,5,5+
- UNE and Design reported in day intervals of 0-5 = 0-≤5, 5-10 = >5-≤10, 10-15 = >10-≤15, 15-20 = >15-≤20, 20-25 = >20-≤25, 25-30 = >25-≤30, and >30
- All Levels are reported <10 line/circuits; ≥ 10 line/circuits (except trunks)
- ISDN Orders included in Non-Design

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Company Name • Order Number (PON) • Application Date & Time (TICKET_ID) • Completion Date (CMPLTN_DT) • Service Type (CLASS_SVC_DESC) • Geographic Scope **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Order Number • Application Date & Time • Order Completion Date & Time • Service Type • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• LNP	• Retail Residence and Business (POTS)
• 2W Analog Loop Design	• Retail Residence and Business Dispatch + 2 Days
• 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence and Business - (POTS Excluding Switch-Based Orders) - Dispatch - Non-Dispatch (Dispatch In)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based	• Retail Residence and Business - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence, Business and Design Dispatch (Including Dispatch In and Dispatch Out) - Dispatch - Non-Dispatch (Dispatch In)
• UNE xDSL (HDSL, ADSL and UCL) without Conditioning	• 7 Days
• UNE xDSL (HDSL, ADSL and UCL) with Conditioning	• 14 Days
• UNE ISDN (Includes UDC)	• Retail ISDN BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Local Interconnection Trunks	• Parity with Retail

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

P-5: Average Completion Notice Interval

Definitions

The Completion Notice Interval is the elapsed time between the BellSouth reported completion of work and the issuance of a valid completion notice to the CLEC.

Exclusions

- Cancelled Service Orders
- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders, Test Orders, etc.). Order types may be N, C or T.
- D&F orders (Exception: "D" orders associated with LNP Standalone)

Business Rules

Measurement on interval of completion date and time entered by a field technician on dispatched orders, and 5PM start time on the due date for non-dispatched orders; to the release of a notice to the CLEC/BellSouth of the completion status. The field technician notifies the CLEC the work was complete and then he/she enters the completion time stamp information in his/her computer. This information switches through to the SOCS systems either completing the order or rejecting the order to the Work Management Center (WMC). If the completion is rejected, it is manually corrected and then completed by the WMC. The notice is returned on each individual order.

The start time for all orders is the completion stamp either by the field technician or the 5PM due date stamp; the end time for mechanized orders is the time stamp the notice was transmitted to the CLEC interface (LENS, EDI, OR TAG). For non-mechanized orders the end timestamp will be timestamp of order update to C-SOTS system.

Calculation

Completion Notice Interval = (a - b)

- a = Date and Time of Notice of Completion
- b = Date and Time of Work Completion

Average Completion Notice Interval = c ÷ d

- c = Sum of all Completion Notice Intervals
- d = Number of Orders with Notice of Completion in Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Mechanized Orders
- Non-Mechanized Orders
- Reporting intervals in Hours; 0,1-2,2-4,4-8,8-12,12-24, ≥ 24 plus Overall Average Hour Interval (The categories are inclusive of these time intervals: 0-1 = 0-≤1; 1-2 = >1-≤2; 2-4 = >2-≤4, etc.)
- Reported in categories of <10 line / circuits; ≥ 10 line/circuits (except trunks)

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Order Number (so_nbr) • Work Completion Date (cmpltn_dt) • Work Completion Time • Completion Notice Availability Date • Completion Notice Availability Time • Service Type • Geographic Scope **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Order Number (so_nbr) • Work Completion Date (cmpltn_dt) • Work Completion Time • Completion Notice Availability Date • Completion Notice Availability Time • Service Type • Geographic Scope **NOTE:** Code in parentheses is the corresponding header found in the raw data file.

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• LNP	• Retail Residence and Business (POTS)
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence and Business - (POTS Excluding Switch-Based Orders) - Dispatch - Non-Dispatch (Dispatch In)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based	• Retail Residence and Business - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence and Business and Design Dispatch (Including Dispatch In and Dispatch Out) - Dispatch - Non-Dispatch (Dispatch In)
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN (Includes UDC)	• Retail ISDN BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice
• Local Interconnection Trunks	• Parity with Retail

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

P-6: Coordinated Customer Conversions Interval

Definition

This report measures the average time it takes BellSouth to disconnect an unbundled loop from the BellSouth switch and cross connect it to CLEC equipment. This measurement applies to service orders with INP and with LNP, and where the CLEC has requested BellSouth to provide a coordinated cut over.

Exclusions

- Any order canceled by the CLEC will be excluded from this measurement
- Delays due to CLEC following disconnection of the unbundled loop
- Unbundled Loops where there is no existing subscriber loop and loops where coordination is not requested.

Business Rules

When the service order includes INP, the interval includes the total time for the cut over including the translation time to place the line back in service on the ported line. When the service order includes LNP, the interval only includes the total time for the cut over (the port of the number is controlled by the CLEC). If IDLC is involved, a four-hour window applies to the start time (8 A.M. to Noon or 1 P.M to 5 P.M.) This applies if BellSouth notifies the CLEC by 10:30 A.M. on the day before the due date that the service is on IDLC.

Calculation

Coordinated Customer Conversions Interval = (a - b)

- a = Completion Date and Time for Cross Connection of a Coordinated Unbundled Loop
- b = Disconnection Date and Time of an Coordinated Unbundled Loop

Percent Coordinated Customer Conversions (for each interval) = (c ÷ d) X 100

- c = Total number of Coordinated Customer Conversions for each interval
- d = Total Number of Unbundled Loop with Coordinated Conversions (items) for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- The interval breakout is 0-5 = 0-≤5, 5-15 = >5-≤15, >15 = 15 and greater, plus Overall Average Interval.

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Order Number • Committed Due Date (DD) • Service Type (CLASS_SVC_DESC) • Cut over Start Time • Cut over Completion Time • Portability Start and Completion Times (INP orders) • Total Conversions (Items) **Note:** Code in parentheses is the corresponding header found in the raw data file.	• No BellSouth Analog Exists

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Unbundled Loops with INP • Unbundled Loops with LNP	• 95% ≤ 15 minutes

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Unbundled Loops	• 95% ≤ 15 minutes

P-6A: Coordinated Customer Conversions – Hot Cut Timeliness % Within Interval and Average Interval

Definition

This category measures whether BellSouth begins the cut over of an unbundled loop on a coordinated and/or a time specific order at the CLEC requested start time. It measures the percentage of orders where the cut begins within 15 minutes of the requested start time of the order and the average interval.

Exclusions

- Any order canceled by the CLEC will be excluded from this measurement
- Delays caused by the CLEC
- Unbundled Loops where there is no existing subscriber loop and loops where coordination is not requested
- All unbundled loops on multiple loop orders after the first loop

Business Rules

This report measures whether BellSouth begins the cut over of an unbundled loop on a coordinated and/or a time specific order at the CLEC requested start time. The cut is considered on time if it starts 15 minutes before or after the requested start time. Using the scheduled time and the actual cut over start time, the measurement will calculate the percent within interval and the average interval. If a cut involves multiple lines, the cut will be considered "on time" if the first line is cut within the interval. ≤ 15 minutes includes intervals that began 15:00 minutes or less before the scheduled cut time and cuts that began 15 minutes or less after the scheduled cut time; >15 minutes, ≤30 minutes includes cuts within 15:00 – 30:00 minutes either prior to or after the scheduled cut time; >30 minutes includes cuts greater than 30:00 minutes either prior to or after the scheduled cut time. If IDLC is involved, a four hour window applies to the start time. (8 A.M. to Noon or 1 P.M. to 5 P.M.) This only applies if BellSouth notifies the CLEC by 10:30 A.M. on the day before the due date that the service is on IDLC.

Calculation

% within Interval = (a ÷ b) X 100

- a = Total Number of Coordinated Unbundled Loop Orders for the interval
- b = Total Number of Coordinated Unbundled Loop Orders for the reporting period

Interval = (c - d)

- c = Scheduled Time for Cross Connection of a Coordinated Unbundled Loop Order
- d = Actual Start Date and Time of a Coordinated Unbundled Loop Order

Average Interval = (e ÷ f)

- Sum of all Intervals
- Total Number of Coordinated Unbundled Loop Orders for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate

  Reported in intervals of early, on time and late cuts:
  ≤ 15 minutes
  > 15 - ≤ 30 minutes
  > 30 - ≤ 60 minutes
  > 60 - ≤ 120 minutes
  >120 - ≤ 180 minutes
  > 180 - ≤ 240 minutes
  ≤ 240 minutes
  > 240 minutes
  Overall Average Interval

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Order Number (so_nbr) • Committed Due Date (DD) • Service Type (CLASS_SVC_DESC) • Cut over Scheduled Start Time • Cut over Actual Start Time • Total Conversions Orders **Note:** Code in parentheses is the corresponding header found in the raw data file.	• No BellSouth Analog Exists

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Product Reporting Level - SL1 Time Specific - SL1 Non-Time Specific - SL2 Time Specific - SL2 Non-Time Specific	• 95% Within + or – 15 minutes of Scheduled Start Time
- SL1 IDLC - SL2 IDLC	• 95% Within 4-hour Window

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
- UNE Loops	• 95% Within + or – 15 minutes of Scheduled Start time
- SL1 IDLC - SL2 IDLC	• 95% Within 4-hour Window

P-6B: Coordinated Customer Conversions – Average Recovery Time

Definition

Measures the time between notification and resolution by BellSouth of a service outage found that can be isolated to the BellSouth side of the network. The time between notification and resolution by BellSouth must be measured to ensure that CLEC customers do not experience unjustifiable lengthy service outages during a Coordinated Customer Conversion. This report measures outages associated with Coordinated Customer Conversions prior to service order completion.

Exclusions

- Cut overs where service outages are due to CLEC caused reasons
- Cut overs where service outages are due to end-user caused reasons

Business Rules

Measures the outage duration time related to Coordinated Customer Conversions from the initial trouble notification until the trouble has been restored and the CLEC has been notified. The duration time is defined as the time from the initial trouble notification until the trouble has been restored and the CLEC has been notified. The interval is calculated on the total outage time for the circuits divided by the total number of outages restored during the report period to give the average outage duration.

Calculation

Recovery Time = (a - b)

- a = Date & Time That Trouble is Closed by CLEC
- b = Date & Time Initial Trouble is Opened with BellSouth

Average Recovery Time = (c ÷ d)

- c = Sum of all the Recovery Times
- d = Number of Troubles Referred to BellSouth

Report Structure

- CLEC Specific
- CLEC Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Company Name • CLEC Order Number (so_nbr) • Committed Due Date (DD) • Service Type (CLASS_SVC_DESC) • CLEC Acceptance Conflict (CLEC_CONFLICT) • CLEC Conflict Resolved (CLEC_CON_RES) • CLEC Conflict MFC (CLEC_CONFLICT_MFC) • Total Conversion Orders **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Unbundled Loops with INP • Unbundled Loops with LNP	• Diagnostic

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

P-6C: Hot Cut Conversions - % Provisioning Troubles Received Within 7 days of a completed Service Order

Definition

Percent Provisioning Troubles received within 7 days of a completed service order associated with a Coordinated and Non-Coordinated Customer Conversion. Measures the quality and accuracy of Hot Cut Conversion Activities.

Exclusions

- Any order canceled by the CLEC
- Troubles caused by Customer Provided Equipment
- LMOS - Code 7 (Test OK), Code 8 (Found OK-In), Code 9 (Found OK-Out)
- WFA - No Trouble Found (NTF)

Business Rules

Measures the quality and accuracy of completed service orders associated with Coordinated and Non-Coordinated Hot Cut Conversions. The first trouble report received on a circuit ID within 7 days following a service order completion is counted in this measure. Subsequent trouble reports are measured in Repeat Report Rate. Reports are calculated searching in the prior report period for completed Coordinated and Non-Coordinated Hot Cut Conversion service orders and following 7 days after the completion of the service order for a trouble report issue date.

Calculation

% Provisioning Troubles within 7 days of service order completion = (a ÷ b) X 100

- a = The sum of all Hot Cut Circuits with a trouble within 7 days following service order(s) completion
- b = The total number of Hot Cut service order circuits completed in the previous report calendar month

Report Structure

- CLEC Specific
- CLEC Aggregate
- Dispatch/Non-Dispatch

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Order Number (so_nbr) • PON • Order Submission Date (TICKET_ID) • Order Submission Time (TICKET_ID) • Status Type • Status Notice Date • Standard Order Activity • Geographic Scope • Total Conversion Circuits **Note:** Code in parentheses is the corresponding header found in the raw data file.	• No BellSouth Analog Exists

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• UNE Loop Design • UNE Loop Non-Design	• ≤ 5%

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• UNE Loops	• ≤ 5%

P-7: Cooperative Acceptance Testing - % of xDSL Loops Tested

Definition

The loop will be considered cooperatively tested when the BellSouth technician places a call to the CLEC representative to initiate cooperative testing and jointly performs the tests with the CLEC.

Exclusions

- Testing failures due to CLEC (incorrect contact number, CLEC not ready, etc.)
- xDSL lines with no request for cooperative testing

Business Rules

When a BellSouth technician finishes delivering an order for an xDSL loop where the CLEC order calls for cooperative testing at the customer's premise, the BellSouth technician is to call a toll free number to the CLEC testing center. The BellSouth technician 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 technician to put a short on the line so that the center can run a test to see if it can identify the short.

Calculation

Cooperative Acceptance Testing - % of xDSL Loops Tested = (a ÷ b) X 100

- a = Total number of successful xDSL cooperative tests for xDSL lines where cooperative testing was requested in the reporting period
- b = Total Number of xDSL line tests requested by the CLEC and scheduled in the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Type of Loop Tested

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Company Name (OCN) • CLEC Order Number (so_nbr) and PON (PON) • Committed Due Date (DD) • Service Type (CLASS_SVC_DESC) • Acceptance Testing Completed (ACCEPT_TESTING) • Acceptance Testing Declined (ACCEPT_TESTING) • Total xDSL Orders **Note**: Code in parentheses is the corresponding header found in the raw data file.	• No BellSouth Analog Exists

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• UNE xDSL - ADSL - HDSL - UCL - OTHER	• 95% of Lines Tested

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• UNE xDSL	• 95% of Lines Tested

P-8: % Provisioning Troubles within 30 days of Service Order Completion

Definition

Percent Provisioning Troubles within 30 days of Service Order Completion measures the quality and accuracy of Service order activities.

Exclusions

- Canceled Service Orders
- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders, Test Orders, etc.). Order types may be N, C or T.
- D & F orders
- Trouble reports caused and closed out to Customer Provided Equipment (CPE)

Business Rules

Measures the quality and accuracy of completed orders. The first trouble report from a service order after completion is counted in this measure. Subsequent trouble reports are measured in Repeat Report Rate. Reports are calculated searching in the prior report period for completed service orders and following 30 days after completion of the service order for a trouble report issue date.

D & F orders are excluded as there is no subsequent activity following a disconnect.

Calculation

% Provisioning Troubles within 30 days of Service Order Activity = (a ÷ b) X 100

- a = Trouble reports on all completed orders 30 days following service order(s) completion
- b = All Service Orders completed in the previous report calendar month

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Reported in categories of <10 line/circuits; ≥ 10 line/circuits (except trunks)
- Dispatch/Non-Dispatch (except trunks)

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Order Number and PON • Order Submission Date (TICKET_ID) • Order Submission Time (TICKET_ID) • Status Type • Status Notice Date • Standard Order Activity • Geographic Scope **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Order Number • Order Submission Date • Order Submission Time • Status Type • Status Notice Date • Standard Order Activity • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence and Business - (POTS Excluding Switch-Based Orders) - Dispatch - Non-Dispatch (Dispatch In)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL provided to Retail
• UNE ISDN (Includes UDC)	• Retail ISDN BRI
• UNE Line Sharing	• ADSL Provided to Retail
• UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based	• Retail Residence and Business - Dispatch Out - Non-Dispatch - Dispatch In - Switch-Based
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other - Dispatch - Non-Dispatch (Dispatch In)	• Retail Residence, Business and Design Dispatch (Including Dispatch Out and Dispatch In) - Dispatch - Non-Dispatch (Dispatch In)
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice
• Local Interconnection Trunks	• Parity with Retail

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

P-9: Total Service Order Cycle Time (TSOCT)

Definition

This report measures the total service order cycle time from receipt of a valid service order request to the return of a completion notice to the CLEC Interface.

Exclusions

- Canceled Service Orders
- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders, Test Orders, etc.). Order types may be N, C or T.
- D (Disconnect - Except "D" orders associated with LNP Standalone) and F (From) orders. (From is disconnect side of a move order when the customer moves to a new address)
- "L" Appointment coded orders (where the customer has requested a later than offered interval)
- Orders with CLEC/Subscriber caused delays or CLEC/Subscriber requested due date changes

Business Rules

The interval is determined for each order processed during the reporting period. This measurement combines three reports: FOC Timeliness, Average Order Completion Interval and Average Completion Notice Interval. For UNE XDSL Loop, this measurement combines Service Inquiry Interval (SI), FOC Timeliness, Average Completion Interval, and Average Completion Notice Interval.

This interval starts with the receipt of a valid service order request and stops when a completion notice is sent to the CLEC Interface (LENS, TAG OR EDI) and the BellSouth Legacy Systems. Elapsed time for each order is accumulated for each reporting dimension. The accumulated time for each reporting dimension is then divided by the associated total number of orders completed. Orders that are worked on zero due dates are calculated with a .33 day interval (8 hours) in order to report a portion of a day interval. These orders are issued and worked/completed on same day. They can be either flow through orders (no field work-non-dispatched) or field orders (dispatched).

Reporting is by Fully Mechanized, Partially Mechanized and Non-Mechanized receipt of LSRs.

Calculation

Total Service Order Cycle Time = (a - b)

- a = Service Order Completion Notice Date
- b = Service Request Receipt Date

Average Total Service Order Cycle Time = (c ÷ d)

- c = Sum of all Total Service Order Cycle Times
- d = Total Number Service Orders Completed in Reporting Period

Total Service Order Cycle Time Interval Distribution (for each interval) = (e ÷ f) X 100

- e = Total Number of Service Requests Completed in "X" minutes/hours
- f = Total Number of Service Requests Received in Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Fully Mechanized; Partially Mechanized; Non-Mechanized
- Report in categories of <10 line/circuits; ≥ 10 line/circuits (except trunks)
- Dispatch/Non-Dispatch categories applicable to all levels except trunks
- Intervals 0-5, 5-10, 10-15, 15-20, 20-25, 25-30, ≥ 30 Days. The interval breakout is: 0-5 = 0-≤5, 5-10 = >5-≤10, 10-15 = >10-≤15, 15-20 = >15-≤20, 20-25 = >20-≤25, 25-30 = >25-≤30, and >30.

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Interval for FOC • CLEC Company Name (OCN) • Order Number (PON) • Submission Date & Time (TICKET_ID) • Completion Date (CMPLTN_DT) • Completion Notice Date and Time • Service Type (CLASS_SVC_DESC) • Geographic Scope **Note:** Code in parentheses is the corresponding header found in the raw data file	• Report Month • BellSouth Order Number • Order Submission Date & Time • Order Completion Date & Time • Service Type • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• Resale Residence • Resale Business • Resale Design • Resale PBX • Resale Centrex • Resale ISDN • LNP • 2W Analog Loop Design • 2W Analog Loop Non-Design • UNE Switch Ports • UNE Loop + Port Combinations • UNE Combo Other • UNE xDSL (HDSL, ADSL and UCL) • UNE ISDN • UNE Line Sharing • UNE Other Design • UNE Other Non -Design • UNE Digital Loops < DS1 • UNE Digital Loops ≥ DS1 • Local Transport (Unbundled Interoffice Trans port) • Local Interconnection Trunks	• Diagnostic

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

P-10A: LNP – Average Time of Out of Service for LNP Conversions

Definition

Average time to facilitate the LNP activation request in BellSouth's network.

Exclusions

- CLEC-caused errors
- NPAC caused errors unless caused by BellSouth
- Stand Alone LNP Orders with more than 500 number activations

Business Rules

The Start time is the Receipt of the NPAC broadcast activation message in BellSouth's LSMS. The End time is when the Provisioning event is successfully completed in BellSouth's network as reflected in BellSouth's LSMS. Calculate the total minutes of difference between the start time and end time in minutes for LNP activations during the reporting period.

Calculation

Time Out of Service = (a - b)

- a = LNP Conversion Stop Time
- b = LNP Conversion Start Time

Average Out of Service Time for LNP Conversions = (c ÷ d) X 100

- c = Sum of all "Time out of Service" measures for the reporting period
- d = Total number of LNP activations for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State, Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Order Number • Telephone Number/Circuit Number • Committed Due Date • Receipt Date/Time (ESI Number Manager) • LNP Stop Time • Date/Time of Recent Change Notice	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• LNP (Standalone)	• 95% within 60 Minutes unless a different industry guideline is established that will override the benchmark referenced here.

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Level of Disaggregation	SEEM Analog/Benchmark
• LNP (Standalone)	• 95% within 60 Minutes

P-10B: LNP – Percentage of Time BellSouth Applies the 10-digit Trigger Prior to the LNP Order Due Date

Definition

Percentage of time BellSouth applies 10-digit trigger for LNP TNs prior to the due date.

Exclusions

- Excludes Remote Call Forwarding, DIDs, and ISDN Data TNs
- Excludes CLEC or Customer caused misses or delays.

Business Rules

Obtain number of LNP TNs where the 10-digit trigger was applicable prior to due date, and the total number of LNP TNs where the 10-digit trigger was applicable.

Calculation

Percentage of 10-digit applications = (a ÷ b) X 100

- a = Count of LNP TNs for which 10-digit trigger was applicable prior to due date
- b = Total LNP TNs for which 10-digit triggers were applied

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State, Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Order Number • Telephone Number/Circuit Number • Committed Due Date • Date/Time of Recent Change Notice	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• LNP (Standalone)	• 95%

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

P-11: LNP-Percent Missed Installation Appointments

Definition

"Percent missed installation appointments" monitors the reliability of BellSouth commitments with respect to committed due dates to assure that CLECs can reliably quote expected due dates to their retail customer as compared to BellSouth. This measure is the percentage of total orders processed for which BellSouth is unable to complete the service orders on the committed due dates and reported for total misses and End User Misses.

Exclusions

- Canceled Service Orders
- Order Activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Listing Orders, Test Orders, etc.) where identifiable

Business Rules

Percent Missed Installation Appointments (PMI) is the percentage of total orders processed for which BellSouth is unable to complete the service orders on the committed due dates. Missed Appointments caused by end-user reasons will be included and reported in a separate category. The first commitment date on the service order that is a missed appointment is the missed appointment code used for calculation whether it is a BellSouth missed appointment or an End User missed appointment. The "due date" is any time on the confirmed due date, which means there cannot be a cutoff time for commitments as certain types of orders are requested to be worked after standard business hours.

Calculation

LNP Percent Missed Installation Appointments = (a ÷ b) X 100

- a = Number of Orders with Completion date in Reporting Period past the Original Committed Due Date
- b = Number of Orders Completed in Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State/Region
- Report in Categories of <10 lines/circuits ≥ 10 lines/circuits (except trunks)

Report explanation: Total Missed Appointments is the total percent of orders missed either by BellSouth or the CLEC end user. End User MA represents the percentage of orders missed by the CLEC end user. The difference between End User Missed Appointments and Total Missed Appointments is the result of BellSouth caused misses.

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • CLEC Order Number and PON (PON) • Committed Due Date (DD) • Completion Date (CMPLTN DD) • Status Type • Status Notice Date • Standard Order Activity • Geographic Scope **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Not Applicable

SQM Disaggregation – Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
• LNP	• Retail Residence and Business (POTS)

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation – Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• LNP	• 95% Due Dates Met[a]

[a]*Due to data structure issues, BellSouth is using a benchmark comparison for SEEM rather than the Truncated Z as stated in the Order.*

Section 4: Maintenance & Repair

M&R-1: Missed Repair Appointments

Definition

The percent of trouble reports not cleared by the committed date and time.

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) troubles or CLEC Equipment Trouble
- LMOS - Code 7 (Test OK), Code 8 (Found OK- In), Code 9 (Found OK- Out)
- WFA - No Trouble Found (NTF)

Business Rules

The negotiated commitment date and time is established when the repair report is received. The cleared time is the date and time that BellSouth personnel clear the trouble and closes the trouble report in his/her Computer Access Terminal (CAT) or workstation. If this is after the Commitment time, the report is flagged as a "Missed Commitment" or a missed repair appointment. When the data for this measure is collected for BellSouth and a CLEC, it can be used to compare the percentage of the time repair appointments are missed due to BellSouth reasons. (No access reports are not part of this measure because they are not a missed appointment.)

Note: Appointment intervals vary with force availability in the POTS environment. Specials and Trunk intervals are standard interval appointments of no greater than 24 hours.

Calculation

Percentage of Missed Repair Appointments = (a ÷ b) X 100

- a = Count of Customer Troubles Not Cleared by the Quoted Commitment Date and Time
- b = Total Trouble reports closed in Reporting Period

Report Structure

- Dispatch / Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Company Name • Submission Date & Time (TICKET_ID) • Completion Date (CMPLTN_DT) • Service Type (CLASS_SVC_DESC) • Disposition and Cause (CAUSE_CD & CAUSE_DESC) • Geographic Scope **Note**: Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Company Code • Submission Date & Time • Completion Date • Service Type • Disposition and Cause (Non-Design /Non-Special Only) • Trouble Code (Design and Trunking Services) • Geographic Scope

SQM Disaggregation - SQM Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non–Design	• Retail Residence and Business (POTS) (Exclusion of Switch-Based Feature Troubles)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN	• Retail ISDN – BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

M&R-2: Customer Trouble Report Rate

Definition

Percent of initial and repeated customer direct or referred troubles reported within a calendar month per 100 lines/circuits in service.

Exclusions

- Trouble tickets canceled at the CLEC request.
- BellSouth trouble reports associated with internal or administrative service.
- Customer Provided Equipment (CPE) troubles or CLEC Equipment Trouble.
- LMOS - Code 7 (Test OK), Code 8 (Found OK - In), Code 9 (Found OK - Out)
- WFA - No Trouble Found (NTF)

Business Rules

Customer Trouble Report Rate is computed by accumulating the number of maintenance initial and repeated trouble reports during the reporting period. The resulting number of trouble reports are divided by the total "number of service" lines, ports or combination that exist for the CLECs and BellSouth respectively at the end of the report month.

Calculation

Customer Trouble Report Rate = (a ÷ b) X 100

- a = Count of Initial and Repeated Trouble Reports closed in the Current Period
- b = Number of Service Access Lines in service at End of the Report Period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Company Name • Ticket Submission Date & Time (TICKET_ID) • Ticket Completion Date (CMPLTN_DT) • Service Type (CLASS_SVC_DESC) • Disposition and Cause (CAUSE_CD & CAUSE_DESC) • # Service Access Lines in Service at the end of period • Geographic Scope **Note**: Code in parentheses is the corresponding header found in the raw data file.	• Report Month • BellSouth Company Code • Ticket Submission Date & Time • Ticket Completion Date • Service Type • Disposition and Cause (Non-Design /Non-Special Only) • Trouble Code (Design and Trunking Services) • # Service Access Lines in Service at the end of period • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale ISDN	• Retail ISDN
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non–Design	• Retail Residence and Business (POTS) (Exclusion of Switch-Based Feature Troubles)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN	• Retail ISDN – BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

M&R-3: Maintenance Average Duration

Definition

The Average duration of Customer Trouble Reports from the receipt of the Customer Trouble Report to the time the trouble report is cleared.

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) troubles or CLEC Equipment Trouble
- LMOS - Code 7 (Test OK), Code 8 (Found OK- In), Code 9 (Found OK- Out)
- WFA - No Trouble Found (NTF)

Business Rules

For Average Duration the clock starts on the date and time of the receipt of a correct repair request. The clock stops on the date and time the service is restored and the BellSouth or CLEC customer is notified (when the technician completes the trouble ticket on his/her CAT or work systems).

Calculation

Maintenance Duration = (a - b)

- a = Date and Time of Service Restoration
- b = Date and Time Trouble Ticket was Opened

Average Maintenance Duration = (c ÷ d)

- c = Total of all maintenance durations in the reporting period
- d = Total Closed Troubles in the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience:	Relating to BellSouth Performance:
• Report Month • Total Tickets (LINE_NBR) • CLEC Company Name • Ticket Submission Date & Time (TICKET_ID) • Ticket Completion Date (CMPLTN_DT) • Service Type (CLASS_SVC_DESC) • Disposition and Cause (CAUSE_CD & CAUSE_DESC) • Geographic Scope **Note**: Code in parentheses is the corresponding header found in the raw data file.	• Report Month • Total Tickets • BellSouth Company Code • Ticket Submission Date • Ticket Submission Time • Ticket Completion Date • Ticket Completion Time • Total Duration Time • Service Type • Disposition and Cause (Non-Design /Non-Special Only) • Trouble Code (Design and Trunking Services) • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non–Design	• Retail Residence and Business (POTS) (Exclusion of Switch-Based Feature Troubles)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN	• Retail ISDN – BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

M&R-4: Percent Repeat Troubles within 30 Days

Definition

Closed trouble reports on the same line/circuit as a previous trouble report received within 30 calendar days as a percent of total troubles closed.

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) troubles or CLEC Equipment Trouble
- LMOS - Code 7 (Test OK), Code 8 (Found OK- In), Code 9 (Found OK- Out)
- WFA - No Trouble Found (NTF)

Business Rules

Includes customer trouble reports received within 30 days of an original customer trouble report.

Calculation

Percent Repeat Troubles within 30 Days = (a ÷ b) X 100

- a = Count of closed Customer Troubles where more than one trouble report was logged for the same service line within a continuous 30 days
- b = Total Trouble Reports Closed in Reporting Period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Total Tickets (LINE_NBR) • CLEC Company Name • Ticket Submission Date & Time (TICKET_ID) • Ticket Completion Date (CMPLTN_DT) • Total and Percent Repeat Trouble Reports within 30 Days (TOT_REPEAT) • Service Type • Disposition and Cause (CAUSE_CD & CAUSE_DESC) • Geographic Scope **Note**: Code in parentheses is the corresponding header found in the raw data file.	• Report Month • Total Tickets • BellSouth Company Code • Ticket Submission Date • Ticket Submission Time • Ticket Completion Date • Ticket Completion Time • Total and Percent Repeat Trouble Reports within 30 Days • Service Type • Disposition and Cause (Non-Design /Non-Special Only) • Trouble Code (Design and Trunking Services) • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Centrex	• Retail Centrex
• Resale ISDN	• Retail ISDN
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non–Design	• Retail Residence and Business (POTS) (Exclusion of Switch-Based Feature Troubles)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN	• Retail ISDN – BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Resale POTS	• Retail Residence and Business (POTS)
• Resale Design	• Retail Design
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Loops	• Retail Residence and Business Dispatch
• UNE xDSL	• ADSL Provided to Retail
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail

M&R-5: Out of Service (OOS) > 24 Hours

Definition

For Out of Service Troubles (no dial tone, cannot be called or cannot call out) the percentage of Total OOS Troubles cleared in excess of 24 hours. (All design services are considered to be out of service).

Exclusions

- Trouble Reports canceled at the CLEC request
- BellSouth Trouble Reports associated with administrative service
- Customer Provided Equipment (CPE) Troubles or CLEC Equipment Troubles.

Business Rules

Customer Trouble reports that are out of service and cleared in excess of 24 hours. The clock begins when the trouble report is created in LMOS/WFA and the trouble is counted if the elapsed time exceeds 24 hours.

Calculation

Out of Service (OOS) > 24 hours = (a ÷ b) X 100

- a = Total Cleared Troubles OOS > 24 Hours
- b = Total OOS Troubles in Reporting Period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- BellSouth Aggregate
- CLEC Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Total Tickets • CLEC Company Name • Ticket Submission Date & Time (TICKET_ID) • Ticket Completion Date (CMPLTN_DT • Percentage of Customer Troubles out of • Service > 24 Hours (OOS>24_FLAG) • Service type (CLASS_SVC_DESC) • Disposition and Cause (CAUSE_CD & CAUSE-DESC) • Geographic Scope **Note:** Code in parentheses is the corresponding header found in the raw data file.	• Report Month • Total Tickets • BellSouth Company Code • Ticket Submission Date • Ticket Submission time • Ticket Completion Date • Ticket Completion Time • Percent of Customer Troubles out of Service > 24 Hours • Service type • Disposition and Cause (Non-Design/Non-Special only) • Trouble Code (Design and Trunking Services) • Geographic Scope

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence	• Retail Residence
• Resale Business	• Retail Business
• Resale Design	• Retail Design
• Resale PBX	• Retail PBX
• Resale Centrex	• Retail Centrex

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale ISDN	• Retail ISDN
• 2W Analog Loop Design	• Retail Residence and Business Dispatch
• 2W Analog Loop Non–Design	• Retail Residence and Business (POTS) (Exclusion of Switch-Based Feature Troubles)
• UNE Digital Loop < DS1	• Retail Digital Loop < DS1
• UNE Digital Loop ≥ DS1	• Retail Digital Loop ≥ DS1
• UNE Loop + Port Combinations	• Retail Residence and Business
• UNE Switch Ports	• Retail Residence and Business (POTS)
• UNE Other Design	• Retail Design
• UNE Other Non-Design	• Retail Residence and Business
• UNE Combo Other	• Retail Residence, Business and Design Dispatch
• UNE xDSL (HDSL, ADSL and UCL)	• ADSL Provided to Retail
• UNE ISDN	• Retail ISDN – BRI
• UNE Line Sharing	• ADSL Provided to Retail
• Local Interconnection Trunks	• Parity with Retail
• Local Transport (Unbundled Interoffice Transport)	• Retail DS1/DS3 Interoffice

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

M&R-6: Average Answer Time – Repair Centers

Definition

This report measures the average time a customer is in queue.

Exclusions

None

Business Rules

The clock starts when a CLEC Representative or BellSouth customer makes a choice on the Repair Center's menu and is put in queue for the next repair attendant. The clock stops when the repair attendant answers the call (abandoned calls are not included).

Note: The Total Column is a combined BellSouth Residence and Business number.

Calculation

Answer Time for BellSouth Repair Centers = (a - b)

- a = Time BellSouth Repair Attendant Answers Call
- b = Time of entry into queue after ACD Selection

Average Answer Time for BellSouth Repair Centers = (c ÷ d)

- c = Sum of all Answer Times
- d = Total number of calls by reporting period

Report Structure

- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• CLEC Average Answer Time	• BellSouth Average Answer Time

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region. CLEC/BellSouth Service Centers and BellSouth Repair Centers are regional.	• For CLEC, Average Answer Times in CWINS Center and BRMC are comparable to the Average Answer Times in the BellSouth Repair Centers.

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

M&R-7: Mean Time To Notify CLEC of Network Outages

Definition

This report measures the time it takes for the BellSouth Network Management Center (NMC) to notify the CLEC of major network outages.

Exclusions

None

Business Rules

BellSouth will inform the CLEC of any major network outages (key customer accounts) via a page or email. When the BellSouth NMC becomes aware of a network incident, the CLEC and BellSouth will be notified electronically. The notification time for each outage will be measured in minutes and divided by the number of outages for the reporting period. These are broadcast messages. It is up to those receiving the message to determine if they have customers affected by the incident.

The CLECs will be notified in accordance with the rules outlined in Appendix D of the CLEC "Customer Guide" which is published on the internet at: www.interconnection.bellsouth.com/guides/other_guides/html/gopue/indexf.htm.

Calculation

Time to Notify CLEC = (a - b)

- a = Date and Time BellSouth Notified CLEC
- b = Date and Time BellSouth Detected Network Incident

Mean Time to Notify CLEC = (c ÷ d)

- c = Sum of all Times to Notify CLEC
- d = Count of Network Incidents

Report Structure

- BellSouth Aggregate
- CLEC Aggregate
- CLEC Specific

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Major Network Events • Date/Time of Incident • Date/Time of Notification	• Report Month • Major Network Events • Date/Time of Incident • Date/Time of Notification

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• BellSouth Aggregate • CLEC Aggregate • CLEC Specific	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Section 5: Billing

B-1: Invoice Accuracy

Definition

This measure provides the percentage of accuracy of the billing invoices rendered to CLECs during the current month.

Exclusions

- Adjustments not related to billing errors (e.g., credits for service outage, special promotion credits, adjustments to satisfy the customer)
- Test Accounts

Business Rules

The accuracy of billing invoices delivered by BellSouth to the CLEC must enable them to provide a degree of billing accuracy comparative to BellSouth bills rendered to retail customers of BellSouth. CLECs request adjustments on bills determined to be incorrect. The BellSouth Billing verification process includes manually analyzing a sample of local bills from each bill period. The bill verification process draws from a mix of different customer billing options and types of service. An end-to-end auditing process is performed for new products and services. Internal measurements and controls are maintained on all billing processes.

Calculation

Invoice Accuracy = [(a - b) ÷ a] X 100

- a = Absolute Value of Total Billed Revenues during current month
- b = Absolute Value of Billing Related Adjustments during current month

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - Region
  - State

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Invoice Type - UNE - Resale - Interconnection • Total Billed Revenue • Billing Related Adjustments	• Report Month • Retail Type - CRIS - CABS • Total Billed Revenue • Billing Related Adjustments

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Product / Invoice Type - Resale - UNE - Interconnection	• CLEC Invoice Accuracy is comparable to BellSouth Invoice Accuracy

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• CLEC State • BellSouth State	• Parity with Retail

B2: Mean Time to Deliver Invoices

Definition

Bill Distribution is calculated as follows: CRIS BILLS-The number of workdays is reported for CRIS bills. This is calculated by counting the Bill Period date as the first work day. Weekends and holidays are excluded when counting workdays. J/N Bills are counted in the CRIS work day category for the purposes of the measurement since their billing account number (Q account) is provided from the CRIS system.

CABS BILLS-The number of calendar days is reported for CABS bills. This is calculated by counting the day following the Bill Period date as the first calendar day. Weekends and holidays are included when counting the calendar days.

Exclusions

Any invoices rejected due to formatting or content errors.

Business Rules

This report measures the mean interval for timeliness of billing records delivered to CLECs in an agreed upon format. CRIS-based invoices are measured in business days, and CABS-based invoices in calendar days.

Calculation

Invoice Timeliness = (a - b)

- a = Invoice Transmission Date
- b = Close Date of Scheduled Bill Cycle

Mean Time To Deliver Invoices = (c ÷ d)

- c = Sum of all Invoice Timeliness intervals
- d = Count of Invoices Transmitted in Reporting Period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - Region
  - State

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Invoice Type - UNE - Resale - Interconnection • Invoice Transmission Count • Date of Scheduled Bill Close	• Report Month • Invoice Type - CRIS - CABS • Invoice Transmission Count • Date of Scheduled Bill Close

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Product / Invoice Type • Resale • UNE • Interconnection	• CRIS-based invoices will be released for delivery within six (6) business days. • CABS-based invoices will be released for delivery within eight (8) calendar days. • CLEC Average Delivery Intervals for both CRIS and CABS Invoices are comparable to BellSouth Average delivery for both systems.

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• CLEC State - CRIS - CABS • BellSouth Region	• Parity with Retail

B3: Usage Data Delivery Accuracy

Definition

This measurement captures the percentage of recorded usage that is delivered error free and in an acceptable format to the appropriate Competitive Local Exchange Carrier (CLEC). These percentages will provide the necessary data for use as a comparative measurement for BellSouth performance. This measurement captures Data Delivery Accuracy rather than the accuracy of the individual usage recording.

Exclusions

None

Business Rules

The accuracy of the data delivery of usage records delivered by BellSouth to the CLEC must enable them to provide a degree of accuracy comparative to BellSouth bills rendered to their retail customers. If errors are detected in the delivery process, they are investigated, evaluated and documented. Errors are corrected and the data retransmitted to the CLEC.

Calculation

Usage Data Delivery Accuracy = (a - b) ÷ a X 100

- a = Total number of usage data packs sent during current month
- b = Total number of usage data packs requiring retransmission during current month

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Record Type - BellSouth Recorded - Non-BellSouth Recorded	• Report Month • Record Type

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• CLEC Usage Data Delivery Accuracy is comparable to BellSouth Usage Data Delivery Accuracy

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• CLEC State • BellSouth Region	• Parity with Retail

B4: Usage Data Delivery Completeness

Definition

This measurement provides percentage of complete and accurately recorded usage data (usage recorded by BellSouth and usage recorded by other companies and sent to BellSouth for billing) that is processed and transmitted to the CLEC within thirty (30) days of the message recording date. A parity measure is also provided showing completeness of BellSouth messages processed and transmitted via CMDS. BellSouth delivers its own retail usage from recording location to billing location via CMDS as well as delivering billing data to other companies. Timeliness, Completeness and Mean Time to Deliver Usage measures are reported on the same report.

Exclusions

None

Business Rules

The purpose of these measurements is to demonstrate the level of quality of usage data delivered to the appropriate CLEC. Method of delivery is at the option of the CLEC.

Calculation

Usage Data Delivery Completeness = (a ÷ b) X 100

- a = Total number of Recorded usage records delivered during current month that are within thirty (30) days of the message recording date
- b = Total number of Recorded usage records delivered during the current month

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • Record Type - BellSouth Recorded - Non-BellSouth Recorded	• Report Month • Record Type

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• Benchmark ≥ 98%

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

B5: Usage Data Delivery Timeliness

Definition

This measurement provides a percentage of recorded usage data (usage recorded by BellSouth and usage recorded by other companies and sent to BellSouth for billing) that is delivered to the appropriate CLEC within six (6) calendar days from the receipt of the initial recording. A parity measure is also provided showing timeliness of BellSouth messages processed and transmitted via CMDS. Timeliness, Completeness and Mean Time to Deliver Usage measures are reported on the same report.

Exclusions

None

Business Rules

The purpose of this measurement is to demonstrate the level of timeliness for processing and transmission of usage data delivered to the appropriate CLEC. The usage data will be mechanically transmitted or mailed to the CLEC data processing center once daily. The Timeliness interval of usage recorded by other companies is measured from the date BellSouth receives the records to the date BellSouth distributes to the CLEC. Method of delivery is at the option of the CLEC.

Calculation

Usage Data Delivery Timeliness Current month = (a ÷ b) X 100

- a = Total number of usage records sent within six (6) calendar days from initial recording/receipt
- b = Total number of usage records sent

Report Structure

- CLEC Aggregate
- CLEC Specific
- BellSouth Aggregate
- Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance

• Report Month
• Record Type
  - BellSouth Recorded
  - Non-BellSouth Recorded
	• Report Month
	• Record Type

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• Benchmark ≥ 95%

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

B6: Mean Time to Deliver Usage

Definition

This measurement provides the average time it takes to deliver Usage Records to a CLEC. A parity measure is also provided showing timeliness of BellSouth messages processed and transmitted via CMDS. Timeliness, Completeness and Mean Time to Deliver Usage measures are reported on the same report.

Exclusions

None

Business Rules

The purpose of this measurement is to demonstrate the average number of days it takes BellSouth to deliver Usage data to the appropriate CLEC. Usage data is mechanically transmitted or mailed to the CLEC data processing center once daily. Method of delivery is at the option of the CLEC.

Calculation

Mean Time to Deliver Usage = (a X b) ÷ c

- a = Volume of Records Delivered
- b = Estimated number of days to deliver
- c = Total Record Volume Delivered

Note: Any usage record falling in the 30+ day interval will be added using an average figure of 31.5 days.

Report Structure

- CLEC Aggregate
- CLEC Specific
- BellSouth Aggregate
- Region

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance

• Report Month
• Record Type
  - BellSouth Recorded
  - Non-BellSouth Recorded
	• Report Month
	• Record Type

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• Benchmark ≤ 5 Days

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

B7: Recurring Charge Completeness

Definition

This measure captures percentage of fractional recurring charges appearing on the correct bill.

Exclusions

None

Business Rules

The effective date of the recurring charge must be within 30 days of the bill date for the charge to appear on the correct bill.

Calculation

Recurring Charge Completeness = (a ÷ b) X 100

- a = Count of fractional recurring charges that are on the correct bill[1]
- b = Total count of fractional recurring charges that are on the correct bill

[1]Correct bill = next available bill

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Invoice Type • Total Recurring Charges Billed • Total Billed on Time	• Report Month • Retail Analog • Total Recurring Charges Billed • Total Billed on Time

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Product/Invoice Type	
• Resale	• Parity
• UNE	• Benchmark 90%
• Interconnection	• Benchmark 90%

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

B8: Non-Recurring Charge Completeness

Definition

This measure captures percentage of non-recurring charges appearing on the correct bill.

Exclusions

None

Business Rules

The effective date of the non-recurring charge must be within 30 days of the bill date for the charge to appear on the correct bill.

Calculation

Non-Recurring Charge Completeness = (a ÷ b) X 100

- a = Count of non-recurring charges that are on the correct bill[1]
- b = Total count of non-recurring charges that are on the correct bill

[1]Correct bill = next available bill

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Invoice Type • Total Non-Recurring Charges Billed • Total Billed on Time	• Report Month • Retail Analog • Total Non-Recurring Charges Billed • Total Billed on Time

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Product/Invoice Type	
• Resale	• Parity
• UNE	• Benchmark 90%
• Interconnection	• Benchmark 90%

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Section 6: Operator Services And Directory Assistance

OS-1: Speed to Answer Performance/Average Speed to Answer - Toll

Definition

Measurement of the average time in seconds calls wait before answered by a toll operator.

Exclusions

None

Business Rules

The clock starts when the customer enters the queue and the clock stops when a BellSouth representative answers the call or the customer abandons the call. The length of each call is determined by measuring, using a scanning technique, and accumulating the elapsed time from the entry of a customer call into the BellSouth call management system queue until the customer call is abandoned or transferred to BellSouth personnel assigned to handle calls for assistance. The system makes no distinction between CLEC customers and BellSouth customers.

Calculation

Speed to Answer Performance/Average Speed to Answer - Toll = a ÷ b

- a = Total queue time
- b = Total calls answered

Note: Total queue time includes time that answered calls wait in queue as well as time abandoned calls wait in queue prior to abandonment.

Report Structure

- Reported for the aggregate of BellSouth and CLECs
  - State

Data Retained (on Aggregate Basis)

- For the items below, BellSouth's Performance Measurement Analysis Platform (PMAP) receives a final computation; therefore, no raw data file is available in PMAP
- Month
- Call Type (Toll)
- Average Speed of Answer

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

OS-2: Speed to Answer Performance/Percent Answered with "X" Seconds – Toll

Definition

Measurement of the percent of toll calls that are answered in less than ten seconds

Exclusions

None

Business Rules

The clock starts when the customer enters the queue and the clock stops when a BellSouth representative answers the call or the customer abandons the call. The length of each call is determined by measuring, using a scanning technique, and accumulating the elapsed time from the entry of a customer call into the BellSouth call management system queue until the customer call is abandoned or transferred to BellSouth personnel assigned to handle calls for assistance. The system makes no distinction between CLEC customers and BellSouth customers.

Calculation

The Percent Answered within "X" Seconds measurement for toll is derived by using the BellCore Statistical Answer Conversion Tables, to convert the Average Speed to Answer measure into a percent of calls answered within "X" seconds. The BellCore Conversion Tables are specific to the defined parameters of work time, number of operators, max queue size and call abandonment rates.

Report Structure

- Reported for the aggregate of BellSouth and CLECs
  - State

Data Retained (on Aggregate Basis)

- For the items below, BellSouth's Performance Measurement Analysis Platform (PMAP) receives a final computation; therefore, no raw data file is available in PMAP
- Month
- Call Type (Toll)
- Average Speed of Answer

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation:	SQM Analog/Benchmark:
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

DA-1: Speed to Answer Performance/Average Speed to Answer – Directory Assistance (DA)

Definition

Measurement of the average time in seconds calls wait before answered by a DA operator.

Exclusions

None

Business Rules

The clock starts when the customer enters the queue and the clock stops when a BellSouth representative answers the call or the customer abandons the call. The length of each call is determined by measuring, using a scanning technique, and accumulating the elapsed time from the entry of a customer call into the BellSouth call management system queue until the customer call is abandoned or transferred to BellSouth personnel assigned to handle calls for assistance. The system makes no distinction between CLEC customers and BellSouth customers.

Calculation

Speed to Answer Performance/Average Speed to Answer – Directory Assistance (DA) = a ÷ b

- a = Total queue time
- b = Total calls answered

Note: Total queue time includes time that answered calls wait in queue as well as time abandoned calls wait in queue prior to abandonment.

Report Structure

- Reported for the aggregate of BellSouth and CLECs
  - State

Data Retained (on Aggregate Basis)

- For the items below, BellSouth's Performance Measurement Analysis Platform (PMAP) receives a final computation; therefore, no raw data file is available in PMAP
- Month
- Call Type (DA)
- Average Speed of Answer

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

DA-2: Speed to Answer Performance/Percent Answered within "X" Seconds – Directory Assistance (DA)

Definition

Measurement of the percent of DA calls that are answered in less than ten seconds.

Exclusions

None

Business Rules

The clock starts when the customer enters the queue and the clock stops when a BellSouth representative answers the call or the customer abandons the call. The length of each call is determined by measuring, using a scanning technique, and accumulating the elapsed time from the entry of a customer call into the BellSouth call management system queue until the customer call is abandoned or transferred to BellSouth personnel assigned to handle calls for assistance. The system makes no distinction between CLEC customers and BellSouth customers.

Calculation

The Percent Answered within "X" Seconds measurement for DA is derived by using the BellCore Statistical Answer Conversion Tables, to convert the Average Speed to Answer measure into a percent of calls answered within "X" seconds. The BellCore Conversion Tables are specific to the defined parameters of work time, number of operators, max queue size and call abandonment rates.

Report Structure

- Reported for the aggregate of BellSouth and CLECs
  - State

Data Retained (on Aggregate Basis)

- For the items below, BellSouth's Performance Measurement Analysis Platform (PMAP) receives a final computation; therefore, no raw data file is available in PMAP.
- Month
- Call Type (DA)
- Average Speed of Answer

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Section 7: Database Update Information

D-1: Average Database Update Interval

Definition

This report measures the interval from receipt of the database change request to the completion of the update to the database for Line Information Database (LIDB), Directory Assistance and Directory Listings. For E-911, see Section 8.

Exclusions

- Updates Canceled by the CLEC
- Initial update when supplemented by CLEC
- BellSouth updates associated with internal or administrative use of local services

Business Rules

The interval for this measure begins with the date and time stamp when a service order is completed and the completion notice is released to all systems to be updated with the order information including Directory Assistance, Directory Listings, and Line Information Database (LIDB). The end time stamp is the date and time of completion of updates to the system.

For BellSouth Results:

The BellSouth computation is identical to that for the CLEC with the clarifications noted below.

Other Clarifications and Qualification:

- For LIDB, the elapsed time for a BellSouth update is measured from the point in time when the BellSouth file maintenance process makes the LIDB update information available until the date and time reported by BellSouth that database updates are completed.
- Results for the CLECs are captured and reported at the update level by Reporting Dimension (see below).
- The Completion Date is the date upon which BellSouth issues the Update Completion Notice to the CLEC.
- If the CLEC initiates a supplement to the originally submitted update and the supplement reflects changes in customer requirements (rather than responding to BellSouth initiated changes), then the update submission date and time will be the date and time of BellSouth receipt of a syntactically correct update supplement. Update activities responding to BellSouth initiated changes will not result in changes to the update submission date and time used for the purposes of computing the update completion interval.
- Elapsed time is measured in hours and hundredths of hours rounded to the nearest tenth of an hour.
- Because this should be a highly automated process, the accumulation of elapsed time continues through off-schedule, weekends and holidays; however, scheduled maintenance windows are excluded.

Calculation

Update Interval = (a - b)

- a = Completion Date & Time of Database Update
- b = Submission Date and Time of Database Change

Average Update Interval = (c ÷ d)

- c = Sum of all Update Intervals
- d = Total Number of Updates Completed During Reporting Period

Report Structure

- CLEC Specific (Under development)
- CLEC Aggregate
- BellSouth Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Database File Submission Time • Database File Update Completion Time • CLEC Number of Submissions • Total Number of Updates	• Database File Submission Time • Database File Update Completion Time • BellSouth Number of Submissions • Total Number of Updates

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
Database Type • LIDB • Directory Listings • Directory Assistance	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

D-2: Percent Database Update Accuracy

Definition

This report measures the accuracy of database updates by BellSouth for Line Information Database (LIDB), Directory Assistance, and Directory Listings using a statistically valid sample of LSRs/Orders in a manual review. This manual review is not conducted on BellSouth Retail Orders.

Exclusions

- Updates canceled by the CLEC
- Initial update when supplemented by CLEC
- CLEC orders that had CLEC errors
- BellSouth updates associated with internal or administrative use of local services.

Business Rules

For each update completed during the reporting period, the original update that the CLEC sent to BellSouth is compared to the database following completion of the update by BellSouth. An update is "completed without error" if the database completely and accurately reflects the activity specified on the original and supplemental update (orders) submitted by the CLEC. Each database (LIDB, Directory Assistance, and Directory Listings) should be separately tracked and reported.

A statistically valid sample of CLEC Orders are pulled each month. That sample will be used to test the accuracy of the database update process. This is a manual process.

Calculation

Percent Update Accuracy = (a ÷ b) X 100

- a = Number of Updates Completed Without Error
- b = Number Updates Completed

Report Structure

- CLEC Aggregate
- CLEC Specific (not available in this report)
- BellSouth Aggregate (not available in this report)

Data Retained

Relating to CLEC Experience	Relating to BellSouth Performance
• Report Month • CLEC Order Number (so_nbr) and PON (PON) • Local Service Request (LSR) • Order Submission Date • Number of Orders Reviewed **Note**: Code in parentheses is the corresponding header found in the raw data file.	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM LEVEL of Disaggregation	SQM Analog/Benchmark
Database Type • LIDB • Directory Assistance • Directory Listing	• 95% Accurate

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

D-3: Percent NXXs and LRNs Loaded by the LERG Effective Date

Definition

Measurement of the percent of NXX(s) and Location Routing Numbers LRN(s) loaded in end office and/or tandem switches by the Local Exchange Routing Guide (LERG) effective date when facilities are in place. BellSouth has a single provisioning process for both NXX(s) and LRN(s). In this measure, BellSouth will identify whether or not a particular NXX has been flagged as LNP capable (set triggers for dips) by the LERG effective date.

An LRN is assigned by the owner of the switch and is placed into the software translations for every switch to be used as an administrative pointer to route NXX(s) in LNP capable switches. The LRN is a result of Local Number Porting and is housed in a national database provided by the Number Portability Administration Center (NPAC). The switch owner is responsible for notifying NPAC and requesting the effective date that will be reflected in the LERG. The national database downloads routing tables into BellSouth Service Control Point (SCP) regional databases, which are queried by switches when routing ported numbers.

The basic NXX routing process includes the addition of all NXX(s) in the response translations. This addition to response translations is what supports LRN routing. Routing instructions for all NXX(s), including LRN(s), are received from the Advance Routing & Trunking System (ARTS) and all routing, including response, is established based on the information contained in the Translation Work Instructions (TWINs) document.

Exclusions

- Activation requests where the CLEC's interconnection arrangements and facilities are not in place by the LERG effective date.

Business Rules

Data for the initial NXX(s) and LRN(s) in a local calling area will be based on the LERG effective date or completion of the initial interconnection trunk group(s), whichever is longer. Data for additional NXX(s) in the local calling area will be based on the LERG effective date. The LERG effective date is loaded into the system at the request of the CLEC. It is contingent upon the CLEC to engineer, order, and install interconnection arrangements and facilities prior to that date.

The total Count of NXX(s) and LRN(s) that were scheduled to be loaded and those that were loaded by the LERG effective date in BellSouth switches will be captured in the Work Force Administration -Dispatch In database.

Calculation

Percent NXXs/LRNs Loaded and Tested Prior to the LERG Effective Date = (a ÷ b) X 100

- a = Count of NXXs and LRNs loaded by the LERG effective date
- b = Total NXXs and LRNs scheduled to be loaded by the LERG effective date

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth (Not Applicable)

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Company Name • Company Code • NPA/NXX • LERG Effective Date • Loaded Date	• Not Applicable

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Geographic scope - Region	• 100% by LERG effective date

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Section 8: E911

E-1: Timeliness

Definition

Measures the percent of batch orders for E911 database updates (to CLEC resale and BellSouth retail records) processed successfully within a 24-hour period.

Exclusions

- Any resale order canceled by a CLEC
- Facilities-based CLEC orders

Business Rules

The 24-hour processing period is calculated based on the date and time processing starts on the batch orders and the date and time processing stops on the batch orders. Mechanical processing starts when SCC (the BellSouth E911 vendor) receives E911 files containing batch orders extracted from the BellSouth Service Order Control System (SOCS). Processing stops when SCC loads the individual records to the E911 database. The E911 database includes updates to the Automatic Location Identification (ALI) database. The system makes no distinction between CLEC resale records and BellSouth retail records.

Calculation

E911 Timeliness = (a ÷ b) X 100

- a = Number of batch orders processed within 24 hours
- b = Total number of batch orders submitted

Report Structure

Reported for the aggregate of CLEC resale updates and BellSouth retail updates

- State
- Region

Data Retained

- Report month
- Aggregate data

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

E-2: Accuracy

Definition

Measures the percent of E911 telephone number (TN) record updates (to CLEC resale and BellSouth retail records) processed successfully for E911 (including the Automatic Location Identification (ALI) database).

Exclusions

- Any resale order canceled by a CLEC
- Facilities-based CLEC orders

Business Rules

Accuracy is based on the number of records processed without error at the conclusion of the processing cycle. Mechanical processing starts when SCC (the BellSouth E911 vendor) receives E911 files containing telephone number (TN) records extracted from BellSouth's Service Order Control System (SOCS). The system makes no distinction between CLEC resale records and BellSouth retail records.

Calculation

E911 Accuracy = (a ÷ b) X 100

- a = Number of record individual updates processed with no errors
- b = Total number of individual record updates

Report Structure

Reported for the aggregate of CLEC resale updates and BellSouth retail updates

- State
- Region

Data Retained

- Report month
- Aggregate data

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

E-3: Mean Interval

Definition

Measures the mean interval processing of E911 batch orders (to update CLEC resale and BellSouth retail records) including processing against the Automatic Location Identification (ALI) database.

Exclusions

- Any resale order canceled by a CLEC
- Facilities-based CLEC orders

Business Rules

The processing period is calculated based on the date and time processing starts on the batch orders and the date and time processing stops on the batch orders. Data is posted is 4-hour increments up to and beyond 24 hours. The system makes no distinction between CLEC resale records and BellSouth retail records.

Calculation

E911 Interval = (a - b)

- a = Date and time of batch order completion
- b = Date and time of batch order submission

E911 Mean Interval = (c ÷ d)

- c = Sum of all E911 Intervals
- d = Number of batch orders completed

Report Structure

Reported for the aggregate of CLEC resale updates and BellSouth retail updates

- State
- Region

Data Retained

- Report month
- Aggregate data

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• None	• Parity by Design

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Section 9: Trunk Group Performance

TGP-1: Trunk Group Performance-Aggregate

Definition

The Trunk Group Performance report displays, over a reporting cycle, aggregate, average trunk group blocking data for each hour of each day of the reporting cycle, for both CLEC affecting and BellSouth affecting trunk groups.

Exclusions

- Trunk groups for which valid data is not available for an entire study period
- Duplicate trunk group information
- Trunk groups blocked due to CLEC network/equipment failure
- Trunk groups blocked due to CLEC delayed or refused orders
- Increases in volume due to CLEC lack of informing BellSouth within a reasonable timeframe
- Final groups actually overflowing, not blocking

Business Rules

The purpose of the Trunk Group Performance Report is to provide trunk blocking measurements on CLEC and BellSouth trunk groups for comparison only. It is not the intent of the report that it be used for network management and/or engineering.

Monthly Average Blocking:

- The reporting cycle includes both business and non-business days in a calendar month.
- Monthly average blocking values are calculated for each trunk group for each of the 24 time consistent hours across a reporting cycle.

Aggregate Monthly Blocking:

- Used to compare aggregate blocking across trunk groups which terminate traffic at CLEC points of presence versus BellSouth switches.
- Aggregate monthly blocking data is calculated for each hour of the day across all trunk groups assigned to a category.

Trunk Categorization:

This report displays, over a reporting cycle, aggregate, average blocking data for each hour of a day. Therefore, for each reporting cycle, 24 blocking data points are generated for two aggregate groups of selected trunk groups. These groups are CLEC affecting and BellSouth affecting trunk groups. In order to assign trunk groups to each aggregate group, all trunk groups are first assigned to a category. A trunk group's end points and the type of traffic that is transmitted on it define a category. Selected categories of trunk groups are assigned to the aggregate groups so that trunk reports can be generated. The categories to which trunk groups have been assigned for this report are as follows.

CLEC Affecting Categories:

	Point A	Point B
Category 1:	BellSouth End Office	BellSouth Access Tandem
Category 3:	BellSouth End Office	CLEC Switch
Category 4:	BellSouth Local Tandem	CLEC Switch
Category 5:	BellSouth Access Tandem	CLEC Switch
Category 10:	BellSouth End Office	BellSouth Local Tandem
Category 16:	BellSouth Tandem	BellSouth Tandem

BellSouth Affecting Categories:

	Point A	Point B
Category 1:	BellSouth End Office	BellSouth Access Tandem
Category 9:	BellSouth End Office	BellSouth End Office
Category 10:	BellSouth End Office	BellSouth Local Tandem
Category 16:	BellSouth Tandem	BellSouth Tandem

Calculation

Monthly Average Blocking:

- For each hour of the day, each day's raw data are summed across all valid measurements days in a report cycle for blocked and attempted calls.
- The sum of the blocked calls is divided by the total number of calls attempted in a reporting period.

Aggregate Monthly Blocking:

- For each hour of the day, the monthly sums of the blocked and attempted calls from each trunk group are separately aggregated over all trunk groups within each assigned category.
- The total blocked calls is divided by the total call attempts within a group to calculate an aggregate monthly blocking for each assigned group.
- The result is an aggregate monthly average blocking value for each of the 24 hours by group.
- The difference between the CLEC and BellSouth affecting trunk groups are also calculated for each hour.

Report Structure

- CLEC Aggregate
- BellSouth Aggregate
  - State

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Total Trunk Groups • Number of Trunk Groups by CLEC • Hourly blocking per trunk group • Hourly usage per trunk group • Hourly call attempts per trunk group	• Report Month • Total Trunk Groups • Aggregate Hourly blocking per trunk group • Hourly usage per trunk group • Hourly call attempts per trunk group

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• CLEC aggregate • BellSouth aggregate	• Any 2 hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1, 3, 4, 5, 10, 16 for CLECs and 1,9,10,16 for BellSouth

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• CLEC aggregate • BellSouth aggregate	• Any 2 hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1,3,4,5,10,16 for CLECs and 1,9,10,16 for BellSouth

TGP-2: Trunk Group Performance-CLEC Specific

Definition

The Trunk Group Performance report displays, over a reporting cycle, aggregate, average trunk group blocking data for each hour of each day of the reporting cycle, for both CLEC affecting and BellSouth affecting trunk groups.

Exclusions

- Trunk groups for which valid data is not available for an entire study period
- Duplicate trunk group information
- Trunk groups blocked due to CLEC network/equipment failure
- Trunk groups blocked due to CLEC delayed or refused orders
- Increases in volume due to CLEC lack of informing BellSouth within a reasonable timeframe
- Final groups actually overflowing, not blocking

Business Rules

The purpose of the Trunk Group Performance Report is to provide trunk blocking measurements on CLEC and BellSouth trunk groups for comparison only. It is not the intent of the report that it be used for network management and/or engineering.

Monthly Average Blocking:

- The reporting cycle includes both business and non-business days in a calendar month.
- Monthly average blocking values are calculated for each trunk group for each of the 24 time consistent hours across a reporting cycle.

Aggregate Monthly Blocking:

- Used to compare aggregate blocking across trunk groups which terminate traffic at CLEC points of presence versus BellSouth switches.
- Aggregate monthly blocking data is calculated for each hour of the day across all trunk groups assigned to a category.

Trunk Categorization:

- This report displays, over a reporting cycle, aggregate, average blocking data for each hour of a day. Therefore, for each reporting cycle, 24 blocking data points are generated for two aggregate groups of selected trunk groups. These groups are CLEC affecting and BellSouth affecting trunk groups. In order to assign trunk groups to each aggregate group, all trunk groups are first assigned to a category. A trunk group's end points and the type of traffic that is transmitted on it define a category. Selected categories of trunk groups are assigned to the aggregate groups so that trunk reports can be generated. The categories to which trunk groups have been assigned for this report are as follows.

CLEC Affecting Categories:

	Point A	Point B
Category 1:	BellSouth End Office	BellSouth Access Tandem
Category 3:	BellSouth End Office	CLEC Switch
Category 4:	BellSouth Local Tandem	CLEC Switch
Category 5:	BellSouth Access Tandem	CLEC Switch
Category 10:	BellSouth End Office	BellSouth Local Tandem
Category 16:	BellSouth Tandem	BellSouth Tandem

BellSouth Affecting Categories:

	Point A	Point B
Category 1:	BellSouth End Office	BellSouth Access Tandem
Category 9:	BellSouth End Office	BellSouth End Office
Category 10:	BellSouth End Office	BellSouth Local Tandem
Category 16:	BellSouth Tandem	BellSouth Tandem

Calculation

Monthly Average Blocking:

- For each hour of the day, each day's raw data are summed across all valid measurements days in a report cycle for blocked and attempted calls.
- The sum of the blocked calls is divided by the total number of calls attempted in a reporting period.

Aggregate Monthly Blocking:

- For each hour of the day, the monthly sums of the blocked and attempted calls from each trunk group are separately aggregated over all trunk groups within each assigned category.
- The total blocked calls is divided by the total call attempts within a group to calculate an aggregate monthly blocking for each assigned group.
- The result is an aggregate monthly average blocking value for each of the 24 hours by group.
- The difference between the CLEC and BellSouth affecting trunk groups are also calculated for each hour.

Report Structure

- CLEC Specific
  - State

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Report Month • Total Trunk Groups • Number of Trunk Groups by CLEC • Hourly blocking per trunk group • Hourly usage per trunk group • Hourly call attempts per trunk group	• Report Month • Total Trunk Groups • Aggregate Hourly blocking per trunk group • Hourly usage per trunk group • Hourly call attempts per trunk group

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• CLEC trunk group	• Any 2 hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1, 3, 4, 5, 10, 16 for CLECs and 1,9,10,16 for BellSouth

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• CLEC trunk group	• Any 2 hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1, 3, 4, 5, 10, 16 for CLECs and 1,9,10,16 for BellSouth

Section 10: Collocation

C-1: Collocation Average Response Time

Definition

Measures the average time (counted in calendar days) from the receipt of a complete and accurate collocation application (including receipt of application fee if required) to the date BellSouth returns a response electronically or in writing. Within the presubscribed number of calendar days after having received a bona fide application for physical collocation, BellSouth must respond as to whether space is available or not.

Exclusions

Any application canceled by the CLEC.

Business Rules

The clock starts on the date that BellSouth receives a complete and accurate collocation application accompanied by the appropriate application fee if required. The clock stops on the date that BellSouth returns a response. The clock will restart upon receipt of changes to the original application request.

Calculation

Response Time = (a - b)

- a = Request Response Date
- b = Request Submission Date

Average Response Time = (c ÷ d)

- c = Sum of all Response Times
- d = Count of Responses Returned within Reporting Period

Report Structure

- Individual CLEC (alias) aggregate
- Aggregate of all CLECs

Data Retained

- Report period
- Aggregate data

SQM Disaggregation - Analog/Benchmark

Level of Disaggregation	SQM Analog/Benchmark
• State • Virtual • Physical Caged • Physical-Cageless • Augments for Line Sharing or Line Splitting	• Virtual - 20 Calendar Days • Physical Caged - 23 Business Days • Physical Cageless - 23 Business Days • Augments for Line Sharing or Line Splitting - 23 Business Days

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

C-2: Collocation Average Arrangement Time

Definition

Measures the average time (counted in calendar days) from receipt of a complete and accurate Bona Fide firm order (including receipt of appropriate fee if required) to the date BellSouth completes the collocation arrangement and notifies the CLEC.

Exclusions

- Any Bona Fide firm order canceled by the CLEC
- Any Bona Fide firm order with a CLEC-negotiated interval longer than the benchmark interval

Business Rules

The clock starts on the date that BellSouth receives a complete and accurate Bona Fide firm order accompanied by the appropriate fee. The clock stops on the date that BellSouth completes the collocation arrangement and notifies the CLEC.

Calculation

Arrangement Time = (a - b)

- a = Date Collocation Arrangement is Complete
- b = Date Order for Collocation Arrangement Submitted

Average Arrangement Time = (c ÷ d)

- c = Sum of all Arrangement Times
- d = Total Number of Collocation Arrangements Completed during Reporting Period.

Report Structure

- Individual CLEC (alias) aggregate
- Aggregate of all CLECs

Data Retained

- Report period
- Aggregate data

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• State • Virtual-Ordinary • Virtual-Extraordinary • Physical Caged-Ordinary • Physical Caged-Extraordinary • Physical Cageless-Ordinary • Physical Cageless-Extraordinary • Augments for Line Sharing or Line Splitting	• Virtual - 50 Calendar Days (Ordinary) • Virtual - 75 Calendar Days (Extraordinary) • Physical Caged - 76 Business Days (Ordinary) • Physical Caged - 91 Business Days (Extraordinary) • Physical Cageless - 76 Calendar Days (Ordinary) • Physical Cageless - 91 Calendar Days (Extraordinary) • Augments for Line Sharing or Line Splitting - 45 Business Days

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark:
• Not Applicable	• Not Applicable

C-3: Collocation Percent of Due Dates Missed

Definition

Measures the percent of missed due dates for both virtual and physical collocation arrangements.

Exclusions

Any Bona Fide firm order canceled by the CLEC.

Business Rules

Percent Due Dates Missed is the percent of total collocation arrangements which BellSouth is unable to complete by end of the BellSouth committed due date. The clock starts on the date that BellSouth receives a complete and accurate Bona Fide firm order accompanied by the appropriate fee if required. The arrangement is considered a missed due date if it is not completed on or before the committed due date.

Calculation

% of Due Dates Missed = (a ÷ b) X 100

- a = Number of Completed Orders that were not completed within BellSouth Committed Due Date during Reporting Period
- b = Number of Orders Completed in Reporting Period

Report Structure

- Individual CLEC (alias) aggregate
- Aggregate of all CLECs

Data Retained

- Report period
- Aggregate data

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• State • Virtual • Augments for Line Sharing or Line Splitting	• ≥ 95% on time

SEEM Measure

SEEM Measure		
Yes	Tier I	X
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• All Collocation Arrangements	• ≥ 95% on time

Section 11: Change Management

CM-1: Timeliness of Change Management Notices

Definition

Measures whether CLECs receive required software release notices on time to prepare for BellSouth interface/system changes so CLEC interfaces are not impaired by change.

Exclusions

- Changes to release dates for reasons outside BellSouth control, such as the system software vendor changes. For example: a patch to fix a software problem.
- Type 6 Change Requests (Defects/Expedites), as defined by the Change Control Process (CCP)

Business Rules

This metric is designed to measure the percent of change management notices sent to the CLECs according to notification standards and time frames set forth in the Change Control Process. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth Local Interfaces.

The clock starts on the notification date. The clock stops on the software release date. When project events occur (scope changes, analysis information, etc.), the software release date may change. A revised notification would be required and the clock would restart. Based on release constraints for defects/expedites, notification may be less than the agreed upon interval in the CCP for new features.

Calculation

Timeliness of Change Management Notices = (a ÷ b) X 100

- a = Total number of Change Management Notifications Sent Within Required Timeframes
- b = Total Number of Change Management Notifications Required

Report Structure

- BellSouth Aggregate

Data Retained

- Report Period
- Notice Date
- Release Date

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• 95% ≥ 30 days of Release

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Region	• 95% ≥ 30 days of Release

CM-2: Change Management Notice Average Delay Days

Definition

Measures the average delay days for change management system release notices sent outside the timeframe set forth in the Change Control Process.

Exclusions

- Changes to release dates for reasons outside BellSouth control, such as the system software vendor changes. For example: a patch to fix a software problem.
- Type 6 Change Requests (Defects/Expedites), as defined by the Change Control Process

Business Rules

This metric is designed to compute the average delay days for change management notices sent to the CLECs outside the time frames set forth in the Change Control Process. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth Local Interfaces.

The clock starts on the notification due date. The clock stops on the software release date. When project events occur (scope changes, analysis information, etc.), the software release date may change. A revised notification would be required and the clock would restart. Based on release constraints for defects/expedites, notification may be less than the agreed upon interval in the CCP for new features.

Calculation

Change Management Notice Delay Days = (a - b)

- a = Date Notice Sent
- b = Date Notice Due

Change Management Notice Average Delay Days = (c ÷ d)

- c = Sum of all Change Management Notice Delay Days
- d = Total Number of Notices Sent Late

Report Structure

- BellSouth Aggregate

Data Retained

- Report Period
- Notice Date
- Release Date

SQM LevelDisaggregation - Analog/Benchmark

SQM Level of Disaggregation:	SQM Analog/Benchmark:
• Region	• ≤ 8 Days

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

CM-3: Timeliness of Documents Associated with Change

Definition

Measures whether CLECs received requirements or business rule documentation on time to prepare for BellSouth interface/system changes so CLEC interfaces are not impaired by change.

Exclusions

- Documentation for release dates that slip less than 30 days for reasons outside BellSouth control, such as changes due to Regulatory mandate or CLEC request.
- Type 6 Change Requests (Defects/Expedites), as defined by the Change Control Process.

Business Rules

This metric is designed to measure the percent of requirements or business rule documentation sent to the CLECs according to documentation standards and time frames set forth in the Change Control Process. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth Local Interfaces.

The clock starts on the business rule documentation release date. The clock stops on the software release date. When project events occur (scope changes, analysis information, etc.), the software release date may change. Revisions to documentation could be required and the clock would restart.

Calculation

Timeliness of Documents Associated with Change = (a ÷ b) X 100

- a = Change Management Documentation Sent Within Required Time frames after Notices
- b = Total Number of Change Management Documentation Required

Report Structure

- BellSouth Aggregate

Data Retained

- Report Period
- Notice Date
- Release Date

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• 95% ≥ 30 days if new features coding is required • 95% ≥ 5 days for documentation defects, corrections or clarifications

SEEM Measure

SEEM Measure		
Yes	Tier I	
	Tier II	X

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Region	• 95% ≥ 30 days of the change

CM-4: Change Management Documentation Average Delay Days

Definition

Measures the average delay days for requirements or business rule documentation sent outside the time frames set forth in the Change Control Process.

Exclusions

- Documentation for release dates that slip less than 30 days for reasons outside BellSouth control, such as changes due to Regulatory mandate or CLEC request.
- Type 6 Change Requests (Defects/Expedites), as defined by the Change Control Process.

Business Rules

This metric is designed to compute the average delay days for business rule documentation sent to the CLECs outside the time frames set forth in the Change Control Process (CCP). The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth Local Interfaces.

The clock starts on the business rule documentation release date. The clock stops on the software release date. When project events occur (scope changes, analysis information, etc.), the software release date may change. Revisions to documentation could be required and the clock would restart.

Calculation

Change Management Documentation Delay Days = (a - b)

- a = Date Documentation Provided
- b = Date Documentation Due

Change Management Documentation Average Delay Days = (c ÷ d)

- c = Sum of all Change Management Documentation Delay Days
- d = Total Change Management Documents Sent Late

Report Structure

- BellSouth Aggregate

Data Retained

- Report Period
- Notice Date
- Release Date

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Region	• ≤ 8 Days

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

CM-5: Notification of CLEC Interface Outages

Definition

Measures the time it takes BellSouth to notify the CLEC of an outage of an interface.

Exclusions

None

Business Rules

This measure is designed to notify the CLEC of interface outages within 15 minutes of BellSouth's verification that an outage has taken place. This metric will be expressed as a percentage.

Calculation

Notification of CLEC Interface Outages = (a ÷ b) X 100

- a = Number of Interface Outages where CLECS are notified within 15 minutes
- b = Total Number of Interface Outages

Report Structure

- CLEC Aggregate

Data Retained

Relating to CLEC Experience	Relating to BellSouth Experience
• Number of Interface Outages • Number of Notifications ≤ 15 minutes	• Not Applicable

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• By interface type for all interfaces accessed by CLECs	• 97% in 15 Minutes

Interface	Applicable to
EDI	CLEC
CSOTS	CLEC
LENS	CLEC
TAG	CLEC
ECTA	CLEC
TAFI	CLEC/BellSouth

SEEM Measure

SEEM Measure		
No	Tier I	
	Tier II	

SEEM Disaggregation - Analog/Benchmark

SEEM Disaggregation	SEEM Analog/Benchmark
• Not Applicable	• Not Applicable

Appendix A: Reporting Scope

A-1: Standard Service Groupings

See individual reports in the body of the SQM.

A-2: Standard Service Order Activities

These are the generic BellSouth/CLEC service order activities which are included in the Pre-Ordering, Ordering, and Provisioning sections of this document. It is not meant to indicate specific reporting categories.

Service Order Activity Types

- Service Migrations Without Changes
- Service Migrations With Changes
- Move and Change Activities
- Service Disconnects (Unless noted otherwise)
- New Service Installations

Pre-Ordering Query Types

- Address
- Telephone Number
- Appointment Scheduling
- Customer Service Record
- Feature Availability
- Service Inquiry

Maintenance Query Types

TAFI - TAFI queries the systems below

- CRIS
- March
- Predictor
- LMOS
  - DLR
  - DLETH
  - LMOSupd
- LNP
- NIW
- OSPCM
- SOCS

Report Levels

- CLEC RESH
- CLEC State
- CLEC Region
- Aggregate CLEC State
- Aggregate CLEC Region
- BellSouth State
- BellSouth Region

Appendix B: Glossary of Acronyms and Terms

Symbols used in calculations

Σ A mathematical symbol representing the sum of a series of values following the symbol.

- A mathematical operator representing subtraction.

+ A mathematical operator representing addition.

÷ A mathematical operator representing division.

< A mathematical symbol that indicates the metric on the left of the symbol is less than the metric on the right.

≤ A mathematical symbol that indicates the metric on the left of the symbol is less than or equal to the metric on the right.

> A mathematical symbol that indicates the metric on the left of the symbol is greater than the metric on the right.

≥ A mathematical symbol that indicates the metric on the left of the symbol is greater than or equal to the metric on the right.

( ) Parentheses, used to group mathematical operations which are completed before operations outside the parentheses.

A

ACD: Automatic Call Distributor - A service that provides status monitoring of agents in a call center and routes high volume incoming telephone calls to available agents while collecting management information on both callers and attendants.

Aggregate: Sum total of all items in like category, e.g. CLEC aggregate equals the sum total of all CLECs' data for a given reporting level.

ALEC: Alternative Local Exchange Company = FL CLEC

ADSL: Asymmetrical Digital Subscriber Line

ASR: Access Service Request - A request for access service terminating delivery of carrier traffic into a Local Exchange Carrier's network.

ATLAS: Application for Telephone Number Load Administration System - The BellSouth Operations System used to administer the pool of available telephone numbers and to reserve selected numbers from the pool for use on pending service requests/service orders.

ATLASTN: ATLAS software contract for Telephone Number.

Auto Clarification: The number of LSRs that were electronically rejected from LESOG and electronically returned to the CLEC for correction.

B

BFR: Bona Fide Request

Billing: The process and functions by which billing data is collected and by which account information is processed in order to render accurate and timely billing.

BOCRIS: Business Office Customer Record Information System (Front-end to the CRIS database.)

BRI: Basic Rate ISDN

BRC: Business Repair Center – The BellSouth Business Systems trouble receipt center which serves business and CLEC customers.

BellSouth: BellSouth Telecommunications, Inc.

C

CABS: Carrier Access Billing System

CCC: Coordinated Customer Conversions

CCP: Change Control Process

Centrex: A business telephone service, offered by local exchange carriers, which is similar to a Private Branch Exchange (PBX) but the switching equipment is located in the telephone company Central Office (CO).

CKTID: A unique identifier for elements combined in a service configuration

CLEC: Competitive Local Exchange Carrier

CLP: Competitive Local Provider = NC CLEC

CM: Change Management

CMDS: Centralized Message Distribution System - Telcordia administered national system used to transfer specially formatted messages among companies.

COFFI: Central Office Feature File Interface - Provides information about USOCs and class of service. COFFI is a part of DOE/ SONGS. It indicates all services available to a customer.

COG: Corporate Gateway - Telcordia product designed for the electronic submission of xDSL Local Service Requests.

CRIS: Customer Record Information System - The BellSouth proprietary corporate database and billing system for non-access customers and services.

CRSACCTS: CRIS software contract for CSR information

CRSG: Complex Resale Support Group

C-SOTS: CLEC Service Order Tracking System

CSR: Customer Service Record

CTTG: Common Transport Trunk Group - Final trunk groups between BellSouth & Independent end offices and the BellSouth access tandems.

CWINS Center: Customer Wholesale Interconnection Network Services Center (formerly the UNE Center).

D

DA: Directory Assistance

Design: Design Service is defined as any Special or Plain Old Telephone Service Order which requires BellSouth Design Engineering Activities.

Disposition & Cause: Types of trouble conditions, e.g. No Trouble Found, Central Office Equipment, Customer Premises Equipment, etc.

DLETH: Display Lengthy Trouble History - A history report that gives all activity on a line record for trouble reports in LMOS.

DLR: Detail Line Record - All the basic information maintained on a line record in LMOS, e.g. name, address, facilities, features etc.

DS-0: The worldwide standard speed for one digital voice signal (64000 bps).

DS-1: 24 DS-0s (1.544Mb/sec., i.e. carrier systems)

DOE: Direct Order Entry System - An internal BellSouth service order entry system used by BellSouth Service Representatives to input business service orders in BellSouth format.

DOM: Delivery Order Manager - Telcordia product designed for the electronic submission of xDSL Local Service Requests.

DSAP: DOE (Direct Order Entry) Support Application - The BellSouth Operations System which assists a Service Representative or similar carrier agent in negotiating service provisioning commitments for non-designed services and Unbundled Network Elements.

DSAPDDI: DSAP software contract for schedule information.

DSL: Digital Subscriber Line

DUI: Database Update Information

E

E911: Provides callers access to the applicable emergency services bureau by dialing a 3-digit universal telephone number.

EDI: Electronic Data Interchange - The computer-to-computer exchange of inter and/or intra-company business documents in a public standard format.

ESSX: BellSouth Centrex Service

F

Fatal Reject: LSRs electronically rejected from LEO, which checks to see of the LSR has all the required fields correctly populated.

Flow-Through: In the context of this document, LSRs submitted electronically via the CLEC mechanized ordering process that flow through to the BellSouth OSS without manual or human intervention.

FOC: Firm Order Confirmation - A notification returned to the CLEC confirming that the LSR has been received and accepted, including the specified commitment date.

FX: Foreign Exchange

G H

HAL: "Hands Off" Assignment Logic - Front end access and error resolution logic used in interfacing BellSouth Operations Systems such as ATLAS, BOCRIS, LMOS, PSIMS, RSAG and SOCS.

HALCRIS: HAL software contract for CSR information

HDSL: High Density Subscriber Loop/Line

I J K

ILEC: Incumbent Local Exchange Company

INP: Interim Number Portability

ISDN: Integrated Services Digital Network

IPC: Interconnection Purchasing Center

L

LAN: Local Area Network

LAUTO: The automatic processor in the LNP Gateway that validates LSRs and issues service orders.

LCSC: Local Carrier Service Center - The BellSouth center which is dedicated to handling CLEC LSRs, ASRs, and Pre-ordering transactions along with associated expedite requests and escalations.

Legacy System: Term used to refer to BellSouth Operations Support Systems (see OSS)

LENS: Local Exchange Negotiation System - The BellSouth LAN/web server/OS application developed to provide both preordering and ordering electronic interface functions for CLECs.

LEO: Local Exchange Ordering - A BellSouth system which accepts the output of EDI, applies edit and formatting checks, and reformats the Local Service Requests in BellSouth Service Order format.

LERG: Local Exchange Routing Guide

LESOG: Local Exchange Service Order Generator - A BellSouth system which accepts the service order output of LEO and enters the Service Order into the Service Order Control System using terminal emulation technology.

LFACS: Loop Facilities Assessment and Control System

LIDB: Line Information Database

LISC: Local Interconnection Service Center - The center that issues trunk orders.

LMOS: Loop Maintenance Operations System - A BellSouth Operations System that stores the assignment and selected account information for use by downstream OSS and BellSouth personnel during provisioning and maintenance activities.

LMOS HOST: LMOS host computer

LMOSupd: LMOS updates

LMU: Loop Make-up

LMUS: Loop Make-up Service Inquiry

LNP: Local Number Portability - In the context of this document, the capability for a subscriber to retain his current telephone number as he transfers to a different local service provider.

Loops: Transmission paths from the central office to the customer premises.

LRN: Location Routing Number

LSR: Local Service Request – A request for local resale service or unbundled network elements from a CLEC.

M

Maintenance & Repair: The process and function by which trouble reports are passed to BellSouth and by which the related service problems are resolved.

MARCH: BellSouth Operations System which accepts service orders, interprets the coding contained in the service order image, and constructs the specific switching system Recent Change command messages for input into end office switches.

N

NBR: New Business Request

NC: "No Circuits" - All circuits busy announcement.

NIW: Network Information Warehouse

NMLI: Native Mode LAN Interconnection

NPA: Numbering Plan Area

NXX: The "exchange" portion of a telephone number.

O

OASIS: Obtain Availability Services Information System - A BellSouth front-end processor, which acts as an interface between COFFI and RNS. This system takes the USOCs in COFFI and translates them to English for display in RNS.

OASISBSN: OASIS software contract for feature/service

OASISCAR: OASIS software contract for feature/service

OASISLPC: OASIS software contract for feature/service

OASISMTN: OASIS software contract for feature/service

OASISNET: OASIS software contract for feature/service

OASISOCP: OASIS software contract for feature/service

Ordering: The process and functions by which resale services or unbundled network elements are ordered from BellSouth as well as the process by which an LSR or ASR is placed with BellSouth.

OSPCM: Outside Plant Contract Management System - Provides Scheduling Information.

OSS: Operations Support System - A support system or database which is used to mechanize the flow or performance of work. The term is used to refer to the overall system consisting of hardware complex, computer operating system(s), and application which is used to provide the support functions.

Out Of Service: Customer has no dial tone and cannot call out.

P

PMAP: Performance Measurement Analysis Platform

PMQAP: Performance Measurement Quality Assurance Plan

PON: Purchase Order Number

POTS: Plain Old Telephone Service

PREDICTOR: The BellSouth Operations system which is used to administer proactive maintenance and rehabilitation activities on outside plant facilities, provide access to selected work groups (e.g. RRC & BRC) to Mechanized Loop Testing and switching system I/O ports, and provide certain information regarding the attributes and capabilities of outside plant facilities.

Preordering: The process and functions by which vital information is obtained, verified, or validated prior to placing a service request.

PRI: Primary Rate ISDN

Provisioning: The process and functions by which necessary work is performed to activate a service requested via an LSR or ASR and to initiate the proper billing and accounting functions.

PSIMS: Product/Service Inventory Management System - A BellSouth database Operations System which contains availability information on switching system features and capabilities and on BellSouth service availability. This database is used to verify the availability of a feature or service in an NXX prior to making a commitment to the customer.

PSIMSORB: PSIMS software contract for feature/service.

Q R

RNS: Regional Negotiation System - An internal BellSouth service order entry system used by BellSouth Consumer Services to input service orders in BellSouth format.

ROS: Regional Ordering System

RRC: Residence Repair Center - The BellSouth Consumer Services trouble receipt center which serves residential customers.

RSAG: Regional Street Address Guide - The BellSouth database, which contains street addresses validated to be accurate with state and local governments.

RSAGADDR: RSAG software contract for address search.

RSAGTN: RSAG software contract for telephone number search.

S

SAC: Service Advocacy Center

SEEM: Self Effectuating Enforcement Mechanism

SOCS: Service Order Control System - The BellSouth Operations System which routes service order images among BellSouth drop points and BellSouth Operations Systems during the service provisioning process.

SOG: Service Order Generator - Telcordia product designed to generate a service order for xDSL.

SOIR: Service Order Interface Record - any change effecting activity to a customer account by service order that impacts 911/E911

SONGS: Service Order Negotiation and Generation System.

T

TAFI: Trouble Analysis Facilitation Interface - The BellSouth Operations System that supports trouble receipt center personnel in taking and handling customer trouble reports.

TAG: Telecommunications Access Gateway – TAG was designed to provide an electronic interface, or machine-to-machine interface for the bi-directional flow of information between BellSouth's OSSs and participating CLECs.

TN: Telephone Number

Total Manual Fallout: The number of LSRs which are entered electronically but require manual entering into a service order generator.

U

UNE: Unbundled Network Element

UCL: Unbundled Copper Link

USOC: Universal Service Order Code

V W

WATS: Wide Area Telephone Service

WFA: Work Force Administration

WMC: Work Management Center

WTN: Working Telephone Number.

X Y Z

Appendix C: BellSouth Audit Policy

C-1: BellSouth's Internal Audit Policy

BellSouth's internal efforts to make certain that the reports produced by the PMAP platform are of the highest accuracy has been formalized into a Performance Measurements Quality Assurance Plan (PMQAP) that documents and augments existing quality assurance processes integral to the production and validation of Performance Measurements data.

The plan consists of three sections:

1. Change Control addresses the quality assurance steps involved in the introduction of new measurements and changes to existing measurements.
2. Production addresses the quality assurance steps used to create monthly SQM reports.
3. Monthly Validation addresses the quality assurance steps used to ensure accurate posting of monthly results.

The BellSouth PMQAP will ensure that BellSouth effectively and consistently provides accurate performance measurements data for the activities included in the SQM. The BellSouth Internal Audit department will audit this plan and its quality assurance steps annually, beginning in 4Q01.

C-2: BellSouth's External Audit Policy

BellSouth currently provides many CLECs with audit rights as a part of their individual interconnection agreements. BellSouth has developed a proposed Audit Plan for use by the parties to an audit. If requested by a Public Service Commission or by a CLEC exercising contractual audit rights, BellSouth will agree to undergo a comprehensive audit of the current year aggregate level reports for both BellSouth and the CLECs for each of the next five (5) years (2001 - 2005), to be conducted by an independent third party auditor. The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information. Requested audits include the following specifications:

1. The cost shall be borne 50% by BellSouth and 50% by the CLECs.
2. The independent third party auditor shall be selected with input from BellSouth, the PSC, if applicable, and the CLEC(s).
3. BellSouth, the PSC and the CLECs shall jointly determine the scope of the audit.

These comprehensive audits are intended to provide the basis for the PSCs and CLECs to determine that the SQM and PMAP produce accurate data that reflects each States Order for performance measurements. Once this has been verified by an initial audit, the BellSouth PMQAP will provide the basis for future audits.

BELLSOUTH'S

SELF-EFFECTUATING ENFORCEMENT MECHANISM

SEEM

Service Performance Measurements
And Enforcement Mechanisms

1. Scope

1.1 This Attachment includes Service Quality Measurements ("SQM") with corresponding Self Effectuating Enforcement Measurements ("SEEM") Enforcement Mechanisms applicable to this Agreement.

1.2 All exhibits referred to in this attachment are located on the BellSouth Performance Measurement Reports website at:

https://pmap.bellsouth.com

2. Reporting

2.1 In providing services pursuant to this Agreement, BellSouth will report its performance to CLEC-1 in accordance with BellSouth's SQMs and applicable SEEMs, which are posted on the Performance Measurement Reports website.

2.2 BellSouth will make performance reports available to CLEC-1 on a monthly basis. The reports will contain information collected in each performance category and will be available to CLEC-1 via the Performance Measurements Reports website. BellSouth will also provide electronic access to the raw data underlying the SQMs.

2.3 Preliminary SQM reports will be posted on the Performance Measurements Reports website by 8:00 A.M. EST on the 21st day of each month or the first business day after the 21st for the previous month's performance. Final validated SQM reports will be posted by 8:00 A.M. EST on the last day of the month. SQM reports not posted by this time will be considered late for SEEM purposes.

2.4 Preliminary SEEM reports will be posted on the Performance Measurements Reports website by 8:00 A.M. EST on the last day of each month or the first business day after the last day of the month for the previous month's performance. Final validated SEEM reports will be posted on the 15th of the month, following the final validated SQM report.

3. Modifications to Measurements

3.1 Service Quality Measurements

3.1.1 BellSouth will review the SQMs semi-annually. All modifications to the SQMs will be approved by the Commission. CLEC-1 may provide input to BellSouth regarding any suggested additions, deletions or other

modifications to the SQMs. BellSouth will provide notice of all changes to the SQMs via the Performance Measurement Reports website.

3.1.2 Notwithstanding the foregoing, BellSouth may, from time to time, be ordered by a regulatory or judicial body to modify or amend the SQMs. BellSouth will make all such changes to the SQMs pursuant to the Modification of Agreement Section of the General Terms and Conditions of the CLEC-!'s Interconnection Agreement, incorporated herein by reference. Nothing herein shall preclude either party from participating in any proceeding involving BellSouth's SQMs or from advocating that those measurements be modified from those contained herein.

3.1.3 Notwithstanding any other provision of this document, in the event a dispute arises regarding the modification or amendment of the SQMs, the parties will refer the dispute to the Commission.

3.2 Self Effectuating Enforcement Mechanisms and Statistical Test

3.2.1 In order for BellSouth to accurately administer Enforcement Mechanisms, the SEEMs shall be modified or amended only if BellSouth determines such modification or amendment is necessary. However, BellSouth will not delete any effective SEEM without prior written consent of the Commission. BellSouth will notify CLEC-1 of any such modification or amendment to the SEEMS via the Performance Measurement Reports website.

3.2.2 Notwithstanding the foregoing, BellSouth may, from time to time, be ordered by a regulatory or judicial body to modify or amend then SEEMs and/or Statistical Test. BellSouth will make all such changes to the SEEMs and/or Statistical Test pursuant to Modification of Agreement Section of the General Terms and Conditions of CLEC-1's Interconnection Agreement, incorporated herein by reference. Nothing herein shall preclude either party from participating in any proceeding involving the SEEMs and/or Statistical Test or from advocating that those measurements or test be modified from those contained herein.

3.2.3 Notwithstanding any other provision of this document, in the event a dispute arises regarding the modification or amendment of the SEEMs and/or Statistical Test, the parties will refer the dispute to the Commission.

4. Enforcement Mechanisms

4.1 Definitions

4.1.1 Enforcement Measurement Elements means the performance measurements identified as SEEM measurements in the SQM.

4.1.2 Enforcement Measurement Benchmark means a competitive level of performance negotiated by BellSouth used to evaluate the performance of BellSouth and CLEC-1 where no analogous retail process, product or service is feasible.

4.1.3 Enforcement Measurement Compliance means comparing performance levels provided to BellSouth retail customers with performance levels provided by BellSouth to the CLEC customer.

4.1.4 Test Statistic and Balancing Critical Value is the means by which enforcement will be determined using statistically valid equations. The Test Statistic and Balancing Critical Value are set forth in Exhibit D located on the Performance Measurements Reports website (labeled Appendix D attached), incorporated herein by this reference.

4.1.5 Cell is a grouping of transactions at which like-to-like comparisons are made. For example, all BellSouth retail POTS services, for residential customers, requiring a dispatch in a particular wire center, at a particular point in time will be compared directly to CLEC-1 resold services for residential customers, requiring a dispatch, in the same wire center, at a particular point in time. When determining compliance, these cells can have a positive or negative Test Statistic. See Exhibit C located on the Performance Measurements Reports website (labeled Appendix C attached), incorporated herein by this reference.

4.1.6 Affected Volume means that proportion of the total impacted CLEC-1 volume or CLEC Aggregate volume for which remedies will be paid.

4.1.7 Parity Gap refers to the incremental departure from a compliant-level of service. This is also referred to as "diff" in the Statistical paper located at Exhibit C located on the Performance Measurements Reports website (labeled Appendix C attached), incorporated herein by this reference.

4.1.8 Tier-1 Enforcement Mechanisms means self-executing liquidated damages paid directly to CLEC-1 when BellSouth delivers non-compliant performance of any one of the Tier-1 Enforcement Measurement Elements for any month as calculated by BellSouth.

4.1.9 Tier-2 Enforcement Mechanisms means Assessments paid directly to the Commission or its designee. Tier 2 Enforcement Mechanisms are triggered by three consecutive monthly failures in which BellSouth performance is out of compliance or does not meet the benchmarks for the aggregate of all CLEC data as calculated by BellSouth for a particular Tier-2 Enforcement Measurement Element.

4.2 Application

4.2.1 The Enforcement Mechanisms set forth in this section shall only become effective upon an effective FCC order, which has not been stayed, authorizing BellSouth to provide interLATA telecommunications services under section 271 of the Act within a particular state and shall only apply to BellSouth's performance in any state in which the FCC has granted such interLATA authority.

4.2.2 The application of the Tier-1 and Tier-2 Enforcement Mechanisms does not foreclose other legal and regulatory claims and remedies available to CLEC-1.

4.2.3 Payment of any Tier-1 or Tier-2 Enforcement Mechanisms shall not be considered as an admission against interest or an admission of liability or culpability in any legal, regulatory or other proceeding relating to BellSouth's performance. The payment of any Tier-1 Enforcement Mechanisms to CLEC-1 shall be credited against any liability associated with or related to BellSouth's service performance.

4.2.4 It is not the intent of the Parties that BellSouth be liable for both Tier-2 Enforcement Mechanisms and any other assessments or sanctions imposed by the Commission. CLEC-1 will not oppose any effort by BellSouth to set off Tier-2 Enforcement Mechanisms from any additional assessment imposed by the Commission.

4.2.5 CLEC-1 acknowledges and argues that the Enforcement Mechanisms contained in this attachment have been provided by BellSouth on a completely voluntary basis in order to maintain compliance between BellSouth and CLEC-1. Therefore, CLEC-1 may not use the existence of this section or any payments of any Tier-1 or Tier-2 Enforcement Mechanisms under this section as evidence that BellSouth has not complied with or has violated any state or federal law or regulation.

4.3 Methodology

4.3.1 Tier-1 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for CLEC-1 for the State for a given Enforcement Measurement Element in a given month. Enforcement Measurement Compliance is based upon a Test Statistic and Balancing Critical Value calculated by BellSouth utilizing BellSouth generated data. The method of calculation is set forth in Exhibit D located on the Performance Measurements Reports website (labeled Appendix D attached), incorporated herein by this reference.

4.3.1.1 Tier-1 Enforcement Mechanisms apply on a per transaction basis for each negative cell and will escalate based upon the number of consecutive months that BellSouth has reported non-compliance.

4.3.1.2 Fee Schedule for Tier-1 Enforcement Mechanisms is shown on the Performance Measurement Reports website in Table-1 of Exhibit A (labeled Appendix A attached), incorporated herein by this reference. Failures beyond Month 6 will be subject to Month 6 fees.

4.3.2 Tier-2 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for the State for given Enforcement Measurement Elements for three consecutive months based upon a statistically valid equation calculated by BellSouth utilizing BellSouth generated data. The method of calculation is set forth in Exhibit D located on the Performance Measurements Reports website (labeled Appendix D attached), incorporated herein by this reference.

4.3.2.1 Tier- 2 Enforcement Mechanisms apply, for an aggregate of all CLEC data generated by BellSouth, on a per transaction basis for each negative cell for a particular Enforcement Measurement Element.

4.3.2.2 Fee Schedule for Total Quarterly Tier-2 Enforcement Mechanisms is shown on the Performance Measurement Reports website in Table-2 of Exhibit A (labeled Appendix A attached), incorporated herein by this reference.

4.4 Payment of Tier-1 and Tier-2 Amounts

4.4.1 If BellSouth performance triggers an obligation to pay Tier-1 Enforcement Mechanisms to CLEC-1 or an obligation to remit Tier-2 Enforcement Mechanisms to the Commission or its designee, BellSouth shall make payment in the required amount on the day upon which the final validated SEEM reports are posted on the Performance Measurements Reports website as set forth in Section 2.4 above.

4.4.2 For each day after the due date that BellSouth fails to pay CLEC-1 the required amount, BellSouth will pay CLEC-1 6% simple interest per annum.

4.4.3 For each day after the due date that BellSouth fails to pay the Tier-2 Enforcement Mechanisms, BellSouth will pay the Commission an additional $1,000 per day.

4.4.4 If CLEC-1 disputes the amount paid to CLEC-1 for Tier-1 Enforcement Mechanisms, CLEC-1 shall submit a written claim to BellSouth within sixty (60) days after the date of the performance measurement report for which the obligation arose. BellSouth shall investigate all claims and provide CLEC-1 written findings within thirty (30) days after receipt of the claim. If BellSouth determines CLEC-1 is owed additional amounts, BellSouth shall pay CLEC-1 such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.

4.4.5 At the end of each calendar year, BellSouth will have its independent auditing and accounting firm certify that the results of all Tier-1 and Tier-2 Enforcement Mechanisms were paid and accounted for in accordance with Generally Accepted Account Principles (GAAP).

4.5 Limitations of Liability

4.5.1 BellSouth will not be responsible for CLEC-1 acts or omissions that cause performance measures to be missed or fail, including but not limited to accumulation and submission of orders at unreasonable quantities or times or failure to submit accurate orders or inquiries. BellSouth shall provide CLEC-1 with reasonable notice of such acts or omissions and provide CLEC-1 any such supporting documentation.

4.5.2 BellSouth shall not be obligated for Tier-1 or Tier-2 Enforcement Mechanisms for non-compliance with a performance measure if such non-compliance was the result of an act or omission by CLEC-1 that is in bad faith.

4.5.3 BellSouth shall not be obligated to pay Tier-1 Enforcement Mechanisms or Tier-2 Enforcement Mechanism for non-compliance with a performance measurement if such non-compliance was the result of any of the following: a Force Majeure event as set forth in the General Terms and Conditions of this Agreement; an act or omission by CLEC-1 that is contrary to any of its obligations under its Interconnection Agreement with BellSouth; an act or omission by CLEC-1 that is contrary to any of its obligations under the Act, Commission rule, or state law; an act or omission associated with third-party systems or equipment.

4.6 Enforcement Mechanism Cap

4.6.1 BellSouth's total liability for the payment of Tier-1 and Tier-2 Enforcement Mechanisms shall be collectively capped at 36% of net revenue per year.

4.6.2 If projected payments exceed the state cap, a proportional payment will be made to the respective parties.

4.6.3 If BellSouth's payment of Tier-1 and Tier-2 Enforcement Mechanisms would have exceeded the cap referenced in this attachment, CLEC-1 may commence a proceeding with the Commission to demonstrate why BellSouth should pay any amount in excess of the cap. CLEC-1 shall have the burden of proof to demonstrate why, under the circumstances, BellSouth should have additional liability.

4.8 Dispute Resolution

4.8.1 Notwithstanding any other provision of this document, any dispute regarding BellSouth's performance or obligations pursuant to this Attachment shall be resolved by the Commission.

APPENDIX A

Fee Schedule

TABLE-1: LIQUIDATED DAMAGES TABLE FOR TIER-1 MEASURES

PER AFFECTED ITEM						
	Month 1	Month 2	Month3	Month4	Month 5	Month 6
Pre-Ordering	$20	$30	$40	$50	$60	$70
Ordering	$40	$50	$60	$70	$80	$90
Provisioning	$100	$125	$175	$250	$325	$500
Provisioning UNE (Coordinated Customer Conversions)	$400	$450	$500	$550	$650	$800
Maintenance and Repair	$100	$125	$175	$250	$325	$500
Maintenance and Repair UNE	$400	$450	$500	$550	$650	$800
LNP	$150	$250	$500	$600	$700	$800
Billing	$1.00	$1.00	$1.00	$1.00	$1.00	$1.00
IC Trunks	$100	$125	$175	$250	$325	$500
Collocation	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000

TABLE-2: REMEDY PAYMENTS FOR TIER-2 MEASURES

	Per Affected Item
OSS Pre-Ordering	$20
Ordering	$60
Provisioning	$300
Provisioning-UNE (Coordinated Customer Conversions)	$875
Maintenance and Repair	$300
Maintenance and Repair-UNE	$875
Billing	$1.00
LNP	$500
IC Trunks	$500
Collocation	$15,000
Change Management	$1,000

APPENDIX B

SEEM Sub-Metrics

SEEM TIER-1 SUB-METRICS

1. Firm Order Confirmation and Reject Response Completeness – Fully Mechanized
2. Percent Missed Installation Appointments – Resale POTS
3. Percent Missed Installation Appointments – Resale Design
4. Percent Missed Installation Appointments – UNE Loop and Port Combinations
5. Percent Missed Installation Appointments – UNE Loops
6. Percent Missed Installation Appointments – UNE xDSL
7. Percent Missed Installation Appointments – UNE Line Sharing
8. Percent Missed Installation Appointments – Local IC Trunks
9. Average Completion Interval – Resale POTS
10. Average Completion Interval – Resale Design
11. Average Completion Interval – UNE Loop and Port Combinations
12. Average Completion Interval – UNE Loops
13. Average Completion Interval – UNE xDSL
14. Average Completion Interval – UNE Line Sharing
15. Average Completion Interval – Local IC Trunks
16. Coordinated Customer Conversions Interval – Unbindled Loops
17. Coordinated Customer Conversions – Hot Cut Timeliness % within interval - UNE Loops
18. Coordinated Customer Conversions – % Provisioning Troubles Received within 7 days of a completed service order – UNE Loops
19. % Provisioning Troubles within 30 days of Service Order Completion – Resale POTS
20. % Provisioning Troubles within 30 days of Service Order Completion – Resale Design
21. % Provisioning Troubles within 30 days of Service Order Completion – UNE Loop and Port Combinations
22. % Provisioning Troubles within 30 days of Service Order Completion – UNE Loops
23. % Provisioning Troubles within 30 days of Service Order Completion – UNE xDSL
24. % Provisioning Troubles within 30 days of Service Order Completion – UNE Line Sharing
25. % Provisioning Troubles within 30 days of Service Order Completion – Local IC Trunks
26. LNP – Average Time Out of Service for LNP Conversions
27. LNP – Percent Missed Installation Appointments
28. Missed Repair Appointments – Resale POTS

SEEM TIER-1 SUB-METRICS
CONTINUED

29. Missed Repair Appointments – Resale Design
30. Missed Repair Appointments – UNE Loop and Port Combinations
31. Missed Repair Appointments – UNE Loops
32. Missed Repair Appointments – UNE xDSL
33. Missed Repair Appointments – UNE Line Sharing
34. Missed Repair Appointments – Local IC Trunks
35. Customer Trouble Report Rate – Resale POTS
36. Customer Trouble Report Rate – Resale Design
37. Customer Trouble Report Rate – UNE Loop and Port Combinations
38. Customer Trouble Report Rate – UNE Loops
39. Customer Trouble Report Rate – UNE xDSL
40. Customer Trouble Report Rate – UNE Line Sharing
41. Customer Trouble Report Rate – Local IC Trunks
42. Maintenance Average Duration – Resale POTS
43. Maintenance Average Duration – Resale Design
44. Maintenance Average Duration – UNE Loop and Port Combinations
45. Maintenance Average Duration – UNE Loops
46. Maintenance Average Duration – UNE xDSL
47. Maintenance Average Duration – UNE Line Sharing
48. Maintenance Average Duration – Local IC Trunks
49. % Repeat Troubles within 30 days – Resale POTS
50. % Repeat Troubles within 30 days – Resale Design
51. % Repeat Troubles within 30 days – UNE Loop and Port Combinations
52. % Repeat Troubles within 30 days – UNE Loops
53. % Repeat Troubles within 30 days – UNE xDSL
54. % Repeat Troubles within 30 days – UNE Line Sharing
55. % Repeat Troubles within 30 days – Local IC Trunks
56. Trunk Group Performance – CLEC Trunk Group
57. Collocation Percent of Due Dates Missed

SEEM TIER-2 SUB-METRICS

1. Average Response Time – Pre-Ordering/Ordering
2. Interface Availability – Pre-Ordering/Ordering
3. Interface Availability – Maintenance & Repair
4. Loop Makeup – Response Time – Manual
5. Loop Makeup – Response Time – Electronic
6. Acknowledgement Message Timeliness – EDI
7. Acknowledgement Message Timeliness – TAG
8. Acknowledgement Message Completeness EDI
9. Acknowledgement Message Completeness TAG
10. Percent Flow-through Service Requests (Summary)
11. Reject Interval
12. Firm Order Confirmation Timeliness
13. Firm Order Confirmation and Reject Response Completeness – Fully Mechanized
14. Percent Missed Installation Appointments – Resale POTS
15. Percent Missed Installation Appointments – Resale Design
16. Percent Missed Installation Appointments – UNE Loop and Port Combinations
17. Percent Missed Installation Appointments – UNE Loops
18. Percent Missed Installation Appointments – UNE xDSL
19. Percent Missed Installation Appointments – UNE Line Sharing
20. Percent Missed Installation Appointments – Local IC Trunks
21. Average Completion Interval – Resale POTS
22. Average Completion Interval – Resale Design
23. Average Completion Interval – UNE Loop and Port Combinations
24. Average Completion Interval – UNE Loops
25. Average Completion Interval – UNE xDSL
26. Average Completion Interval – UNE Line Sharing
27. Average Completion Interval – Local IC Trunks
28. Coordinated Customer Conversions Interval – Unbundled Loops
29. Coordinated Customer Conversions – Hot Cut Timeliness % within interval - UNE Loops
30. Coordinated Customer Conversions – % Provisioning Troubles Received within 7 days of a completed service order – UNE Loops
31. Cooperative Acceptance Testing - % xDSL Loops Tested
32. % Provisioning Troubles within 30 days of Service Order Completion – Resale POTS
33. % Provisioning Troubles within 30 days of Service Order Completion – Resale Design
34. % Provisioning Troubles within 30 days of Service Order Completion – UNE Loop and Port Combinations

SEEM TIER-2 SUB-METRICS
CONTINUED

35. % Provisioning Troubles within 30 days of Service Order Completion – UNE Loops
36. % Provisioning Troubles within 30 days of Service Order Completion – UNE xDSL
37. % Provisioning Troubles within 30 days of Service Order Completion – UNE Line Sharing
38. % Provisioning Troubles within 30 days of Service Order Completion – Local IC Trunks
39. LNP – Average Time Out of Service for LNP Conversions
40. LNP – Percent Missed Installation Appointments
41. Missed Repair Appointments – Resale POTS
42. Missed Repair Appointments – Resale Design
43. Missed Repair Appointments – UNE Loop and Port Combinations
44. Missed Repair Appointments – UNE Loops
45. Missed Repair Appointments – UNE xDSL
46. Missed Repair Appointments – UNE Line Sharing
47. Missed Repair Appointments – Local IC Trunks
48. Customer Trouble Report Rate – Resale POTS
49. Customer Trouble Report Rate – Resale Design
50. Customer Trouble Report Rate – UNE Loop and Port Combinations
51. Customer Trouble Report Rate – UNE Loops
52. Customer Trouble Report Rate – UNE xDSL
53. Customer Trouble Report Rate – UNE Line Sharing
54. Customer Trouble Report Rate – Local IC Trunks
55. Maintenance Average Duration – Resale POTS
56. Maintenance Average Duration – Resale Design
57. Maintenance Average Duration – UNE Loop and Port Combinations
58. Maintenance Average Duration – UNE Loops
59. Maintenance Average Duration – UNE xDSL
60. Maintenance Average Duration – UNE Line Sharing
61. Maintenance Average Duration – Local IC Trunks
62. % Repeat Troubles within 30 days – Resale POTS
63. % Repeat Troubles within 30 days – Resale Design
64. % Repeat Troubles within 30 days – UNE Loop and Port Combinations
65. % Repeat Troubles within 30 days – UNE Loops
66. % Repeat Troubles within 30 days – UNE xDSL
67. % Repeat Troubles within 30 days – UNE Line Sharing
68. % Repeat Troubles within 30 days – Local IC Trunks
69. Invoice Accuracy
70. Mean Time to Deliver Invoices
71. Usage Data Delivery Accuracy
72. Trunk Group Performance – Aggregate

SEEM TIER-2 SUB-METRICS
CONTINUED

73. Collocation Percent of Due Dates Missed
74. Timeliness of Change Management Notices
75. Timeliness of Documents Associated with Change

APPENDIX C

Statistical Methodology

Statistical Methods for BellSouth Performance Measure Analysis

I. Necessary Properties for a Test Methodology

The statistical process for testing if competing local exchange carriers (CLECs) customers are being treat equally with BellSouth (BST) customers involves more than just a mathematical formula. Three key elements need to be considered before an appropriate decision process can be developed. These are

- the type of data,
- the type of comparison, and
- the type of performance measure.

Once these elements are determined a test methodology should be developed that complies with the following properties.

- Like-to-Like Comparisons. When possible, data should be compared at appropriate levels, e.g. wire center, time of month, dispatched, residential, new orders. The testing process should:
  - Identify variables that may affect the performance measure.
  - Record these important confounding covariates.
  - Adjust for the observed covariates in order to remove potential biases and to make the CLEC and the ILEC units as comparable as possible.
- Aggregate Level Test Statistic. Each performance measure of interest should be summarized by one overall test statistic giving the decision maker a rule that determines whether a statistically significant difference exists. The test statistic should have the following properties.
  - The method should provide a single overall index, on a standard scale.
  - If entries in comparison cells are exactly proportional over a covariate, the aggregated index should be very nearly the same as if comparisons on the covariate had not been done.
  - The contribution of each comparison cell should depend on the number of observations in the cell.
  - Cancellation between comparison cells should be limited.
  - The index should be a continuous function of the observations.
- Production Mode Process. The decision system must be developed so that it does not require intermediate manual intervention, i.e. the process must be a "black box."
  - Calculations are well defined for possible eventualities.

  - The decision process is an algorithm that needs no manual intervention.
  - Results should be arrived at in a timely manner.
  - The system must recognize that resources are needed for other performance measure-related processes that also must be run in a timely manner.
  - The system should be auditable, and adjustable over time.

- Balancing. The testing methodology should balance Type I and Type II Error probabilities.
  - P(Type I Error) = P(Type II Error) for well defined null and alternative hypotheses.
  - The formula for a test's balancing critical value should be simple enough to calculate using standard mathematical functions, i.e. one should avoid methods that require computationally intensive techniques.
  - Little to no information beyond the null hypothesis, the alternative hypothesis, and the number of observations should be required for calculating the balancing critical value.

- Trimming. Trimming of extreme observations from BellSouth and CLEC distributions is needed in order to ensure that a fair comparison is made between performance measures. Three conditions are needed to accomplish this goal. These are:
  - Trimming should be based on a general rule that can be used in a production setting.
  - Trimmed observations should not simply be discarded; they need to be examined and possibly used in the final decision making process.
  - Trimming should only be used on performance measures that are sensitive to "outliers."

Measurement Types

The performance measures that will undergo testing are of four types:

1) means
2) proportions,
3) rates, and
4) ratio

While all four have similar characteristics, proportions and rates are derived from count data while means and ratios are derived from interval measurements.

II. Testing Methodology – The Truncated Z

Many covariates are chosen in order to provide deep comparison levels. In each comparison cell, a Z statistic is calculated. The form of the Z statistic may vary depending on the performance measure, but it should be distributed approximately as a standard normal, with mean zero and variance equal to one. Assuming that the test statistic is derived so that it is negative when the performance for the CLEC is worse than for the ILEC, a positive truncation is done – i.e. if the result is negative it is left alone, if the result is positive it is changed to zero. A weighted average of the truncated statistics is calculated where a cell weight depends on the volume of BST and CLEC orders in the cell. The weighted average is re-centered by the theoretical mean of a truncated distribution, and this is divided by the standard error of the weighted average. The standard error is computed assuming a fixed effects model.

Proportion Measures

For performance measures that are calculated as a proportion, in each adjustment cell, the truncated Z and the moments for the truncated Z can be calculated in a direct manner. In adjustment cells where proportions are not close to zero or one, and where the sample sizes are reasonably large, a normal approximation can be used. In this case, the moments for the truncated Z come directly from properties of the standard normal distribution. If the normal approximation is not appropriate, then the Z statistic is calculated from the hypergeometric distribution. In this case, the moments of the truncated Z are calculated exactly using the hypergeometric probabilities.

Rate Measures

The truncated Z methodology for rate measures has the same general structure for calculating the Z in each cell as proportion measures. For a rate measure, there are a fixed number of circuits or units for the CLEC, n_{2j} and a fixed number of units for BST, n_{1j}. Suppose that the performance measure is a "trouble rate." The modeling assumption is that the occurrence of a trouble is independent between units and the number of troubles in n circuits follows a Poisson distribution with mean λ n where λ is the probability of a trouble in 1 circuit and n is the number of circuits.

In an adjustment cell, if the number of CLEC troubles is greater than 15 and the number of BST troubles is greater than 15, then the Z test is calculated using the normal approximation to the Poisson. In this case, the moments of the truncated Z come directly from properties of the standard normal distribution. Otherwise, if there are very few troubles, the number of CLEC troubles can be modeled using a binomial distribution with n equal to the total number of troubles (CLEC plus BST troubles.)

In this case, the moments for the truncated Z are calculated explicitly using the binomial distribution.

Mean Measures

For mean measures, an adjusted t statistic is calculated for each like-to-like cell which has at least 7 BST and 7 CLEC transactions. A permutation test is used when one or both of the BST and CLEC sample sizes is less than 6. Both the adjusted t statistic and the permutation calculation are described in the technical appendix.

Ratio Measures

Rules will be given for computing a cell test statistic for a ratio measure, however, the current plan for measures in this category, namely billing accuracy, does not call for the use of a Z parity statistic.

APPENDIX D

Technical Description

We start by assuming that any necessary trimming[1] of the data is complete, and that the data are disaggregated so that comparisons are made within appropriate classes or adjustment cells that define "like" observations.

Notation and Exact Testing Distributions

Below, we have detailed the basic notation for the construction of the truncated z statistic. In what follows the word "cell" should be taken to mean a like-to-like comparison cell that has both one (or more) ILEC observation and one (or more) CLEC observation.

L = the total number of occupied cells

j = 1,…,L; an index for the cells

n_{1j} = the number of ILEC transactions in cell j

n_{2j} = the number of CLEC transactions in cell j

n_j = the total number transactions in cell j; $n_{1j}+ n_{2j}$

X_{1jk} = individual ILEC transactions in cell j; k = 1,…, n_{1j}

X_{2jk} = individual CLEC transactions in cell j; k = 1,…, n_{2j}

Y_{jk} = individual transaction (both ILEC and CLEC) in cell j

$$= \begin{cases} X_{1jk} & k = 1,K\ ,n_{1j} \\ X_{2jk} & k = n_{1j}+1,K\ ,n_j \end{cases}$$

$\Phi^{-1}(\cdot)$ = the inverse of the cumulative standard normal distribution function

For Mean Performance Measures the following additional notation is needed.

$\overline{X}_{1j}$ = The ILEC sample mean of cell j

$\overline{X}_{2j}$ = The CLEC sample mean of cell j

s_{1j}^2 = The ILEC sample variance in cell j

[1] When it is determined that a measure should be trimmed, a trimming rule that is easy to implement in a production setting is:

> **Trim the ILEC observations to the largest CLEC value from all CLEC observations in the month under consideration.**

That is, no CLEC values are removed; all ILEC observations greater than the largest CLEC observation are trimmed.

s_{2j}^2 = The CLEC sample variance in cell j

$\{y_{jk}\}$ = a random sample of size n_{2j} from the set of Y_{j1}, K, Y_{jn_j} ; k = 1,…,n_{2j}

M_j = The total number of distinct pairs of samples of size n_{1j} and n_{2j};

$$= \begin{pmatrix} n_j \\ n_{1j} \end{pmatrix}$$

The exact parity test is the permutation test based on the "modified Z" statistic. For large samples, we can avoid permutation calculations since this statistic will be normal (or Student's t) to a good approximation. For small samples, where we cannot avoid permutation calculations, we have found that the difference between "modified Z" and the textbook "pooled Z" is negligible. We therefore propose to use the permutation test based on pooled Z for small samples. This decision speeds up the permutation computations considerably, because for each permutation we need only compute the sum of the CLEC sample values, and not the pooled statistic itself.

A permutation probability mass function distribution for cell j, based on the "pooled Z" can be written as

$$PM(t) = P(\sum_k y_{jk} = t) = \frac{\textit{the number of samples that sum to } t}{M_j},$$

and the corresponding cumulative permutation distribution is

$$CPM(t) = P(\sum_k y_{jk} \le t) = \frac{\textit{the number of samples with sum } \le t}{M_j}.$$

For Proportion Performance Measures the following notation is defined

a_{1j} = The number of ILEC cases possessing an attribute of interest in cell j

a_{2j} = The number of CLEC cases possessing an attribute of interest in cell j

a_j = The number of cases possessing an attribute of interest in cell j; $a_{1j} + a_{2j}$

The exact distribution for a parity test is the hypergeometric distribution. The hypergeometric probability mass function distribution for cell j is

$$HG(h) = P(H = h) = \begin{cases} \dfrac{\binom{n_{1j}}{h}\binom{n_{2j}}{a_j - h}}{\binom{n_j}{a_j}}, & \max(0, a_j - n_{2j}) \le h \le \min(a_j, n_{1j}) \\ 0 & \text{otherwise} \end{cases},$$

and the cumulative hypergeometric distribution is

$$CHG(x) = P(H \le x) = \begin{cases} 0 & x < \max(0, a_j - n_{2j}) \\ \sum_{h=\max(0,a_j-n_{1j})}^{x} HG(h), & \max(0, a_j - n_{2j}) \le x \le \min(a_j, n_{1j}) \\ 1 & x > \min(a_j, n_{1j}) \end{cases}.$$

For Rate Measures, the notation needed is defined as

b_{1j} = The number of ILEC base elements in cell j

b_{2j} = The number of CLEC base elements in cell j

b_j = The total number of base elements in cell j; $b_{1j} + b_{2j}$

$\bar{p}_{1j}$ = The ILEC sample rate of cell j; n_{1j}/b_{1j}

$\bar{p}_{2j}$ = The CLEC sample rate of cell j; n_{2j}/b_{2j}

q_j = The relative proportion of ILEC elements for cell j; b_{1j}/b_j

The exact distribution for a parity test is the binomial distribution. The binomial probability mass function distribution for cell j is

$$BN(k) = P(B = k) = \begin{cases} \binom{n_j}{k} q_j^k (1 - q_j)^{n_j - k}, & 0 \le k \le n_j \\ 0 & \text{otherwise} \end{cases},$$

and the cumulative binomial distribution is

$$CBN(x) = P(B \le x) = \begin{cases} 0 & x < 0 \\ \sum_{k=0}^{x} BN(k), & 0 \le x \le n_j \\ 1 & x > n_j \end{cases}.$$

For Ratio Performance Measures the following additional notation is needed.

U_{1jk} = additional quantity of interest of an individual ILEC transaction in cell j; k = 1,…, n_{1j}

U_{2jk} = additional quantity of interest of an individual CLEC transaction in cell j; k = 1,…, n_{2j}

$\hat{R}_{ij}$ = the ILEC (I = 1) or CLEC (i = 2) ratio of the total additional quantity of interest to the base transaction total in cell j, i.e., $\sum_k U_{ijk} \Big/ \sum_k X_{ijk}$

Calculating the Truncated Z

The general methodology for calculating an aggregate level test statistic is outlined below.

1. **Calculate cell weights**, W_j. A weight based on the number of transactions is used so that a cell, which has a larger number of transactions, has a larger weight. The actual weight formulae will depend on the type of measure.

Mean or Ratio Measure

$$W_j = \sqrt{\frac{n_{1j} n_{2j}}{n_j}}$$

Proportion Measure

$$W_j = \sqrt{\frac{n_{2j} n_{1j}}{n_j} \cdot \frac{a_j}{n_j} \cdot \left(1 - \frac{a_j}{n_j}\right)}$$

Rate Measure

$$W_j = \sqrt{\frac{b_{1j} b_{2j}}{b_j} \cdot \frac{n_j}{b_j}}$$

2. **In each cell, calculate a Z value**, Z_j. A Z statistic with mean 0 and variance 1 is needed for each cell.

   - If $W_j = 0$, set $Z_j = 0$.
   - Otherwise, the actual Z statistic calculation depends on the type of performance measure.

Mean Measure

$$Z_j = \Phi^{-1}(\alpha)$$

where α is determine by the following algorithm.

If $\min(n_{1j}, n_{2j}) > 6$, then determine α as

$$\alpha = P(t_{n_{1j}-1} \le T_j),$$

that is, α is the probability that a t random variable with $n_{1j} - 1$ degrees of freedom, is less than

$$T_j = \begin{cases} t_j + \frac{g}{6}\left(\frac{n_{1j}+2n_{2j}}{\sqrt{n_{1j}\, n_{2j}(n_{1j}+n_{2j})}}\right)\left(t_j^2 + \frac{n_{2j}-n_{1j}}{n_{1j}+2n_{2j}}\right) & t_j \ge t_{\min j} \\ t_j + \frac{g}{6}\left(\frac{n_{1j}+2n_{2j}}{\sqrt{n_{1j}\, n_{2j}(n_{1j}+n_{2j})}}\right)\left(t_{\min j}^2 + \frac{n_{2j}-n_{1j}}{n_{1j}+2n_{2j}}\right) & \text{otherwise} \end{cases},$$

where

$$t_j = \frac{\bar{X}_{1j} - \bar{X}_{2j}}{s_{1j}\sqrt{\frac{1}{n_{1j}} + \frac{1}{n_{2j}}}},$$

$$t_{\min j} = \frac{-3\sqrt{n_{1j} n_{2j} n_j}}{g(n_{1j}+2n_{2j})}$$

and *g* is the median value of all values of

$$\gamma_{1j} = \frac{n_{1j}}{(n_{1j}-1)(n_{1j}-2)} \sum_k \left(\frac{X_{1jk} - \bar{X}_{1j}}{s_{1j}}\right)^3$$

with $n_{1j} > n_{3q}$ for all values of *j*. n_{3q} is the 3 quartile of all values of n_{1j}.

Note, that t_j is the "modified Z" statistic. The statistic T_j is a "modified Z" corrected for the skewness of the ILEC data.

If $\min(n_{1j}, n_{2j}) \le 6$, and

a) $M_j \leq 1{,}000$ (the total number of distinct pairs of samples of size n_{1j} and n_{2j} is 1,000 or less).

- Calculate the sample sum for all possible samples of size n_{2j}.
- Rank the sample sums from smallest to largest. Ties are dealt by using average ranks.
- Let R_0 be the rank of the observed sample sum with respect all the sample sums.

$$\alpha = 1 - \frac{R_0 - 0.5}{M_j}$$

b) $M_j > 1{,}000$

- Draw a random sample of 1,000 sample sums from the permutation distribution.
- Add the observed sample sum to the list. There are a total of 1001 sample sums. Rank the sample sums from smallest to largest. Ties are dealt by using average ranks.
- Let R_0 be the rank of the observed sample sum with respect all the sample sums.

$$\alpha = 1 - \frac{R_0 - 0.5}{1001}.$$

Proportion Measure

$$Z_j = \frac{n_j\, a_{1j} - n_{1j}\, a_j}{\sqrt{\frac{n_{1j}\, n_{2j}\, a_j\, (n_j - a_j)}{n_j - 1}}}.$$

Rate Measure

$$Z_j = \frac{n_{1j} - n_j\, q_j}{\sqrt{n_j\, q_j (1 - q_j)}}$$

Ratio Measure

$$Z_j = \frac{\hat{R}_{1j} - \hat{R}_{2j}}{\sqrt{V(\hat{R}_{1j})\left(\frac{1}{n_{1j}} + \frac{1}{n_{2j}}\right)}}$$

$$V(\hat{R}_{1j}) = \frac{\sum_k \left(U_{1jk} - \hat{R}_{1j}X_{1jk}\right)^2}{\bar{X}_{1j}^2(n_{1j}-1)} = \frac{\sum_k U_{1jk}^2 - 2\hat{R}_{1j}\sum_k \left(U_{1jk}X_{1jk}\right) + \hat{R}_{1j}^2\sum_k X_{1jk}^2}{\bar{X}_{1j}^2(n_{1j}-1)}$$

3. **Obtain a truncated Z value for each cell**, Z_j^*. To limit the amount of cancellation that takes place between cell results during aggregation, cells whose results suggest possible favoritism are left alone. Otherwise the cell statistic is set to zero. This means that positive equivalent Z values are set to 0, and negative values are left alone. Mathematically, this is written as

$$Z_j^* = \min(0, Z_j).$$

4. **Calculate the theoretical mean and variance of the truncated statistic under the null hypothesis of parity**, $E(Z_j^* | H_0)$ and $Var(Z_j^* | H_0)$. In order to compensate for the truncation in step 3, an aggregated, weighted sum of the Z_j^* will need to be centered and scaled properly so that the final aggregate statistic follows a standard normal distribution.

   - If $W_j = 0$, then no evidence of favoritism is contained in the cell. The formulae for calculating $E(Z_j^* | H_0)$ and $Var(Z_j^* | H_0)$ cannot be used. Set both equal to 0.

   - If $\min(n_{1j}, n_{2j}) > 6$ for a mean measure, $\min\left\{a_{1j}\left(1 - \frac{a_{1j}}{n_{1j}}\right), a_{2j}\left(1 - \frac{a_{2j}}{n_{2j}}\right)\right\} > 9$ for a proportion measure, $\min\left(n_{1j}, n_{2j}\right) > 15$ and $n_j q_j (1 - q_j) > 9$ for a rate measure, or n_{1j} and n_{2j} are large for a ratio measure then

$$E(Z_j^* | H_0) = -\frac{1}{\sqrt{2\pi}}, \text{ and}$$

$$Var(Z_j^* | H_0) = \frac{1}{2} - \frac{1}{2\pi}.$$

- Otherwise, determine the total number of values for Z_j^*. Let z_{ji} and θ_{ji}, denote the values of Z_j^* and the probabilities of observing each value, respectively.

$$E(Z_j^* \mid H_0) = \sum_i \theta_{ji} z_{ji} \text{ ,and}$$
$$Var(Z_j^* \mid H_0) = \sum_i \theta_{ji} z_{ji}^2 - \left[E(Z_j^* \mid H_0) \right]^2 .$$

The actual values of the z's and θ's depends on the type of measure.

Mean Measure

$$N_j = \min(M_j, 1{,}000), \; i = 1, \ldots, N_j$$
$$z_{ji} = \min\left\{0, \Phi^{-1}\left(1 - \tfrac{R_i - 0.5}{N_j}\right)\right\} \quad \text{where } R_i \text{ is the rank of sample sum i}$$
$$\theta_j = \frac{1}{N_j}$$

Proportion Measure

$$z_{ji} = \min\left\{0, \frac{n_j \, i - n_{1j} \, a_j}{\sqrt{\frac{n_{1j} \, n_{2j} \, a_j \, (n_j - a_j)}{n_j - 1}}}\right\}, \quad i = \max(0, a_j - n_{2j}), \ldots, \min(a_j, n_{1j})$$
$$\theta_{ji} = HG(i)$$

Rate Measure

$$z_{ji} = \min\left\{0, \frac{i - n_j \, q_j}{\sqrt{n_j \, q_j (1 - q_j)}}\right\}, \quad i = 0, \ldots, n_j$$
$$\theta_{ji} = BN(i)$$

Ratio Measure

The performance measure that is in this class is billing accuracy. If a parity test were used, the sample sizes for this measure are quite large, so there is no need for a small sample technique. If one does need a small sample technique, then a re-sampling method can be used.

1. **Calculate the aggregate test statistic**, Z^T.

$$Z^T = \frac{\sum_j W_j Z_j^* - \sum_j W_j E(Z_j^* \mid H_0)}{\sqrt{\sum_j W_j^2 \mathrm{Var}(Z_j^* \mid H_0)}}$$

The Balancing Critical Value

There are four key elements of the statistical testing process:

1. the null hypothesis, H_0, that parity exists between ILEC and CLEC services
2. the alternative hypothesis, H_a, that the ILEC is giving better service to its own customers
3. the Truncated Z test statistic, Z^T, and
4. a critical value, c

The decision rule[2] is

- If $Z^T < c$ then accept H_a.
- If $Z^T \geq c$ then accept H_0.

There are two types of error possible when using such a decision rule:

Type I Error: Deciding favoritism exists when there is, in fact, no favoritism.
Type II Error: Deciding parity exists when there is, in fact, favoritism.

The probabilities of each type of each are:

Type I Error: $\alpha = P(Z^T < c \mid H_0)$.
Type II Error: $\beta = P(Z^T \geq c \mid H_a)$.

We want a balancing critical value, c_B, so that $\alpha = \beta$.

It can be shown that.

[2] This decision rule assumes that a negative test statistic indicates poor service for the CLEC customer. If the opposite is true, then reverse the decision rule.

$$c_B = \frac{\sum_j W_j M(m_j, se_j) - \sum_j W_j \frac{-1}{\sqrt{2\pi}}}{\sqrt{\sum_j W_j^2 V(m_j, se_j)} + \sqrt{\sum_j W_j^2 \left(\frac{1}{2} - \frac{1}{2\pi}\right)}}.$$

where

$$M(\mu, \sigma) = \mu \Phi(\tfrac{-\mu}{\sigma}) - \sigma \phi(\tfrac{-\mu}{\sigma})$$

$$V(\mu, \sigma) = (\mu^2 + \sigma^2)\Phi(\tfrac{-\mu}{\sigma}) - \mu\sigma\phi(\tfrac{-\mu}{\sigma}) - M(\mu, \sigma)^2$$

$\Phi(\cdot)$ is the cumulative standard normal distribution function, and $\phi(\cdot)$ is the standard normal density function.

This formula assumes that Z_j is approximately normally distributed within cell j. When the cell sample sizes, n_{1j} and n_{2j}, are small this may not be true. It is possible to determine the cell mean and variance under the null hypothesis when the cell sample sizes are small. It is much more difficult to determine these values under the alternative hypothesis. Since the cell weight, W_j will also be small (see calculate weights section above) for a cell with small volume, the cell mean and variance will not contribute much to the weighted sum. Therefore, the above formula provides a reasonable approximation to the balancing critical value.

The values of m_j and se_j will depend on the type of performance measure.

Mean Measure

For mean measures, one is concerned with two parameters in each cell, namely, the mean and variance. A possible lack of parity may be due to a difference in cell means, and/or a difference in cell variances. One possible set of hypotheses that capture this notion, and take into account the assumption that transaction are identically distributed within cells is:

H_0: $\mu_{1j} = \mu_{2j}$, $\sigma_{1j}^2 = \sigma_{2j}^2$

H_a: $\mu_{2j} = \mu_{1j} + \delta_j \cdot \sigma_{1j}$, $\sigma_{2j}^2 = \lambda_j \cdot \sigma_{1j}^2$ $\quad \delta_j > 0$, $\lambda_j \geq 1$ and $j = 1,\ldots,L$.

Under this form of alternative hypothesis, the cell test statistic Z_j has mean and standard error given by

$$m_j = \frac{-\delta_j}{\sqrt{\frac{1}{n_{1j}} + \frac{1}{n_{2j}}}}, \text{ and}$$

$$se_j = \sqrt{\frac{\lambda_j n_{1j} + n_{2j}}{n_{1j} + n_{2j}}}$$

Proportion Measure

For a proportion measure there is only one parameter of interest in each cell, the proportion of transaction possessing an attribute of interest. A possible lack of parity may be due to a difference in cell proportions. A set of hypotheses that take into account the assumption that transaction are identically distributed within cells while allowing for an analytically tractable solution is:

$$H_0: \frac{p_{2j}(1-p_{1j})}{(1-p_{2j})p_{1j}} = 1$$

$$H_a: \frac{p_{2j}(1-p_{1j})}{(1-p_{2j})p_{1j}} = \psi_j \qquad \psi_j > 1 \text{ and } j = 1,\ldots,L.$$

These hypotheses are based on the "odds ratio." If the transaction attribute of interest is a missed trouble repair, then an interpretation of the alternative hypothesis is that a CLEC trouble repair appointment is ψ_j times more likely to be missed than an ILEC trouble.

Under this form of alternative hypothesis, the within cell asymptotic mean and variance of a_{1j} are given by[3]

$$E(a_{1j}) = n_j \pi_j^{(1)}$$

$$\text{var}(a_{1j}) = \frac{n_j}{\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}}}$$

where

[3] Stevens, W. L. (1951) Mean and Variance of an entry in a Contingency Table. *Biometrica*, **38**, 468-470.

$$\pi_j^{(1)} = f_j^{(1)}\left(n_j^2 + f_j^{(2)} + f_j^{(3)} - f_j^{(4)}\right)$$
$$\pi_j^{(2)} = f_j^{(1)}\left(-n_j^2 - f_j^{(2)} + f_j^{(3)} + f_j^{(4)}\right)$$
$$\pi_j^{(3)} = f_j^{(1)}\left(-n_j^2 + f_j^{(2)} - f_j^{(3)} + f_j^{(4)}\right)$$
$$\pi_j^{(4)} = f_j^{(1)}\left(n_j^2\left(\tfrac{2}{\psi_j} - 1\right) - f_j^{(2)} - f_j^{(3)} - f_j^{(4)}\right)$$
$$f_j^{(1)} = \frac{1}{2n_j^2\left(\frac{1}{\psi_j} - 1\right)}$$
$$f_j^{(2)} = n_j n_{1j}\left(\tfrac{1}{\psi_j} - 1\right)$$
$$f_j^{(3)} = n_j a_j\left(\tfrac{1}{\psi_j} - 1\right)$$
$$f_j^{(4)} = \sqrt{n_j^2\left[4n_{1j}\left(n_j - a_j\right)\left(\tfrac{1}{\psi_j} - 1\right) + \left(n_j + \left(a_j - n_{1j}\right)\left(\tfrac{1}{\psi_j} - 1\right)\right)^2\right]}$$

Recall that the cell test statistic is given by

$$Z_j = \frac{n_j\, a_{1j} - n_{1j}\, a_j}{\sqrt{\frac{n_{1j}\, n_{2j}\, a_j\, (n_j - a_j)}{n_j - 1}}}.$$

Using the equations above, we see that Z_j has mean and standard error given by

$$m_j = \frac{n_j^2 \pi_j^{(1)} - n_{1j}\, a_j}{\sqrt{\frac{n_{1j}\, n_{2j}\, a_j\, (n_j - a_j)}{n_j - 1}}}, \text{ and}$$

$$se_j = \sqrt{\frac{n_j^3 (n_j - 1)}{n_{1j}\, n_{2j}\, a_j\, (n_j - a_j)\left(\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}}\right)}}.$$

Rate Measure

A rate measure also has only one parameter of interest in each cell, the rate at which a phenomenon is observed relative to a base unit, e.g. the number of troubles per available line. A possible lack of parity may be due to a difference in cell rates. A set of hypotheses that take into account the assumption that transaction are identically distributed within cells is:

H_0: $r_{1j} = r_{2j}$

H_a: $r_{2j} = \varepsilon_j r_{1j}$ $\varepsilon_j > 1$ and $j = 1,\ldots,L$.

Given the total number of ILEC and CLEC transactions in a cell, n_j, and the number of base elements, b_{1j} and b_{2j}, the number of ILEC transaction, n_{1j}, has a binomial distribution from n_j trials and a probability of

$$q_j^* = \frac{r_{1j} b_{1j}}{r_{1j} b_{1j} + r_{2j} b_{2j}}.$$

Therefore, the mean and variance of n_{1j}, are given by

$$E(n_{1j}) = n_j q_j^*$$
$$\text{var}(n_{1j}) = n_j q_j^* (1 - q_j^*)$$

Under the null hypothesis

$$q_j^* = q_j = \frac{b_{1j}}{b_j},$$

but under the alternative hypothesis

$$q_j^* = q_j^a = \frac{b_{1j}}{b_{1j} + \varepsilon_j b_{2j}}.$$

Recall that the cell test statistic is given by

$$Z_j = \frac{n_{1j} - n_j q_j}{\sqrt{n_j q_j (1 - q_j)}}.$$

Using the relationships above, we see that Z_j has mean and standard error given by

$$m_j = \frac{n_j \left(q_j^a - q_j \right)}{\sqrt{n_j q_j (1 - q_j)}} = (1 - \varepsilon_j) \frac{\sqrt{n_j b_{1j} b_{2j}}}{b_{1j} + \varepsilon_j b_{2j}}, \text{ and}$$

$$se_j = \sqrt{\frac{q_j^a (1 - q_j^a)}{q_j (1 - q_j)}} = \sqrt{\varepsilon_j} \frac{b_j}{b_{1j} + \varepsilon_j b_{2j}}.$$

Ratio Measure

As with mean measures, one is concerned with two parameters in each cell, the mean and variance, when testing for parity of ratio measures. As long as sample sizes are large, as in the case of billing accuracy, the same method for finding m_j and se_j that is used for mean measures can be used for ratio measures.

Determining the Parameters of the Alternative Hypothesis

In this appendix we have indexed the alternative hypothesis of mean measures by two sets of parameters, λ_j and δ_j. Proportion and rate measures have been indexed by one set of parameters each, ψ_j and ε_j respectively. A major difficulty with this approach is that more than one alternative will be of interest; for example we may consider one alternative in which all the δ_j are set to a common non-zero value, and another set of alternatives in each of which just one δ_j is non-zero, while all the rest are zero. There are very many other possibilities. Each possibility leads to a single value for the balancing critical value; and each possible critical value corresponds to many sets of alternative hypotheses, for each of which it constitutes the correct balancing value.

The formulas we have presented can be used to evaluate the impact of different choices of the overall critical value. For each putative choice, we can evaluate the set of alternatives for which this is the correct balancing value. While statistical science can be used to evaluate the impact of different choices of these parameters, there is not much that an appeal to statistical principles can offer in directing specific choices. Specific choices are best left to telephony experts. Still, it is possible to comment on some aspects of these choices:

- Parameter Choices for λ_j. The set of parameters λ_j index alternatives to the null hypothesis that arise because there might be greater unpredictability or variability in the delivery of service to a CLEC customer over that which would be achieved for an otherwise comparable ILEC customer. While concerns about differences in the variability of service are important, it turns out that the truncated Z testing which is being recommended here is relatively insensitive to all but very large values of the λ_j. Put another way, reasonable differences in the values chosen here could make very little difference in the balancing points chosen.

- Parameter Choices for δ_j. The set of parameters δ_j are much more important in the choice of the balancing point than was true for the λ_j. The reason for this is that they directly index differences in average service. The truncated Z test is very sensitive to any such differences; hence, even small disagreements among experts in the choice of the δ_j could be very important. Sample size matters here too. For example, setting all the δ_j to a single value – $\delta_j = \delta$ – might be fine for tests across individual CLECs where currently in North Carolina the CLEC customer bases are not too different. Using the same value of δ for the overall state testing does not seem sensible. At the state level we are aggregating over CLECs, so using the same δ as for an individual

CLEC would be saying that a "meaningful" degree of disparity is one where the violation is the same (δ) for each CLEC. But the detection of disparity for any component CLEC is important, so the relevant "overall" δ should be smaller.

- Parameter Choices for ψ_j or ε_j. The set of parameters ψ_j or ε_j are also important in the choice of the balancing point for tests of their respective measures. The reason for this is that they directly index increases in the proportion or rate of service performance. The truncated Z test is sensitive to such increases; but not as sensitive as the case of δ for mean measures. Sample size matters here too. As with mean measures, using the same value of ψ or ε for the overall state testing does not seem sensible.

The three parameters are related however. If a decision is made on the value of δ, it is possible to determine equivalent values of ψ and ε. The following equations, in conjunction with the definitions of ψ and ε, show the relationship with delta.

$$\delta = 2 \cdot \arcsin(\sqrt{\hat{p}_2}) - 2 \cdot \arcsin(\sqrt{\hat{p}_1})$$
$$\delta = 2\sqrt{\hat{r}_2} - 2\sqrt{\hat{r}_1}$$

The bottom line here is that beyond a few general considerations, like those given above, a principled approach to the choice of the alternative hypotheses to guard against must come from elsewhere.

Decision Process

Once Z^T has been calculated, it is compared to the balancing critical value to determine if the ILEC is favoring its own customers over a CLEC's customers.

This critical value changes as the ILEC and CLEC transaction volume change. One way to make this transparent to the decision-maker, is to report the difference between the test statistic and the critical value, *diff* = Z^T - c_B. If favoritism is concluded when $Z^T < c_B$, then the *diff* < 0 indicates favoritism.

This makes it very easy to determine favoritism: a positive *diff* suggests no favoritism, and a negative *diff* suggests favoritism.

APPENDIX E

BST SEEM Remedy Procedure

BST SEEM REMEDY PROCEDURE

TIER-1 CALCULATION FOR RETAIL ANALOGUES:

1. Calculate the overall test statistic for each ALEC; $z^{T}_{ALEC\text{-}1}$ (Per Statistical Methodology discussed by Dr. Mulrow)

2. Calculate the balancing critical value($^{c}B_{ALEC\text{-}1}$) that is associated with the alternative hypothesis (for fixed parameters δ,Ψ,or ε)

3. If the overall test statistic is equal to or above the balancing critical value, stop here. That is, if $^{c}B_{ALEC\text{-}1} < z^{T}_{ALEC\text{-}1,}$ stop here. Otherwise, go to step 4.

4. Calculate the Parity Gap by subtracting the value of step 2 from that of step 1. $ABS(z^{T}_{ALEC\text{-}1} - {}^{c}B_{ALEC\text{-}1})$

5. Calculate the Volume Proportion using a linear distribution with slope of ¼. This can be accomplished by taking the absolute value of the Parity Gap from step 4 divided by 4; $ABS((z^{T}_{ALEC\text{-}1} - {}^{c}B_{ALEC\text{-}1}) / 4)$. All parity gaps equal or greater to 4 will result in a volume proportion of 100%.

6. Calculate the Affected Volume by multiplying the Volume Proportion from step 5 by the Total Impacted ALEC-$_1$ Volume (I_c) in the negatively affected cell; where the cell value is negative.

7. Calculate the payment to ALEC-1 by multiplying the result of step 6 by the appropriate dollar amount from the fee schedule.

8. Then, ALEC-1 payment = $\text{Affected Volume}_{ALEC1}$ * $$ from Fee Schedule

Example: ALEC-1 Missed Installation Appointments (MIA) for Resale POTS.
Note – the statistical results are only illustrative. They are not a result of a statistical test of this data.

	n_I	N_C	I_c	MIA_I	MIA_C	$z^{T}_{ALEC\text{-}1}$	C_B	Parity Gap	Volume Proportion	Affected Volume
State	50000	600	96	9%	16%	-1.92	-0.21	1.71	0.4275	
Cell						$z_{ALEC\text{-}1}$				
1		150	17	0.091	0.113	-1.994				8
2		75	8	0.176	0.107	0.734				
3		10	4	0.128	0.400	-2.619				2
4		50	17	0.158	0.340	-2.878				8
5		15	2	0.245	0.133	1.345				
6		200	26	0.156	0.130	0.021				
7		30	7	0.166	0.233	-0.600				3
8		20	3	0.106	0.150	-0.065				2
9		40	9	0.193	0.225	-0.918				4
10		10	3	0.160	0.300	-0.660				2
										29

where n_I = ILEC observations and n_C = ALEC-1 observations
Payout for ALEC-1 is (29 units) * ($100/unit) = $2,900

Example: ALEC-1 Order Completion Interval (OCI) for Resale POTS

	n_I	n_C	I_c	OCI_I	OCI_C	z^T_{ALEC-1}	C_B	Parity Gap	Volume Proportion	Affected Volume
State	50000	600	600	5days	7days	-1.92	-0.21	1.71	0.4275	
Cell						z_{ALEC-1}				
1		150	150	5	7	-1.994				64
2		75	75	5	4	0.734				
3		10	10	2	3.8	-2.619				4
4		50	50	5	7	-2.878				21
5		15	15	4	2.6	1.345				
6		200	200	3.8	2.7	0.021				
7		30	30	6	7.2	-0.600				13
8		20	20	5.5	6	-0.065				9
9		40	40	8	10	-0.918				17
10		10	10	6	7.3	-0.660				4
										133

where n_I = ILEC observations and n_C = ALEC-1 observations

Payout for ALEC-1 is (133 units) * ($100/unit) = $13,300

TIER-2 CALCULATION for RETAIL ANALOGUES:

1. Tier-2 is triggered by three consecutive monthly failures of any Tier 2 Remedy Plan submetric.

2. Therefore, calculate monthly statistical results and affected volumes as outlined in steps 2 through 6 for the ALEC Aggregate performance. Determine average monthly affected volume for the rolling 3 month period.

3. Calculate the payment to State Designated Agency by multiplying average monthly volume by the appropriate dollar amount from the Tier-2 fee schedule.

Therefore, State Designated Agency payment = Average monthly volume * $$ from Fee Schedule

Example: ALEC-A Missed Installation Appointments (MIA) for Resale POTS

State	n_I	n_C	I_c	MIA_I	MIA_C	z^T_{ALEC-A}	C_B	Parity Gap	Volume Proportion	Affected Volume
Month 1	180000	2100	336	9%	16%	-1.92	-0.21	1.71	0.4275	
Cell						z_{ALEC-A}				
1		500	56	0.091	0.112	-1.994				24
2		300	30	0.176	0.100	0.734				
3		80	27	0.128	0.338	-2.619				12
4		205	60	0.158	0.293	-2.878				26
5		45	4	0.245	0.089	1.345				
6		605	79	0.156	0.131	0.021				
7		80	19	0.166	0.238	-0.600				9
8		40	6	0.106	0.150	-0.065				3
9		165	36	0.193	0.218	-0.918				16
10		80	19	0.160	0.238	-0.660				9
										99

where n_I = ILEC observations and n_C = ALEC-A observations

Assume Months 2 and 3 have the same affected volumes. Payout 99 units * $300/unit = $29,700.

TIER-1 CALCULATION FOR BENCHMARKS

1. For each ALEC, with five or more observations, calculate monthly performance results for the State.

2. ALECs having observations (sample sizes) between 5 and 30 will use Table I below. The only exception will be for Collocation Percent Missed Due Dates.

Table I Small Sample Size Table
(95% Confidence)

Sample Size	Equivalent 90% Benchmark	Equivalent 95% Benchmark	Sample Size	Equivalent 90% Benchmark	Equivalent 95% Benchmark
5	60.00%	80.00%	16	75.00%	87.50%
6	66.67%	83.33%	17	76.47%	82.35%
7	71.43%	85.71%	18	77.78%	83.33%
8	75.00%	75.00%	19	78.95%	84.21%
9	66.67%	77.78%	20	80.00%	85.00%
10	70.00%	80.00%	21	76.19%	85.71%
11	72.73%	81.82%	22	77.27%	86.36%
12	75.00%	83.33%	23	78.26%	86.96%
13	76.92%	84.62%	24	79.17%	87.50%
14	78.57%	85.71%	25	80.00%	88.00%
15	73.33%	86.67%	26	80.77%	88.46%
			27	81.48%	88.89%
			28	78.57%	89.29%
			29	79.31%	86.21%
			30	80.00%	86.67%

3. If the percentage (or equivalent percentage for small samples) meets the benchmark standard, stop here. Otherwise, go to step 4.

4. Determine the Volume Proportion by taking the difference between the benchmark and the actual performance result.

5. Calculate the Affected Volume by multiplying the Volume Proportion from step 4 by the Total Impacted ALEC-$_1$ Volume.

6. Calculate the payment to ALEC-1 by multiplying the result of step 5 by the appropriate dollar amount from the fee schedule.

   ALEC-1 payment = Affected Volume$_{ALEC\text{-}1}$ * $$ from Fee Schedule

   Example: ALEC-1 Percent Missed Due Dates for Collocations

	n_C	Benchmark	MIA_C	Volume Proportion	Affected Volume
State	600	10%	13%	.03	18

   Payout for ALEC-1 is (18 units) * ($5000/unit) = $90,000

TIER-1 CALCULATION FOR BENCHMARKS (in the form of a target):

1. For each ALEC with five or more observations calculate monthly performance results for the State.

2. ALECs having observations (sample sizes) between 5 and 30 will use Table I above.

3. Calculate the interval distribution based on the same data set used in step 1.

4. If the 'percent within' (or equivalent percentage for small samples) meets the benchmark standard, stop here. Otherwise, go to step 5.

5. Determine the Volume Proportion by taking the difference between benchmark and the actual performance result.

6. Calculate the Affected Volume by multiplying the Volume Proportion from step 5 by the Total ALEC-$_1$ Volume.

7. Calculate the payment to ALEC-1 by multiplying the result of step 6 by the appropriate dollar amount from the fee schedule.

ALEC-1 payment = Affected Volume$_{ALEC1}$ * $$ from Fee Schedule

Example: ALEC-1 Reject Timeliness

	n_C	Benchmark	Reject Timeliness	Volume Proportion	Affected Volume
State	600	95% within 1 hour	93% within 1 hour	.02	12

Payout for ALEC-1 is (12 units) * ($100/unit) = $1,200

TIER-2 CALCULATIONS for BENCHMARKS:

Tier-2 calculations for benchmark measures are the same as the Tier-1 benchmark calculations except the ALEC Aggregate data is evaluated over a three consecutive month period.

SQM Measures from the TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430	SQM Measures from BellSouth's Proposed SQM 07/16/01
Pre-Ordering OSS	**SECTION 1: Operations Support Systems (OSS)**
1. Average Response Time and Response Interval	OSS-1: Average Response Time and Response Interval (Pre-Ordering/Ordering)
2. Interface Availability	OSS-2: Interface Availability (Pre-Ordering/Ordering)
	OSS-3: Interface Availability (Maintenance & Repair)
	OSS-4: Response Interval (Maintenance & Repair)
3. Average Response Time for Loop Make-Up Information	PO-1: Loop Makeup – Responses Time - Manual
	PO-2: Loop Makeup – Responses Time - Electronic
Ordering	**SECTION 2: Ordering**
	O-1: Acknowledgement Message Timeliness
	O-2: Acknowledgement Message Completeness
4. Percent Flow-Through Service Requests (Summary)	O-3: Percent Flow-Through Service Requests (Summary)
5. Percent Flow-Through Service Requests (Detail)	O-4: Percent Flow-Through Service Requests (Detail)
6. Flow-Through Error Analysis	O-5: Flow-Through Error Analysis
6.1 CLEC LSR Information - LSR Flow-Through Matrix	O-6: CLEC LSR Information
	LSR Flow-Through Matrix
7. Percent Rejected Service Requests	O-7: Percent Rejected Service Requests
8. Reject Interval	O-8: Reject Interval
9. Reject Interval Distribution and Average Reject Interval	(See O-8 Reject Interval above)
10. Percent Firm Order Confirmation Returned	O-9: Firm Order Confirmation Timeliness
	O-10: Service Inquiry with Firm order Confirmation (FOC) Response Time Manual
	O-11: Firm Order Confirmation and Reject Response Completeness
11. Speed of Answer in Ordering Center	O-12: Speed of Answer in Ordering Center
Provisioning	**SECTION 3: Provisioning**
12. Mean Held Order Interval & Distribution Intervals	P-1: Mean Held Order Interval & Distribution Intervals
13. Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notices	P-2: Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notices
14. Percent Missed Installation Appointments	P-3: Percent Missed Installation Appointments
15. Average Completion Interval (OCI) & Order Completion Interval Distribution	P-4: Average Completion Interval (OCI) & Order Completion Interval Distribution
16. Average Completion Notice Interval	P-5: Average Completion Notice Interval
17. Coordinated Customer Conversions	P-6: Coordinated Customer Conversions
	P-6A: Coordinated Customer Conversions – Hot Cut Timeliness % Within Interval and Average Interval
	P-6B: Coordinated Customer Conversions – Average Recovery Time
	P-6C: Hot Cut Conversions - % Provisioning Troubles Received Within 7 days of a completed Service Order
	P-7: Cooperative Acceptance Testing - % of xDSL Loops Tested
18. Percentage of LNP Only Due Dates within Industry Guidelines	
19. % Provisioning Troubles within 30 days Service Order Activity	P-8: % Provisioning Troubles within 30 days Service Order Completion
20. Total Service Order Cycle Time (TSOCT)	P-9: Total Service Order Cycle Time (TSOCT)
	P-10A: LNP – Average Time of Out of Service for LNP Conversions
21. Percentage of Time the Old Service provider Releases the Subscription Prior to the Expiration of the Second 9 Hour Timer	P-10B: LNP – Percentage of Time BellSouth Applies the 10-digit Trigger Prior to the LNP Order Due Date
	P-11: LNP – Percent Missed Installation Appointments
22. Percentage of Customer Accounts Restructured Prior to LNP Due Date	
23. Percentage of Premature Disconnects for LNP Orders	
24. Average Days Required to Process a Request	
25. Percentage of Missed Mechanized INP Conversions	
26. Average Delay Days for NXX Loading and Testing	

SQM Measures from the TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430	SQM Measures from BellSouth's Proposed SQM 07/16/01
Maintenance & Repair	**SECTION 4: Maintenance & Repair**
27. Missed Repair Appointments	M&R-1: Missed Repair Appointments
28. Customer Trouble Report Rate	M&R-2: Customer Trouble Report Rate
29. Maintenance Average Duration	M&R-3: Maintenance Average Duration
30. Percent Repeat Troubles w/i 30 days)	M&R-4: Percent Repeat Troubles within 30 days
31. Out of Service > 24 Hours	M&R-5: Out of Service (OOS) > 24 Hours
32. OSS Interface Availability	Moved to Section 1: **Operations Support Systems (OSS)**
33. OSS Response Interval and Percentages	Moved to Section 1: **Operations Support Systems (OSS)**
34. Average Answer Time - Repair Centers	M&R-6: Average Answer Time - Repair Centers
35. Mean Time to Repair	
	M&R-7: Mean Time to Notify CLEC of Network Outages
Billing	**SECTION 5: Billing**
36. Invoice Accuracy	B-1: Invoice Accuracy
37. Mean Time to Deliver Invoices	B-2: Mean Time to Deliver Invoices
38. Usage Data Delivery Accuracy	B-3: Usage Data Delivery Accuracy
39. Usage Data Delivery Completeness	B-4: Usage Data Delivery Completeness
40. Usage Data Delivery Timeliness	B-5: Usage Data Delivery Timeliness
41. Mean Time to Deliver Usage	B-6: Mean Time to Deliver Usage
42. Percent of Accurate and Complete Formatted Mechanized Bills	
43. Billing Completeness	B-7: Recurring Charge Completeness
	B-8: Non-Recurring Charge Completeness
44. Unbillable Usage	
Operator Services (Toll) and Directory Assistance	**SECTION 6: Operator Services and Directory Assistance**
45. Average Speed to Answer (Toll)	OS-1: Speed to Answer Performance/ Average Speed to Answer -Toll
46. Percent Answered within "X" Seconds (Toll)	OS-2: Speed to Answer Performance/ Percent Answered within "X" Seconds- Toll
47. Average Speed to Answer (DA)	DA-1: Speed to Answer Performance/ Average Speed to Answer – Directory Assistance (DA)
48. Percent Answered within "X" Seconds (DA)	DA-2: Speed to Answer Performance/ Percent Answered within "X" Seconds – Directory Assistance (DA)
	SECTION 7: Database Update Information
49. Average Update Interval for DA Database for Facility Based CLECs	D-1: Average Database Update Interval
50. Percentage of Updates Completed into the DA Database within 72 hours for Facility Based CLECs	D-2: Percent Database Update Accuracy
51. Percent NXXs loaded and tested prior to the LERG effective date	D-3: Percent NXXs and LRNs loaded by the LERG Effective Date
52. Percentage DA Database Accuracy for Manual Updates	
E911	**SECTION 8: E911**
53. Timeliness	E-1: Timeliness
54. Accuracy	E-2: Accuracy
55. Mean Interval	E-3: Mean Interval
Trunk Group Performance	**SECTION 9: Trunk Group Performance**
56. Trunk Group Service Report	TGP-1: Trunk Group Performance - Aggregate
57. Trunk Group Service Detail	TGP-2: Trunk Group Performance – CLEC Specific
Collocation	**SECTION 10: Collocation**
58. Average Response Time	C-1: Collocation Average Response Time
59. Average Arrangement Time	C-2: Collocation Average Arrangement Time
60. % of Due Dates Missed	C-3: Collocation Percent of Due Dates Missed
	SECTION 11: Change Management
	CM-1: Timeliness of Change Management Notices
	CM-2: Change Management Notice Average Delay Days
	CM-3: Timeliness of Documents Associated with Change
	CM-4: Change Management Documentation Average Delay Days
	CM-5: Notification of CLEC Interface Outages
Bona Fide Requests	
61. Percentage of Requests Processed within 30 Business Days	

SQM Measures from the TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430	SQM Measures from BellSouth's Proposed SQM 07/16/01
62. Percentage of Quotes Provided for Authorized BFRs / Special Requests Processed within X (10, 30, 90) Business Days	

EXHIBIT DAC-4

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
Pre-Ordering OSS		
1. Average Response Time and Response Interval	RSAG – address RSAG-TN ATLAS COFFI DSAP HAL/CRIS P/SIMS OASIS	***Parity + 4 seconds***
2. Interface Availability	Regional Level	99.5% for any unscheduled downtime. No Scheduled downtime during prime time operating hours (7am-6pm Eastern)
Ordering		
3. Percent Flow-Through Service Requests (Summary)	Residence Business UNE	95% 90% 85%
4. Percent Flow-Through Service Requests (Detail)	Residence Business UNE	95% 90% 85%
5. Flow-Through Error Analysis	Diagnostic	
CLEC LSR Information - LSR Flow-Through Matrix		
6. Percent Rejected Service Requests	Diagnostic	
7. Reject Interval Distribution and Average Reject Interval	Mechanized	97% within 1 hour of the receipt of a rejected LSR
8. Reject Interval	Mechanized Partially Mechanized Non-Mechanized	95% or greater within 1 hrs. 95% or greater within 5 hrs. 95% or greater within 24 hrs.

[1] Note: Where a standard could not be located in the February 23, 2001 order that matched the measurement and disaggregation of the August 11, 2000 order, BellSouth used the appropriate standard from the proposed July 16, 2001 SQM. This is noted in *italics*.

EXHIBIT DAC-4

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
9. Percent Firm Order Confirmation Returned	Mechanized Partially Mechanized Non-Mechanized	*95% within 3 hours* *85% within 24 hours/18 hrs/10hrs* *85% within 24 hours*
10. Speed of Answer in Ordering Center	Greater than 95% of calls, by center, are answered within 20 seconds. 100% of all calls answered within 30 seconds.	
11. Average Response Time for Loop Make-Up Information	Manual	3 Business Days
	Electronic	Actual Requested, actual received 12.6 s and 90% - 15 s; 95% - 25 s Design requested, design received 10 s and 90% - 11.9 s; 95% - 20 s
Provisioning	**Disaggregation**	**Analog / Benchmark**
12. Mean Held Order Interval & Distribution Intervals	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN UNE 2W Loop with NP (Non-Design) UNE 2W Loop without NP (Non-Design) UNE LoopOther with NP (Non-Design) UNE LoopOther without NP (Non-Design) UNE Other (Non-Design) UNE 2W Loop with NP (Design) UNE 2W Loop without NP (Design) UNE LoopOther with NP (Design) UNE LoopOther without NP (Design) UNE Other (Design) Switching – Dispatch Switching – Non-Dispatch Local Transport Combos - Dispatch Combos – Non-Dispatch Local Interconnection Trunks	Parity with Retail Residence Parity with Retail Business Parity with Retail Design Parity with Retail PBX Parity with Retail Centrex Parity with Resale ISDN Retail Res and Bus. Dispatch Retail Res and Bus. POTS Retail Res and Bus. Dispatch Retail Res and Bus. POTS Retail Res & Bus. Retail Res and Bus. Dispatch Retail Res and Bus. Dispatch Retail Res & Bus Design Dispatch Retail Res & Bus Design Dispatch Retail Design ***Retail Res & Bus. Dispatch*** ***Retail Res & Bus. Non-Dispatch*** Retail DS1/DS3 Interoffice Retail Res & Bus Design Dispatch ***Retail Res & Bus Non-Dispatch*** Parity with Retail

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
13. Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notices	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN UNE 2W Loop with NP (Non-Design) UNE 2W Loop without NP (Non-Design) UNE LoopOther with NP (Non-Design) UNE LoopOther without NP (Non-Design) UNE Other (Non-Design) UNE 2W Loop with NP (Design) UNE 2W Loop without NP (Design) UNE LoopOther with NP (Design) UNE LoopOther without NP (Design) UNE Other (Design) Switching Local Transport Combos - Dispatch Combos – Non-Dispatch Local Interconnection Trunks Average Jeopardy Notice Interval	Parity with Retail Residence Parity with Retail Business Parity with Retail Design Parity with Retail PBX Parity with Retail Centrex Parity with Resale ISDN Retail Res and Bus. Dispatch Retail Res and Bus. POTS Retail Res and Bus. Dispatch Retail Res and Bus. POTS Retail Res & Bus. Retail Res and Bus. Dispatch Retail Res and Bus. Dispatch Retail Res & Bus Design Dispatch Retail Res & Bus Design Dispatch Retail Design ***Retail Res & Bus. Dispatch*** Retail DS1/DS3 Interoffice Retail Res & Bus Design Dispatch ***Retail Res & Bus Non-Dispatch*** Parity with Retail 95% $\geq$ 24 hrs.

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
14. Percent Missed Installation Appointments	Resale Residence	Parity with Retail Residence
	Resale Business	Parity with Retail Business
	Resale Design	Parity with Retail Design
	Resale PBX	Parity with Retail PBX
	Resale Centrex	Parity with Retail Centrex
	Resale ISDN	Parity with Resale ISDN
	UNE 2W Loop with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Non-Design)	Retail Res and Bus. POTS
	UNE LoopOther with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE LoopOther without NP (Non-Design)	Retail Res and Bus. POTS
	UNE Other (Non-Design)	Retail Res & Bus.
	UNE 2W Loop with NP (Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Design)	Retail Res and Bus. Dispatch
	UNE LoopOther with NP (Design)	Retail Res & Bus Design Dispatch
	UNE LoopOther without NP (Design)	Retail Res & Bus Design Dispatch
	UNE Other (Design)	Retail Design
	Switching – Dispatch	***Retail Res & Bus. Dispatch***
	Switching – Non-Dispatch	***Retail Res & Bus. Non-Dispatch***
	Local Transport	Retail DS1/DS3 Interoffice
	Combos - Dispatch	Retail Res & Bus Design Dispatch
	Combos – Non-Dispatch	***Retail Res & Bus Non-Dispatch***
	Local Interconnection Trunks	Parity with Retail

EXHIBIT DAC-4

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
15. Average Completion Interval (OCI) & Order Completion Interval Distribution	Resale Residence	Parity with Retail Residence
	Resale Business	Parity with Retail Business
	Resale Design	Parity with Retail Design
	Resale PBX	Parity with Retail PBX
	Resale Centrex	Parity with Retail Centrex
	Resale ISDN	Parity with Resale ISDN
	UNE 2W Loop with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Non-Design)	Retail Res and Bus. POTS
	UNE LoopOther with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE LoopOther without NP (Non-Design)	Retail Res and Bus. POTS
	UNE Other (Non-Design)	Retail Res & Bus.
	UNE 2W Loop with NP (Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Design)	Retail Res and Bus. Dispatch
	UNE LoopOther with NP (Design)	Retail Res & Bus Design Dispatch
	UNE LoopOther without NP (Design)	Retail Res & Bus Design Dispatch
	UNE Other (Design)	Retail Design
	Switching – Dispatch	***Retail Res & Bus. Dispatch***
	Switching – Non-Dispatch	***Retail Res & Bus. Non-Dispatch***
	Local Transport	Retail DS1/DS3 Interoffice
	Combos - Dispatch	Retail Res & Bus Design Dispatch
	Combos – Non-Dispatch	***Retail Res & Bus Non-Dispatch***
	Local Interconnection Trunks	Parity with Retail

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
16. Average Completion Notice Interval	Resale Residence	Parity with Retail Residence
	Resale Business	Parity with Retail Business
	Resale Design	Parity with Retail Design
	Resale PBX	Parity with Retail PBX
	Resale Centrex	Parity with Retail Centrex
	Resale ISDN	Parity with Resale ISDN
	UNE 2W Loop with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Non-Design)	Retail Res and Bus. POTS
	UNE LoopOther with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE LoopOther without NP (Non-Design)	Retail Res and Bus. POTS
	UNE Other (Non-Design)	Retail Res & Bus.
	UNE 2W Loop with NP (Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Design)	Retail Res and Bus. Dispatch
	UNE LoopOther with NP (Design)	Retail Res & Bus Design Dispatch
	UNE LoopOther without NP (Design)	Retail Res & Bus Design Dispatch
	UNE Other (Design)	Retail Design
	Switching – Dispatch	***Retail Res & Bus. Dispatch***
	Switching – Non-Dispatch	***Retail Res & Bus. Non-Dispatch***
	Local Transport	Retail DS1/DS3 Interoffice
	Combos - Dispatch	Retail Res & Bus Design Dispatch
	Combos – Non-Dispatch	***Retail Res & Bus Non-Dispatch***
	Local Interconnection Trunks	Parity with Retail
17. Coordinated Customer Conversions	95% $\leq$ 15 minutes	

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
18. % Provisioning Troubles w/i 30 days Service Order Activity	Resale Residence	Parity with Retail Residence
	Resale Business	Parity with Retail Business
	Resale Design	Parity with Retail Design
	Resale PBX	Parity with Retail PBX
	Resale Centrex	Parity with Retail Centrex
	Resale ISDN	Parity with Resale ISDN
	UNE 2W Loop with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Non-Design)	Retail Res and Bus. POTS
	UNE LoopOther with NP (Non-Design)	Retail Res and Bus. Dispatch
	UNE LoopOther without NP (Non-Design)	Retail Res and Bus. POTS
	UNE Other (Non-Design)	Retail Res & Bus.
	UNE 2W Loop with NP (Design)	Retail Res and Bus. Dispatch
	UNE 2W Loop without NP (Design)	Retail Res and Bus. Dispatch
	UNE LoopOther with NP (Design)	Retail Res & Bus Design Dispatch
	UNE LoopOther without NP (Design)	Retail Res & Bus Design Dispatch
	UNE Other (Design)	Retail Design
	Switching – Dispatch	***Retail Res & Bus. Dispatch***
	Switching – Non-Dispatch	***Retail Res & Bus. Non-Dispatch***
	Local Transport	Retail DS1/DS3 Interoffice
	Combos - Dispatch	Retail Res & Bus Design Dispatch
	Combos – Non-Dispatch	***Retail Res & Bus Non-Dispatch***
	Local Interconnection Trunks	Parity with Retail
19. Total Service Order Cycle Time (TSOCT)	Diagnostic	
20.Percentage of LNP Only Due Dates within Industry Guidelines	96.5%	
21.Percentage of Time the Old Service provider Releases the Subscription Prior to the Expiration of the Second 9 Hour Timer	96.5%	
22. Percentage of Customer Accounts Restructured Prior to LNP Due Date	96.5%	
23. Percentage of Pre-mature Disconnects for LNP Orders	2% or less premature disconnects starting 10 minutes before scheduled down time	
24.Average Days Required to Process a Request	90% within 35 days	
25. Percentage of Pre-mature Disconnects (Coordinated Cutovers)	2% or less premature disconnects starting 10 minutes before scheduled down time	
26. Percentage of Missed Mechanized INP Conversions	2% or less premature disconnects starting 10 minutes before scheduled down time, 8% or less of BST coordinated conversions beyond 30 minutes, 2% beyond 1 hour from scheduled time or 1% beyond 2 hours.	
27. Percent NXX's loaded and tested prior to the LERG effective date	100% by LERG effective date	
28. Average Delay Days for NXX Loading and Testing	100% within 5 calendar days of completion date	
Maintenance & Repair	**Disaggregation**	**Analog / Benchmark**

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
29. Missed Repair Appointments	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN UNE 2W Loop (Non-Design) UNE LoopOther (Non-Design) UNE Other (Non-Design) UNE 2W Loop (Design) UNE LoopOther (Design) UNE Other (Design) Switching – Dispatch Switching – Non-Dispatch Local Transport Combos - Dispatch Combos – Non-Dispatch Local Interconnection Trunks	Standard: 1% Missed
30. Customer Trouble Report Rate	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN UNE 2W Loop (Non-Design) UNE LoopOther (Non-Design) UNE Other (Non-Design) UNE 2W Loop (Design) UNE LoopOther (Design) UNE Other (Design) Switching – Dispatch Switching – Non-Dispatch Local Transport Combos - Dispatch Combos – Non-Dispatch Local Interconnection Trunks	Parity with Retail Residence Parity with Retail Business Parity with Retail Design Parity with Retail PBX Parity with Retail Centrex Parity with Resale ISDN Retail Res and Bus. POTS Retail Res and Bus. POTS Retail Design Retail Res and Bus. Dispatch Retail Res & Bus. Dispatch Retail Res and Bus. ***Retail Res & Bus. Dispatch*** ***Retail Res & Bus. Non-Dispatch*** Retail DS1/DS3 Interoffice Retail Res & Bus Design Dispatch ***Retail Res & Bus Non-Dispatch*** Parity with Retail

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
31. Maintenance Average Duration	Resale Residence	Parity with Retail Residence
	Resale Business	Parity with Retail Business
	Resale Design	Parity with Retail Design
	Resale PBX	Parity with Retail PBX
	Resale Centrex	Parity with Retail Centrex
	Resale ISDN	Parity with Resale ISDN
	UNE 2W Loop (Non-Design)	Retail Res and Bus. POTS
	UNE LoopOther (Non-Design)	Retail Res and Bus. POTS
	UNE Other (Non-Design)	Retail Design
	UNE 2W Loop (Design)	Retail Res and Bus. Dispatch
	UNE LoopOther (Design)	Retail Res & Bus. Dispatch
	UNE Other (Design)	Retail Res and Bus.
	Switching – Dispatch	***Retail Res & Bus. Dispatch***
	Switching – Non-Dispatch	***Retail Res & Bus. Non-Dispatch***
	Local Transport	Retail DS1/DS3 Interoffice
	Combos - Dispatch	Retail Res & Bus Design Dispatch
	Combos – Non-Dispatch	***Retail Res & Bus Non-Dispatch***
	Local Interconnection Trunks	Parity with Retail
32. Percent Repeat Troubles w/i 30 days)	Resale Residence	Parity with Retail Residence
	Resale Business	Parity with Retail Business
	Resale Design	Parity with Retail Design
	Resale PBX	Parity with Retail PBX
	Resale Centrex	Parity with Retail Centrex
	Resale ISDN	Parity with Resale ISDN
	UNE 2W Loop (Non-Design)	Retail Res and Bus. POTS
	UNE LoopOther (Non-Design)	Retail Res and Bus. POTS
	UNE Other (Non-Design)	Retail Design
	UNE 2W Loop (Design)	Retail Res and Bus. Dispatch
	UNE LoopOther (Design)	Retail Res & Bus. Dispatch
	UNE Other (Design)	Retail Res and Bus.
	Switching – Dispatch	***Retail Res & Bus. Dispatch***
	Switching – Non-Dispatch	***Retail Res & Bus. Non-Dispatch***
	Local Transport	Retail DS1/DS3 Interoffice
	Combos - Dispatch	Retail Res & Bus Design Dispatch
	Combos – Non-Dispatch	***Retail Res & Bus Non-Dispatch***
	Local Interconnection Trunks	Parity with Retail

EXHIBIT DAC-4

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
33. Out of Service > 24 Hours	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN UNE 2W Loop (Non-Design) UNE LoopOther (Non-Design) UNE Other (Non-Design) UNE 2W Loop (Design) UNE LoopOther (Design) UNE Other (Design) Switching – Dispatch Switching – Non-Dispatch Local Transport Combos - Dispatch Combos – Non-Dispatch Local Interconnection Trunks	1) Out of Service conditions where a dispatch is required: 90% resolved within 4 hrs. 95% resolved within 8 hours, 99% resolved within 16 hours. 2) Out of service conditions where no dispatch is required: 85% resolved within 2 hours, 95% resolved within 3 hours, 99% resolved within 4 hours. 3) All other troubles resolved within 24 hours.
34. OSS Interface Availability	99.5 %	
35. OSS Response Interval and Percentages	Parity with retail	
36. Average Answer Time - Repair Centers	Greater than 95% of calls, by center, are answered within 20 seconds. 100% of all calls answered within 30 seconds.	
37. Mean Time to Repair	Parity with Retail	
Billing		
38. Invoice Accuracy	Parity with Retail	
39. Mean Time to Deliver Invoices	Parity with Retail	
40. Usage Data Delivery Accuracy	Parity with Retail	
41. Usage Data Delivery Completeness	Parity with Retail	
42. Usage Data Delivery Timeliness	Parity with Retail	
43. Mean Time to Deliver Usage	Parity with Retail	
44. Percent of Accurate and Complete Formatted Mechanized Bills	99%	
45. Billing Completeness	Parity with BellSouth Retail	
46. Unbillable Usage	Aggregate measurement. No benchmark required	
Operator Services (Toll) and Directory Assistance		
47. Average Speed to Answer (Toll)	Parity by Design	

EXHIBIT DAC-4

Summary of measurements, disaggregation and standards resulting from DeltaCom decisions

SQM Measures from the TRA order of August 11, 2000, and later modified by the June 26, 2001 order in Docket 99-00430	Disaggregations and Standards for TRA orders of August 11, 2000, February 23, 2001, and June 26, 2001 in Docket 99-00430 [1]	
	Disaggregation (Generally per August 11 order)	**Analog / Benchmark** (Generally per Feb 23 order)
48. Percent Answered within "X" Seconds (Toll)	Parity by Design	
49. Average Speed to Answer (DA)	85% answered within ten seconds. 95% answered within twenty seconds	
50. Percent Answered within "X" Seconds (DA)	85% answered within ten seconds. 95% answered within twenty seconds	
51. Percentage of Updates Completed into the DA Database within 72 hours for Facility Based CLECs	95% updated within 72 hours	
52. Average Update Interval for DA Database for Facility Based CLECs	48 hrs. Benchmark will be re-evaluated in 6 months	
53. Percentage DA Database Accuracy for Manual Updates	97%	
E911		
54. Timeliness	Parity by Design	
55. Accuracy	Parity by Design	
56. Mean Interval	Parity by Design	
Trunk Group Performance		
57. Trunk Group Service Report	BST to CLEC Trunk Blockage at parity with BST to BST Trunk blockage	
58. Trunk Group Service Detail	BST to CLEC Trunk Blockage at parity with BST to BST Trunk blockage	
Collocation		
59. Average Response Time	95% within 10 calendar days	
60. Average Arrangement Time	Standard: (1) 90 Calendars days Caged Physical Collocation (2) 30 days Cageless Collocation; and (3) 30 calendar days Virtual Collocation	
61. % of Due Dates Missed	Zero misses of committed due date	
Bona Fide Requests		
62. Percentage of Requests Processed within 30 Business Days	90% within $\leq$ 30 business days	
63. Percentage of Quotes Provided for Authorized BFRs / Special Requests Processed within X (10, 30, 90) Business Days	90% within $\leq$ 10, 30, 90 business days • New Network Elements that are operational at the time of the request – 10 days • New Network Elements that are ordered by the FCC – 30 days • New Network Elements that are not operational at the time of the request – 90 days	

EXHIBIT DAC-5

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
Section 1: Operations Support Systems (OSS)		
OSS-1: Average Response Time and Response Interval (Pre-Ordering / Ordering)	RSAG – address RSAG-TN ATLAS COFFI DSAP HAL/CRIS P/SIMS OASIS	Parity + 4 seconds
OSS-2: Interface Availability (Pre-Ordering / Ordering)	Regional Level	≥ 99.5%
OSS-3: Interface Availability (Maintenance & Repair)	Regional Level	≥ 99.5%
OSS-4: Response Interval (Maintenance & Repair)	Regional Level	Parity
PO-1: Loop Make Up – Response Time-Manual	Loops	95% in 3 Business Days
PO-2: Loop Make Up – Response Time-Electronic	Loops	90% in 5 Minutes
Section 3: Ordering		
O-1: Acknowledgement Message Timeliness	EDI TAG	90% within 30 minutes 95% within 30 minutes
O-2: Acknowledgement Message Completeness	EDI TAG	100%
O-3: Percent Flow-Through Service Requests (Summary)	Residence Business UNE	95% 90% 85%
O-4: Percent Flow-Through Service Requests (Detail)	Residence Business UNE	95% 90% 85%
O-5: Flow-Through Error Analysis	Diagnostic	
O-6: CLEC LSR Information / LSR Flow-Through Matrix	Diagnostic	

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
O-7: Percent Rejected Service Requests	Mechanized, Partially Mechanized, Non-Mechanized: Resale Residence Resale Business Resale Design (Special) Resale PBX Resale Centrex Resale ISDN LNP 2W Analog Loop Design 2W Analog Loop Non-Design UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combination Other UNE xDSL (HDSL, ADSL and UCL) UNE ISDN Loop UNE Line Sharing Local Interoffice Transport Local Interconnection Trunks	Diagnostic
O-8: Reject Interval	Fully Mechanized Partially Mechanized Non-Mechanized	95% within 1 hours 85% within 24 hours - 85% within 18 hrs. in 3 Months - 85% within 10 hrs. in 6 Months 85% within 24 hours

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
O-9: Firm Order Confirmation Timeliness	Mechanized Partially Mechanized Non-Mechanized	95% within 3 hours 85% within 24 hours - 85% within 18 hrs. in 3 Months - 85% within 10 hrs. in 6 Months 85% within 24 hours
O-10: Service Inquiry with Firm order Confirmation (FOC) Response Time Manual	XDSL Unbundled Interoffice Transport	95% Returned within 5 Business Days
O-11: Firm Order Confirmation and Reject Response Completeness	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN LNP Standalone 2W Analog Loop Design 2W Analog Loop Non-Design UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combination Other UNE xDSL (HDSL, ADSL and UCL) UNE ISDN Loop UNE Line Sharing Local Interoffice Transport	95% Returned
O-12: Speed of Answer in Ordering Center	CLEC- LCSC BellSouth - Business Service Center - Residence Service Center	Diagnostic
Section 3: Provisioning	**Disaggregation**	**Analog / Benchmark**

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-1: Mean Held Order Interval & Distribution Intervals	Resale Residence	Retail Residence
	Resale Business	Retail Business
	Resale Design	Retail Design
	Resale PBX	Retail PBX
	Resale Centrex	Retail Centrex
	Resale ISDN	Resale ISDN
	LNP	Retail Res.and Bus. (POTS)
	2W Analog Loop Design	Retail Res and Bus. Dispatch
	2W Analog Loop Non-Design	Retail Res and Bus.- POTS (Excl.. Switch-based Orders)
	UNE Digital Loop < DS1	Retail Digital Service < DS1
	UNE Digital Loop = DS1	Retail Digital Service = DS1
	UNE Loop + Port Combinations	Retail Res and Bus. (POTS)
	UNE Switch Ports	Retail Res and Bus. (POTS)
	UNE Other Design	Retail Design
	UNE Other Non-Design	Retail Res. And Bus. (POTS)
	UNE Combo Other	Retail Res., Bus. And Design Dispatch
	UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
	UNE ISDN (Includes UDC)	Retail ISDN – BRI
	UNE Line Sharing	ADSL Provided to Retail
	Local Transport (Unbundled Interoffice Transport)	Retail DS1/DS3 Interoffice
	Local Interconnection Trunks	Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-2: Average Jeopardy Notice Interval & Percentage of Orders Given Jeopardy Notices	Resale Residence	Retail Residence
	Resale Business	Retail Business
	Resale Design	Retail Design
	Resale PBX	Retail PBX
	Resale Centrex	Retail Centrex
	Resale ISDN	Resale ISDN
	LNP	Retail Res.and Bus. (POTS)
	2W Analog Loop Design	Retail Res and Bus. Dispatch
	2W Analog Loop Non-Design	Retail Res and Bus.- POTS (Excl.. Switch-based Orders)
	UNE Digital Loop < DS1	Retail Digital Service <DS1
	UNE Digital Loop = DS1	Retail Digital Service =DS1
	UNE Loop + Port Combinations	Retail Res and Bus. (POTS)
	UNE Switch Ports	Retail Res and Bus. (POTS)
	UNE Other Design	Retail Design
	UNE Other Non-Design	Retail Res. And Bus. (POTS)
	UNE Combo Other	Retail Res., Bus. And Design Dispatch
	UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
	UNE ISDN (Includes UDC)	Retail ISDN – BRI
	UNE Line Sharing	ADSL Provided to Retail
	Local Transport (Unbundled Interoffice Transport)	Retail DS1/DS3 Interoffice
	Local Interconnection Trunks	Parity with Retail
	Average Jeopardy Notice Interval (Electronic only)	95% $\geq$ 48 hrs.

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-3: Percent Missed Installation Appointments	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN LNP 2W Analog Loop Design 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In) UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combo Other - Dispatch -Non-Dispatch (Dispatch In) UNE xDSL (HDSL, ADSL and UCL) UNE ISDN (Includes UDC) UNE Line Sharing Local Transport (Unbundled Interoffice Transport) Local Interconnection Trunks	Retail Residence Retail Business Retail Design Retail PBX Retail Centrex Resale ISDN Retail Res.and Bus. (POTS) Retail Res and Bus. Dispatch Retail Res and Bus.- POTS (Excl.. Switch-based Orders) - Dispatch - Non-Dispatch (Dispatch In) Retail Digital Service <DS1 Retail Digital Service =DS1 Retail Res and Bus. (POTS) - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based Retail Res and Bus. (POTS) Retail Design Retail Res. And Bus. (POTS) Retail Res., Bus. And Design - Dispatch -Non-Dispatch (Dispatch In) ADSL Provided to Retail Retail ISDN – BRI ADSL Provided to Retail Retail DS1/DS3 Interoffice Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-4: Average Completion Interval (OCI) & Order Completion Interval Distribution	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN LNP 2W Analog Loop Design 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In) UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combo Other - Dispatch -Non-Dispatch (Dispatch In) UNE xDSL (HDSL, ADSL and UCL) UNE ISDN (Includes UDC) UNE Line Sharing Local Transport (Unbundled Interoffice Transport) Local Interconnection Trunks	Retail Residence Retail Business Retail Design Retail PBX Retail Centrex Resale ISDN Retail Res.and Bus. (POTS) Retail Res and Bus. Dispatch Retail Res and Bus.- POTS (Excl.. Switch-based Orders) - Dispatch - Non-Dispatch (Dispatch In) Retail Digital Service <DS1 Retail Digital Service =DS1 Retail Res and Bus. (POTS) - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based Retail Res and Bus. (POTS) Retail Design Retail Res. And Bus. (POTS) Retail Res., Bus. And Design - Dispatch -Non-Dispatch (Dispatch In) ADSL Provided to Retail Retail ISDN – BRI ADSL Provided to Retail Retail DS1/DS3 Interoffice Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-5: Average Completion Notice Interval	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN LNP 2W Analog Loop Design 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In) UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combo Other - Dispatch -Non-Dispatch (Dispatch In) UNE xDSL (HDSL, ADSL and UCL) UNE ISDN (Includes UDC) UNE Line Sharing Local Transport (Unbundled Interoffice Transport) Local Interconnection Trunks	Retail Residence Retail Business Retail Design Retail PBX Retail Centrex Resale ISDN Retail Res.and Bus. (POTS) Retail Res and Bus. Dispatch Retail Res and Bus.- POTS (Excl.. Switch-based Orders) - Dispatch - Non-Dispatch (Dispatch In) Retail Digital Service <DS1 Retail Digital Service =DS1 Retail Res and Bus. (POTS) - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based Retail Res and Bus. (POTS) Retail Design Retail Res. And Bus. (POTS) Retail Res., Bus. And Design - Dispatch -Non-Dispatch (Dispatch In) ADSL Provided to Retail Retail ISDN – BRI ADSL Provided to Retail Retail DS1/DS3 Interoffice Parity with Retail
P-6: Coordinated Customer Conversions	Unbundled Loops with INP Unbundled Loops with LNP	95% $\leq$ 15 minutes
P-6A: Coordinated Customer Conversions – Hot Cut Timeliness % Within Interval and Average Interval	SL1 Time Specific SL1 Non-time Specific SL2 Time Specific SL2 Non-Time Specific	95% Within + or – 15 minutes of Scheduled Start Time

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
	SL1 IDLC SL2 IDLC	95% within 4-hour Window
P-6B: Coordinated Customer Conversions – Average Recovery Time	Unbundled Loops with INP Unbundled loops with LNP	Diagnostic
P-6C: Hot Cut Conversions - % Provisioning Troubles Received Within 7 days of a completed Service Order	UNE Loop Design UNE Loop Non-Design	$\leq$ 5%
P-7: Cooperative Acceptance Testing - % of xDSL Loops Tested	UNE xDSL - ADSL - HDSL - UCL - OTHER	95% of Lines Tested

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-8: % Provisioning Troubles within 30 days Service Order Completion	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN LNP 2W Analog Loop Design 2W Analog Loop Non-Design - Dispatch - Non-Dispatch (Dispatch In) UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combo Other - Dispatch -Non-Dispatch (Dispatch In) UNE xDSL (HDSL, ADSL and UCL) UNE ISDN (Includes UDC) UNE Line Sharing Local Transport (Unbundled Interoffice Transport) Local Interconnection Trunks	Retail Residence Retail Business Retail Design Retail PBX Retail Centrex Resale ISDN Retail Res.and Bus. (POTS) Retail Res and Bus. Dispatch Retail Res and Bus.- POTS (Excl.. Switch-based Orders) - Dispatch - Non-Dispatch (Dispatch In) Retail Digital Service <DS1 Retail Digital Service =DS1 Retail Res and Bus. (POTS) - Dispatch Out - Non-Dispatch - Dispatch In - Switch Based Retail Res and Bus. (POTS) Retail Design Retail Res. And Bus. (POTS) Retail Res., Bus. And Design - Dispatch -Non-Dispatch (Dispatch In) ADSL Provided to Retail Retail ISDN – BRI ADSL Provided to Retail Retail DS1/DS3 Interoffice Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
P-9: Total Service Order Cycle Time (TSOCT)	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN LNP 2W Analog Loop Design 2W Analog Loop Non-Design UNE Digital Loop < DS1 UNE Digital Loop =DS1 UNE Loop + Port Combinations UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combo Other UNE xDSL (HDSL, ADSL and UCL) UNE ISDN (Includes UDC) UNE Line Sharing Local Transport (Unbundled Interoffice Transport) Local Interconnection Trunks	Diagnostic
P-10A: LNP – Average Time of Out of Service for LNP Conversions	LNP (Standalone)	95% within 60 minutes unless a different industry guideline is established that will override the benchmark referenced here
P-10B: LNP – Percentage of Time BellSouth Applies the 10-digit Trigger Prior to the LNP Order Due Date	LNP (Standalone)	95%
P-11: LNP – Percent Missed Installation Appointments	LNP	Retail Residence and Business (POTS)
Section 4: Maintenance & Repair	**Disaggregation**	**Analog / Benchmark**
M&R-1: Missed Repair Appointments	Resale Residence	Retail Residence

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Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
	Resale Business	Retail Business
	Resale Design	Retail Design
	Resale PBX	Retail PBX
	Resale Centrex	Retail Centrex
	Resale ISDN	Resale ISDN
	2W Analog Loop Design	Reatil Res., and Bus. Dispatch
	2W Analog Loop Non-Design	Retail Res & Bus. (Excl. Switch Based Feature Troubles)
	UNE Digital Loop < DS1	Retail Digital Service < DS1
	UNE Digital Loop =DS1	Retail Digital Service = DS1
	UNE Loop + Port Combinations	Retail res. And Bus. (POTS)
	UNE Switch Ports	Retail Res. And Bus. (POTS)
	UNE Other Design	Retail Design
	UNE Other Non-Design	Retail Residence and Business
	UNE Combo Other	Retail Res., Bus., and Design Dispatch
	UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
	UNE ISDN (Includes UDC)	Retail ISDN – BRI
	UNE Line Sharing	ADSL Provided to Retail
	Local Transport (Unbundled Interoffice Transport)	Retail DS1/DS3 Interoffice
	Local Interconnection Trunks	Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
M&R-2: Customer Trouble Report Rate	Resale Residence	Retail Residence
	Resale Business	Retail Business
	Resale Design	Retail Design
	Resale PBX	Retail PBX
	Resale Centrex	Retail Centrex
	Resale ISDN	Resale ISDN
	2W Analog Loop Design	Reatil Res., and Bus. Dispatch
	2W Analog Loop Non-Design	Retail Res & Bus. (Excl. Switch Based Feature Troubles)
	UNE Digital Loop < DS1	Retail Digital Service < DS1
	UNE Digital Loop =DS1	Retail Digital Service = DS1
	UNE Loop + Port Combinations	Retail res. And Bus. (POTS)
	UNE Switch Ports	Retail Res. And Bus. (POTS)
	UNE Other Design	Retail Design
	UNE Other Non-Design	Retail Residence and Business
	UNE Combo Other	Retail Res., Bus., and Design Dispatch
	UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
	UNE ISDN (Includes UDC)	Retail ISDN – BRI
	UNE Line Sharing	ADSL Provided to Retail
	Local Transport (Unbundled Interoffice Transport)	Retail DS1/DS3 Interoffice
	Local Interconnection Trunks	Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
M&R-3: Maintenance Average Duration	Resale Residence	Retail Residence
	Resale Business	Retail Business
	Resale Design	Retail Design
	Resale PBX	Retail PBX
	Resale Centrex	Retail Centrex
	Resale ISDN	Resale ISDN
	2W Analog Loop Design	Reatil Res., and Bus. Dispatch
	2W Analog Loop Non-Design	Retail Res & Bus. (Excl. Switch Based Feature Troubles)
	UNE Digital Loop < DS1	Retail Digital Service < DS1
	UNE Digital Loop =DS1	Retail Digital Service = DS1
	UNE Loop + Port Combinations	Retail res. And Bus. (POTS)
	UNE Switch Ports	Retail Res. And Bus. (POTS)
	UNE Other Design	Retail Design
	UNE Other Non-Design	Retail Residence and Business
	UNE Combo Other	Retail Res., Bus., and Design Dispatch
	UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
	UNE ISDN (Includes UDC)	Retail ISDN – BRI
	UNE Line Sharing	ADSL Provided to Retail
	Local Transport (Unbundled Interoffice Transport)	Retail DS1/DS3 Interoffice
	Local Interconnection Trunks	Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
M&R-4: Percent Repeat Troubles within 30 days	Resale Residence	Retail Residence
	Resale Business	Retail Business
	Resale Design	Retail Design
	Resale PBX	Retail PBX
	Resale Centrex	Retail Centrex
	Resale ISDN	Resale ISDN
	2W Analog Loop Design	Reatil Res., and Bus. Dispatch
	2W Analog Loop Non-Design	Retail Res & Bus. (Excl. Switch Based Feature Troubles)
	UNE Digital Loop < DS1	Retail Digital Service < DS1
	UNE Digital Loop =DS1	Retail Digital Service = DS1
	UNE Loop + Port Combinations	Retail res. And Bus. (POTS)
	UNE Switch Ports	Retail Res. And Bus. (POTS)
	UNE Other Design	Retail Design
	UNE Other Non-Design	Retail Residence and Business
	UNE Combo Other	Retail Res., Bus., and Design Dispatch
	UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
	UNE ISDN (Includes UDC)	Retail ISDN – BRI
	UNE Line Sharing	ADSL Provided to Retail
	Local Transport (Unbundled Interoffice Transport)	Retail DS1/DS3 Interoffice
	Local Interconnection Trunks	Parity with Retail

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
M&R-5: Out of Service > 24 Hours	Resale Residence Resale Business Resale Design Resale PBX Resale Centrex Resale ISDN 2W Analog Loop Design 2W Analog Loop Non-Design UNE Digital Loop < DS1 UNE Digital Loop = DS1 UNE Loop + Port Combinations UNE Switch Ports UNE Other Design UNE Other Non-Design UNE Combo Other UNE xDSL (HDSL, ADSL and UCL) UNE ISDN (Includes UDC) UNE Line Sharing Local Transport (Unbundled Interoffice Transport) Local Interconnection Trunks	Retail Residence Retail Business Retail Design Retail PBX Retail Centrex Resale ISDN Reatil Res., and Bus. Dispatch Retail Res & Bus. (Excl. Switch Based Feature Troubles) Retail Digital Service < DS1 Retail Digital Service = DS1 Retail res. And Bus. (POTS) Retail Res. And Bus. (POTS) Retail Design Retail Residence and Business Retail Res., Bus., and Design Dispatch ADSL Provided to Retail Retail ISDN – BRI ADSL Provided to Retail Retail DS1/DS3 Interoffice Parity with Retail
M&R-6: Average Answer Time - Repair Centers	CLEC / BellSouth Service Centers BellSouth Repairs Centers	CLEC – CWINS Center and BRMC BellSouth Repair Centers
M&R-7: Mean Time to Notify CLEC of Network Outages	BellSouth Aggregate CLEC Aggregate CLEC Specific	Parity by Design
Section 5: Billing		
B-1: Invoice Accuracy	Product / Invoice Type - Resale - UNE - Interconnection	Parity with Retail
B-2: Mean Time to Deliver Invoices	Product / Invoice Type - Resale - UNE - Interconnection	CRIS-based invoices will be released for delivery within six (6) business days. CABS – based invoices will be released for delivery within eight (8) calendar days. CLEC Average Delivery Intervals for both CRIS and CABS Invoices are comparable to BellSouth Average delivery for both systems.

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Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
B-3: Usage Data Delivery Accuracy	Region	Parity with Retail
B-4: Usage Data Delivery Completeness	Region	≥ 98%
B-5: Usage Data Delivery Timeliness	Region	≥ 95%
B-6: Mean Time to Deliver Usage	Region	≤ 5%
B-7: Recurring Charge Completeness	Product / Invoice Type - Resale - UNE - Interconnection	 Parity 90% 90%
B-8: Non-Recurring Charge Completeness	Product / Invoice Type - Resale - UNE - Interconnection	 Parity 90% 90%
Section 6: Operator Services and Directory Assistance		
OS-1: Speed to Answer Performance/ Average Speed to Answer - Toll	Parity by Design	
OS-2: Speed to Answer Performance/ Percent Answered within "X" Seconds- Toll	Parity by Design	
DA-1: Speed to Answer Performance/ Average Speed to Answer – Directory Assistance (DA)	Parity by Design	
DA-2: Speed to Answer Performance/ Percent Answered within "X" Seconds – Directory Assistance (DA)	Parity by Design	
Section 7: Database Update Information		
D-1: Average Database Update Interval	Database Type - LIDB - Directory Listings - Directory Assistance	Parity by Design
D-2: Percent Database Update Accuracy	Database Type - LIDB - Directory Listings - Directory Assistance	95% Accurate
D-3: Percent NXXs and LRNs Loaded by the LERG Effective Date	Geographic - Region	100% by LERG effective date
Section 8: E911		
E-1: Timeliness	Parity by Design	

EXHIBIT DAC-5

Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM

SQM Measures from BellSouth's proposed SQM of July 16, 2001	Disaggregation and Analogs / Benchmarks from BellSouth's proposed SQM of July 16, 2001	
	Disaggregation	**Analog / Benchmark**
E-2: Accuracy	Parity by Design	
E-3: Mean Interval	Parity by Design	
Section 9: Trunk Group Performance		
TGP-1: Trunk Group Performance - Aggregate	CLEC Aggregate BellSouth Aggregate	Any 2 hour period in 24 hours where CLEC blockage exceeds BST blockage by more than 0.5% using trunk groups 1,3,4,5,10,16 for CLECs and 1,9,10,16 for BellSouth
TGP-2: Trunk Group Performance – CLEC Specific	CLEC Trunk Group	Any 2 hour period in 24 hours where CLEC blockage exceeds BST blockage by more than 0.5% using trunk groups 1,3,4,5,10,16 for CLECs and 1,9,10,16 for BellSouth
Section 10: Collocation		
C-1: Collocation Average Response Time	State Virtual Physical Caged Physical Cageless Augments for Line Sharing or Line Splitting	Virtual – 20 Calendar Days Physical Caged – 23 Business Days Physical Cageless – 23 Business Days Augments for Line Sharing or Line Splitting – 23 Business Days
C-2: Collocation Average Arrangement Time	State Virtual – Ordinary Virtual - Extraordinary Physical Caged – Ordinary Physical Caged - Extraordinary Physical Cageless – Ordinary Physical Cageless – Extraordinary Augments for Line Sharing or Line Splitting	Virtual – Ordinary – 50 Calendar Days Virtual – Extraordinary – 75 Calendar Days Physical Caged – Ordinary – 76 Business Days Physical Caged - Extraordinary– 91 Business Days Physical Cageless – Ordinary – 76 Calendar Days Physical Cageless – Extraordinary – 91 Calendar Days Augments for Line Sharing or Line Splitting – 45 Business Days
C-3: Collocation Percent of Due Dates Missed	All Collocation Arrangements	$\geq$ 95 % on time
Section 11: Change Management		
CM-1: Timeliness of Change Management Notices	Region	95% $\geq$ days of Release
CM-2: Change Management Notice Average Delay Days	Region	$\leq$ 8 Days
CM-3: Timeliness of Documents Associated with Change	Region	95% $\geq$ 30 days of the change
CM-4: Change Management Documentation Average Delay Days	Region	$\leq$ 8 Days
CM-5: Notification of CLEC Interface Outages	EDI CSOTS LENS TAG ECTA TAFI	97% in 15 minutes

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Summary of measurements, disaggregation and standards in BellSouth's July 2001 proposed SQM