Ⓐ BELLSOUTH

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May 13, 2004

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VIA HAND DELIVERY

Hon. Deborah Taylor Tate, Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37238

> Re: *BellSouth Telecommunications, Inc.'s Entry Into Long Distance
> (InterLATA) Service in Tennessee Pursuant to Section 271 of the
> Telecommunications Act of 1996*
> Docket No. 97-00309

Dear Chairman Tate

Enclosed are the original and fourteen copies of BellSouth's *Motion for the Establishment of a New Performance Assurance Plan.*

BellSouth has been working for some time to prepare the enclosed *Motion.* In addition, in light of your comments during the recent Agenda Conference, BellSouth also proposes to host a workshop for BellSouth, the CLEC community and the TRA in order to discuss, in an informational setting, issues relating to SQM/SEEMs BellSouth will be happy to host the workshop at its offices at 333 Commerce Street BellSouth found the workshop in the Triennial Review matter relating to Hot Cuts to be helpful and would fashion the workshop along a similar format. BellSouth proposes that such a workshop be held in the near future, and BellSouth's personnel are available specifically May 28 or the week beginning May 31. Of course, we will be happy to work with the parties to schedule the workshop at the most convenient time.

Copies of the enclosed are being provided to counsel of record.

Cordially,

Joelle Phillips

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BEFORE THE TENNESSEE REGULATORY AUTHORITY

Nashville, Tennessee

In Re   *BellSouth Telecommunications, Inc.'s Entry Into Long Distance
(InterLATA) Service in Tennessee Pursuant to Section 271 of the
Telecommunications Act of 1996*

Docket No. 97-00309

MOTION OF BELLSOUTH TELECOMMUNICATIONS, INC.
FOR THE ESTABLISHMENT OF A NEW PERFORMANCE ASSURANCE PLAN

BellSouth Telecommunications, Inc. ("BellSouth") files this *Motion for the Establishment of a New Performance Assurance Plan* and respectfully shows the Tennessee Regulatory Authority ("TRA" or "Authority") as follows:

I.   INTRODUCTION AND OVERVIEW OF RELIEF SOUGHT

Pursuant to the terms of the *Final Order Accepting Settlement Agreement and Adopting Performance Measurements, Benchmarks and Enforcement Mechanisms* issued by the Authority in this docket on October 4, 2002, ("*Settlement Agreement Order*"), TRA Rule 1220-1-2- 02, T.C A. § 4-5-308, and other applicable law, BellSouth respectfully files this *Motion* requesting the Authority to establish a new performance assurance plan for BellSouth in Tennessee.

The current performance assurance plan, known as the Tennessee Performance Assurance Plan ("Current Plan") is identical to the plan developed in Florida and was implemented in Tennessee as a result of the parties' settlement agreement proposed to the Authority in this docket.[1] The Authority approved the parties' settlement agreement

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[1] BellSouth will also be seeking the acceptance of a new Plan in Florida Obviously, Florida does not have an Order in place like the Order accepting the Tennessee 271 settlement Consequently, the procedural process for addressing the Plan in Florida will be different BellSouth filed a petition to convene a docket on this matter with the Florida Public Service Commission on May 12, 2004

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and ordered that the Current Plan remain in effect through December 1, 2003 Consistent with the settlement, the Panel's order also provides that any time after December 1, 2003, the parties were free to return to the Authority and request review or modification of the Current Plan

BellSouth has performance assessment plans in all nine states in BellSouth's region, each of which was implemented in connection with BellSouth's petitions for 271 relief. These plans, developed in the context of the 271 cases, each have one goal. That goal is simple: to ensure that BellSouth continues, after successfully obtaining in-region long distance authority pursuant to Section 271, to satisfy its obligations under Section 251(c) of the Telecommunications Act of 1996 (the "Act"); that is to provide nondiscriminatory unbundled access, interconnection, and resale to competitive local exchange carriers ("CLECs") This concept has been described as prevention of "backsliding"[2] and, stated simply, the goal is to be sure that BellSouth's performance does not deteriorate from the level BellSouth demonstrated to both state commissions and to the Federal Communications Commission ("FCC") – the level that those commissions and the FCC deemed satisfactory for Section 271 relief.

These performance assessment plans are related to BellSouth's wholesale practices. They are not service quality rules for end-user customers. Instead of focusing on end user service issues, these plans deal with nondiscrimination (also referred to as parity) That is, they focus on whether BellSouth's retail customers receive better service compared to CLEC customers' service Consequently, the performance assurance plans generally have no direct impact on end user's service

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At the time these plans were originally fashioned, the goal was clear, but the processes and mechanics for achieving that goal were not. Instead, such plans were new, untested and adopted without the benefit of practical experience as to whether they would, in actual practice, achieve the goal of preventing "backsliding". In fact, both state commissions and the FCC understood and acknowledged that these plans would *need to be* revised, modified and "tuned" to real world experiences

Based on the experience gained since obtaining the TRA's support for Section 271 relief in Tennessee, BellSouth now proposes an improved performance plan (the "Proposed Plan"). The Proposed Plan better accomplishes the goal of preventing backsliding, and, at the same time, avoids unjust penalties and undue administrative burden (to BellSouth and to the Authority), and avoids unjust enrichment to CLECs in instances in which BellSouth's performance under the Plan remains consistent with (or even better than) its performance when the TRA voted to support 271 relief in August, 2002.

Clearly, any regulator evaluating a new performance assurance plan will want to start the inquiry with the obvious question· "Is BellSouth "backsliding" in Tennessee? The answer is No

Notwithstanding its strong record on performance, and notwithstanding the fact that BellSouth is not backsliding, BellSouth is paying approximately $1 million dollars each month under the Current Plan in Tennessee. Accordingly, the Current Plan is actually punishing BellSouth – to the tune of $1 million per month – for *maintaining* its performance at the very level at which the TRA voted to support and the FCC voted to

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[2] The meaning of "backsliding" is discussed in greater detail in Section VII of this *Motion* The term "backsliding" simply means that an ILEC is consistently performance materially below the level that

approve BellSouth's petition for 271 relief These are not payments for backsliding. Instead, BellSouth is being penalized for *maintaining* service at the level satisfactory to the TRA and FCC. Given this situation, such payments are excessive penalties that (i) do not rationally relate to prevention of backsliding; (ii) do not incent the maintaining of good performance, and (iii) do not bear any rational relation to either the stable level of performance or the damage (if any) sustained by a CLEC as a result of a missed measurement standard under the Current Plan

This is not how performance plans were supposed to operate Instead of penalizing deteriorating performance, the Current Plan is penalizing consistent or improving performance Given this situation, it is clear that a new plan is needed.

Arguably, if BellSouth's current performance is equal to or better than what the FCC and the Authority determined to be nondiscriminatory, then BellSouth should not be paying *any* penalties. Nonetheless, BellSouth is not asking the TRA to eliminate all penalties.   Instead, BellSouth is merely seeking a more rational plan that, based on hard-gained experience, will work the way such plans were intended (to punish declining service), not as the Current Plan is working today (to punish stable and consistent or improving service).

II.   KEY TERMS

Throughout this petition, certain key terms that have unique meaning in the context of performance plans are used repeatedly For the Authority's convenience, some of these terms are explained in this section The Current Plan consists of two parts, namely, the "Service Quality Measurement Plan" (also called the "SQM") and the "Self Effectuating Enforcement Mechanism Administrative Plan" (also called "SEEM")

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won its 271 relief

The "SQM" part of the Current Plan specifies the method for calculating data and the standard, if one exists, that BellSouth's performance, reflected in that data, should meet Pursuant to the instructions within the SQM, data is reported on many different functions that BellSouth performs for CLECs. Each unique function is identified as a measure in the SQM part of the Plan, and there are 76 such measures The term "SQM measure" refers to one or more of these 76 measures For example, "Missed Installation Appointments" is an example of a function measured under the SQM and there is a standard set for the percentage of Missed Installation Appointments that BellSouth may have in one month before a penalty would result. For each of the 76 SQM measures, however, data is not typically reported on a consolidated basis for all instances in which BellSouth performs that task (in this example, "installation appointments") Instead, the data is reported *separately* for many individual subgroups of activity within a measure. The process for establishing these subgroups is called "disaggregation," and the description of each subgroup is also identified within that SQM measure With full disaggregation, dividing these items into different subgroups by, for example products, dispatch type, and volume, these 76 SQM measures "balloon" into approximately 2,240 actual "data points". Each of these data points is referred to either as a submetric or a measurement Of the 2,240 data points, state-wide or region-wide results are reported on 1,902 SQM submetrics. For example, one submetric for "Missed Installations" is "Percent Missed Installation Appointments for Loop/Port Combinations on orders with less than 10 circuits where a technician was dispatched to the CLEC customer's premises " Moreover, in most cases, data is

reported for both the aggregate of all CLECs and for each CLEC individually. Consequently, the actual amount of data reported is enormous.

SEEM penalties are determined separately for individual groupings of those SQM submetrics where penalties apply Penalties do not apply to every transaction recorded on each SQM submetric For example, some SQMs are solely "diagnostic" or "informational", and are tracked and reported even though there is no performance standard or penalty associated with the function being measured. Also many SQM submetrics monitor activities, not considered to have a significant impact on a CLEC's ability to compete, and consequently no penalties apply to these submetrics The individual groupings of SQM submetrics for which penalties apply are referred to as SEEM measures or submetrics, and there are 830 such SEEM measures or submetrics in the Current Plan.[3]

III. BELLSOUTH'S PROPOSED PLAN DIFFERS FROM THE CURRENT PLAN IN TWO OVERARCHING ASPECTS: (1) IT USES MORE STREAMLINED MEASUREMENTS AND (2) THE ENFORCEMENT PLAN IS TRANSACTIONS-BASED RATHER THAN MEASUREMENTS-BASED.

A.   Streamlining Measurements.

First, the Current Plan requires streamlining in order to avoid the unnecessary and complex regulatory process of gathering categories upon categories of data – much of which has no real practical purpose [4] BellSouth proposes a streamlined Plan, removing or aggregating certain measurements under the Current Plan that fall into four separate categories.

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[3] Not all SQM measures have penalties associated with such measures Accordingly, the number of SEEM submetrics is less than the number of SQM submetrics

[4] The majority of the 1,902 SQM submetrics reported at the state-wide or regional-wide level experience little, if any activity on a monthly basis

(1) **Measuring Functions CLECs Are Not Requesting.** BellSouth proposes deleting measurements of activities where there is no CLEC activity at all. Obviously, where CLECs are not asking BellSouth to perform, there is no need to measure BellSouth's performance. This change would help to improve the efficiency of the performance reporting mechanism by eliminating the data processing and programming required to measure functions that have no activity.

(2) **Measuring Functions Where CLEC Activities Are So Few That The Data Is Not Statistically Valid.** BellSouth also seeks to eliminate or aggregate the measurements of items in which there is such little CLEC activity that the data produced is not statistically valid. These instances are examples of cases in which the Current Plan is actually too granular in nature, that is, the Current Plan has created categories so narrow and limited that very little falls within each such category (or submetric). As a result, the Plan is measuring items that are so specific and limited that the measurements are of questionable statistical validity. This is discussed in more detail below, but the bottom line is that, with respect to these measurements, the measurements have been made too specific to be helpful This change would reorient the Plan so that it will measure functions in larger groups, eliminating statistically-irrelevant information that produces penalties on a flawed basis

(3) **Measuring Functions For Which No Performance Standard Exists in the Plan (Solely Diagnostic Measurements).** BellSouth proposes

deleting measurements for which there is no performance standard associated with such measurement Such measurements produce "stand alone" data that tells the Authority nothing about the extent BellSouth provides a nondiscriminatory level of service to CLECs. These are simply informational (sometimes referred to as "diagnostic") measurements. Measurement of these activities is simply inefficient and unnecessary, and BellSouth urges the Authority to streamline the Plan to eliminate the practice of measuring items for which no performance standard is, or should be, associated This change will substantially reduce the administrative burden of the Current Plan with no impact on penalties now being paid

(4) **Measuring Functions That Are So Closely Related To Other Functions That Measuring Is Needlessly Redundant.** Finally, BellSouth proposes eliminating secondary measures that gather data so closely related to other existing or proposed measures that it provides little meaningful additional information This change will improve the Plan by eliminating measures so similar to each other that they are largely redundant and unnecessary In addition, unlike the Current Plan, the Proposed Plan will avoid producing duplicative penalties, based on overlapping data. that is already captured in other existing or proposed measurements.

B. **Moving from a Measurements-Based to a Transactions-based Plan.**

In addition to streamlining the Current Plan, BellSouth also seeks to change the penalty calculation aspect of the Current Plan from a measurements-based plan into a transactions-based plan.

As discussed more fully below, a measurements-based plan has no volume component, and thus imposes fixed fees (or penalties) whenever BellSouth's performance fails to meet a measurement standard. The penalty is the same whether BellSouth's failure impacts one CLEC transaction or a thousand CLEC transactions. In addition, the measurements-based plan imposes a high penalty on the "first offense" of missing a measurement standard The better methodology is to use a lower threshold penalty, which is compounded if BellSouth continues to perform badly after having missed the measurement standard on a particular action In contrast, under a measurements-based plan, once BellSouth fails to meet a measurement standard, the same penalty applies regardless of the number of installation appointments missed Consequently, the Current Plan fails to distinguish between close-calls and performance that misses the mark by a mile Under a transactions-based plan, once BellSouth fails to meet a measurement standard, the penalty amount increases with the number of additional instances of below-standard performance because the penalty paid is a function of the applicable fee times the number of transactions that are below the standard Using the same example, under a transactions-based plan, BellSouth would pay more in penalties if a missed performance standard impacted ten appointments and would pay less penalties if a missed performance standard impacted one appointment. Under a measurements-based plan, once a measurement failure

has been determined, the penalty is the same, regardless of the number of CLEC transactions involved with the missed performance standard

Experience has shown that the measurements-based model is simply inefficient as a deterrent to backsliding and ineffective as an incentive for good performance Under the measurements-based model, once BellSouth misses the measurement in the first instance, its efforts to quickly improve performance is largely irrelevant because the penalty paid is the same whether the measurement standard is missed by an inch or missed by a mile

A transactions-based plan provides an incentive to do a good job on every task every time because, under such a model, the penalty actually depends on how close or how far BellSouth is to the performance standard for the measurement Under a transactions-based plan, BellSouth pays a penalty based on the number of transactions that are out of parity Unlike a measurements-based plan, penalties for missing the measurement standard in the first instance under a transactions-based plan need not be as high. This is because such penalties will increase as the measurement standard is missed by a larger margin (i e. the plan is scalable) In summary, because of the correlation between performance, performance volume, and penalties paid for failure to meet a measurement standard, a transactions-based plan recognizes all performance improvements and is therefore a more efficient deterrent to backsliding

Given the foregoing explanation, why then did the Florida Public Service Commission ("Florida Commission") opt to make the Current Plan measurements-based instead of transactions-based? Like all state commissions considering such Plans, the Florida Commission made a decision based on the various parties'

proposals The CLECs proposed measurements-based plans, and BellSouth proposed a transactions-based model. [5] At the time, primarily due to the lack of available data about how such plans would work in practice, the Florida Commission chose to use a measurements-based plan [6] As discussed below, even as it opted for a measurements-based plan, the Commission in Florida recognized the need to evolve to a transactions-based model over time [7] BellSouth believes the time is right to make this transition now in Tennessee [8]

Even as BellSouth was seeking 271 relief, BellSouth urged the use of transactions-based plans on the basis that such plans provided a more logical and rational approach to preventing backsliding Today, given the growth in CLEC activity and BellSouth's experience working under the Current Plan, BellSouth believes its case for a move to a transactions-based plan is even more compelling. Experience has borne out what BellSouth always argued in theory about measurements-based plans.

In addition, as discussed in more detail below, the measurements-based plan adopted by the Florida Commission is wrongly weighted due to a fee schedule and basic structural flaw in that plan that, together, impose large penalties in areas where there is very little CLEC activity The rationale for such a counter-intuitive result is related to the fact that, at the time, CLEC activity in certain categories was lower in Florida than activity in these categories is today in both Florida and Tennessee Another major contributing factor to this result (i.e. large penalties with little CLEC

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[5] Florida Public Service Commission Docket No 000121-TP, Order No PSC-01-1809-FOF-TP, issued September 10, 2001
[6] *Id* at 158
[7] *Id* at 162
[8] As noted above, BellSouth filed a petition requesting a new performance assessment plan in Florida on May 12, 2004

activity) was the view at the time that measurements had to be much more granular than experience now shows to be necessary These changes in circumstances and additional knowledge calls for a change in the Current Plan's model.

Moving to a transactions-based plan will put Tennessee in line with the majority of states in the country. Currently, at least 40 states[9] use transactions-based plans. Consistent with this rational preference for transactions-based models, seven of the nine states in BellSouth's region use transactions-based plans. Even Florida, which adopted a measurements-based plan for BellSouth later adopted a transactions-based plan for Verizon (formerly GTE). Now that BellSouth has lived under both models, it is clear the transactions-based model works more logically and more fairly in achieving the FCC's goal of preventing backsliding after 271 relief, and BellSouth urges the Authority to adopt a transactions-based model to replace the current measurements-based plan.

Finally, it is important to keep in mind that the FCC has not mandated any particular penalty structure and has recognized that different plan structures can be equally effective. The FCC has also recognized that the development and implementation of performance measures and appropriate remedies is an evolutionary process that *requires change to both measures and remedies over time.*[10]

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[9] The following states have adopted enforcement plans which are primarily transactions-based Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming The state plans include RBOC plans for BellSouth, Qwest, SBC, Verizon and the plans for the former GTE territory of Verizon

[10] *In the Matter of Application by BellSouth Corporation, BellSouth Telecommunications, Inc , and BellSouth Long Distance, Inc , for Authorization To Provide In-Region, InterLATA Services in Florida and Tennessee,* WC-Docket No 02-307, FCC 02-331, Memorandum Opinion and Order, ¶ 170 (2002)

Consequently, moving to a transactions-based model is in no way inconsistent with FCC precedent. In fact, transactions-based models are the mainstream model, being using in the vast majority of states with performance plans.

IV.   IS THERE A COMPELLING REASON TO CHANGE THE CURRENT PLAN? YES: OVERVIEW OF THE PROPOSED PLAN AND WHY IT IS BETTER THAN THE CURRENT PLAN.

A new, streamlined and transactions-based Plan will provide a better, simpler, and more effective incentive against backsliding BellSouth's Proposed Plan will be better because it will replace the Current Plan's fees and fee calculation structure, which generate excessive and inappropriate penalties, even though BellSouth is not backsliding. Payment of fees when no backsliding is occurring will surely encourage irrational economic behavior in the Tennessee Market.   Moreover, BellSouth's Proposed Plan is better because it has been streamlined to eliminate many of the Current Plan's measures (and submeasures) that are not necessary to ensure that BellSouth continues to perform in the same nondiscriminatory manner that resulted in 271 relief. Under the Proposed Plan, both BellSouth and the TRA would no longer be required to track reams of complicated data in cases where the tracking of such measures fails to serve the 271-based goal of preventing backsliding.

An important aspect of BellSouth's Proposed Plan is its modification of the fee schedule to make penalty payments more rational and commercially reasonable The fee schedule in the Proposed Plan is much better for several reasons

First, changing from a measurements-based plan to a transactions-based plan requires a new fee schedule designed for the transactions-based model. The current measurements-based fee schedule was developed in Florida by requiring BellSouth to

derive a measurements-based fee schedule from a transactions-based fee schedule that was originally proposed years ago, when CLEC order volumes in Florida were significantly lower than today As the transactions-based fee schedule was being converted into a measurements-based schedule, the Florida Commission chose to set fees at extremely high levels in order to generate penalties sufficient to be considered a backsliding deterrent, given these lower levels of activity in Florida Today, however, CLEC order volumes have increased substantially throughout BellSouth's region, (both in Florida and in Tennessee), and continue to increase. This old fee schedule, designed for and based upon a stale assumption about low CLEC activity, works badly in today's world of higher CLEC activity. The new transactions-based fee schedule should be revised and set reasonably in light of the current higher CLEC order volume and level of activity.

Second, the current fee schedule is the result of alterations to BellSouth's fee schedule proposed in Florida. This fee schedule has never worked properly in the measurements-based plan, as it was to be used in BellSouth's proposal for a transactions-based plan. The problem cannot be fixed by merely taking that same fee schedule out of the measurements-based Current Plan and using it in a new transactions-based model, however, because it is outdated and based on the lower CLEC activity level discussed above Further, using a measurements-based fee schedule (which is volume insensitive) in a transactions-based plan (which is volume sensitive) would only lead to an astronomical increase in SEEM penalties for the same level of performance.

Finally, the fee structure under the BellSouth's Proposed Plan is also better than the Current Plan because it will change to a higher fee schedule if BellSouth's performance deteriorates by a statistically significant level. Here is how this new feature will work: First, BellSouth's performance level for the 12 months preceding the implementation of the new plan, as measured by the new performance metrics, will be calculated. Next, if BellSouth's performance falls below that level, then the fee schedule will automatically increase This provision of the Proposed Plan is a powerful (and far more logical) deterrent against backsliding.

V.   PROCEDURAL OVERVIEW: HOW THE CURRENT PLAN DEVELOPED

The development of the Current Plan took many turns and even spanned the terms of two different sets of Authority Directors While Tennessee initially set about creating its own plan in another docket, the Authority ultimately chose in this docket to accept a settlement, crafted by the parties, which included the agreement to use the plan developed by the Florida Commission for an initial period of time in Tennessee. Specifically, the parties proposed (and the TRA accepted the proposal) to use the Georgia Plan from August 1, 2002, until November 30, 2002, then use the Florida plan from December 1, 2002 through December 1, 2003 The parties' settlement agreement also provided that, after December 1, 2003, any party could petition the TRA to change the Current Plan

The history of performance measurement efforts in Tennessee is long and tortured Beginning in February 2001, the Authority opened a docket with the stated intent of developing a common set of performance measurements, benchmarks, and enforcement mechanisms to ensure that BellSouth provided non-discriminatory access

to its network elements as required by the Act.[11]   Later, when the Authority was called

upon to consider 271 relief, the Authority divided several aspects of the 271 case into

separate dockets. At that point, this docket was designated as the docket in which to

evaluate the 271 requirement that BellSouth provide nondiscriminatory access to its

network as required under Section 251.

On several occasions, BellSouth requested that the Authority adopt the

transactions-based performance measurements, benchmarks, and enforcement

mechanisms established by the Georgia Public Service Commission ("Georgia Plan").

The CLEC Coalition opposed BellSouth's request and proposed their own plan.

Wrangling between the parties over a performance plan continued for some time, and

numerous objections were raised – by both sides – at every turn. It was during these

ongoing disputes that the present TRA Directors began their tenures in the summer of

2002. In the midst of the continuing legal disputes over the TRA's efforts to craft a plan

and other 271 issues, the Authority suggested that the parties consider mediation of

issues in the 271 case, as a way to resolve the issues more quickly This development

was unique to Tennessee and on the eve of 271 hearings scheduled at the TRA, the

parties approached the Authority in this docket with a proposed settlement agreement.

As part of that settlement proposal, the parties agreed to forego any further efforts to

craft a Tennessee performance plan and to use instead – for a limited time – the plan

adopted by the Florida Commission in the Florida 271 proceedings.

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[11] TRA Docket No 00-00392, *BellSouth Telecommunications, Inc 's Petition to Convene Generic Docket and to Resolve Pending Arbitration Issues*, filed May 16, 2000
[13] *Settlement Agreement Order* at p 10 (ordering that "[t]he service quality measurement plan and self-effectuating mechanisms adopted by the Florida Public Service Commission   as they exist today and as they may be modified in the future, are hereby adopted   and [shall] remain in effect, at a minimum, until December 1, 2003 ")

In the *Settlement Approval Order* issued in this Docket, the Authority approved the parties' proposed settlement and adopted for use in Tennessee the performance assessment plan in effect in Florida ("Florida Plan") until December 1, 2003.[13] The parties' settlement permitted BellSouth to transition to the Florida Plan on December 1, 2002, after first operating under the Georgia Plan (with Tennessee data) during the intervening four months. The *Settlement Approval Order* further provides that after December 1, 2003, any party may request the Authority to "conduct a review of the then-existing plan, accept recommendations from interested parties, and make any appropriate modifications."[14] As ordered, BellSouth has operated under the Current Plan since December 1, 2002, while developing its Proposed Plan, pursuant to that provision of the *Settlement Approval Order* permitting BellSouth to seek a new plan

At the time of the parties' 271 settlement, the concept of working under a performance measurements plan was relatively new to BellSouth and the Authority[15] BellSouth had only recently obtained Section 271 relief in other states and was just beginning to gain experience with such plans. Like the plans used in BellSouth's other states, the Current Plan was intended to ensure BellSouth's good service (service that was proven to be nondiscriminatory under the Act in BellSouth's 271 cases) did not decline (or "backslide") after BellSouth obtained its Section 271 relief. As the TRA recognized during its 271 deliberations, these Plans were not required as a precondition to obtaining 271 relief   Nonetheless such Plans were a common feature of successful 271 cases because they provided assurance that, well after the "carrot" of 271 relief

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[14] *Id*, *see also Id* at p 7 (noting that "[t]he parties agreed not to seek amendments to the plan until December 1, 2003, after which the TRA in its discretion may conduct a review of the plan and the parties are free to recommend modifications ")

had been given, BellSouth would still have an ongoing and specific incentive to keep up the same level of good performance that had won the state regulators' support for 271 relief.

BellSouth has since learned a great deal about the practical process of living under performance assessment or assurance plans BellSouth's experiences confirm the concerns BellSouth raised as these plans were developed in Florida and other states. Specifically, BellSouth's experience demonstrates that a measurements-based plan will produce large irrational penalties even when BellSouth's service is as good as, or even better than, the day BellSouth obtained the TRA's support for Section 271 relief.[16] ***When a plan, designed solely to prevent backsliding, penalizes the same continued nondiscriminatory performance, something is wrong.*** BellSouth is still providing that same level of performance, and sometimes even better performance, and yet the Current Plan is generating inordinately large performance penalties (averaging $1 Million per month) even as BellSouth maintains its performance. This clearly points to a problem in the Plan and not to a problem in performance.

Further compounding the inequity of this situation is the fact that, unlike a transactions-based enforcement plan, Tennessee's measurements-based plan takes no notice of whether BellSouth's failure to meet the standard for one of the many SEEM submetrics is a close call or far miss Consequently, it provides no incentive to keep trying to do better on each transaction, which is key to crafting an effective deterrent against backsliding.

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[15] The first performance measurement plan in BellSouth's region was implemented in Georgia in March 2001 The Florida Plan, which Tennessee adopted, was implanted in May 2002

For all the reasons discussed in this *Motion*, BellSouth believes that its proposed transactions-based plan, with streamlined measurements and penalties more rationally related to performance, will provide the right deterrent to backsliding without generating irrational penalties unrelated to that aim. The Proposed Plan will better achieve the Authority's goal of preventing backsliding.

VI.   SUMMARY OF PROPOSED PLAN

A.   The Proposed Plan Contains Refined SQM And SEEM Parts.

The Proposed Plan, attached hereto as Exhibit "A", is comprised of two parts: (i) a Service Quality Measurement Plan ("SQM" or "SQM plan") and (ii) a Self-Effectuating Enforcement Mechanism Administrative Plan ("SEEM" or "SEEM plan"). The proposed SQM is a comprehensive compilation of relevant performance measurements with appropriate retail analogs (that is, standards that tie BellSouth's performance for CLECs to its performance for its own retail customers) and appropriate benchmarks (that is, standards that specifically define what satisfactory performance on each measurement will be).[17] The proposed SEEM is an enforcement mechanism that generates more rational remedy payments: more rational because they result in large penalties *only* in the event BellSouth fails to provide CLECs with the level of service that earned 271 relief. This plan is better designed to yield penalty payments only when

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[16] The Authority supported and the FCC approved BellSouth's request for Section 271 relief, based in part on finding that Bellsouth met its Section 251(c) obligations to provide nondiscriminatory unbundled access, interconnection and resale

[17] For performance measurement purposes, a "retail analog" is used when BellSouth provides a comparable service to both CLECs and BellSouth retail customers (example, maintenance and repair measurements) A benchmark is a target and is used when there is no retail analog (example, hot cut measurements) See, for example, Para 44 of CC Docket 99-295 *Application by 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 99-295*, Memorandum Opinion and Order, 15 FCC Rcd 2953 (1999) ("*Bell Atlantic New York Order*") , aff'd sub nom *AT&T v FCC*, 220 F 3d 607 (D C Cir 2000).

BellSouth's service is not comparable to BellSouth's own retail operation or (where there is no comparable retail function) where BellSouth fails to meet appropriately-established benchmarks that reflect the level of service required for 271 relief. This is the sole appropriate aim of such plans.

B. **The Plan Includes An Effective And Logical New Anti-Backsliding Feature.**

BellSouth's Proposed Plan includes an important new feature, which should allay any concerns that the Proposed Plan is soft on performance backsliding In BellSouth's Proposed Plan, BellSouth has an added incentive to avoid backsliding because, if BellSouth's performance deteriorates by a statistically significant degree from BellSouth's performance for the 12 months preceding the implementation of the Proposed Plan, then *the fees in the Proposed Plan increase dramatically*. Further, the Proposed Plan also encourages improved performance because it permits BellSouth to avoid penalties if there is significant overall performance improvement.

C. **The Proposed Plan Meets FCC Criteria.**

Taken together, the proposed SQM and SEEM will provide the Authority with an improved performance measurement and enforcement mechanism, a plan better able to ensure BellSouth continues to keep meeting its Section 251 obligations in the future just as it met those obligations in order to win 271 relief. By rewarding improved performance and punishing poor performance, all the while maintaining the FCC-approved criteria discussed below for such plans, the Proposed Plan contains

appropriate incentives and sufficient safeguards for preventing performance backsliding [18]

In granting BellSouth Section 271 relief, the FCC stated that an enforcement mechanism such as SEEM is an effective mechanism for preventing "backsliding" by BellSouth in the level of service offered to CLECs after BellSouth's entry into the long distance market.[20]

Likewise, the FCC never said the Current Plan was the only model that would provide sufficient assurance against backsliding To the contrary, the FCC simply indicated that the SEEM was satisfactory because it contained "several key elements" such as "total liability at risk in the plan; performance measurement and standards definitions; structure of the plan; self-executing nature of remedies in the plan; data validation and audit procedures in the plan; and accounting requirements."[22] ***BellSouth's Proposed Plan retains all of these "key elements".*** More specifically, the FCC did not require the SEEM plan to be measurements-based rather than transactions-based. In fact, the FCC has granted relief in numerous instances where the plan was transactions-based, including in Georgia, Louisiana, South Carolina, Mississippi, Alabama, Kentucky and North Carolina in the nine-state regional served by BellSouth, as well as at least 25 other states

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[18] See FCC's *Bell Atlantic New York Memorandum Opinion and Order* at ¶ 433 (establishing guidance for such plans).

[20] *In the Matter of Application by BellSouth Corporation, BellSouth Telecommunications, Inc , and BellSouth Long Distance, Inc , for Authorization To Provide In-Region, InterLATA Services in Florida and Tennessee,* WC-Docket No 02-307, Memorandum Opinion and Order, ¶ 167 (2002)

[22] *Id ,* at ¶ 169 and fn 612

VII. BELLSOUTH'S PERFORMANCE IS NOT THE PROBLEM. IN FACT, BELLSOUTH CONSISTENTLY MAINTAINS PERFORMANCE AT THE LEVEL THAT THE TRA DECIDED WAS WORTHY OF ITS VOTE TO SUPPORT 271 RELIEF FOR TENNESSEE.

BellSouth's performance should not have resulted in the high penalties it pays in Tennessee. BellSouth's performance has remained on par with the performance demonstrated in its 271 case, the performance level that won the TRA's decision to recommend 271 approval to the FCC In short, BellSouth is not "backsliding" *Neither the FCC – nor Congress – has ever imposed the requirement that ILEC performance be perfect.* Consequently, no performance assurance plan needs to be designed to penalize all errors or missteps Instead, the Authority must focus on crafting a plan that encourages BellSouth to maintain the service that won it 271 relief – no more and no less [23]

What then, is 271-level performance? At the time of the state 271 filing (March 2001 data), BellSouth's "overall performance" in Tennessee, that is, the number of then-applicable measures BellSouth was meeting, was 78%, BellSouth was meeting or exceeding the performance standard (retail analogue or benchmark) for all submetrics containing a statistically significant level of activity. In September 2002, when BellSouth applied to the FCC for a grant of Section 271 authority in Tennessee, BellSouth submitted data indicating that its performance met or exceeded the performance

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[23] Overzealous proponents of government regulation might ask, "If maintaining the same performance is a good goal, then wouldn't a plan requiring BellSouth to improve its performance to 'better than 271 level' be an even better goal?" This approach is both bad policy (imposing needless regulation beyond the balance struck under federal law) and also inconsistent with Tennessee law The federal purpose served by these plans is the assurance of stable – not improved – performance Tennessee law does not empower the TRA to levy monetary fines for service mistakes on the basis of a standard above and beyond the level demonstrated in the 271 case In fact, under state law, the TRA's power to impose fines is limited to $50 per day While BellSouth accepted voluntarily a performance plan to achieve the federal goal of continued 271-level performance, it has not agreed to voluntarily participate in a more

standard for more than 80% of the then-applicable (Georgia) metrics (and submetrics) for the three-month period of May through July 2002. BellSouth's performance during that period averaged 82 6% when evaluated with the current reporting structure and with the measurement plan that was in effect during that period

BellSouth's current performance for the period September 2003 through February 2004 is 83% BellSouth's improvement is even more than this number suggests considering that the present 83% number is based on the Current Plan, which has undergone two revisions since 2002 resulting in more stringent performance standards for several measurements.

The FCC relied on such data (and other information) in determining that: (i) the Tennessee local market was open, (ii) BellSouth had met the competitive checklist requirements of Section 271(B) of the Act; and (iii) that BellSouth's entry into the long distance was in the public interest [24] *Consequently, performance consistent with that demonstrated to the TRA in August, 2002 and then the FCC in September 2002 is the performance level the Plan should be designed to maintain* Maintaining that performance level – not perfection – is the proper aim of the Plan.

BellSouth is not backsliding in Tennessee In fact, BellSouth is not backsliding anywhere in its region. Data regarding BellSouth's overall performance level in each BellSouth state is set forth in the chart attached as Exhibit "B" to this Petition That chart demonstrates that BellSouth is maintaining its performance in other states (just as it is in Tennessee) even in states that do not use a measurements-based plan.

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broad-based plan, under the TRA's general state powers, to incent perfect performance, and the TRA lacks the authority to impose such a plan on BellSouth

In Tennessee, notwithstanding a lack of backsliding, a disproportionate amount of Tier-1 payments is distributed to CLECs. Specifically, data taken from February 2004 shows that less than 10% of the total CLEC lines in BellSouth's region are located in Tennessee. Despite the presence of less than 10% of the total CLEC lines, in February 2004, CLECs operating in Tennessee received over 20% of all Tier-1 payments paid to CLECs in BellSouth's region. While the penalties are higher in Tennessee, the data shows that the performance is not worse. Again, Exhibit "B" demonstrates that such excessive payment is not caused by relatively poor performance in Tennessee, but rather by a Plan that does not work as it was intended. Certainly, neither the FCC nor the TRA ever intended that BellSouth would maintain its performance consistent with its 271-case performance and perform as well in Tennessee as in other states and yet pay dramatically more in Tennessee penalties compared to other states in its region.

IX.   THE CURRENT PLAN FAILS TO FOCUS PROPERLY ON PERFORMANCE LEVELS DEEMED SUFFICIENT FOR 271 RELIEF.

A.   The Current SEEM Plan Results in the Payment of Exorbitant Penalties to CLECs that are not Rationally Related to Performance for Such CLECs.

Many of the current SEEM fees have no rational relationship to the damage (if any) sustained by a CLEC. Including excessive penalties in a SEEM plan is contrary to the concept that good performance should result in few, if any, payments for a failure to perform. Stated simply, the Plan is not effectively performing its function if penalties are substantial even when performance remains stable or even improves

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[24] *In the Matter of Application by BellSouth Corporation, BellSouth Telecommunications, Inc, and BellSouth Long Distance, Inc, for Authorization To Provide In-Region, InterLATA Services in Florida and Tennessee,* WC-Docket No 02-307, Memorandum Opinion and Order, at ¶ 165

Examples of excessive SEEM payments are numerous. In the following paragraphs, BellSouth cites just a few examples of actual SEEM payment issues in Tennessee. They are provided for illustrative purposes only and do not represent a complete list of all such flawed provisions of the Current Plan

In addition to the following specific examples, BellSouth notes that during the period of August through October 2003, BellSouth paid over $3 8 million in Tier 1 payments to CLECs in Tennessee   Of this total, over $3 4 million (or greater than 90% of the $3.8 million) came from only 8 measurements out of the total of 76 SQM measures. Also alarming is the fact that, during the same time, there were many instances in which BellSouth paid excessive payments to CLECs for service that was actually better than BellSouth's performance for its own retail customers

<div align="center">EIGHT EXAMPLE MEASURES</div>

1   CUSTOMER TROUBLE REPORT RATE (CTRR)

This metric is simply the number of trouble reports in a month divided by the units or lines in service.   In the SEEM portion of the Current Plan, CTRR   is disaggregated into 20 different submetrics. For instance "CTRR – 2W Analog Loop Design" and "CTRR- Loop Port Combo" are both UNE submetrics. "CTRR- Resale Business" is an example of a Resale Submetric.

BellSouth paid over $1 2 million in Tier 1 payments to individual CLECs during the period from August through October 2003 for the UNE and Resale SEEM sub-metrics of CTRR   Of the $1.2 million, $1 06 million was paid for UNE SEEM sub-metrics during the period   *BellSouth paid over $1 million in Tier 1 SEEM payments for CTRR despite the fact that the overall average Customer Trouble Report Rate*

for the relevant time period was approximately 2%. This means that the CLECs were provided over 98% trouble free service (100% less the 2% trouble report rate) during this three-month period.

The following chart shows examples of actual penalty payments to CLECs with *just one* trouble reported in a given month for all its in-service base of circuits for a particular product:

CLEC[25]	Product	Month '03	SEEM $	Trouble Reports / In Service Circuits
CLEC 1	2W Analog Loop Design	October	$4750	1 / 22
CLEC 2	2W Analog Loop Design	September	$4750	1 / 29
CLEC 3	UNE Combo Other	August	$12350	1 /16
		September	$14250	1 / 19
CLEC 4	UNE Combo Other	October	$14250	1 / 57
CLEC 1	Digital Loop ≥ DS1	September	$4750	1 / 9
CLEC 2	Digital Loop ≥ DS1	August	$6650	1 / 33
		September	$8550	1 / 34
		October	$10450	1 / 38
CLEC 5	DSL	September	$4750	1 / 21
CLEC 6	UNE ISDN Loop	August	$4750	1 / 11
		October	$4750	1 / 12

In every instance above, the CLEC simply claimed on one occasion that they had a trouble. Significantly, that trouble may not have even been a condition causing the customer's service to be impaired Yet because the number of circuits in service was relatively small – such as the 12 circuits on the last item in the table, the trouble report *rate*, 1 divided by 12, was 8% and was above the retail comparison primarily due to the comparatively large number of retail lines in service For each item above, a

single trouble report generated a SEEM payment ranging from $4,750 to $14,250. Compared to the average monthly rate ($25 for a UNE Analog Loop to $86 for a Digital DS-1 Loop) CLECs pay for services, the SEEM payment for a single trouble report is equivalent to literally years of service – for free. Literally, these CLECs made more money on one trouble report than on providing service to a customer for 20 or 30 years.

2   PERCENT PROVISIONING TROUBLES WITHIN 30 DAYS (PPT)

PPT measures the number of service orders where troubles were reported within 30 days of service order completion. In the SEEM portion of the Current Plan, this metric is disaggregated by product, as noted under Customer Trouble Report Rate above, and also by greater than 10 circuits, less than 10 circuits, dispatch and non-dispatch. (A dispatch means a technician had to be dispatched to the customer's premise.) The result is 109 Tier 1 SEEM submetrics for each CLEC.

BellSouth paid over $860,000 in Tier 1 payments during the period from August through October 2003 for both UNE and Resale SEEM sub-metrics for PPT. Of the total of $860,000, *$800,000 was paid for service order installations that had trouble rates of 4% or less.* In other words, BellSouth paid $800,000 in Tier 1 SEEM payments while installing over 96% of the service orders perfectly, without a trouble

The following chart shows examples where CLECs received SEEM payments for *just one* order with a trouble reported in a given month for all circuits that were installed in the previous 30 days.

CLEC	Product/dispatch	Month '03	SEEM $	Orders with a trouble report / Installed Circuits
CLEC 5	2W Analog Loop Design with LNP Dispatch	October -	$4750	1 / 8
CLEC 1	Line Sharing Dispatch	October	$4750	1 /7
CLEC 7	UNE Loop & Port Dispatch-In	September	$8550	1 /11
		October	$10450	1 / 13
CLEC 5	Combo Other Dispatch	August	$4750	1 / 6
CLEC 8	UNE Loop & Port Switched Based Orders	September	$4750	1 / 9
		October	$6650	1 / 11

As with the Customer Trouble Report rate, the SEEM payment is equivalent to several years of BellSouth revenue from the service.

3   PERCENT REPEAT TROUBLE REPORTS WITHIN 30 DAYS (PRT)

As the name implies, this measure indicates the frequency of repeat troubles reports by dividing the number of trouble reports on lines that more than one trouble report within preceding 30 days by the total number of trouble reports during the same period This metric has the dubious distinction of potentially penalizing BellSouth for maintaining a high quality network As an example, if the quality of the network is such that there are few troubles reported (as noted above where the trouble-free rate was 98%) any repeat trouble is likely to produce a high repeat rate, and, as a result, trigger SEEM penalties For instance BellSouth paid over $296,000 in Tier 1 payments during the period from August through October 2003 for both UNE and Resale sub-metrics for PRT Of the $296,000, BellSouth paid over $285,000 in Tier 1 SEEM payments, *even though the CLEC rate was actually lower (better) than the retail comparison for BellSouth's own customers* The following are some examples where CLECs are

receiving SEEM payments for overall repeat rates in a given month that were less than the retail comparison.

CLEC	Product/dispatch	Month '03	SEEM $	CLEC Rate / Retail Rate
CLEC 9	UNE Loop & Port Dispatch	August	$6650	17.78 / 21.41
CLEC 5	UNE Loop & Port Dispatch	September	$4750	18 57 / 20.61
CLEC 2	UNE Loop & Port Non Dispatch	October	$4750	16.00 / 16.29
CLEC 10	UNE Loop & Port Non Dispatch	October	$14250	15.79 / 16.29
CLEC 11 .	UNE Loop & Port Non Dispatch	September	$4750	16.67 / 17.39

Paying for superior service (as above) can occur when the number of CLEC troubles is small and is concentrated in a relatively few wire centers. Once again, the penalty amounts are startling in comparison to the impact on the CLEC

4   ORDER COMPLETION INTERVAL (OCI)

This measure shows the average time period from receipt of a valid order from the CLEC to the delivery of the service to the end-user. In the SEEM portion of the Current Plan this metric is disaggregated by product, and also by greater than 10 circuits, less than 10 circuits, dispatch and non-dispatch. The result is 125 Tier 1 SEEM submetrics for each CLEC. An example of a UNE submetric is "Average Completion Interval (OCI) & Order Completion Interval Distribution, . Non-Dispatch Dispatch in < 10 - UNE Loop and Port Combo "

The following chart shows examples where CLECs received SEEM payments even though their orders were completed in a shorter interval than the retail comparison for BellSouth's own customers   All of these measurements have less than 10 circuits per order.

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CLEC	Product/dispatch	Month '03	SEEM $	CLEC interval / Retail interval (days)
CLEC 12	UNE Loop & Port Combo Dispatch-In	August	$6650	1.96 / 1.97
		October	$4750	1 76 / 1 95
CLEC 13	UNE Loop & Port Combo Dispatch-In	October	$4750	1 91 / 1 95
CLEC 14	UNE Loop & Port Combo Dispatch-In	August	$4750	1.95 / 1.97
		September	$6650	1.66 / 1.97
CLEC 15	UNE Loop & Port Combo Dispatch-In	October	$10450	1.23 / 1.95
CLEC 11	UNE Loop & Port Combo Dispatch-In	September	$4750	1.83 /1.97

Once again, the SEEM payment is exorbitant (comparable to several years of service) when compared to the level of service received. Lastly, it is significant to note that in each instance the typical CLEC orders were installed on average more quickly than the comparable retail orders

5   PERCENT OUT OF SERVICE > 24 HOURS (OOS)

This measurement captures troubles, which result in an out-of-service condition (in which the end user cannot call or be called) that are not resolved within 24 hours. BellSouth paid over $242,000 in Tier 1 payments during the period from August through October 2003 for both UNE and Resale sub-metrics for OOS Troubles reflected in this measure are also captured in the CTRR measure and could also be included in the PRT and the PPT measures As a result, a single trouble report could generate up to four separate SEEM penalties The following are some examples of payments to CLECs for *just one* trouble out of service greater than 24 hours in a given month

CLEC	Product / dispatch	Month '03	SEEM $	Reports OOS > 24 / Total OOS Reports
CLEC 10	UNE Digital Loop ≥ DS1 Dispatch	October	$4750	1 / 12
CLEC 16	UNE Digital Loop ≥ DS1 Dispatch	August	$4750	1 / 12

CLEC	Product / dispatch	Month '03	SEEM $	Reports OOS > 24 / Total OOS Reports
CLEC 11	UNE Digital Loop ≥ DS1 Dispatch	September	$4750	1 / 61
CLEC 1	UNE ISDN Dispatch	October	$4750	1 / 18
CLEC 17	UNE Loop & Port Combo Non Dispatch	October	$4750	1 / 6
CLEC 11	UNE Loop & Port Combo Non Dispatch	August	$6650	1 / 7

This measurement is another metric that can penalize BellSouth for good service. Since this measurement divides out of service troubles greater than 24 hours by the total number of out of service troubles, the fewer the total out of service troubles, the greater the potential for generating a penalty with just *one trouble*. The last two examples above illustrate this problem. As with many of the other examples, the SEEM payment of $4750 or above for one trouble is significantly disproportionate to the level of service received when compared to the monthly rate for the service.

6.   PERCENT MISSED INSTALLATION APPOINTMENTS (PMIA)

This measure indicates BellSouth's ability to install service on the scheduled day. In the SEEM portion of the Current Plan this metric is disaggregated by product, and also by greater than 10 circuits, less than 10 circuits, dispatch and non-dispatch. The result is 125 Tier 1 SEEM submetrics for each CLEC

BellSouth paid over $221,000 in Tier 1 payments during the period from August through October 2003 for both UNE and Resale SEEM sub-metrics for PMIA. Of the $221,000, BellSouth paid over $214,000 in Tier 1 SEEM payments, even though less than 1% of the installation appointments were missed. In other words, BellSouth met over 99% of all scheduled installation commitments during this three month period – but

the SEEM plan required payments of $214,000. The following are some examples where CLECs received SEEM payments for *just one* missed installation appointment.

CLEC	Product/dispatch	Month '03	SEEM $	Missed Appt / Total Appts.
CLEC 5	2W Analog Loop Design with LNP Dispatch	September	$4750	1 / 9
CLEC 5	UNE Combo Other Dispatch	August	$4750	1 / 8
CLEC 10	DSL Dispatch NonCond.	August	$4750	1 / 6
CLEC 11	2W Analog Loop Design with LNP Non Dispatch	October	$4750	1 / 14
CLEC 18	LNP Standalone	October	$1800	1 / 41

Again, these excessive SEEM payments are not warranted when compared to the level of service provided and to the price the CLEC pays for these products.

7   PERCENT MISSED REPAIR APPOINTMENTS (PMRA)

This measure quantifies BellSouth's ability to resolve a trouble report by the committed date and time   BellSouth paid over $198,000 in PMRA Tier 1 payments during the period from August through October 2003 for both UNE and Resale products   Of the $198,000, BellSouth paid over $182,000 in Tier 1 SEEM payments while missing less than 4% of the repair commitments to the CLECs   Said another way, even though BellSouth met over 96% of all scheduled repair commitments, the SEEM plan required payments of nearly $200,000   The following are some examples where CLECs received SEEM payments for *just one* missed repair appointment:

CLEC	Product/dispatch	Month '03	SEEM $	Missed Appt / Total Appts.
CLEC 13	2W Analog Loop Design Dispatch	August	$4750	1 / 9
CLEC 1	UNE ISDN Dispatch	October	$4750	1 / 18
CLEC 12	UNE Loop & Port Combo Non Dispatch.	September	$8550	1 / 59
CLEC 2	UNE Loop & Port Combo Non Dispatch	August	$4750	1 / 15
CLEC 10	UNE Loop & Port Combo Non Dispatch	August	$4750	1 / 39
		October	$8550	1/19
CLEC 19	UNE Loop & Port Combo Non Dispatch	August	$4750	1 / 9

These excessive SEEM payments are not warranted when compared to the level of service provided and the charge for the affected service As with many SEEM measurements, Missed Repair Appointments can penalize BellSouth for providing good service In this instance, the more reliable a network, the fewer trouble reports and repair appointments And, as a result, there is a greater potential for SEEM payments from just one missed appointment. The first and last examples above had only 9 repair appointments A miss of just one appointment, perhaps for only few hours, resulted in a payment of nearly $5000. Once again, a slight miss resulted in providing the CLEC the equivalent of decades of free service.

8.   MAINTENANCE AVERAGE DURATION (MAD)

This measure shows the amount of time from receipt of a trouble report until it is cleared. It is disaggregated by product and by dispatch type. BellSouth paid over $169,000 in Tier 1 payments during the period from August through October 2003 for UNE and Resale sub-metrics for MAD Of the $169,000 total, BellSouth paid over $158,000 in Tier 1 SEEM payments even though 93% of the MAD measurements indicate that BellSouth cleared the CLECs' troubles more quickly than the comparable

retail service The following are some examples where CLECs received SEEM payments even though their average durations were less than the retail comparison.

CLEC	Product / dispatch	Month '03	SEEM $	CLEC duration / Retail dur (hours)
CLEC 4	Digital Loop ≥ DS1 Dispatch	October	$6650	3.17 / 5 21
CLEC 9	UNE Loop & Port Combo Dispatch	September	$4750	36 87 / 39.37
CLEC 20	UNE Loop & Port Combo Dispatch	August	$8550	44 59 / 46 27
CLEC 21	UNE Loop & Port Combo Dispatch	August	$4750	38 14 / 46 27
CLEC 21	UNE Loop & Port Combo Dispatch	September	$6650	33 64 / 39.37
CLEC 22	UNE Loop & Port Combo Dispatch	September	$4750	33.55 / 39.37
CLEC 10	Digital Loop ≥ DS1 Non Dispatch	September	$4750	1 08 /1 86
CLEC 23	UNE Loop & Port Combo Non Dispatch	September	$4750	11 57 / 18.13
CLEC 23	UNE Loop & Port Combo Non Dispatch	October	$6650	12 01 / 12.02
CLEC 24	UNE Loop & Port Combo Non Dispatch	September	$4750	12 86 / 18.13
CLEC 10	UNE Loop & Port Combo Non Dispatch	October	$4750	7.48 / 12 02
CLEC 11	UNE Loop & Port Combo Non Dispatch	August	$6650	7.99 / 21 02

As shown in the examples above, BellSouth is paying extreme SEEM payments while providing excellent service to the CLECs. The payments to the CLECs are not based on poor service quality and certainly cannot be reduced by providing a better grade of service, short of perfection

B.   The Current Measurements-based SEEM Plan is not Necessary to Prevent Backsliding.

The SEEM payments in Tennessee are the highest on a per-CLEC-line-in-service basis of the states within the BellSouth region. Exhibit B illustrates this point

Exhibit B is a chart displaying the average monthly SEEM payment per CLEC line in service for each state in BellSouth's region, during the period September 2003 through February 2004. By dividing the monthly SEEM payments in each state by the CLEC lines in service, each state's SEEM payments can be compared on a common basis. The chart shows just how out of line Tennessee's Plan is with other states

Of course, any regulator considering this information would want to know whether BellSouth's performance is the culprit. Specifically, are the high Tennessee SEEM payments an indication that Tennessee is receiving the worst performance in BellSouth's region? The answer is no. In fact, BellSouth's Tennessee performance is consistent with its strong performance region-wide. For instance, during this 6-month period, September 2003 – February 2004, BellSouth met an average of 83% of the performance measurement standards prescribed by the Authority. The performance level for Tennessee and for all other states is depicted in the parentheses following the state abbreviation on the horizontal axis of Exhibit B Exhibit B shows that BellSouth's overall performance level in the States has a relatively narrow range variation between 81% and 90%.

Referring to Exhibit B, the bars represent SEEM payment per 1,000 CLEC lines in service. In the case of Tennessee, the monthly SEEM payment is $3,300 per one thousand CLEC lines in service. It is important to note that the $3,300 per 1000 lines is based on every CLEC line in service – and the vast majority of CLEC lines and transactions experience no performance problems However, CLEC lines in service provides a straightforward and understandable way to express SEEM payments among the states on a common basis. The $3,300 per 1000 CLEC lines in service for

Tennessee is more than 3 times greater than the average of the remaining 8 states, and nearly 4 times greater than the average of the 7 states that have a transactions-based SEEM plan. In short, the data in Exhibit B demonstrates that given a similar performance level, a performance-based plan generates more remedy payments than a transactions-based plan and does so without providing any greater deterrent to backsliding.

The payment of excessive Tier-1 penalties generated by a measurements-based plan does not further (or even contribute to) the Authority's goal of preventing performance backsliding Put another way, Exhibit B demonstrates that performance is no better in states with the presence of a measurements-based plan, nor is performance any worse in the states where BellSouth is paying pursuant to a transactions-based plan Throughout BellSouth's region, BellSouth's overall performance demonstrates its continued – or improved – performance. Tennessee is no exception. In fact, BellSouth is continuing to deliver performance at – and sometimes above – the level that garnered 271 relief

The difference in the level of payments in Tennessee is not the result of a Tennessee performance problem Instead, the disparity in Tennessee payments results from the fact that the Current Plan in Tennessee (and Florida) assigns penalties based on 830 individual measurements and sub-measurements, which operate to produce high penalties on the same (or better) performance compared to penalties in other states

No doubt, CLECs will continue to urge the use of a measurements-based plan for Tennessee A measurements-based plan, resulting in excessive Tier-I payments,

however, does not result in better performance for CLECs. Instead, it simply provides a stream of payments to CLECs in some states, not provided in others, where performance is substantially the same region-wide. This type of Tier-1 payments is not realistically tied to performance, is not a Section 251 obligation of BellSouth, nor should it be a goal of the Authority Any system that results in such substantial, regulatory-driven (not commercial) payments creates grave risks that parties will engage in otherwise irrational behavior in order to reap the benefits of regulatory penalties – instead of focusing on real market business opportunities. CLECs should not be encouraged to plan their business around a stream of payments, like those depicted in the charts above, which are not based on real performance problems.

The danger of creating irrational penalties was clearly recognized by the Florida Commission as it worked to fashion a plan The Florida Commission recognized that "radically different remedy calculations"[26] had been proposed. However, given what the Florida Commission perceived as problems with the proposed remedy plans, and the theoretical nature of the criticism regarding such plans, the Florida Commission ruled that a measurements-based remedy calculation would be used *on an initial basis*:

> BellSouth is recommending transaction-based remedies, while the ALEC Coalition is advocating measure-based remedies Under BellSouth's transaction- based remedy plan, a payment would be made based on some estimate of the number of discriminatory transactions for a measure and the type of measure Under the ALEC Coalition's measure-based remedy plan, payments would be made based on a finding of discrimination for the measure, which would be independent of the number of transactions and the type of measure. . . **[N]o real empirical data has been presented which can serve as a basis for the penalty amounts under either plan. Consequently, most of the criticisms of both plans are theoretical in nature.**[27]

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[26] Florida Docket No 000121-TP, Order No PSC-01-1819-FOF-TP (September 10, 2001) at p 158

[27] *Id* (emphasis added)

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> [T]here are fundamental flaws in both the BellSouth and ALEC Coalition remedy plans . . [As such] we find that the remedy plan must, at least initially, be measure-based . . Over time, it may be possible to evolve to a transaction-based system . **[W]e believe that transaction based remedies, with a minimum payment provision, would be preferable in concept.**[28]

The concerns expressed by the Florida Commission almost three years ago regarding adopting a transactions-based SEEM remedy plan, namely lack of data, no longer exist

Likewise, the FCC recognized, and even specifically anticipated, that Tennessee's plan would change and evolve over time. Further, the FCC indicated, without any apparent concern, that the Tennessee SEEM plan would evolve towards a more commercially reasonable type of remedy such as liquidated damages:

> We have not mandated any particular penalty structure and we recognize different structures can be equally effective **We also recognize that the development and implementation of performance measures and appropriate remedies is an evolutionary process that requires changes to both measures and remedies over time.** . . . We anticipate that the parties will continue to build on their own work and the work of other states to ensure that such measures and remedies to accurately reflect actual commercial performance in the local marketplace [29] (emphasis added)

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[28] *Id* , at p 162 (emphasis added)

[29] *In the Matter of Application by BellSouth Corporation, BellSouth Telecommunications, Inc , and BellSouth Long Distance, Inc , for Authorization To Provide In-Region, InterLATA Services in Florida and Tennessee,* WC-Docket No 02-307, Memorandum Opinion and Order , at ¶ 170

C. **The Current SEEM Plan Contains Metrics and Submetrics That Serve No Useful Purpose. Including Such Metrics in the Plan Undermines the Monitoring Capability of the Plan. In Contrast, Eliminating Unnecessary Metrics and Submetrics Will Improve the Overall Integrity (i.e. Efficiency and Reliability) of the Plan.**[30]

In addition to the problems caused by using a measurements-based remedy calculation plan instead of a transactions-based remedy calculation plan, the current SEEM plan contains metrics and submetrics that fail to serve the Plan's goal Specifically, the SEEM portion of the Current Plan contains 830 submetrics at the Tier I level There are over 80 CLECs in Tennessee. Since Tier I submetrics apply to all CLECs, there is a potential for over 66,400 SEEM determinations (830 submetrics x 80 CLECs). Too many SEEM submetrics result in few or no transactions (or activity) in many such submetrics. To illustrate, a recent analysis was performed of SEEM data for Florida. In Florida there are also 830 Tier I SEEM submetrics and over 200 CLECs Thus there is a potential for over 166,000 Tier I SEEM determinations each month. During the period August through October 2003, there was no activity for over 97% of these potential SEEM occurrences. Of the minimal number (3%) of evaluations that experienced some activity, many, for example, had less than thirty (30) transactions during a measurement period. BellSouth believes a similar evaluation of Tennessee data would result in the same conclusion The Current Plan is simply too granular.

This excessive disaggregation results in small sample sizes The smaller the sample size, the more likely the sample does not constitute a statistically valid sample. As such, measuring small sample sizes may be meaningless because the resulting

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[30] BellSouth is not proposing to eliminate any CLEC transactions from the Current Plan Rather, a number of low volume measurements will be reduced by aggregating CLEC transactions into modified measurements in order to provide statistically-valid volume and to eliminate duplication and unneeded complexity

measurement may be compromised from a statistical perspective. From a practical perspective, tracking numerous SEEM submetrics that generate few or no transactions is wasteful and indicates that BellSouth is tracking many measurements that are of inconsequential value to the CLECs because they are not using those services.

Conversely, from a statistical perspective and assuming the same level of activity, reducing the number of submetrics increases the number of the transactions being measured in each submetric. Increasing the number of transactions, in turn, results in more reliable measurement results Accordingly, by simply *consolidating* submetrics that contain no or minimal activity, the Authority will improve the efficiency and reliability of the Plan That said, BellSouth is not asking the TRA to change the Current Plan's statistical tests. Rather, BellSouth is requesting the TRA to refine other aspects of the plan (such as the fee schedule and the structure of the plan) to alleviate the problems created by small sample sizes

D.   **The Current SQM Contains Metrics and Submetrics That Serve No Useful Purpose. Including Such Measures in the Plan Undermines the Monitoring Capability of the Plan. In Contrast, Eliminating [or Aggregating] Unnecessary Metrics and Submetrics Will Improve the Overall Integrity (i.e. Accuracy and Reliability) of the Plan.**

Similar to concerns already expressed regarding the SEEM part of the Current Plan, the SQM part of the Current Plan also contains many measurements that serve no purpose. Specifically, the measures address functions in which there is no CLEC activity Stated simply, for these measurements, there is nothing to measure.

Of the 1902 SQM submetrics where state-wide or region-wide data are reported, 401 are diagnostic – meaning that BellSouth does not compare such measurements against any standard (neither a retail analog nor benchmark) Thus, the Plan requires

BellSouth to monitor, for solely "diagnostic" purposes, some 401 separate measurements. Because there is no standard (no analog or benchmark) associated with these functions, however, this administrative effort results in no useful information about the level of service BellSouth provides to CLECs. Moreover, eliminating these measures will have no impact on penalty fees paid by BellSouth because there are no penalties associated with this cumbersome measurement process

Setting aside the diagnostic submetrics, there remains 1,501 SQM submetrics (1,902 minus 401) that may, *in theory*, be useful in monitoring BellSouth's ability to provide CLECs with non-discriminatory access to its network and OSS This theory, however, does not hold true because of a lack of CLEC-generated activity (such as submitting orders or trouble tickets) in many SQM submetrics.

For example, an analysis of SQM data taken from January 2004 indicated that 51% of the non-diagnostic SQM submetrics *had no activity* (771 out of 1,501) Continuing with the same data, there were 730 non-diagnostic submetrics with *some* level of activity (1,501 minus 771) During January 2004, 338 of such 730 submetrics had very low activity levels of between 1 and 30 As previously stated, measuring activity levels (or sample sizes) of small samples (for example, less than 30) is a concern from a statistical perspective. Put another way, the SQM data from January 2004 revealed that there was a statistically significant level of activity in at most 392 (or 21%) of the current SQM submetrics (392 out of 1,902).

X.   CONCLUSION

BellSouth's proposal corrects many Current Plan problems such as statistical concerns associated with tracking too many measurements that serve no purpose and

the disincentives created by a measurements-based fee structure that results in the payment of exorbitant and irrational penalties. With the benefit of the data associated with operating under the Current Plan for almost two years, the goal of preventing backsliding can be accomplished by approval of the Proposed Plan by the Authority.

WHEREFORE, as provided by this Panel's *Settlement Approval Order* and for the reasons set forth herein, BellSouth respectfully petitions for the Authority to approve the Proposed Performance Assurance Plan (SQM and SEEM) attached hereto as Exhibit A

That Proposed Plan (i) satisfies all of the "key elements" identified by the FCC for such plans; (ii) provides more than sufficient safeguards against backsliding, (iii) rewards improved performance, and (iv) penalizes declining performance Adoption of the Proposed Plan will stop the irrational imposition of millions of dollars in fines in cases where BellSouth is not backsliding.

Respectfully submitted,

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BellSouth Service Quality Measurement Plan (SQM)

Tennessee Proposed Performance Metrics

Measurement Descriptions
Version 2.01

Issue Date: May 12, 2004

Introduction

The BellSouth Service Quality Measurement Plan (SQM) describes in detail the measurements produced to evaluate the quality of service delivered to BellSouth's wholesale customers. 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]. 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 This specific SQM is based on Order No (to be determined) in TRA Docket No. 97-00309 dated (to be determined).

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 develop and the processes stabilize. The measurements will be changed to reflect the dynamic changes described above and to correct errors, respond to 3rd Party audits, Orders of the TRA, FCC and the appropriate Courts of Law.

This document is intended for use by someone with knowledge of the telecommunications industry, information technologies and a functional knowledge of the subject areas covered by 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 BellSouth's PMAP website (http://pmap bellsouth com) in the Documentation/Exhibits folder.

Report Publication Dates

Each month, preliminary SQM reports will be posted to BellSouth's PMAP website (http://pmap bellsouth.com) by 8:00 AM EST on the 21st day of each month or the first business day after the 21st The validated SQM reports will be posted by 8:00 AM on the last day of the month or the first business day after the last day of the month Validated SEEM reports will be posted on the 15th of the following month or the first business day after the 15th. SEEM payments will be made on the 15th of the following month or the first business day after the 15th. For instance: May data will be posted in preliminary SQM reports on June 21st Final validated SQM reports will be posted on the last day of the month Final validated SEEM reports will be posted and payments mailed on the 15th of the following month.

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

For details on SEEM, please refer to the SEEM Administrative Plan.   -

BellSouth shall retain the performance measurement Supporting Data Files (SDF) for a period of 18 months and further retain the monthly reports produced in PMAP for a period of three years. Instructions for replicating the reports in the SQM are contained in the Supporting Data User Manual (SDUM). The SDUM is available on the PMAP website and is automatically provided with each SDF download

Report Delivery Methods

CLEC SQM and SEEM reports will be considered delivered when posted to the website. The State/Federal Commissions have been given access to the website.

Contents

Section 8: Change Management

Appendix A: Glossary of Acronyms and Terms

Appendix B: BellSouth Audit Policy

Appendix C: Interface Tables

Appendix D: BellSouth's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

Appendix E: Description of Raw Data and Other Supporting Data Files

Section 1: Operations Support Systems (OSS)

IA: Interface Availability (Pre-Ordering/Ordering)

Definition

This measure captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems "Functional Availability" is defined as the number of hours in the reporting period the applications/interfaces are available to users "Scheduled Availability" is defined as the number of hours in the reporting period the applications/interfaces are scheduled to be available

Scheduled availability is posted on the Interconnection website (http //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

Business Rules

The Interface Availability (Full Outages) calculations are based upon availability of applications and interfacing applications utilized by CLECs for pre-ordering and ordering

Types of outages are defined as follows

- Full outages are defined as occurrences of either of the following
  - Application/Interface 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)
- Partial Loss of Functionality outages are incurred when any function the customer normally performs or a function normally provided by an application or system is unavailable to any customer
- Degraded Service is defined as occurrences of either of the following
  - When the application or system is known by any IT organization to be processing 20% or more below normal capacity
  - When 20% or more of the clients experience slow response from the system or application

Total Outages include Full Outages, Degraded Services and Loss of Functionality minutes, and will be calculated for diagnostic purposes

Calculation

Interface Availability (Pre-Ordering/Ordering)

Interface Availability (Full Outages) = (a − b) / a X 100

- a = Scheduled Availability Minutes
- b = Full Outage Minutes

Interface Availability (Total Outages) = [a - (b + c + d)] / a X 100

- c = Loss of Functionality Minutes
- d = Degraded Service Minutes

Report Structure

- Legacy System/Interface Specific
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Interface Availability (Full Outages)
- Interface Availability (Total Outages)

SQM Analog/Benchmark

>= 99 5%
Diagnostic

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

IA: Interface Availability (Pre-Ordering/Ordering)

MRIA: Interface Availability (Maintenance & Repair)

Definition

This measurement captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems "Functional Availability" is defined as the number of hours in the reporting period the applications/interfaces are available to users "Scheduled Availability" is defined as the number of hours in the reporting period the applications/interfaces are scheduled to be available

Scheduled availability is posted on the Interconnection website (http //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

Business Rules

The Interface Availability (Full Outages) calculations are based upon availability of applications and interfacing applications utilized by CLECs for maintenance and repair

Types of outages are defined as follows

- Full outages are defined as occurrences of either of the following
  - Application/Interface 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)
- Partial Loss of Functionality outages are incurred when any function the customer normally performs or a function normally provided by an application or system is unavailable to any customer
- Degraded Service is defined as occurrences of either of the following
  - When the application or system is known by any IT organization to be processing 20% or more below normal capacity
  - When 20% or more of the clients experience slow response from the system or application

Total Outages include Full Outages, Degraded Services and Loss of Functionality minutes, and will be calculated for diagnostic purposes

Calculation

Interface Availability (M&R)

Interface Availability (Full Outages) = (a – b) / a X 100

- a = Scheduled Availability Minutes
- b = Full Outages Minutes

Interface Availability (Total Outages) = [a – (b + c + d)] / a X 100

- c = Loss of Functionality Minutes
- d = Degraded Services Minutes

Report Structure

- Legacy System/Interface Specific
- Geographic Scope
  - Region

MRIA: Interface Availability (Maintenance & Repair)

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Interface Availability (Full Outages)
- Interface Availability (Total Outages)

SQM Analog/Benchmark

>= 99 5%
Diagnostic

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

MRIA: Interface Availability (Maintenance & Repair)

ERT: Loop Makeup - Response Time - Electronic

Definition

This report measures 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
- Canceled Requests
- Scheduled OSS Maintenance
- Test Transactions/Records

Business Rules

The response interval starts when the CLEC's Mechanized Loop Makeup Service Inquiry (LMUSI) is submitted electronically through the ordering interface gateways It ends when BellSouth's Loop Facility Assignment and Control System (LFACS) responds electronically to the CLEC with the requested Loop Makeup data via the ordering interface gateways

> **Note** The Loop Makeup 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 and qualifies the loop If a CLEC concludes that the loop makeup will support the service, and wants to order it, an LSR must be 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

Percent within Interval = (c / d) X 100

- c = Total LMUSIs received within the interval
- d = Total number of LMUSIs processed within the reporting period

Report Structure
- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - State
- Interval for electronic LMUSIs
  0 – <= 1 minute

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Loops   Benchmark 95% <= 1 Minute

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

BMRT: UNE Bulk Migration - Response Time

Definition

This report measures the average interval and percent within the interval from the submission of a UNE Bulk Migration Notification Form to the distribution of Bulk Notification Form, including negotiated due date back to the CLEC

Exclusions

- Projects not identified as UNE Bulk Migration
- Weekends and Holidays
- Canceled Requests

Business Rules

The CLEC Bulk Migration process includes the submission of a Bulk Migration Notification Form to BellSouth via email The project manager negotiates due date, assigns Bulk Order Package Identification (BOPI) number, and validates related PONs in the Bulk package BellSouth then returns the Bulk Notification Form, including negotiated due date to the CLEC

The "Receive Date" is defined as the date the Bulk Migration Notification Form is received by the BellSouth Project Manager via email It is counted as day zero Bulk Migration "Return Date" is defined as the date BellSouth returns a response The interval calculation is reset to zero when a CLEC initiated change occurs on the Bulk Migration Notification Form

This measurement combines three sub-metrics

1. From receipt of a valid Bulk Migration Notification Form (up to 99 individual telephone numbers) to the return of the Bulk Notification Form, including negotiated due date, back to the CLEC
2. From receipt of a valid Bulk Migration Notification Form (100 up to 200 individual telephone numbers) to the return of the Bulk Notification Form, including negotiated due date, back to the CLEC
3. From receipt of a valid Bulk Migration Notification Form (201 or more individual telephone numbers) to the return of the Bulk Notification Form, including negotiated due date, back to the CLEC

Calculation

Response Interval = (a - b)

- a = Date BellSouth returns a response
- b = Date the Bulk Migration Notification Form is received

Average Interval = (c / d)

- c = Sum of all response intervals
- d = Total number of Bulk Migration Notification Forms received within the reporting period

Percent within Interval = (e / f) X 100

- e = Total Bulk Migration Notification Forms received within the interval
- f = Total number of Bulk Migration Notification Forms processed within the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
    - State
- Intervals for manual Bulk Migration Notification Forms
    0 - <= 99 individual telephone numbers
    - 0 – <= 4 Business days
    - > 4 Business days
    100 - <= 200 individual telephone numbers
    - 0 - <= 6 Business days

- > 6 Business days
  >= 201 individual telephone numbers
- Average Interval in days

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- 0 - <= 99 individual telephone numbers
- 100 - <= 200 individual telephone numbers
- >= 201 individual telephone numbers

SQM Analog/Benchmark

Benchmark 95% <= 4 Business Days
Benchmark 95% <= 6 Business Days
Benchmark Diagnostic

SEEM Measure

SEEM	Tier I	Tier II
No		

Section 2: Ordering

AKC: Acknowledgement Message Completeness

Definition

This measure provides the percent of transmissions/LSRs received via ordering interface gateways, which are acknowledged electronically

Exclusions
- Manually Submitted LSRs
- Test Transactions/Records

Business Rules

Ordering interface gateways 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

Calculation

Acknowledgement Completeness = (a / b) X 100

- a = Total number of Functional Acknowledgements returned in the reporting period for transmissions/LSRs electronically submitted by ordering interface gateways respectively
- b = Total number of electronically submitted transmissions/LSRs received in the reporting period by ordering interface gateways respectively

Report Structure
- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation
- Acknowledgements

SQM Analog/Benchmark
Benchmark 99 5%

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

AKC: Acknowledgement Message Completeness

PFT: Percent Flow-Through Service Requests

Definition

The percentage of Local Service Requests (LSRs) and Local Number Portability 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
- Planned Manual Fallout
- CLEC System Fallout
- Test Transactions/Records
- LSRs that receive a Z Status

Business Rules

The CLEC mechanized ordering process includes all LSRs, including supplements (subsequent versions) submitted through one of the mechanized ordering interface gateways, 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 Planned Manual Fallout)

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

Auto-Clarification: Clarifications that are mechanically returned to the CLEC due to invalid data entry within the LSR Edits contained within the source systems will perform data validity checks to ensure the data within the LSR is complete and accurate 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

Planned Manual Fallout*: Fallout that occurs 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, the source systems will determine if the LSR should be forwarded to LCSC for manual handling

*See LSR Flow-Through Matrix on BellSouth's PMAP website (http //pmap bellsouth com) in the Documentation/Exhibits folder 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 due to BellSouth system functionality, 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 = $a / [b - (c + d + e + f)] \times 100$

- a = The total number of LSRs that flow through the source systems and reach a status for a FOC to be issued
- b = The number of LSRs that passed the basic system edits and are accepted for further service order processing
- c = The number of LSRs that fallout for planned manual processing
- d = The number of LSRs that are returned to the CLEC for auto clarification
- e = The number of LSRs that are returned to the CLEC from the LCSC due to CLEC data entry error
- f = The number of LSRs that receive a Z status

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• UNE	Benchmark 85%
• Resale	Benchmark 90%
• LNP	Benchmark 85%

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

Notes

- The Flow-Through Error Analysis will be posted with the Flow-Through report The Flow-Through Error Analysis provides 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
- The CLEC LSR Information, (a k a LSR Detail Report) is available by subscription A CLEC wishing to receive a copy of their report should submit a feedback form (see link located in the "Resources" section on left side of PMAP website) Enter the name of the report in the Comments section

PFT: Percent Flow-Through Service Requests

RI: Reject Interval

Definition

The interval for the return of a reject is the response time from the receipt of a service request [Local Service Request (LSR) or Access Service Request (ASR)] to the distribution of a reject

Exclusions

- Service requests canceled by CLEC prior to being rejected/clarified
- Fatal Rejects
- LSRs which are identified as "Projects" with the exception of valid "Project IDs" for UNE-P to UNE Loop Bulk Migration
- Scheduled OSS Maintenance
- Test Transaction/Records

Business Rules

Service Requests are considered valid when submitted by the CLEC and pass edit checks to ensure the data received is correctly formatted and complete When there are multiple rejects on a single LSR, the first reject issued is used for the calculation of the interval duration

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) until the LSR is rejected (date and time stamp of reject in ordering interface gateways) 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 ordering interface gateways) which falls out for manual handling until the LCSC Service Representative clarifies the LSR back to the CLEC via ordering interface gateways

Non-Mechanized: The elapsed time from receipt of a valid LSR not submitted via electronic ordering systems (date and time stamp of FAX or date and time paper LSRs are received in the LCSC) until notice of the reject (clarification) is returned to the CLEC via FAX Server

Local Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs) ASRs are submitted to and processed by the Carrier Interconnection Switching Center (CISC)

Only normal business hours will be included in the interval calculation for this measure The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute The hours of operation can be found on the Interconnection website (http //www interconnection bellsouth com/centers)

Bulk Migrations: Requests for Bulk Migrations will come into BellSouth via a Global Request The Global Request will be broken down into individual LSRs These individual LSRs will be used for the measurements and will be reported within the correct product disaggregation for each measure For the interval calculations, the original versions of the individual LSRs will be assigned the "start time-stamp" from the receipt of the original Global Request

Calculation

Reject Interval = (a - b)

- a = Date and time of service request rejection
- b = Date and time of service request receipt

Percent within Interval = (c / d) X 100

- c = Service requests rejected in reported interval
- d = Total service requests rejected in report period

Report Structure

One report with the following four Disaggregation Levels and their associated interval buckets

- Fully Mechanized
  0 - <= 1 hour
- Partially Mechanized
  0 - <= 10 hours
- Non-Mechanized
  0 - <= 18 hours
- Local Interconnection Trunks
  0 - <= 4 days
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Fully Mechanized	97% <= 1 Hour
• Partially Mechanized	90% <= 10 Hours
• Non-Mechanized	85% <= 18 Hours
• Local Interconnection Trunks	85% <= 4 Days

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

RI: Reject Interval

⊕ *BELLSOUTH®*

FOCT: Firm Order Confirmation Timeliness

Definition

The interval for return of a Firm Order Confirmation (FOC) is the response time from the receipt of a valid Access Service Request (ASR)/Local Service Request (LSR) to distribution of a FOC

Exclusions

- Service Requests canceled by CLEC prior to a FOC being returned
- Designated Holidays are excluded from the interval calculation for partially mechanized and non-mechanized LSRs/ASRs only
- LSRs which are identified as "Projects" with the exception of valid "Projects IDs" for /UNE-P to UNE Loop Bulk Migrations
- Test Transactions/Records
- Scheduled OSS Maintenance

Business Rules

When multiple FOCs occur on a single LSR/ASR, the first FOC is used to measure the interval

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) until the LSR is processed, appropriate service orders are generated and a Firm Order Confirmation is returned to the CLEC via ordering interface gateways

Partially Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) 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 ordering interface gateways

Non-Mechanized: The elapsed time from receipt of a valid paper LSR not submitted via electronic systems (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 FAX Server

Local Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs) ASRs are submitted to and processed by the Carrier Interconnection Switching Center (CISC)

Only normal business hours will be included in the interval calculation for this measure The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute The hours of operation can be found on the Interconnection website (http //www interconnection bellsouth com/centers)

Bulk Migrations: Requests for Bulk Migrations will come into BellSouth via a Global Request The Global Request will be broken down into individual LSRs These individual LSRs will be used for the measurements and will be reported within the correct product disaggregation for each measure For the interval calculations, the original versions of the individual LSRs will be assigned the "start time-stamp" from the receipt of the original Global Request

Calculation

Firm Order Confirmation Interval = (a - b)

- a = Date and time of Firm Order Confirmation
- b = Date and time of service request receipt

Percent within Interval = (c / d) X 100

- c = Service requests confirmed in reported interval
- d = Total service requests confirmed in the report period

Report Structure

One report with the following four Disaggregation Levels and their associated interval buckets

- Fully Mechanized
  0 - <= 3 hours
- Partially Mechanized
  0 - <= 10 hours
- Non-mechanized
  0 - <= 24 hours
- Local Interconnection Trunks
  0 - <= 10 days
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Fully Mechanized	95% <= 3 Hours
• Partially Mechanized	90% <= 10 Hours
• Non-Mechanized	90% <= 24 Hours
• Local Interconnection Trunks	95% <= 10 Days

SEEM Measure

SEEM	Tier I	Tier II
No		

FOCT: Firm Order Confirmation Timeliness

FOCRC: Firm Order Confirmation and Reject Response Completeness

Definition

This measurement provides the percent of Local Service Requests (LSRs)/Access Service Requests (ASRs) received during the reporting period that are responded to with either a reject or firm order confirmation

Exclusions

- Service requests canceled by the CLEC prior to FOC or Reject being sent
- Fatal Rejects
- LSRs which are identified as "Projects" with the exception of valid "Projects IDs" for UNE-P to UNE Loop Bulk Migrations
- Test Transactions/Records

Business Rules

Fully Mechanized: The number of FOCs or Rejects sent to the CLEC from ordering interface gateways in response to electronically submitted LSRs (date and time stamp in ordering interface gateways)

Partially Mechanized: The number of FOCs or Rejects sent to the CLEC from ordering interface gateways in response to electronically submitted LSRs (date and time stamp in ordering interface gateways), which fall out for manual handling by the LCSC personnel

Non-Mechanized: The number of FOCs or Rejects sent to the CLECs via FAX Server in response to manually submitted LSRs/ASRs (date and time stamp in FAX Server)

Local Interconnection Trunks Interconnection Trunks are ordered on Access Service Requests (ASRs) ASRs are submitted to and processed by the Carrier Interconnection Switching Center (CISC)

Bulk Migrations Requests for Bulk Migrations will come into BellSouth via Global Requests The Global Request will be broken down into individual LSRs These individual LSRs will be used for the measurements and will be reported within the correct product disaggregation for each measure

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

Report Structure

- One report with the following four Disaggregation Levels
    - Fully Mechanized
    - Partially Mechanized
    - Non-Mechanized
    - Local Interconnection Trunks
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
    - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Fully Mechanized	95% Returned
• Partially Mechanized	95% Returned
• Non-Mechanized	95% Returned
• Local Interconnection Trunks	95% Returned

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

SOAC: Service Order Accuracy

Definition

This report measures the accuracy and completeness of CLEC requests for service by comparing the CLEC Local Service Request (LSR) to the completed service order after provisioning has been completed Only electronically submitted LSRs that require manual handling (Partially Mechanized) by a BellSouth service representative in the LCSC are measured

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Disconnect Orders
- CLEC LSRs submitted electronically that are not manually handled by BellSouth (Flow-Through)
- LSRs which are identified as "Projects"
- Listings Orders

Business Rules

The CLEC requested services on the LSR are mechanically compared to the completed service order using the CLEC affecting service attributes shown below

Selected CLEC Affecting Service Attributes

The BellSouth Local Service Request (LSR) fields identified below will be used, as applicable, for this Service Order Accuracy review process

A service affecting comparison of the fields listed below will determine the accuracy of the provisioning process If any of the fields listed below are populated on the LSR and do not match the corresponding field on the Service Order and are service affecting, the order will be scored as a miss

BellSouth will maintain a list of LCSC/System workarounds which will not be service affecting This list will be identified in a document posted on the Interconnection website CLECs may discuss any of the posted LCSC/System workarounds during the regular PMAP notification calls

- Company Code
- PON
- Billed Telephone Number
- Telephone Number
- Ported Telephone Number
- Circuit ID
- PIC
- LPIC
- Directory Listing
  - Directory Delivery Address
  - Listing Activity
  - Alphanumeric Listing Identifier Code
  - Record Type
  - Listing Type
  - Listed Telephone Number
  - Listed Name, Last Name
  - Listed Name, First Name
  - Address Indicator
  - Listed Address House Number
  - Listed Address House Number Suffix
  - Listed Address Street Directional
  - Listed Address Street Name
  - Listed Address Thoroughfare
  - Listed Address Street Suffix

- Listed Address Locality
- Yellow Pages Heading
- Features
  - Feature Activity
  - Feature Codes
  - Feature Detail*
- Hunting
  - Hunt Group Activity
  - Hunt Group Identifier
  - Telephone Number Identifier
  - Hunt Type Code
  - Hunt Line Activity
  - Hunting Sequence
  - Number Type
  - Hunting Telephone Number
- E911 Listing
  - Service Address House Number
  - Service Address House Number Suffix
  - Service Address Street Directional
  - Service Address Street Name
  - Service Address Thoroughfare
  - Service Address Street Suffix
  - Service Address Descriptive Location
- EATN
- ATN
- APOT
- CFA
- NC
- NCI

* Feature Detail will only be checked for the following USOCs GCE, GCJ, CREX4, GCJRC, GCZ, DRS, VMSAX, S98VM, S98AF, SMBBX, MBBRX USOCs and FIDs for Feature Detail will be posted on the Interconnection Website Any changes to the USOCs and FIDs required to continue checking the identical service will be updated on this Website

Calculation

Percent Service Order Accuracy $= (a / b) \times 100$

- a = Orders completed without error
- b = Orders completed in reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - Region

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale	95% Accurate
• UNE	95% Accurate
• UNE-P	95% Accurate

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

SOAC: Service Order Accuracy

Section 3: Provisioning

PIAM: Percent Installation Appointments Met

Definition

This report measures the percentage of total orders for which BellSouth meets the committed due date

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Disconnect Orders
- Listing Orders

Business Rules

All service orders are considered as met, unless the first missed appointment code is due to BellSouth company reasons

Calculation

Percent Installation Appointments Met = (a / b) X 100

- a = Number of orders where the installation appointment is met
- b = Total number of orders completed during the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)
Resale Design	Retail Design
LNP/INP (Standalone)	Retail Residence and Business (POTS)
UNE Analog Loop (Design)	Retail Residence, Business and Design (Dispatch)
UNE 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 EELs	Retail DS1/DS3
UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
UNE ISDN	Retail ISDN - BRI
UNE Line Splitting	ADSL Provided to Retail
UNE Other Design	Diagnostic
UNE Other Non-Design	Diagnostic
Local Interconnection Trunks	Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

FOCI: Firm Order Confirmation Average Completion Interval

Definition

The "Firm Order Confirmation Average Completion Interval" measures the interval of time it takes BellSouth to provide service for the CLEC or its own customers This report measures how well BellSouth meets the interval offered to customers on service orders from receipt of a Local Service Request (LSR) to the order completion It is a combined report of FOC and OCI

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be coded C, N, R, or T)
- Disconnect Orders
- "L" Appointment coded orders (where the customer has requested a later than offered interval)
- End-User Caused Missed Appointments
- Rejected LSRs
- LSRs identified as "Projects"
- Scheduled OSS Maintenance
- Listing Orders

Business Rules

For CLEC orders, the actual FOC interval and completion interval is determined for each order processed during the reporting period The duration starts when BellSouth receives a valid LSR or ASR and stops when the technician or system completes the order in SOCS For BellSouth retail orders, an interval representing FOC time is added to the actual completion interval to create an analogous retail analog since BellSouth retail orders do not have a comparable ordering process The start time for the completion interval for BellSouth retail orders is the timestamp of the first entry into SOCS and the stop time is when the technician or system completes the order in SOCS Orders 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) Only valid business hours/days will be included in the calculation of this interval for FOC interval and valid business days for OCI interval Valid business days and hours can be found on the Interconnection website (http //www interconnection bellsouth com/#local orderinghandbook/intervalguide)

LSR/ASR Business Hours:

Only normal business hours will be included in the interval calculation for this measure The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute The hours of operation can be found on the Interconnection website (http //www interconnection bellsouth com/centers)

Mechanized Rules For LSR Receipt:

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) that does not fall out for manual handling until the LSR is processed, appropriate service orders are generated and a Firm Order Confirmation is returned to the CLEC via ordering interface gateways

Partially Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways), 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 ordering interface gateways

Non-Mechanized: The elapsed time from receipt of a valid LSR (date and time stamp of FAX or date and time LSRs received in the center) 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

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

When multiple FOCs occur on a single request, the first FOC is used to measure the interval

<div style="float:right; writing-mode:vertical">**FOCI: Firm Order Confirmation Average Completion Interval**</div>

Calculation

Firm Order Confirmation Completion Interval = (a - b)

- a = Service order completion date
- b = Service request receipt date and time

Firm Order Confirmation Average Completion Interval = (c / d)

- c = Sum of all completion intervals
- d = Count of orders completed in reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Reported in categories of < 6 lines/circuits, >= 6 lines/circuits (except trunks)
- Dispatch/Non-Dispatch categories applicable to all levels except trunks
- Fully Mechanized, Partially Mechanized, Non-Mechanized, Local Interconnection Trunks
- Geographic Scope
    - State

SQM Disaggregation - Analog/Benchmark

Performance Standard (FOC+OCI)

Disaggregation	Analog/Benchmark (OCI)	Business Days (FOC) (Days Added to Interval) FM	PM	NM
Resale Residence (Non-Design)	Retail Residence (Non-Design)	5	10	25
Resale Business (Non-Design)	Retail Business (Non-Design)	5	10	25
Resale Design	Retail Design	5	10	25
LNP\INP (Standalone)	Retail Residence and Business (POTS)	5	10	25
UNE Analog Loop (Dispatch)	Retail Residence, Business and Design (Dispatch)	5	10	25
UNE Analog Loop (Non-Dispatch)	Retail Residence and Business (Non-Dispatch) (Excluding Switched Based Orders) Plus One Day	5	10	25
UNE Digital Loop < DS1	Retail Digital Loop < DS1	5	10	25
UNE Digital Loop >= DS1	Retail Digital Loop >= DS1	5	10	25
UNE Loop + Port Combinations	Retail Residence and Business	5	10	25
UNE EELs	Retail DS1/DS3	5	10	25
UNE xDSL (HDSL, ADSL and UCL) without conditioning	6 Days	5	10	25
UNE xDSL (HDSL, ADSL and UCL) with conditioning	12 Days	5	10	25
UNE Line Splitting without conditioning	ADSL Provided to Retail	5	10	25
UNE Line Splitting with conditioning	12 Days	5	10	25
UNE ISDN	Retail ISDN – BRI	5	10	25
UNE Other Design	Diagnostic	5	10	25
UNE Other Non-Design	Diagnostic	5	10	25
Local Interconnection Trunks	Retail Trunks			10

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

CCCI: Coordinated Customer Conversions Interval – Hot Cut Duration

Definition

This report measures the average time it takes BellSouth to disconnect loops from the BellSouth switch, connect the loops to the CLEC, and notify the CLEC after the conversion is complete This measurement applies to service orders where the CLEC has requested BellSouth to provide a coordinated conversion

Exclusions

- Canceled Service Orders
- Delays caused by the CLEC
- Non-Coordinated Conversions
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Listing Orders

Business Rules

Coordinated conversions are scheduled between the CLEC and BellSouth The start time for this measure will be the mutually agreed upon start of the conversion and the stop time will be when the CLEC is notified after the conversion is complete The conversion interval for the entire service order is calculated and then divided by the number of loops converted to determine the average duration per loop

Calculation

Coordinated Customer Conversions Interval = (a - b) / c

- a = Completion date and time of CLEC notification
- b = Start date and time of conversion
- c = Number of loops per order

Percent Coordinated Customer Conversions (d / e) X 100

- d = Total number of Coordinated Customer Conversions (loops) within <= 20 minutes
- e = Total number of Coordinated Customer Conversions (loops) for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Coordinated Customer Conversions (Loops)

SQM Analog/Benchmark

95% <= 20 Minutes

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

HCT: Coordinated Customer Conversions – Hot Cut Timeliness

Definition

This report measures the percentage of orders where BellSouth begins the conversion of a loop on a coordinated and/or a time specific order within a timely manner of the CLEC requested start time

Exclusions

- Any order canceled by the CLEC
- Delays caused by the CLEC
- Loops where there is no existing subscriber loop and loops where coordination is not requested
- Subsequent loops on multiple loop orders after the first loop
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Listing Orders

Business Rules

The cut is considered "on time" if it starts <= 15 minutes before or after the requested start time If a cut involves multiple lines, the cut will be considered "on time" if the first line is cut within the "on time" interval If Integrated Digital Loop Carrier (IDLC) is involved, BellSouth must notify the CLEC by 10 30 AM on the day before the due date and then the "on time" interval is <= 2 hours before or after the requested start time

Calculation

Percent within Interval = (a / b) X 100

- a = Total number of coordinated unbundled loop orders converted "on time"
- b = Total number of coordinated unbundled loop orders for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Product Reporting Level
  - Non-IDLC
  - IDLC

SQM Analog/Benchmark

95% within + or – 15 minutes of scheduled start time
95% within + or – 2 hours of scheduled start time

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

RT: Coordinated Customer Conversions – Average Recovery Time

Definition

This report measures outages associated with Coordinated Customer Conversions prior to service order completion, which can be isolated to BellSouth's side of the network

Exclusions

- Conversions where service outages are due to CLEC caused reasons
- Conversions where service outages are due to end-user caused reasons
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Listing Orders

Business Rules

Measures the outage duration time related to Coordinated Customer Conversions from the initial trouble notification until the service 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 This measure also displays the overall percentage of orders which did not experience a trouble during a coordinated conversion

Calculation

Recovery Time = (a - b)

- a = Date and time the initial trouble is cleared and the CLEC is notified
- b = Date and time the 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

Percentage of Items with No Troubles = (e /f) X 100

- e = Total items in the reporting period that did not have a trouble during a coordinated conversion
- f = Total items for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Coordinated Customer Conversions (Loops)

SQM Analog/Benchmark

Diagnostic

SEEM Measure

SEEM	Tier I	Tier II
No		

PT: Hot Cut Conversions - Percent Provisioning Troubles Received within 5 Days of a Completed Service Order

Definition

This report measures the percentage of provisioning troubles received within 5 days of a completed service order associated with a Coordinated and Non-Coordinated Customer Conversion and ensures the quality and accuracy of Hot Cut Conversion activities

Exclusions

- CLEC Canceled Orders
- Troubles caused by Customer Provided Equipment (CPE) or CLEC Equipment
- Listing Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R, or T)
- Troubles outside of BellSouth's control
- Disconnect Orders

Business Rules

The first trouble report received on a circuit ID within 5 days following a service order completion is counted in this measure Subsequent trouble reports are measured in Repeat Report Rate

Calculation

Percentage of Provisioning Troubles within 5 Days of Service Order Completion = (a / b) X 100

- a = The sum of all Hot Cut Circuits with a trouble within 5 days following service order(s) completion
- b = The total number of Hot Cut Circuits completed in the previous reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- UNE Loops

SQM Analog/Benchmark

<= 5%

SEEM Measure

SEEM	Tier I	Tier II
No		

CNDD: Non-Coordinated Customer Conversions - Percent Completed and Notified on Due Date

Definition

This report measures the percentage of non-coordinated conversions that BellSouth completed and provided notification to the CLEC on the due date during the reporting period

Exclusions

- CLEC Canceled Service Orders
- Delays Caused by the CLEC
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R, or T)

Business Rules

The order is considered successfully completed if the order is completed on the due date and the CLEC is notified on the due date

Calculation

Percent = (a / b) X 100

- a = Total number of non-coordinated conversions completed on the due date with CLEC notification
- b = Total number of non-coordinated conversions for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Non-Coordinated Conversions

SQM Analog/Benchmark

95% Completed on Due Date with CLEC Notification

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

PPT: Percent Provisioning Troubles within 5 Days of Service Order Completion

Definition

This report measures the quality and accuracy of the provisioning process by calculating the percentage of troubles received within 5 days of service order completion

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc which may be order types C, N, R or T)
- Disconnect Orders
- Trouble reports caused and closed out to Customer Provided Equipment (CPE) or CLEC Equipment
- Listing Orders
- Troubles outside of BellSouth's control

Business Rules

The first trouble report received after the completion of a service order is counted in this measure When the completed service order is matched to a trouble report, it is uniquely counted one time in the numerator Candidates are identified by searching the prior report period for all completed service orders and then searching for all trouble reports received within 5 days of the service order completion date

Calculation

Percent Provisioning Troubles within 5 Days of Service Order Completion = (a / b) X 100

- a = Total completed orders receiving a trouble report within 5 days of the service order(s) completion
- b = All service orders completed in the previous reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)
Resale Design	Retail Design
UNE Analog Loop (Design)	Retail Residence, Business and Design (Dispatch)
UNE 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 EELs	Retail DS1/DS3
UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
UNE ISDN	Retail ISDN – BRI
UNE Line Splitting	ADSL Provided to Retail
UNE Other Design	Diagnostic
UNE Other Non - Design	Diagnostic
Local Interconnection Trunks	Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

LOOS: LNP-Percent Out of Service < 60 Minutes

Definition

This report measures the percentage of time that BellSouth performs electronic system updates within 60 minutes of receiving LNP activations

Exclusions

- CLEC Caused Errors
- NPAC errors unless caused by BellSouth
- Standalone LNP orders with more than 500 number activations
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Listing Orders
- Scheduled OSS Maintenance

Business Rules

The interval starts when the ESI Number Manager broadcast message is sent to BellSouth's gateway The end time is the confirmation receipt time in the Local Service Management Systems (LSMS), which advises that BellSouth's electronic systems have successfully been updated A disconnect time for all telephone numbers contained within an order will be calculated and averaged to present a disconnect time for the order as a whole

Calculation

Percent Out of Service < 60 Minutes = (a / b) X 100

- a = Number of orders containing activations provisioned in less than 60 minutes
- b = Total orders containing LNP Activations

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

- LNP

SQM Analog/Benchmark

> = 95%

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

LAT: LNP-Percentage of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date

Definition

This report measures the percentage of time BellSouth applies a 10-digit trigger for orders containing ported telephone numbers prior to the due date

Exclusions

- Remote Call Forwarding, DIDs, and ISDN Data TNs
- CLEC or customer caused misses or delays
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc , which may be order types C, N, R or T)
- Zero due dated expedited orders requested by the CLEC
- Listing Orders

Business Rules

The number of LNP orders where the 10-digit trigger was applied prior to the due date, divided by the total number of LNP orders where the 10-digit trigger was applicable

Calculation

Percentage of 10-Digit Trigger Applications = (a / b) X 100

- a = Count of LNP orders for which 10-digit trigger was applied prior to due date
- b = Total LNP orders for which 10-digit triggers were applicable

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

- LNP

SQM Analog/Benchmark

>= 95%

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

PRAM: Repair Appointments Met

CTRR: Customer Trouble Report Rate

Definition

This report measures the percentage of customer troubles closed within a calendar month

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports/lines associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

Customer Trouble Report Rate contains all closed customer direct reports, including repeat reports divided by the total "number of service" lines

Calculation

Customer Trouble Report Rate = (a / b) X 100

- a = Count of initial and repeated customer trouble reports closed in the current reporting period
- b = Number of lines in service at end of the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
    - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Resale Residence (Non-Design)
- Resale Business (Non-Design)
- Resale Design
- UNE Analog Loop (Design)
- UNE Analog Loop (Non-Design)

- UNE Digital Loop < DS1
- UNE Digital Loop >= DS1
- UNE Loop + Port Combinations
- UNE EELs
- UNE xDSL (HDSL, ADSL and UCL)
- UNE ISDN
- UNE Line Splitting
- UNE Other Design
- UNE Other Non-Design
- Local Interconnection Trunks

SQM Analog/Benchmark

Retail Residence (Non-Design)
Retail Business (Non-Design)
Retail Design
Retail Residence, Business and Design (Dispatch)
Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles)
Retail Digital Loop < DS1
Retail Digital Loop >= DS1
Retail Residence and Business
Retail DS1/DS3
ADSL Provided to Retail
Retail ISDN – BRI
ADSL Provided to Retail
Diagnostic
Diagnostic
Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
No		

MAD: Maintenance Average Duration

Definition

This report measures the average duration of customer troubles

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

The duration starts on the date and time of receipt of a repair request and stops on the date and time the service is restored

For tickets administered through WFA, (CLECs and BellSouth), durations do not include No Access, Delayed Maintenance and Referred Time

Calculation

Maintenance Duration = (a - b)

- a = Date and time of service restoration
- b = Date and time customer trouble ticket was opened

Average Maintenance Duration = (c / d)

- c = Total of all maintenance durations in the reporting period
- d = Total closed customer troubles in the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Resale Residence (Non-Design)
- Resale Business (Non-Design)
- Resale Design
- UNE Analog Loop (Design)
- UNE Analog Loop (Non-Design)

- UNE Digital Loop < DS1
- UNE Digital Loop >= DS1
- UNE Loop + Port Combinations
- UNE EELs
- UNE xDSL (HDSL, ADSL and UCL)
- UNE ISDN
- UNE Line Splitting
- UNE Other Design
- UNE Other Non - Design
- Local Interconnection Trunks

SQM Analog/Benchmark

Retail Residence (Non-Design)
Retail Business (Non-Design)
Retail Design
Retail Residence, Business and Design (Dispatch)
Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles)
Retail Digital Loop < DS1
Retail Digital Loop >= DS1
Retail Residence and Business
Retail DS1/DS3
ADSL Provided to Retail
Retail ISDN – BRI
ADSL Provided to Retail
Diagnostic
Diagnostic
Retail Trunks

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SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

MAD: Maintenance Average Duration

Version 2 01
       37
       Issue Date May 12, 2004

PRT: Percent Repeat Customer Troubles within 5 Days

Definition

This report measures the number of customer trouble reports received within five days of a previous report

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC equipment troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

Customer trouble reports considered for this measure are those on the same line/circuit, received within 5 days of an original customer trouble report   Candidates for this measure are determined by using the 'cleared date' of the first trouble and the 'received date' of the next trouble

Calculation

Percent Repeat Customer Troubles within 5 Days = (a / b) X 100

- a = Count of repeat customer trouble reports, within a continuous 5 day period
- b = Total customer trouble reports closed in the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Resale Residence (Non-Design)
- Resale Business (Non-Design)
- Resale Design
- UNE Analog Loop (Design)
- UNE Analog Loop (Non-Design)

- UNE Digital Loop < DS1
- UNE Digital Loop >= DS1
- UNE Loop + Port Combinations
- UNE EELs
- UNE xDSL (HDSL, ADSL and UCL)
- UNE ISDN
- UNE Line Splitting
- UNE Other Design
- UNE Other Non - Design
- Local Interconnection Trunks

SQM Analog/Benchmark

Retail Residence (Non-Design)
Retail Business (Non-Design)
Retail Design
Retail Residence, Business and Design (Dispatch)
Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles)
Retail Digital Loop < DS1
Retail Digital Loop >= DS1
Retail Residence and Business
Retail DS1/DS3
ADSL Provided to Retail
Retail ISDN – BRI
ADSL Provided to Retail
Diagnostic
Diagnostic
Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

AAT: Average Answer Time – Repair Centers

Definition

This report measures the average time a customer is in queue when calling a BellSouth repair center

Exclusions

None

Business Rules

The duration starts when a CLEC representative or BellSouth customer makes a choice on the repair center menu and is put in queue for the next repair attendant and stops when the repair attendant answers the call Abandoned calls are not included in the volume of calls handled but are included in total seconds

Calculation

Answer Time for BellSouth Repair Centers = (a - b)

- a = Time BellSouth repair attendant answers call
- b = Time of entry into queue

Average Answer Time for BellSouth Repair Centers = (c / d)

- c = Sum of all answer times
- d = Total number of calls in the reporting period

Report Structure
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- CLEC Average Answer Time

SQM Analog/Benchmark

BellSouth Average Answer Time

SEEM Measure

SEEM	Tier I	Tier II
No		

AAT: Average Answer Time – Repair Centers

Section 5: Billing

BIA: Invoice Accuracy

Definition

This measure reports the accuracy of billing invoices rendered by BellSouth to wholesale and retail customers

Exclusions

*   Adjustments not related to billing errors (e g , credits for service outage, special promotion credits, adjustments to satisfy the customer, adjustments as per agreements and/or settlements with CLEC, adjustments related to the implementation of regulatory mandated or contract negotiated rate changes)
*   Test Accounts

Business Rules

Absolute value of total billed revenue and absolute value of adjustment amounts related to billing errors appearing on the bill during the report month are used to compute invoice accuracy   All bill periods are included in a report month

Calculation

Invoice Accuracy = [(a - b) / a] X 100

*   a = Absolute value of total billed revenues during report month
*   b = Absolute value of total billing error related adjustments during report month

Report Structure

*   CLEC Specific
*   CLEC Aggregate
*   BellSouth Aggregate
*   Geographic Scope
    - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

CLEC Invoice Accuracy

*   Resale
*   UNE
*   Interconnection

SQM Analog/Benchmark

Retail Invoice Accuracy
Retail Invoice Accuracy
Retail Invoice Accuracy

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

BIT: Mean Time to Deliver Invoices

Definition

This report measures the mean interval for timeliness of billing invoices delivered to USPS (US Postal Service) or transmitted to the customer in an agreed upon format

Exclusions

None

Business Rules

Invoice timeliness is determined by calculating the interval between the bill period date and actual transmission or distribution of the invoice To determine the number of workdays, begin counting the bill period date as the first workday (or the next workday if the bill period date is a weekend or holiday) The invoice delivery date is counted as the last workday Invoice delivery date is the workday the invoice is delivered to the Post Office or transmitted to the customer CLEC bills and BellSouth bills delivered in less than or equal to one day difference will be considered parity

Calculation

Invoice Timeliness = (a - b)

- a = Invoice Delivery Date
- b = Bill Cycle Period Date

Mean Time to Deliver Invoices = (c / d)

- c = Sum of all invoice timeliness intervals
- d = Count of invoices delivered in reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

The average delivery intervals are compared as follows

- Resale CRIS
- UNE CRIS
- Interconnection CABS

SQM Analog Benchmark

Retail CRIS
Retail CRIS
Retail CABS

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

UDDT: Usage Data Delivery Timeliness

Definition

This report measures recorded usage data that is delivered to the appropriate CLEC within six (6) calendar days from the receipt of the initial recording

Exclusions

None

Business Rules

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
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Usage Data Delivery Timeliness

SQM Analog/Benchmark

>= 95% in Six Calendar Days

SEEM Measure

SEEM	Tier I	Tier II
No		

Section 6: Trunk Group Performance

TGPA: Trunk Group Performance

Definition

This report displays Trunk Group blocking performance for both BellSouth and CLECs

Exclusions

- Trunk groups blocked due to unanticipated significant increases in CLEC traffic (An unanticipated, significant increase in traffic is indicated by a 20% increase for small trunk groups or 1800 CCS for large groups over the previous month's traffic when the increase was not forecasted by the CLEC)
- Orders delayed or refused by the CLEC
- 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
- Final groups actually overflowing, not blocked

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

TGPA: Trunk Group Performance

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 measurement 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
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- CLEC Aggregate and CLEC Specific

SQM Analog/Benchmark

BellSouth Aggregate
Any 2 consecutive hours in a 24-hour period where CLEC blockage exceeds BellSouth blockage by more than 0 5% using trunk groups 1, 3, 4, 5, 10 (where applicable) and 16 for CLECs and 1, 9, 10 (where applicable) and 16 for BellSouth

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

ART: Collocation Average Response Time *(vertical side text)*

Section 7: Collocation

ART: Collocation Average Response Time

Definition

This report measures the time it takes BellSouth to respond to the receipt of a complete and accurate collocation application BellSouth must respond as to whether or not space is available within the required number of calendar days after having received a bona fide application for collocation

Exclusions

- Any application canceled by the CLEC

Business Rules

The interval begins on the date BellSouth receives a complete and accurate collocation application accompanied by the appropriate application fee if required The interval stops on the date BellSouth returns a response The interval 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 the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Virtual	15 Calendar Days
• Physical Caged	15 Calendar Days
• Physical Cageless	15 Calendar Days

SEEM Measure

SEEM	Tier I	Tier II
No		

AT: Collocation Average Arrangement Time

Definition

This report measures BellSouth's performance in provisioning a collocation arrangement

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 interval for collocation arrangements begins on the date BellSouth receives a complete and accurate bona fide firm order accompanied by the appropriate fee, if required, and ends on the date 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

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Retail Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Virtual – Initial	60 Calendar Days
• Virtual Augment (without space increase)	60 Calendar Days
• Virtual-Augment (with space increase)	60 Calendar Days
• Physical Caged-Initial (Ordinary)	90 Calendar Days
• Physical Caged-Augment (without space increase)	45 Calendar Days
• Physical Caged-Augment (with space increase)	90 Calendar Days
• Physical Cageless Initial	90 Calendar Days
• Physical Cageless Augment (without space increase)	45 Calendar Days
• Physical Cageless Augment (with space increase)	90 Calendar Days

SEEM Measure

SEEM	Tier I	Tier II
No		

AT: Collocation Average Arrangement Time

PMDD: Collocation Percent of Due Dates Missed

Definition

This report measures the percentage of missed due dates for collocation arrangements

Exclusions

- Any bona fide firm order canceled by the CLEC

Business Rules

Percent Due Dates Missed is the percentage of total collocation arrangements which BellSouth is unable to complete by the BellSouth committed due date

Calculation

Percent Due Dates Missed = (a / b) X 100

- a = Number of completed collocation arrangements that were not completed by the committed due date in the reporting period
- b = Total number of collocation arrangements completed in the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Virtual
- Physical

SQM Analog/Benchmark

>= 95% on time
>= 95% on time

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

Section 8: Change Management

CMN: Timeliness of Change Management Notices

Definition

This report 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. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth local interfaces

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

The interval begins on the notification date and ends 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 interval 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 sent

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Notices

SQM Analog/Benchmark

95% >= 30 Days of Release

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

CMD: Timeliness of Documents Associated with Change

Definition

This report 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. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth local interfaces

Exclusions

- Documentation for release dates that slip less than 30 days for reasons outside BellSouth's 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

Documentation standards and timeframes can be found in the Change Control Process, on the Interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html)

The interval begins on the date the business rule documentation is released and ends 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 interval would restart

Calculation

Timeliness of Documents Associated with Change = (a / b) X 100

- a = Change Management documents sent within required timeframes after notices
- b = Total number of Change Management documents sent

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Documents

SQM Analog/Benchmark

95% >= 30 days if new feature coding is required
95% >= 5 days for documentation defects, corrections or clarifications

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

ION: Notification of CLEC Interface Outages

Definition

This report measures the time it takes BellSouth to notify the CLECs of an interface outage as defined by the Change Control Process (CCP) documentation

Exclusions

None

Business Rules

BellSouth has 15 minutes to notify the CLEC's via email, once the Help Desk has verified the existence of an outage An outage is verified to exist when one or more of the following conditions occur

1 BellSouth can duplicate a CLEC reported system error
2 BellSouth finds an error message within the error log that identically matches a CLEC reported system outage
3 When three or more CLECs report the identical type of outage
4 BellSouth detects a problem due to the loss of functionality for users of a system

The 15-minute interval begins once a CLEC reported outage or a BellSouth detected outage has lasted for 20 minutes and has been verified If the outage is not verified within 20 minutes, the interval begins at the point of verification

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
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation
- By interface type for all interfaces accessed by CLECs

SQM Analog/Benchmark
97% <= 15 Minutes

Interface	Applicable to
EDI	CLEC
CSOTS	CLEC
LENS	CLEC
TAG	CLEC
ECTA	CLEC
TAFI	CLEC/BellSouth

SEEM Measure

SEEM	Tier I	Tier II
No		

ION: Notification of CLEC Interface Outages

PSEC: Percentage of Software Errors Corrected in "X" Business Days

Definition

This report measures the percentage of software errors corrected by BellSouth in "X" business days within the report period

Exclusions

- Software corrections having implementation intervals that are longer than those defined in this measure and agreed upon by the CLECs
- Rejected or reclassified software errors (BellSouth must report the number of rejected or reclassified software errors disputed by the CLECs)

Business Rules

The interval begins when a Software Error is validated per the Change Control Process (CCP) and ends when the error is corrected and the notice is posted to the change control website Currently "X" business days is defined in the CCP as 10 = Severity 2, 30 = Severity 3, and 45 = Severity 4 The current intervals for this measure will be consistent with the intervals set in the CCP A copy of the most current CCP can be found on the Interconnection website (http //www interconnection bellsouth com/markets/lec/ccp_live/index html) Software defects are defined as Type 6 Change Requests in the Change Control Process

Calculation

Percentage of Software Errors Corrected in "X" Business Days = (a / b) X 100

- a = Total number of software errors corrected in "X" business days, as defined for each severity level (Severity 2, Severity 3, and Severity 4) within the reporting period
- b = Total number of Severity 2, Severity 3, and Severity 4 software errors corrected within the reporting period

Report Structure

- Severity 2 = 10 Business Days
- Severity 3 = 30 Business Days
- Severity 4 = 45 Business Days
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Errors Corrected

SQM Analog/Benchmark

95% within Interval

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

PCRAR: Percentage of Change Requests Accepted or Rejected within 10 Days

Definition

This report measures the percentage of change requests, other than Type 1 or Type 6 Change Requests, submitted by CLECs that are accepted or rejected by BellSouth in 10 business days within the report period

Exclusions

- Change requests canceled or withdrawn before a response from BellSouth is due

Business Rules

The acceptance/rejection interval begins when the acknowledgement is due to the CLEC per the Change Control Process, a copy of which can be found on the Interconnection website (http //www interconnection bellsouth com/markets/lec/ccp_live/index html) The interval ends when BellSouth issues an acceptance or rejection notice to the CLEC This metric includes all change requests not subject to the above exclusions that have been responded to within the reporting period

Calculation

Percent of Change Requests Accepted or Rejected within 10 Business Days $= (a / b) \times 100$

- a = Total number of change requests accepted or rejected within 10 business days
- b = Total number of change requests responded to within the reporting period

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Requests Accepted/Rejected	95% within Interval

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

PCRR: Percent Change Requests Rejected

Definition

This report measures the percentage of change requests (other than Type 1 or Type 6 Change Requests) submitted by CLECs that are rejected within the report period

Exclusions

- Change requests canceled or withdrawn before a response from BellSouth is due

Business Rules

This metric includes any rejected change requests in the reporting period, regardless of whether received early or late The metric will be disaggregated by major categories of rejection per the Change Control Process, a copy of which can be found on the Interconnection website (http //www interconnection bellsouth com/markets/lec/ccp live/index html) These reasons are cost, technical feasibility, and industry direction This metric includes all change requests not subject to the above exclusions that have been responded to within the reporting period

Calculation

Percent Change Requests Rejected = (a / b) X 100

- a = Total number of change requests rejected
- b = Total number of change requests responded to within the reporting period

Report Structure
- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Reason – Cost
- Reason – Technical Feasibility
- Reason – Industry Direction

SQM Analog/Benchmark

Diagnostic
Diagnostic
Diagnostic

SEEM Measure
SEEM	Tier I	Tier II
No		

NDPR: Number of Defects in Production Releases (Type 6 CR)

Definition

This report measures the number of defects in production releases This measure will be presented as the number of Type 6 Severity 2 Defects, the number of Type 6 Severity 3 Defects without a mechanized work around, and the number of Type 6 Severity 4 Defects resulting within a three week period from a production release date The definition of Type 6 Change Requests (CR) and Severity 2, Severity 3, and Severity 4 Defects can be found in the Change Control Process document

Exclusions

None

Business Rules

This metric measures the number of Type 6 Severity 2 Defects, the number of Type 6 Severity 3 Defects without a mechanized work around, and the number of Type 6 Severity 4 Defects resulting within a three week period from a production release date The definitions of Type 6 Change Requests (CR) and Severity 2, 3, and 4 defects can be found in the Change Control Process, which can be found on the Interconnection website (http //www interconnection bellsouth com/markets/lec/ccp_live/index html)

Calculation

The number of Type 6 Severity 2 Defects, the number of Type 6 Severity 3 Defects without a mechanized work around, and the number of Type 6 Severity 4 Defects

Report Structure
- Production Releases
- Number of Type 6 Severity 2 Defects
- Number of Type 6 Severity 3 Defects without a mechanized work around
- Number of Type 6 Severity 4 Defects
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation
- Number of Type 6 Severity 2 Defects
- Number of Type 6 Severity 3 Defects without a mechanized work around
- Number of Type 6 Severity 4 Defects

SQM Analog/Benchmark
0 Defects
0 Defects

0 Defects

SEEM Measure

SEEM	Tier I	Tier II
No		

NDPR: Number of Defects in Production Releases (Type 6 CR)

SV: Software Validation

Definition

This report measures software validation test results for production releases of BellSouth local interfaces

Exclusions

None

Business Rules

BellSouth maintains a test deck of transactions that are used to validate that functionality in software production releases work as designed Each transaction in the test deck is assigned a weight factor based on the weights assigned to the metrics Within the software validation metric, weight factors will be allocated among transaction types (e g , Pre-Order, Order Resale, Order UNE, Order UNE-P) and then equally distributed across transactions within the specific type

BellSouth will begin to execute the software validation test deck within one (1) business day following a production release Test deck transactions will be executed using production release software in the CAVE environment Within seven (7) business days following completion of the production release software validation test in CAVE, BellSouth will report the number of test deck transactions that failed Each failed transaction will be multiplied by the transaction's weight factor

A transaction is considered failed if the request cannot be submitted or processed, or results in incorrect or improperly formatted data

The test deck scenario weight table can be found in the Change Control Process, a copy of which can be found on the interconnection website (http //www interconnection bellsouth com/markets/lec/ccp_live/index html)

Calculation

This software validation metric is defined as the ratio of the sum of the weights of failed transactions using production release software in CAVE to the sum of the weights of all transactions in the test deck

- Numerator = Sum of weights of failed transactions
- Denominator = Sum of weights of all transactions in the test deck

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Failed Transactions

SQM Analog/Benchmark

<= 5%

SEEM Measure

SEEM	Tier I	Tier II
No		

PCRIP: Percentage of Change Requests Implemented within 60 Weeks of Prioritization

Definition

This report measures whether BellSouth provides CLECs timely implementation of prioritized change requests

Exclusions

- Change requests implemented later than 60 weeks with the consent of the CLECs
- Change requests where BellSouth has regulatory authority to exceed the interval

Business Rules

The interval for each change request begins when it has been prioritized as described in the Change Control Process and ends when the change request has been implemented by BellSouth and made available to the CLECs

Calculation

Percentage of Type 5 CLEC Initiatned Change Requests Implemented on Time = (a / b) X 100

- a = Total number of prioritized Type 5 CLEC initiated Change Requests implemented within the data month having an implementation interval less than or equal to 60 weeks from the most recent release prioritization date
- b = Total number of prioritized Type 5 CLEC initiated Change Requests implemented within the data month

Percentage of Type 4 CLEC Initiated Change Requests Implemented on Time = (c / d) X 100

- c = Total number of prioritized Type 4 CLEC initiated Change Requests implemented within the data month having an implementation interval less than or equal to 60 weeks from the release prioritization date
- d = Total number of prioritized Type 4 CLEC initiated Change Requests implemented within the data month

Report Structure

- BellSouth Aggregate
- Type 4 Requests Implemented
- Type 5 Requests Implemented
- Percent implemented within 16, 32, 48, and 60 weeks
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Type 4 Requests Implemented
- Type 5 Requests Implemented

SQM Analog/Benchmark

95% within Interval
95% within Interval

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

Appendix A: Glossary of Acronyms and Terms

Symbols used in calculations

-

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 a like category, e g CLEC aggregate equals the sum total of all CLEC data for a given reporting level

ALEC
Alternative Local Exchange Company – A customer who competes with the Incumbent Local Exchange Carrier (ILEC) in providing local service

ADSL
Asymmetrical Digital Subscriber Line – A transmission technology that allows the use of one existing local twisted-pair to provide high-bandwidth data and voice services simultaneously

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

Auto Clarification
The number of LSRs electronically rejected from LESOG and electronically returned to the CLEC for correction

B

BOCRIS
Business Office Customer Record Information System – System used to maintain customer account information which includes, but is not limited to, bills, payment history, and memo notations made during customer contact

BRI
Basic Rate ISDN – This product offering is a two-way line side digital port on a two-wire digital loop   The two-wire digital loop is a dedicated digital transmission facility

BRC
Business Repair Center – The BellSouth Business Systems trouble receipt center which serves business and CLEC customers

C

CABS
Carrier Access Billing System – The database that is used to store access customer service records, including customer bills and service record documents

CCC
Coordinated Customer Conversions – A simultaneous coordination between the disconnection of existing service and the reconnection of the new service

CCP
Change Control Process – The methods and procedures used consistently to make changes to the requirements of the metrics identified in the Service Quality Measurements Plan (SQM)

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)

CISC
Carrier Interconnection Switching Center - The BellSouth Center dedicated to handling CLEC access service requests

CKTID
Circuit Identifier - A unique identifier for elements combined in a service configuration

CLEC
Competitive Local Exchange Carrier – A customer who competes with the Incumbent Local Exchange Carrier (ILEC) in providing local service

CLP
Competitive Local Provider – A customer who competes with the Incumbent Local Exhchange Carrier (ILEC) in providing local service

CM
Change Management – The ongoing process that identifies, documents, and appropriately notifies a party of all changes and modifications

CMDS
Centralized Message Distribution System - 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 indicates all services available to a customer

COG

Corporate Gateway - System 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'

CRSG

Complex Resale Support Group – Provides Loop Makeup information on an address

C-SOTS

CLEC Service Order Tracking System – Provides CLECs the ability to query the service order database

CSR

Customer Service Record – A record of the customer/end-user information, including details about the services and physical address of the end-user

CTTG

Common Transport Trunk Group - Trunk groups between BellSouth, independent end-offices, and the BellSouth access tandems

CWINS Center

Customer Wholesale Interconnection Network Services Center (formerly the UNE Center) – This center provides CLECs with provisioning and maintenance for designed and non-designed local service

D

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 (NTF), Central Office Equipment (CO), Customer Premises Equipment (CPE), etc) – These codes identify the location, equipment and/or disposition of a particular trouble Trouble reports will be closed to the most service affecting code which describes the trouble condition repaired

DS0

The worldwide standard speed for one digital voice signal (64,000 bps)

DS1

24 DS0s (1 544Mb/sec)

DOE

Direct Order Entry System - An internal BellSouth service order entry system used by BellSouth service representatives to input service orders in BellSouth format

DOM

Delivery Order Manager – Determines the needed processing steps for the service request It then forwards the request on to each required system, in sequence, checking for errors and accuracy

DSAP

DOE (Direct Order Entry) Support Application - A BellSouth system which assists a service representative or similar carrier agent in negotiating service provisioning commitments for non-designed services and Unbundled Network Elements

DSL
Digital Subscriber Line – Allows customers to provide simltaneous two-way transmission of digital signals at speeds of 256 kbps via a two-wire local channel

DUI
Database Update Information – A functional area measuring the timeliness and accuracy of database updates

E

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 – A central office housed communications system that provides the customer with direct inward and outward dialing, intercommunication to all stations, and custom calling features

F

Fatal Reject
LSRs electronically rejected from LEO because the required fields are not 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 the LSR has been received and accepted, including the specified commitment date

FX
Foreign Exchange – A network-provided service in which a telephone in a given local exchange area is connected, via a private line, to a central office in another exchange

G H

HDSL
High Bit Digital Subscriber Line – A dedicated digital transmission facility from BellSouth's Main Distribution Frame (MDF) to an end user's premises

I J K

ILEC
Incumbent Local Exchange Carrier – Regional Bell Operating Company (RBOC)

INP
Interim Number Portability – When the customer is originally provided service by an ILEC and decides to change service to a CLEC, the customer may retain their ILEC telephone number Calls to the ILEC number are rerouted to the CLEC using either the Remote Call Forwarding feature or over a dedicated trunk group from the ILEC switch to the CLEC

ISDN
Integrated Services Digital Network – An integrated digital network in which the same time-division switches and digital transmission paths are used to establish connections for different services ISDN services include telephone, data, electronic mail, and facsmile

L

LAN
Local Area Network – A data communications system that lies within a limited spatial area, has a specific user group, has a specific topology, and is not a public switched telecommunications network, but may be connected to one

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 and preordering transactions, along with associated expedite requests and escalations

Legacy System
Term used to refer to BellSouth Operations Support Systems

LENS
Local Exchange Navigation System - The BellSouth application developed to provide both preordering and ordering electronic interface functions for CLECs

LEO
Local Exchange Ordering – LEO stores information and is an interface for LSR processing LEO provides first-level validation to ensure all appropriate fields are populated

LERG
Local Exchange Routing Guide – System used to access legacy systems and gather information to process LSRs

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 - Database of facilities assigned to the service order

LIDB
Line Information Database – Contains information about the user's calling card and other billing data

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
Loop Maintenance Operations System Host Computer

LMU
Loop Makeup - The physical characteristics of the loop facilities, starting at an ILEC's central office and ending at the serving distribution terminal

LMUS
Loop Make-up Service Inquiry – The form submitted by the CLEC to obtain the loop make-up information

LNP
Local Number Portability - In the context of this document, the capability for a subscriber to retain their current telephone number as they transfer to a different local service provider

LNP Gateway

Local Number Portability (gateway) - A system that provides both internal and external communications with various interfaces and process including

(1)   Linking BellSouth to the Number Portability Administration Center (NPAC)

(2)   Allowing for inter-company communications between BellSouth and the CLECs for electronic ordering

(3)   Providing interface between NPAC and AIN SMS for LNP routing processes

Loops

Transmission paths from the central office to the customer premises

LRN

Location Routing Number – A 10-digit number which routes calls to the appropiate end-user's ported telephone number

LSR

Local Service Request – A request from a CLEC for local resale service or unbundled network elements

M

Maintenance & Repair

The process and function by which trouble reports are sent to BellSouth, and the related service problems are resolved

MARCH

BellSouth Operations System which accepts service order and other data, 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 - Process used by CLECs to initiate a service, which is not included within its interconnection agreement

NC

No Circuits - All circuits busy announcement

NMLI

Native Mode LAN Interconnection - Is an intralata, shared fibered-based LAN inter-networking service

NPA

Numbering Plan Area - Area Code portion of a telephone number

NXX

The exchange portion of a telephone number The first three digits in a local telephone number which identify the specific telephone company central office serving that number

O

Ordering

The process and functions where 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

Ordering Interface Gateways

Gateways for CLECs to submit LSRs electronically

OSPCM

Outside Plant Contract Management System – Provides scheduling and completions information on outside plant construction activities

OSS

Operations Support System – An overall support system or database which is used to mechanize the flow and performance of work

Out Of Service

Customer has no dial tone and cannot call out

P

PMAP

Performance Measurement Analysis Platform – Provides delivery of performance reports via the web and facilitates analysis of the summary level data

PMQAP

Performance Measurement Quality Assurance Plan – Documents and maintains the systematic procedures used to ensure BellSouth Telecommunications (BST) produces accurate and reliable service quality measurement reports

PON

Purchase Order Number – Identifier assigned by the customer originating the service request

POTS

Plain Old Telephone Service – A term often used to distinguish basic voice telephone from data and other services

PREDICTOR

BellSouth system used to administer proactive maintenance and rehabilitation activities on outside plant facilities

Preordering

The process and functions by which information is obtained, verified, or validated prior to placing a service request

PRI

Primary Rate ISDN – An integrated services digital network interface standard designated as having 23B+D channels

Provisioning

The process and functions where necessary work is performed to activate a service requested via a LSR/ASR

Q R

RRC

Residence Repair Center - The BellSouth Consumer Services trouble receipt center which serves residential customers

RSAG

Regional Street Address Guide - Validates street addresses for accuracy with state and local government records

RSAGADDR

Regional Street Address Guide/Address – RSAG software contract for address search

RSAGTN

Regional Street Address Guide/Telephone Number - RSAG software contract for telephone number search

S

SAC
Service Advocacy Center – Resolves issues in the provisioning process

SDUM
Supporting Data User Manual

SEEM
Self Effectuating Enforcement Mechanism – A tiered remedy structure in which payments are made either to the CLEC and/or state regulatory agency, depending on the type and level of parity/benchmark miss that occurs

SGG
ServiceGate Gateway – A common gateway to receive and send interconnection requests

SOCS
Service Order Control System - BellSouth system which routes service order images

SOG
Service Order Generator – Designed to generate a service order for xDSL

SONGS
Service Order Negotiation and Generation System – This system supports the Consumer, Small Business and Public COUs by providing data entry screens and prompts, to aid negotiation and entry of all order types

Syntactically Incorrect Query
A query that cannot be fulfilled due to insufficient or incorrect input data from the end user For example, A CLEC would like to query the legacy system for the following address 1234 Main ST Entering "1234 Main ST" will be considered syntactically correct because valid characters were used in the address field However, entering "AB34 Main ST" will be considered syntactically incorrect because invalid characters (example alpha characters were entered in numeric slots) were used in the address field

T

TAFI
Trouble Analysis Facilitation Interface - 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
LSRs entered electronically, but require manual input into a service order generator

U V

UCL
Unbundled Copper Link - A dedicated metallic transmission facility from BellSouth's Main Distribution Frame (MDF) to a customer's premises

UNE
Unbundled Network Element – Provides connectivity from a Competitive Local Exchange Carrier to an end-user

USOC
Universal Service Order Code – A set of alpha or numeric characters identifying a particular service or equipment

W X Y Z

WFA
Work Force Administration – Electronic document tracking system

WMC
Work Management Center – Serves as a single point of contact (SPOC) for all requests for dispatch to the Field Work Group (Central Office or outside technicians)

WTN
Working Telephone Number

XML
eXtensible Markup Language – An international standards-based data formatting option designed for information exchange on network systems

Appendix B: BellSouth Audit Policy

BellSouth currently provides many CLECs with certain audit rights as a part of their individual interconnection agreements However, it is not reasonable for BellSouth to undergo an audit of the SQM for every CLEC with which it has a contract BellSouth has developed a proposed regional 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 an audit of the aggregate level reports for both BellSouth and the CLEC(s) every other year for the next five (5) years (2005-2010) to be conducted by an independent third party The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information This aggregate level audit includes the following specifications

1   The cost shall be borne 50% by BellSouth and 50% by the CLEC or CLECs
2   The independent third party auditor shall be selected by BellSouth, with input from the PSC, if applicable, and the CLEC(s)
3   BellSouth, the PSC and the CLEC(s) shall jointly determine the scope of the audit

BellSouth reserves the right to make changes to this audit policy as growth and changes in the industry dictate

Appendix C: Interface Tables

IA: Interface Availability (Pre-Ordering/Ordering)

SQM Interface Availability

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

MRIA: Interface Availability (Maintenance & Repair)

SQM Interface Availability (M&R)

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

Appendix D: BellSouth's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

BellSouth will make available reposted performance data as reflected in the Service Quality Measurement (SQM) reports and recalculate Self-Effectuating Enforcement Mechanism (SEEM) payments using the Parity Analysis and Remedy Information System (PARIS), to the extent technically feasible, under the following circumstances

1   Those measures included in a state's specific SQM plan with corresponding sub-metrics are subject to reposting   A notice will be placed on the PMAP website advising CLECs when reposted data is available

2   Performance sub-metric calculations that result in a shift in the performance in the aggregate from an "in parity" condition to an "out of parity" condition will be available for reposting

3   Performance sub-metric calculations with benchmarks that are in an "out of parity" condition will be available for reposting whenever there is a >= 2% decline in BellSouth's performance at the sub-metric level

4   Performance sub-metric calculations with retail analogues that are in an "out of parity" condition will be available for reposting whenever there is a decline in performance as shown by an adverse change of <= 5 in the z-score at the sub-metric level

5   Any data recalculations that reflect an improvement in BellSouth's performance will be reposted at BellSouth's discretion However, statewide performance must improve by at least 2% for benchmark measures and the z-score must improve by at least 0 5 for retail analogs at the sub-metric level to qualify for reposting

6   Performance data will be made available for a maximum of three months in arrears

7   When updated performance data has been made available for reposting or when a payment error in PARIS has been discovered, BellSouth will recalculate applicable SEEM payments   Where technically feasible, SEEM payments will be subject to recalculation for a maximum of three months in arrears from the date updated performance data was made available or the date when the payment error was discovered

8   Any adjustments for underpayment of Tier 1 and Tier 2 calculated remedies will be made consistent with the terms of the state-specific SEEM plan, including the payment of interest   Any adjustments for overpayment of Tier 1 and Tier 2 remedies will be made at BellSouth's discretion

9   Any adjustments for underpayments will be made in the next month's payment cycle after the recalculation is made   The final current month PARIS reports will reflect the transmitted dollars, including adjustments for prior months where applicable Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments

Appendix E: Description of Raw Data and Other Supporting Data Files

BellSouth Service Quality Measurement Plan (SQMP) Raw (Supporting) Data Files (SDF) Other Supporting Data Files (OSDF)

I. Definitions and Overview

A. What is Raw Data?

Raw (Supporting) Data is supporting data or records captured in BellSouth Legacy Systems about activity initiated by CLECs or CLEC customers   Raw (Supporting) Data has been transformed from legacy system data to information (data with meaning)   In some cases this supporting data is a combination of requests and response records, orders and troubles or other combination that provide logical transaction information   This supporting data has been normalized (converted from arcane system code to a more readable format) for easier use or, in some cases, the presentation is standardized so that the same data from different systems will be the same   In some cases, intervals have been previously calculated and, in other cases, the interval start and stop times are available   State, company, product, and other codes have been converted into English names   In short, the presentation of the information has been made more "user friendly" to facilitate use by SMEs, auditors and CLECs

This supporting data represents all records that are used to calculate CLEC performance under the SQM sub-metrics

II. Raw (Supporting) Data – General

Raw (Supporting) Data Files (SDF)

Raw (Supporting) Data Files for CLEC data will be published on the PMAP website each month   For the measures calculated in PMAP, these files will contain the CLEC initiated records required to replicate the report or reports as applicable   These files will be present for those reports generated from data processed by PMAP   Some reports are calculated outside of PMAP and the results are simply uploaded for posting   These reports will have less detailed Supporting Data Files

Other Supporting Data Files (OSDF)

Other Supporting Data Files will also be provided upon CLEC request each month   These files contain CLECs initiated data/records extracted from the legacy systems, but "excluded" from the measures in each segment of the SQMP reports (Ordering, Flow Through Detail, Provisioning and Maintenance)   The OSDF will contain only records not included in one of the SDFs   The CLEC will be able to access the request form by clicking on the OSDF folder in their section of the PMAP Web Site   The requested data will be loaded into the file within 10 business hours   The OSDF will also include partial and/or incomplete records if the CLEC owner can be identified   The OSDF will be regional in scope (not state-specific) and will include records for all related Measurements   The OSDF will not include records that are in any SDF   These four files may be large and the CLEC will be responsible for having an appropriate computer and the software necessary to accept and make manipulation of the files possible

A. Raw Data (SDF) Records - Ordering

For Ordering Metrics:

Supporting data is provided for the following metrics

- [AKC] Acknowledgement Message Completeness
- [RI] Reject Interval
- [FOCT] Firm Order Confirmation Timeliness
- [FOCRC] Firm Order Confirmation and Reject Response Completeness

As a general rule, all versions of transactions are provided in the Supporting Data Files Records for Service Requests that are related to a project, cancelled prior to being FOC or Clarified/Rejected, and versions of records not used in the reports will be placed into the Other Supporting Data File – Ordering

B. Raw Data (SDF) Records – Provisioning

For Provisioning Metrics:

Supporting data is provided for the following metrics

- [PIAM] Percent Installation Appointments Met
- [FOCI] Firm Order Confirmation Average Completion Interval
- [CCCI] Coordinated Customers Conversions Interval – Hot Cut Duration
- [HCT] Coordinated Customers Conversions – Hot Cut Timeliness
- [RT] Coordinated Customer Conversions – Average Recovery Time
- [PT] Hot Cut Conversions - Percent Provisioning Troubles Received within 5 Days of a Completed Service Order
- [PPT] Percent Provisioning Troubles within "X" Days of Service Order Completion

All service order activity that results from Service Requests generated by the CLEC and used in the calculation of a report will be furnished as a part of the Supporting Data Files Records for D, R, F, and M order types, as well as cancelled orders will be placed in the Other Supporting Data File – Provisioning

C. Raw Data (SDF) Records – M&R

For Maintenance and Repair (M&R) Metrics:

Supporting data is provided for the following metrics

- [PRAM] Percent Repair Appointments Met
- [CTRR] Customer Trouble Report Rate
- [MAD] Maintenance Average Duration
- [PRT] Percent Repeat Customer Troubles within 5 Days

All customer submitted reports used in the calculation of a metric will be furnished as a part of the Supporting Data Files Reports that are excluded, canceled, or in error, will be placed in the Other Supporting Data File - M&R Specifically not included are BellSouth generated tickets such as employee, auto-detect, and tickets associated with service order activity dispatches

D. Raw Data (SDF) Records – Other

For Other Metrics:

Billing:

Supporting data is provided for the following metrics

- [BIA] Invoice Accuracy
- [BIT] Mean Time to Deliver Invoices
- [UDDT] Usage Data Delivery Timeliness

The billing Supporting Data File used to create performance measurements for billing is provided for CLECs on the PMAP website This SDF along with the reports resulting from billing supporting data can be used for replicating the measures Any billing data used or not used in creating the billing measures is part of the CLEC's invoices sent to them on a monthly basis Any charges or adjustments are part of their individual invoices, which identify the nature of the charges or adjustments, whether credits or debits

Database Update Information - None

Trunk Group Performance - None

Collocation - None

Change Management – None

E. Supporting Data User Manual (SDUM) and Schema for Other Supporting Data Files (OSDF)

The SDUM and Schema can be found at URL (http //pmap bellsouth com) in the Documentation/Exhibits folder

Tennessee SEEM Administrative Plan

Self-Effectuating Enforcement Mechanism (SEEM)

Version 2.01

May 12, 2004

Contents

1: Administrative Plan

1.1 Scope

This Administrative Plan (Plan) includes Service Quality Measurements (SQM) with corresponding Self Effectuating Enforcement Mechanisms (SEEM) to be implemented by BellSouth pursuant to the Order (to be determined) issued by the Tennessee Regulatory Authority (Authority) in Docket No. 97-00309.

1.2 Reporting

In providing services pursuant to the Interconnection Agreements between BellSouth and each CLEC, BellSouth will report its performance to each CLEC in accordance with BellSouth's SQMs and pay penalties in accordance with the applicable SEEMs, which are posted on the Performance Measurement Reports website.

BellSouth will make performance reports available to each CLEC on a monthly basis. The reports will contain information collected in each performance category and will be available to each CLEC via the Performance Measurements Reports website. BellSouth will also provide electronic access to the raw data underlying the SQMs.

Final validated SEEM reports will be posted on the Performance Measurements Reports website on the 15th of the month following the final validated SQM reports.

BellSouth shall pay penalties to the Authority, in the aggregate, for all late SQM reports in the amount of $2000 per day. Such penalty shall be made to the Authority for deposit into the state General Revenue Fund within fifteen (15) calendar days of the end of the reporting month in which the late publication of the report occurs.

BellSouth shall pay penalties to the Authority, in the aggregate, for all reposted SQM reports in the amount of $400 per day. The cirumstances which may necessitate a reposting of SQM reports are detailed in Appendix G, Reposting of Performance Data and Recalculation of SEEM Payments. Such penalty shall be made to the Authority for deposit into the state General Revenue Fund within fifteen (15) calendar days of the final publication date of the report or the report revision date.

1.3 Review of Measurements

At the Authority's discretion, the SEEM Plan would be reviewed at the periodic 6-month SQM review.

1.4 Enforcement Mechanisms

1.4.1 Definitions

Enforcement Measurement Elements – the performance measurements identified as SEEM measurements in this Plan.

Enforcement Measurement Benchmark– level of performance used to evaluate the performance of BellSouth for CLECs where no analogous retail process, product or service is feasible.

Enforcement Measurement Retail Analog Compliance – comparing performance levels provided to BellSouth retail customers with performance levels provided by BellSouth to the CLEC customer for measures where retail analogs apply.

Test Statistic and Balancing Critical Value – the means by which enforcement will be determined using statistically valid equations. The Test Statistic and Balancing Critical Value are set forth in Appendix D, Statistical Formulas and Technical Description.

Cell – 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 resold services for residential customers, requiring a dispatch, in the same wire center, at a similar point in time. When determining compliance, these cells can have a positive or negative Test Statistic. See Appendix D, Statistical Formulas and Technical Description, attached.

Affected Volume – that proportion of the total impacted CLEC volume or CLEC Aggregate volume for which remedies will be paid.

Delta – a measure of the meaningful difference between BellSouth performance and CLEC performance. For individual CLECs the Delta value shall be 0.5 and for the CLEC aggregate the Delta value shall be 0.35.

Parity Gap – refers to the incremental departure from a compliant-level of service. This is also referred to as "diff" in Appendix D, Statistical Formulas and Technical Description

Tier-1 Enforcement Mechanisms – self-executing liquidated damages paid directly to a CLEC when BellSouth delivers non-compliant performance of any one of the Tier-1 Enforcement Measurement Elements for any two consecutive months as calculated by BellSouth.

Tier-2 Enforcement Mechanisms – assessments paid directly to the Tennessee Regulatory Authority 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.

1.4.2 Application

The application of the Tier-1 and Tier-2 Enforcement Mechanisms does not foreclose other legal and regulatory claims and remedies available to each CLEC.

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 Mechanism to a CLEC shall be credited against any liability associated with or related to BellSouth's service performance.

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 Authority. CLECs will not oppose any effort by BellSouth to set off Tier-2 Enforcement Mechanisms from any assessment imposed by the Authority.

The Enforcement Mechanisms contained in this Plan have been provided by BellSouth on a voluntary basis in order to maintain compliance between BellSouth and each CLEC. As a result, CLECs 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.

1.4.3 Methodology

Tier-1 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for each CLEC for the State of Tennessee for a given Enforcement Measurement Element for two (2) consecutive months. Liquidated damages will be applicable to each of the two months of failure. 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 Appendix D, Statistical Formulas and Technical Description.

Tier-1 Enforcement Mechanisms apply on a per transaction basis for each Enforcement Mechanism Element for which BellSouth has reported non-compliance. All transactions for individual CLEC subsidiaries will be consolidated for purposes of calculating Tier-1 Enforcement Mechanisms.

When a measurement has five or more transactions for the CLEC, calculations will be performed to determine remedies according to the methodology described in the remainder of this document.

The Standard and Low Performance Fee Schedules for Tier-1 Enforcement Mechanisms are shown in "Table 1: Liquidated Damages For Tier-1 Measures". Standard Fee Schedule amounts are used when BellSouth's overall performance in a given month remains within three standard deviations of a baseline performance level. This baseline level is the average of the percent of submetrics met each month for the 12 consecutive months ending prior to the month an Authority order adopting the plan goes into effect. These averages will be taken from across

all reporting domains   These domains are: OSS/Pre-ordering, Ordering, Provisioning, Maintenance and Repair, LNP, Billing, Interconnection Trunks, Collocation, and Service Order Accuracy.

Should BellSouth's performance as measured by the percent of submetrics met in the current data month fall below three standard deviations from the established baseline level of performance, the Tier 1 Low Performance Fee Schedule fees will be utilized for that month. If BellSouth's performance in the current month should exceed the baseline level by three standard deviations, no Tier 1 payment will apply for any CLEC in that month.

Tier-2 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for the State of Tennessee 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 Appendix D, Statistical Formulas and Technical Description.

Tier- 2 Enforcement Mechanisms apply, for an aggregate of all CLEC data generated by BellSouth, on a per transaction basis for each Enforcement Mechanism Element for which BellSouth has reported non-compliance.

The Standard and Low Performance Fee Schedules for Tier-2 Enforcement Mechanisms are shown in "Table 2: Liquidated Damages For Tier-2 Measures". Standard Fee Schedule amounts are used when BellSouth's overall performance in a given month remains within three standard deviations of a baseline performance level. The baseline performance level which Tier 2 performance will compare against shall be the same as that utilized for Tier 1. Three consecutive months of failure are necessary to trigger a Tier 2 payment. The percent submetrics met for the average of the three month period compared against the established baseline will be used to determine which Fee Schedule applies when calculating a Tier 2 payment.

Should BellSouth's performance, as measured by the average percent of submetrics met for the three months used to determine whether Tier 2 applies in the current data month, fall below three standard deviations from the established basline level of performance, the Tier 2 Low Performance Fee Schedule will be utilized. If BellSouth's performance, as measured by the average percent of submetrics met for the three months used to determine whether Tier 2 applies in the current data month, exceeds the baseline performance by three standard deviations, no Tier 2 payment will apply in the current data month.

1.4.4   Payment of Tier-1 and Tier-2 Amounts

If BellSouth performance triggers an obligation to pay Tier-1 Enforcement Mechanisms to a CLEC or an obligation to remit Tier-2 Enforcement Mechanisms to the Authority 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 1.2 above.

For each day after the due date that BellSouth fails to pay a CLEC the required amount, BellSouth will pay the CLEC 6% simple interest per annum.

For each day after the due date that BellSouth fails to pay the Tier-2 Enforcement Mechanisms, BellSouth will pay the Authority an additional $1,000 per day.

If a CLEC disputes the amount paid for Tier-1 Enforcement Mechanisms, the CLEC 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 the CLEC written findings within thirty (30) days after receipt of the claim. If BellSouth determines the CLEC is owed additional amounts, BellSouth shall pay the CLEC such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.

For Tier-2 Enforcement Mechanisms, if the Authority requests clarification of an amount paid, a written claim shall be submitted 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 the Authority written findings within thirty (30) days after receipt of the claim. If BellSouth determines the Authority is owed additional amounts, BellSouth shall pay such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.

BellSouth may set off any SEEM payment to a CLEC against undisputed amounts owed by a CLEC to BellSouth pursuant to the Interconnection Agreement between the parties which have not been paid to BellSouth within ninety (90) days past the Bill Due Date as set forth in the Billing Attachment of the Interconnection Agreement.

Any adjustments for underpayment or overpayment of calculated Tier 1 and Tier 2 remedies will be made consistent with the terms of BellSouth's Policy On Reposting Of Performance Data and Recalculation of SEEM Payments, as set forth in Appendix G of this document.

Any adjustments for underpayments will be made in the next month's payment cycle after the recalculation is made. The final current month PARIS reports will reflect the final paid dollars, including adjustments for prior months where applicable. Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.

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 Accounting Principles (GAAP).

1.4.5 Limitations of Liability

BellSouth will not be obligated to to pay Tier-1 or Tier-2 Enforcement Mechanisms for non-compliance with a performance measure if such non-compliance results from CLEC acts or omissions that cause or contribute towards failed or missed performance measures. These acts or omissions include but are not limited to accumulation and submission of orders at

unreasonable quantities or times, failure to follow established and documented procedures, or failure to submit accurate orders or inquiries. BellSouth shall provide each CLEC with reasonable notice of such acts or omissions and provide each CLEC any such supporting documentation.

BellSouth shall not be obligated to pay Tier-1 or Tier-2 Enforcement Mechanisms for non-compliance with a performance measurement if such non-compliance was the result of any of the following: a Force Majeure event (as defined in BellSouth's Statements of Generally Available Terms and Conditions for access and interconnection); an act or omission by a CLEC that is contrary to any of its obligations under the Telecommunications Act of 1996 ("the Act"), Authority rule, or state law; or an act or omission associated with third-party systems or equipment.

In addition to these specific limitations of liability, BellSouth may petition the Authority to consider a waiver based upon other circumstances.

1.4.6 Change of Law

Although SEEM payments are voluntary, such payments are, among other things, designed to prevent performance backsliding following BellSouth's receipt of long distance authority pursuant to Section 271 of the Act ("Obligations"). Accordingly, if any effective legislative, regulatory, judicial or other legal action eliminates such Obligations, including any SEEM metric (or submetric) associated with such Obligations, BellSouth, upon providing sixty (60) days written notice to the Authority and affected CLECs, may discontinue any SEEM payment(s) that arises out of any eliminated Obligations.

1.4.7 Enforcement Mechanism Cap

BellSouth's total liability for the payment of Tier-1 and Tier-2 Enforcement Mechanisms shall be collectively and absolutely capped at 36 Percent of net revenues in Tennessee, based upon the most recently reported ARMIS data..

If projected payments exceed the state cap, a proportional payment will be made to the respective parties.

If BellSouth's payment of Tier-1 and Tier-2 Enforcement Mechanisms would have exceeded the cap referenced in this plan, a CLEC may commence a proceeding with the Authority to demonstrate why BellSouth should pay any amount in excess of the cap. The CLEC shall have the burden of proof to demonstrate why, under the circumstances, BellSouth should have additional liability.

1.4.8 Audits

BellSouth currently provides many CLECs with certain audit rights as a part of their individual interconnection agreements However, it is not reasonable for BellSouth to undergo an audit of

the SQM for every CLEC with which it has a contract. BellSouth has developed a proposed regional 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 an audit of the aggregate level reports for both BellSouth and the CLEC(s) every other year for the next five (5) years (2005-2010) to be conducted by an independent third party. The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information. This aggregate level audit includes the following specifications:

1. The cost shall be borne 50% by BellSouth and 50% by the CLEC or CLECs.

2. The independent third party auditor shall be selected by BellSouth, with input from the PSC, if applicable, and the CLEC(s)

3. BellSouth, the PSC and the CLEC(s) shall jointly determine the scope of the audit.

BellSouth reserves the right to make changes to this audit policy as growth and changes in the industry dictate.

1.4.9   Dispute Resolution

Notwithstanding any other provision of the Interconnection Agreement between BellSouth and each CLEC, any dispute regarding BellSouth's performance or obligations pursuant to this Plan shall be resolved by the Authority.

1.5   Regional and State Coefficients

Some metrics are calculated for the entire BellSouth region, rather than by state.

- A regional coefficient is calculated to split Tier 1 payments for regional metrics among CLECs by submetric depending on the volume of certain activities in each OCN for the current month.
- A state coefficient is calculated to split Tier 2 payments for regional metrics among states by submetric.

All measures using regional (Tier 1) or state (Tier 2) coefficients are benchmark measures. The following metrics require calculation of a coefficient:

- Acknowledgement Completeness
- Percent Flow Through CLEC Aggregate - Residence
- Percent Flow Through CLEC Aggregate - Business
- Percent Flow Through CLEC Aggregate – UNE Loop & Port Combo
- Percent Flow Through CLEC Aggregate – UNE Loops
- Percent Flow Through CLEC Aggregate - LNP
- Timeliness of Change Management - Notices
- Timeliness of Documents Associated with Change - Documents
- Percent of Software Errors Corrected in X (10, 30, 45) Business Days – Errors Corrected

- Percent Change Requests Accepted or Rejected in 10 Days – Requests Accepted or Rejected
- Percent of Change Request Implemented Within 60 Weeks of Prioritization – Type 4 Requests Implemented
- Percent of Change Request Implemented Within 60 Weeks of Prioritization - Type 5 Requests Implemented
- Interface Availability – Pre-Ordering/Ordering
- Interface Availability – Maintenance & Repair

The methodology for calculating coefficients is detailed in Appendix E.

A: Fee Schedule

Table 1: Liquidated Damages For Tier-1 Measures

Performance Measurement	Standard Performance		Low Performance	
	Per Affected Item Month 1	Per Affected Item Month 2	Per Affected Item Month 1	Per Affected Item Month 2
OSS/Pre-Ordering	$10	$13	$20	$30
Ordering	$20	$25	$40	$50
Provisioning - Resale	$45	$56	$100	$125
Provisioning UNE	$95	$119	$400	$450
Provisioning - UNEP	$40	$50	$400	$450
Maintenance and Repair - Resale	$45	$56	$100	$125
Maintenance and Repair UNE	$35	$44	$400	$450
Maintenance and Repair - UNEP	$25	$31	$400	$450
LNP	$95	$119	$150	$250
Billing – BIA	$0 02	$0 025	$1 00	$1 00
Billing – BIT	$5	$7	$1 00	$1 00
IC Trunks	$25	$31	$100	$125
Collocation	$3,640	$4,550	$5000	$5000
Service Order Accuracy	$20	$25	$50	$50

Fee Schedule

Table 2: Liquidated Damages For Tier-2 Measures

Performance Measurement	Standard Performance	Low Performance
	Per Affected Item	Per Affected Item
OSS/Pre-Ordering	$15	$20
Ordering	$30	$60
Provisioning - Resale	$68	$300
Provisioning - UNE	$143	$875
Provisioning - UNEP	$60	$875
Maintenance and Repair - Resale	$68	$300
Maintenance and Repair – UNE	$53	$875
Maintenance and Repair - UNEP	$38	$875
Billing – BIA	$0.03	$1 00
Billing – BIT	$8	$1 00
LNP	$150	$500
IC Trunks	$75	$500
Collocation	$5460	$15,000
Change Management	$1000	$1000
Service Order Accuracy	$30	$50

B: SEEM Submetrics

B.1 Tier 1 Submetrics

Item No.	SQM Ref	Submetric
1	ERT	Loop Makeup - Response Time - Electronic
2	AKC	Acknowledgement Message Completeness - EDI
3	AKC	Acknowledgement Message Completeness - TAG
4	RI	Reject Interval - Fully Mechanized
5	FOCRC	Firm Order Confirmation and Reject Response Completeness - Fully Mechanized
6	PIAM	Percent Installation Appointments Met- Resale (POTS)
7	PIAM	Percent Installation Appointments Met - Resale Design
8	PIAM	Percent Installation Appointments Met - LNP (Standalone)
9	PIAM	Percent Installation Appointments Met - UNE Loops
10	PIAM	Percent Installation Appointments Met - UNE Loop and Port Combinations
11	PIAM	Percent Installation Appointments Met - UNE xDSL
12	PIAM	Percent Installation Appointments Met - UNE Line Splitting
13	PIAM	Percent Installation Appointments Met - Local Interconnection Trunks
14	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale (POTS)
15	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale Design
16	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - LNP (Standalone)
17	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loops
18	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loop and Port Combinations
19	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE EELs
20	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE xDSL - With Conditioning
21	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE xDSL - Without Conditioning
22	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Line Splitting

SEEM Submetrics

Item No.	SQM Ref	Submetric
23	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Local Interconnection Trunks
24	CCCI	Coordinated Customer Conversions Interval - UNE Loops
25	CNDD	Non-Coordinated Customer Conversions - % Completed and Notified on Due Date
26	HCT	Coordinated Customer Conversions - Hot Cut Timeliness Percent Within Interval and Average Interval – UNE Loops
27	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale (POTS)
28	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale Design
29	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loops
30	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loop and Port Combinations
31	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE xDSL
32	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Line Splitting
33	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Local Interconnection Trunks
34	SOAC	Service Order Accuracy - Resale
35	SOAC	Service Order Accuracy - UNE
36	SOAC	Service Order Accuracy - UNE/P
37	LAT	LNP - Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date
38	LOOS	LNP - Percent Out of Service < 60 Minutes
39	DTNT	LNP - Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution (Non-Trigger)
40	PRAM	Repair Appointments Met - Resale (POTS)
41	PRAM	Repair Appointments Met - Resale Design
42	PRAM	Repair Appointments Met - UNE Loops
43	PRAM	Repair Appointments Met - UNE Loop and Port Combinations
44	PRAM	Repair Appointments Met - UNE xDSL
45	PRAM	Repair Appointments Met - UNE Line Splitting
46	PRAM	Repair Appointments Met - Local Interconnection Trunks
47	MAD	Maintenance Average Duration- Resale (POTS)
48	MAD	Maintenance Average Duration - Resale Design
49	MAD	Maintenance Average Duration - UNE Loops
50	MAD	Maintenance Average Duration - UNE Loop and Port Combinations
51	MAD	Maintenance Average Duration - UNE xDSL
52	MAD	Maintenance Average Duration - UNE Line Splitting
53	MAD	Maintenance Average Duration - Local Interconnection Trunks

SEEM Submetrics

Item No.	SQM Ref	Submetric
54	PRT	Percent Repeat Customer Troubles within 5 days - Resale (POTS)
55	PRT	Percent Repeat Customer Troubles Within 5 Days - Resale Design
56	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Loops
57	PRT	Percent Repeat Customer Troubles Within 5 days - UNE Loop and Port Combinations
58	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE xDSL
59	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Line Splitting
60	PRT	Percent Repeat Customer Troubles Within 5 Days - Local Interconnection Trunks
61	BIA	Invoice Accuracy
62	BIT	Mean Time to Deliver Invoices - CRIS
63	BIT	Mean Time to Deliver Invoices - CABS
64	TGPS	Trunk Group Performance – CLEC Specific
65	PMDD	Collocation Percent of Due Dates Missed

B.2   Tier 2 Submetrics

Item No	SQM Ref	Submetric
1	IA	Interface Availability - Pre-Ordering/Ordering
2	MRIA	Interface Availability - Maintenance & Repair
3	ERT	Loop Makeup - Response Time - Electronic
4	AKC	Acknowledgement Message Completeness - EDI
5	AKC	Acknowledgement Message Completeness - TAG
6	PFT	Percent Flow-through Service Requests – Residence
7	PFT	Percent Flow-through Service Requests – Business
8	PFT	Percent Flow-through Service Requests – UNE Loop & Port Combo
9	PFT	Percent Flow-through Service Requests – UNE Other
10	PFT	Percent Flow-through Service Requests - LNP
11	RI	Reject Interval - Fully Mechanized
12	FOCRC	Firm Order Confirmation and Reject Response Completeness – Fully Mechanized
13	PIAM	Percent Installation Appointments Met - Resale (POTS)
14	PIAM	Percent Installation Appointments Met - Resale Design
15	PIAM	Percent Installation Appointments Met - LNP (Standalone)
16	PIAM	Percent Installation Appointments Met - UNE Loops
17	PIAM	Percent Installation Appointments Met - UNE Loop and Port Combinations
18	PIAM	Percent Installation Appointments Met - UNE xDSL
19	PIAM	Percent Installation Appointments Met - UNE Line Splitting
20	PIAM	Percent Installation Appointments Met - Local Interconnection Trunks
21	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale (POTS)
22	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale Design
23	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - LNP (Standalone)
24	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loops
25	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loop and Port Combinations
26	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE EELs
27	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) – xDSL - with conditioning

SEEM Submetrics

Item No	SQM Ref	Submetric
28	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) – xDSL - without conditioning
29	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Line Splitting
30	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Local Interconnection Trunks
31	CCCI	Coordinated Customer Conversions Interval - UNE Loops
32	CNDD	Non-Coordinated Customer Conversions - % Completed and Notified on Due Date
33	HCT	Coordinated Customer Conversions - Hot Cut Timeliness Percent Within Interval and Average Interval –UNE Loops
34	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale (POTS)
35	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale Design
36	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loops
37	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loop and Port Combinations
38	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE xDSL
39	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Line Splitting
40	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Local Interconnection Trunks
41	SOAC	Service Order Accuracy - Resale
42	SOAC	Service Order Accuracy - UNE
43	SOAC	Service Order Accuracy - UNE/P
44	LAT	LNP - Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date
45	LOOS	LNP - Percent Out of Service <60 Minutes
46	DTNT	LNP - Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution (Non-Trigger)
47	PRAM	Repair Appointments Met – Resale (POTS)
48	PRAM	Repair Appointments Met - Resale Design
49	PRAM	Repair Appointments Met - UNE Loops
50	PRAM	Repair Appointments Met - UNE Loop and Port Combinations
51	PRAM	Repair Appointments Met - UNE xDSL
52	PRAM	Repair Appointments Met - UNE Line Splitting
53	PRAM	Repair Appointments Met - Local Interconnection Trunks
54	MAD	Maintenance Average Duration - Resale (POTS)
55	MAD	Maintenance Average Duration - Resale Design

SEEM Submetrics

Item No	SQM Ref	Submetric
56	MAD	Maintenance Average Duration - UNE Loops
57	MAD	Maintenance Average Duration - UNE Loop and Port Combinations
58	MAD	Maintenance Average Duration - UNE xDSL
59	MAD	Maintenance Average Duration - UNE Line Splitting
60	MAD	Maintenance Average Duration - Local Interconnection Trunks
61	PRT	Percent Repeat Customer Troubles within 5 days - Resale (POTS)
62	PRT	Percent Repeat Customer Troubles Within 5 Days - Resale Design
63	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Loops
64	PRT	Percent Repeat Customer Troubles Within 5 days - UNE Loop and Port Combinations
65	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE xDSL
66	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Line Splitting
67	PRT	Percent Repeat Customer Troubles Within 5 Days - Local Interconnection Trunks
68	BIA	Invoice Accuracy
69	BIT	Mean Time to Deliver Invoices- CRIS
70	BIT	Mean Time to Deliver Invoices- CABS
71	TGPA	Trunk Group Performance - CLEC Aggregate
72	PMDD	Collocation Percent of Due Dates Missed
73	CMN	Timeliness of Change Management Notices – Region
74	CMD	Timeliness of Documents Associated with Change – Region
75	PSEC	Percent of Software Errors Corrected in X (10, 30, 45) Business Days – Region
76	PCRAR	Percent of Change Requests Accepted or Rejected Within 10 Days – Region
77	PCRIP	Percent of Change Requests Implemented Within 60 Weeks of Prioritization–Region

B.3   SEEM Retail Analogs

Retail Analogs - Provisioning Measures

SEEM Disaggregation	SEEM Analog
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 xDSL with conditioning*	6 Days*
UNE xDSL without conditioning*	12 days*
UNE Line Splitting	ADSL Provided to Retail
LNP (Standalone)	Retail Residence and Business POTS
Local Interconnection Trunks	Local Interconnection Trunks

*Applies to the measure Firm Order Confirmation Interval Plus Average Order Completion Interval only

Retail Analogs – Maintenance and Repair Measures

SEEM Disaggregation	SEEM Analog
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 Splitting	ADSL Provided to Retail
Local Interconnection Trunks	Local Interconnection Trunks

B.4   SEEM Benchmark Thresholds

SQM Ref	Submetric	Analog / Benchmark
AKC	Acknowledgement Message Completeness - EDI	99 5%
AKC	Acknowledgement Message Completeness - TAG	99 5%
BIA	Invoice Accuracy	Parity With Retail
BIT	Mean Time to Deliver Invoices - CRIS	Parity With Retail
BIT	Mean Time to Deliver Invoices - CABS	Parity With Retail
CCCI	Coordinated Customer Conversions Interval - UNE Loops	95% <= 20 Minutes
CMD	Timeliness of Documents Associated with Change – Region	95% >=30 Days if New Feature Coding required, 95%>=5 days for documentation defects, corrections, or clarifications
CMN	Timeliness of Change Management Notices – Region	95% >= 30 Days of Release
CNDD	Non-Coordinated Customer Conversions - % Completed and Notified on Due Date	95% Completed on Due Date with CLEC Notification
DTNT	LNP - Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution (Non-Trigger)	95% Within 12 Hours
ERT	Loop Makeup - Response Time - Electronic	95% <= 1 Minute
FOCRC	Firm Order Confirmation and Reject Response Completeness – Fully Mechanized	95% Returned
HCT	Coordinated Customer Conversions - Hot Cut Timeliness Percent Within Interval and Average Interval – UNE Loops	SL1 – Time Specific 95% Within +/- 15 Min of Scheduled Start Time SL1 IDLC· 95% Within +/- 2 hours of Scheduled Start Time
IA	Interface Availability - Pre-Ordering/Ordering	>= 99 5%
LAT	LNP - Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date	>95%
LOOS	LNP - Percent Out of Service <60 Minutes	>95%
MRIA	Interface Availability - Maintenance & Repair	>= 99 5%
PCRAR	Percent of Change Requests Accepted or Rejected Within 10 Days – Region	95% Within Interval
PCRIP	Percent of Change Requests Implemented Within 60 Weeks of Prioritization – Region	95% Within Interval
PFT	Percent Flow-through Service Requests – Residence	90%
PFT	Percent Flow-through Service Requests – Business	90%
PFT	Percent Flow-through Service Requests – UNE Loop & Port Combo	85%
PFT	Percent Flow-through Service Requests – UNE Other	85%
PFT	Percent Flow-through Service Requests - LNP	85%
PMDD	Collocation Percent of Due Dates Missed	>=95% On Time
PSEC	Percent of Software Errors Corrected in X (10, 30, 45) Business Days – Region	95% Within Interval
RI	Reject Interval - Fully Mechanized	97% <= 1 hour
SOAC	Service Order Accuracy - Resale	95% Correct
SOAC	Service Order Accuracy - UNE	95% Correct
SOAC	Service Order Accuracy - UNE/P	95% Correct
TGPA	Trunk Group Performance - CLEC Aggregate	Any 2 consecutive hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0 5% using trunk groups 1,3,4,5,10 (where applicable), 16 for CLECs and 1,9,10 (where applicable), and 16 for BellSouth
TGPS	Trunk Group Performance – CLEC Specific	Any 2 consecutive hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0 5% using trunk groups 1,3,4,5,10 (where applicable), 16 for CLECs and 1,9,10 (where applicable), and 16 for BellSouth

C: Statistical Properties and Definitions

C.1 Statistical Methods for BellSouth Performance Measure Analysis

C.1.1 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, and 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.

C.1.2 Measurement Types

The performance measures that will undergo testing are of three types:

- means,
- proportions, and
- ratios

While all three have similar characteristics, proportions are derived from count data while means and ratios are derived from interval measurements.

C.2 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.

C.2.1 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.

C.2.2   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 Appendix D, Statistical Formulas and Technical Description.

C.2.3   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.

D: Statistical Formulas and Technical Description

We start by assuming that the data are disaggregated so that comparisons are made within appropriate classes or adjustment cells that define "like" observations.

D.1 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

$$= \begin{cases} X_{1jk} & k = 1,\ldots,n_{1j} \\ X_{2jk} & k = n_{1j} +1,\ldots,n_j \end{cases}$$

$\Phi^{-1}() =$	the inverse of the cumulative standard normal distribution function

For Mean Performance Measures the following additional notation is needed.

Statistical Formulas and Technical Description

$\bar{X}_{1j}$ = The ILEC sample mean of cell j

$\bar{X}_{2j}$ = The CLEC sample mean of cell j

s_{1j}^2 = The ILEC sample variance in cell j

s_{2j}^2 = The CLEC sample variance in cell j

$\{y_{jk}\}$ = a random sample of size n_{2j} from the set of $Y_{j1}, \ldots, Y_{jn_j}$; k = 1, ,n_{2j}

M_j = The total number of distinct pairs of samples of size n_{1j} and n_{2j};

$$= \binom{n_j}{n_{1j}}$$

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

$$PM(t) = P(\sum_k y_{jk} = t) = \frac{the\ number\ of\ samples\ that\ sum\ to\ t}{M_j}$$

and the corresponding cumulative permutation distribution is

$$CPM(t) = P(\sum_k y_{jk} \leq t) = \frac{the\ number\ of\ samples\ with\ sum\ \leq\ t}{M_j}$$

For Proportion Performance Measures the following notation is defined

Statistical Formulas and Technical Description

$a_{1j} =$ 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

$$HG(h) = P(H = h) = \begin{cases} \dfrac{\dbinom{n_{1j}}{h}\dbinom{n_{2j}}{a_j - h}}{\dbinom{n_j}{a_j}}, & \max(0, a_j - n_{2j}) \le h \le \min(a_j, n_{1j}) \\[2em] 0 & \text{otherwise} \end{cases}$$

and the cumulative hypergeometric distribution is

$$CHG(x) = P(H \le x) = \begin{cases} 0 & x < \max(0, a_j - n_{2j}) \\[1em] \displaystyle\sum_{h=\max(0,a_j-n_{1j})}^{x} HG(h), & \max(0, a_j - n_{2j}) \le x \le \min(a_j, n_{1j}) \\[1em] 1 & x > \min(a_j, n_{1j}) \end{cases}$$

The exact distribution for a parity test is the binomial distribution. The binomial probability mass function distribution for cell j is

$$BN(k) = P(B = k) = \begin{cases} \dbinom{n_j}{k} q_j^k (1 - q_j)^{n_j - k}, & 0 \le k \le n_j \\[1em] 0 & \text{otherwise} \end{cases}$$

and the cumulative binomial distribution is

$$CBN(x) = P(B \le x) = \begin{cases} 0 & x < 0 \\[1em] \displaystyle\sum_{k=0}^{x} BN(k), & 0 \le x \le n_j \\[1em] 1 & x > n_j \end{cases}$$

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 ,

$$\sum_k U_{ijk} \bigg/ \sum_k X_{ijk}$$

D.2   Calculating the Truncated Z

The general methodology for calculating an aggregate level test statistic is outlined below.

D.2.1   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

$$W_J = \sqrt{\frac{n_{2j} n_{1j}}{n_J} \cdot \frac{a_J}{n_J} \cdot \left(1 - \frac{a_J}{n_J}\right)}$$

D.2.2   Calculate a Z Value (Z_j) for each Cell

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 determined by the following algorithm.

If $\min(n_{1j}, n_{2j}) > 6$, then determine α as

$$\alpha = P(t_{n_{1j}-1} \leq T_j)$$

that is, α is the probability that a t random variable with $n_{1j} - 1$ degrees of freedom, is less than

$$T_j = \begin{cases} \left[t_j + \dfrac{g}{6}\left(\dfrac{n_{1j} + 2n_{2j}}{\sqrt{n_{1j}\, n_{2j}(n_{1j} + n_{2j})}} \right)\right] \left(t_j^2 + \dfrac{n_{2j} - n_{1j}}{n_{1j} + 2n_{2j}} \right) & t_j \geq t_{min\,j} \\[4ex] \left[t_j + \dfrac{g}{6}\left(\dfrac{n_{1j} + 2n_{2j}}{\sqrt{n_{1j}\, n_{2j}(n_{1j} + n_{2j})}} \right)\right] \left(t_{min\,j}^2 + \dfrac{n_{2j} - n_{1j}}{n_{1j} + 2n_{2j}} \right) & \text{otherwise} \end{cases}$$

where

$$t_j = \frac{\overline{X}_{1j} - \overline{X}_{2j}}{s_{1j}\sqrt{\frac{1}{n_{1j}} + \frac{1}{n_{2j}}}}$$

$$t_{min\,j} = \frac{-3\sqrt{n_{1j}n_{2j}n_j}}{g(n_{1j} + 2n_{2j})}$$

and g is the median value of all values of

$$\gamma_{1j} = \frac{n_{1j}}{(n_{1j} - 1)(n_{1j} - 2)} \sum_k \left(\frac{X_{1jk} - \overline{X}_{1j}}{s_{1j}} \right)^3$$

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 $\min(n_{1j}, n_{2j}) \leq 6$, and

- $M_j \leq 1,000$ (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.

$$\alpha = 1 - \frac{R_0 - 0.5}{M_j}$$

- $M_j > 1,000$
  - 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

$$Z_j = \frac{n_j\, a_{1j} - n_{1j}\, a_j}{\sqrt{\dfrac{n_{1j}\, n_{2j}\, a_j\, (n_j - a_j)}{n_j - 1}}}$$

Ratio Measure

$$Z_j = \frac{\hat{R}_{1j} - \hat{R}_{2j}}{\sqrt{V(\hat{R}_{1j})\left(\dfrac{1}{n_{1j}} + \dfrac{1}{n_{2j}}\right)}}$$

$$V(\hat{R}_{1j}) = \frac{\sum_k \left(U_{1jk} - \hat{R}_{1j} X_{1jk}\right)^2}{\overline{X}_{1j}^2 (n_{1j} - 1)} = \frac{\sum_k U_{1jk}^2 - 2\hat{R}_{1j}\sum_k \left(U_{1jk} X_{1jk}\right) + \hat{R}_{1j}^2 \sum_k X_{1jk}^2}{\overline{X}_{1j}^2 (n_{1j} - 1)}$$

D.2.3 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

$$Z_j^* = \min(0, Z_j)$$

D.2.4 Calculate the Theoretical Mean and Variance

Calculate the theoretical mean and variance of the truncated statistic under the null hypothesis of parity, $E(Z_j^*|H_0)$ and $Var(Z_j^*|H_0)$. 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, or n_{1j} and n_{2j} are large for a ratio measure then

$$E(Z_j^* | H_0) = -\frac{1}{\sqrt{2\pi}}$$

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.

$$E(Z_j^* | H_0) = \sum_i \theta_{ji} z_{ji}$$

and

$$Var(Z_j^* | H_0) = \sum_i \theta_{ji} z_{ji}^2 - \left[E(Z_j^* | H_0)\right]^2$$

The actual values of the z's and θ's depends on the type of measure.

Mean Measure

$$N_j = \min(M_j, 1,000), \quad i = 1, \ldots, N_j$$

$$z_{ji} = \min\left\{0, \Phi^{-1}\left(1 - \frac{R_i - 0.5}{N_j}\right)\right\} \quad \text{where } R_i \text{ is the rank of sample sum } i$$

$$\theta_j = \frac{1}{N_j}$$

Proportion Measure

$$z_{ji} = \min\left\{0, \frac{n_j i - n_{1j} a_j}{\sqrt{\dfrac{n_{1j} n_{2j} a_j (n_j - a_j)}{n_j - 1}}}\right\}, \quad i = \max(0, a_j - n_{2j}), \ldots, \min(a_j, n_{1j})$$

$$\theta_{ji} = HG(i)$$

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.

D.2.5 Calculate the Aggregate Test Statistic (Z^T)

$$Z^T = \frac{\sum_j W_j Z_j^* - \sum_j W_j E(Z_j^* | H_0)}{\sqrt{\sum_j W_j^2 \text{Var}(Z_j^* | H_0)}}$$

The Balancing Critical Value

There are four key elements of the statistical testing process:

- the null hypothesis, H_0, that parity exists between ILEC and CLEC services
- the alternative hypothesis, H_a, that the ILEC is giving better service to its own customers
- the Truncated Z test statistic, Z^T, and
- a critical value, c

The decision rule[1] is

- If $\quad Z^T < c \quad$ then $\quad$ accept H_a.
- If $\quad Z^T \ c \quad$ then $\quad$ 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:

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[1] 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

- **Type I Error**: $\alpha = P(Z^{r} < c \mid H_0)$
- **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.

$$c_B = \frac{\sum_J W_J M(m_J, se_J) - \sum_J W_J \frac{-1}{\sqrt{2\pi}}}{\sqrt{\sum_J W_J^2 V(m_J, se_J)} + \sqrt{\sum_J W_J^2 \left(\frac{1}{2} - \frac{1}{2\pi}\right)}}$$

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:

$$H_0: \mu_{1J} = \mu_{2J},\ \sigma_{1J}^2 = \sigma_{2J}^2$$

$$H_a: \mu_{2J} = \mu_{1J} + \delta_J \sigma_{1J},\ \sigma_{2J}^2 = \lambda_J \sigma_{1J}^2 \qquad \delta_J > 0,\ \lambda_J\ 1 \text{ and } j = 1,\,L.$$

Under this form of alternative hypothesis, the cell test statistic Z_J has mean and standard error given by

$$m_j = \frac{-\delta_j}{\sqrt{\frac{1}{n_{1j}} + \frac{1}{n_{2j}}}}$$

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: $\quad \dfrac{p_{2j}(1 - p_{1j})}{(1 - p_{2j})p_{1j}} = 1$

H_a: $\quad \dfrac{p_{2j}(1 - p_{1j})}{(1 - p_{2j})p_{1j}} = \psi_j \qquad \psi_j > 1$ and $j = 1, ,L.$

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[1]

$$E(a_{1j}) = n_j \pi_j^{(1)}$$

$$var(a_{1j}) = \frac{n_j}{\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}}}$$

where

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1 Stevens, W L (1951) Mean and Variance of an entry in a Contingency Table *Biometrica*, 38, 468-470

$$\pi_j^{(1)} = f_j^{(1)}\left(n_j^2 + f_j^{(2)} + f_j^{(3)} - f_j^{(4)}\right)$$

$$\pi_j^{(2)} = f_j^{(1)}\left(-n_j^2 - f_j^{(2)} + f_j^{(3)} + f_j^{(4)}\right)$$

$$\pi_j^{(3)} = f_j^{(1)}\left(-n_j^2 + f_j^{(2)} - f_j^{(3)} + f_j^{(4)}\right)$$

$$\pi_j^{(4)} = f_j^{(1)}\left(n_j^2\left(\frac{2}{\psi_j}-1\right) - f_j^{(2)} - f_j^{(3)} - f_j^{(4)}\right)$$

$$f_j^{(1)} = \frac{1}{2n_j^2\left(\frac{1}{\psi_j}-1\right)}$$

$$f_j^{(2)} = n_j n_{1j}\left(\frac{1}{\psi_j}-1\right)$$

$$f_j^{(3)} = n_j a_j\left(\frac{1}{\psi_j}-1\right)$$

$$f_j^{(4)} = \sqrt{n_j^2\left[4n_{1j}\left(n_j - a_j\right)\left(\frac{1}{\psi_j}-1\right) + \left(n_j + \left(a_j - n_{1j}\right)\left(\frac{1}{\psi_j}-1\right)\right)^2\right]}$$

Recall that the cell test statistic is given by

$$Z_j = \frac{n_j a_{1j} - n_{1j} a_j}{\sqrt{\dfrac{n_{1j} n_{2j} a_j \left(n_j - a_j\right)}{n_j - 1}}}$$

Using the equations above, we see that Z_j has mean and standard error given by

$$m_j = \frac{n_j^2 \pi_j^{(1)} - n_{1j} a_j}{\sqrt{\dfrac{n_{1j} n_{2j} a_j \left(n_j - a_j\right)}{n_j - 1}}}$$

and

$$se_j = \sqrt{\frac{n_j^3\left(n_j - 1\right)}{n_{1j} n_{2j} a_j \left(n_j - a_j\right)\left(\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}}\right)}}$$

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.

D.2.6   Determining the Parameters of the Alternative Hypothesis

In this section 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 – $\delta_j = \delta \angle$ might be fine for tests across individual CLECs where currently in Tennessee 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.

$$\delta = 2 \cdot \arcsin(\sqrt{\hat{p}_2}) - 2 \cdot \arcsin(\sqrt{\hat{p}_1})$$
$$\delta = 2\sqrt{\hat{f}_2} - 2\sqrt{\hat{f}_1}$$

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.

D.2.7 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.

E: BST SEEM Remedy Calculation Procedures

E.1 BST SEEM Remedy Procedure

E.1.1 Tier-1 Calculation For Retail Analogs

1. Tier 1 is triggered by two consecutive monthly failures of any Tier 1 Remedy Plan submetric.
2. Calculate the overall test statistic for each CLEC; z^T_{CLEC-1} (Per Statistical Methodology)
3. Calculate the balancing critical value ($^cB_{CLEC-1}$) that is associated with the alternative hypothesis (for fixed parameters δ, Ψ, or ε)
4. If the overall test statistic is equal to or above the balancing critical value, stop here. That is, if $^cB_{CLEC-1} <= z^T_{CLEC-1}$, stop here. Otherwise, go to step 5.
5. Calculate the Parity Gap by subtracting the value of step 2 from that of step 1. ABS ($z^T_{CLEC-1} - {}^cB_{CLEC-1}$)
6. Calculate the Volume Proportion using a linear distribution with slope of 1/4. This can be accomplished by taking the absolute value of the Parity Gap from step 4 divided by 4; ABS (($z^T_{CLEC-1} - {}^cB_{CLEC-1}$) / 4) All parity gaps equal or greater to 4 will result in a volume proportion of 100%.
7. Calculate the Affected Volume by multiplying the Volume Proportion from step 6 by the Total Impacted CLEC-1 Volume (I_c) in the negatively affected cell; where the cell value is negative.
8. Calculate the payment to CLEC-1 by multiplying the result of step 7 by the appropriate dollar amount from the fee schedule.
9. Then, CLEC-1 payment = Affected Volume$_{CLEC1}$ * $$from Fee Schedule   For the example that follows, fee amounts are from the default Standard Performance fee schedule.
10. Repeat steps 5 - 9 for the first (1st) month of failure.

E.1.2 Example: CLEC-1 Installation Apppointments Met (PIAM) 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_{CLEC-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_{CLEC-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

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where n_I = ILEC observations and n_c = CLEC-1 observations

Assuming this is at least the second consecutive month of failure, payout for CLEC-1 is (29 units) * ($45/unit) = $1,305 plus the previous failed month's calculated amount.

E.2 Tier-2 Calculation For Retail Analogs

1. Tier-2 is triggered by three consecutive monthly failures of any Tier 2 Remedy Plan sub-metric.
2. Therefore, calculate monthly statistical results and affected volumes as outlined in steps 2 through 6 for the CLEC 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.
4. Therefore, State Designated Agency payment = Average monthly volume * $$from Fee Schedule. For the example that follows, fee amounts are from the default Standard Performance fee schedule.

E.2.1   Example:CLEC-A Installation Apppointments Met (PIAM) for Resale (POTS)

State	n_I	n_C	I_c	MIA_I	MIA_C	z^T_{CLEC-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_{CLEC-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 = CLEC-A observations

Assume Months 2 and 3 have the same affected volumes. Payout 99 units * $68/unit = $6,732.

If the above example represented performance for each of months 1 through 3, then

E.2.2   Example: CLEC-A Installation Apppointments Met (PIAM)

State	Miss	Remedy Dollars
Month 1	X	0
Month 2	X	0
Month 3	X	$6,732
Payment for Rolling 3 Mo Period		$6,732

E.3   Tier-1 Calculation For Benchmarks

1   For each CLEC with five or more observations, calculate monthly performance results for the State

2.   CLECs 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%	18	77 78%	83 33%
6	66.67%	83.33%	19	78 95%	84 21%
7	71.43%	85 71%	20	80 00%	85 00%
8	75.00%	75 00%	21	76 19%	85 71%
9	66 67%	77 78%	22	77 27%	86 36%
10	70 00%	80 00%	23	78 26%	86 96%
11	72 73%	81 82%	24	79 17%	87 50%
12	75.00%	83 33%	25	80 00%	88.00%
13	76 92%	84 62%	26	80 77%	88 46%
14	78 57%	85 71%	27	81 48%	88 89%
15	73.33%	86 67%	28	78 57%	89.29%
16	75 00%	87 50%	29	79 31%	86 21%
17	76 47%	82.35%	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 CLEC-1 Volume.
6. Calculate the payment to CLEC-1 by multiplying the result of step 5 by the appropriate dollar amount from the fee schedule.
7 Repeat steps 3-6 for the first month of failure.
8. CLEC-1 payment = (Affected Volume$_{CLEC-1(month\ 1)}$* $\$$from Fee Schedule) + (Affected Volume$_{CLEC-1(month\ 2)}$* $\$\$$ from Fee Schedule). For the purpose of this example, fee amounts are from the default Standard Performance fee schedule.

E.3.1   Example: CLEC-1 Percent Missed Due Dates for Collocations

	n_c	Benchmark	MIA_c	Volume Proportion	Affected Volume
State	600	10%	13%	03	18

Payout for CLEC-1 is (18 units) * ($5460/unit) = $98,280

E.4 Tier-1 Calculation For Benchmarks (In The Form Of A Target)

1. For each CLEC with five or more observations calculate monthly performance results for the State
2. CLECs 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 CLEC-1 Volume.
7. Calculate the payment to CLEC-1 by multiplying the result of step 6 by the appropriate dollar amount from the fee schedule. CLEC-1 payment = Affected Volume$_{CLEC1}$ * $ from Fee Schedule.. For this example, fee amounts are from the default Standard Performance fee schedule.

E.4.1 Example: CLEC-1 Reject Interval – Fully Mechanized

	n_c	Benchmark	Reject Interval	Volume Proportion	Affected Volume
State	600	97% <= 1 hour	95% <= 1 hour	02	12

Assuming two consecutive months of failure, payout for CLEC-1 is (12 units) * ($20/unit) = $240 plus the previous failed month's calculated amount.

E.5 Tier-2 Calculations For Benchmarks

Tier-2 calculations for benchmark measures are the same as the Tier-1 benchmark calculations, except the CLEC Aggregate data will have failed for three (3) consecutive months.

E.6 Regional and State Coefficients

This section describes the method of calculating regional and state coefficients.

E.6.1   AKC

*   Acknowledgement Completeness (AKC_EDI & AKC-TAG)

Regional Coefficient Formula (Tier 1)

Coefficient = (A+B) / (C+D) where:

*   A= number of valid FOC transactions of the CLEC in the state (fully & partially mechanized)
*   B = number of valid RI transactions of the CLEC in the state (fully & partially mechanized)
*   C = total valid FOC transactions of the CLEC in the region (fully & partially mechanized)
*   D = total valid RI transactions of the CLEC in the region (fully & partially mechanized)

State Coefficient Formula (Tier 2)

State Coefficient = (A+B) / (C+D) where:

*   A= number of valid FOC transactions for all CLECs in the state (fully & partially mechanized)
*   B = number of valid RI transactions for all CLECs in the state (fully & partially mechanized)
*   C = total valid FOC transactions in the region (fully & partially mechanized)
*   D = total valid RI transactions in the region (fully & partially mechanized)

E.6.2   PFT

*   Percent Flow Through CLEC Aggregate - Residence (PFT-RES)
*   Percent Flow Through CLEC Aggregate - Business (PFT- BUS)
*   Percent Flow Through CLEC Aggregate - UNE Other (PFT-UOTH)
*   Percent Flow Through CLEC Aggregate - UNE Loop & Port Combo (PFT-UNEPC)
*   Percent Flow Through CLEC Aggregate - LNP (PFT-LNP)

Regional Coefficient Formula (Tier 1)

Coefficient = A / B where:

*   A= number of valid FOC transactions of the CLEC in the state (fully mechanized)
*   B = total valid FOC transactions of the CLEC in the region (fully mechanized)

State Coefficient Formula (Tier 2)

State Coefficient = A / B where:

*   A= number of valid FOC transactions for all CLECs in the state (fully-mechanized)

- B = total valid FOC transactions in the region (fully-mechanized)

E.6.3 CMN, PSEC, PCRAR, PCRIP

- Timeliness of Change Management (CMN)
- Percent of Software Errors Corrected in X (10, 30, 45) Business Days - Region (PSEC)
- Percent Change Requests Accepted or Rejected in 10 Days - Region (PCRAR)
- Percent of Change Request Implemented Within 60 Weeks of Prioritization - Region (PCRIP)

State Coefficient Formula (Tier 2)

Coefficient = (A+B) / (C+D) where:

- A= number of valid FOC transactions for all CLECs in the state (fully & partially mechanized)
- B = number of valid RI transactions for all CLECs in the state (fully & partially mechanized)
- C = total valid FOC transactions in the region (fully & partially mechanized)
- D = total valid RI transactions in the region (fully & partially mechanized)

E.6.4 IA

- Interface Availability (IA)

State Coefficient Formula (Tier 2)

Coefficient = (A+B) / (C+D) where:

- A= number of valid FOC transactions for all CLECs in the state (fully & partially mechanized)
- B = number of valid RI transactions for all CLECs in the state (fully & partially mechanized)
- C = total valid FOC transactions in the region (fully & partially mechanized)
- D = total valid RI transactions in the region (fully & partially mechanized)

F: OSS Tables

F.1 IA: Interface Availability (Pre-Ordering/Ordering)

SEEM Interface Availability

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/XML	CLEC	X

F.2 MRIA: Interface Availability (Maintenance and Repair)

SEEM Availability (M&R)

Interface	% Availability
CLEC TAFI	X
CLEC ECTA	X

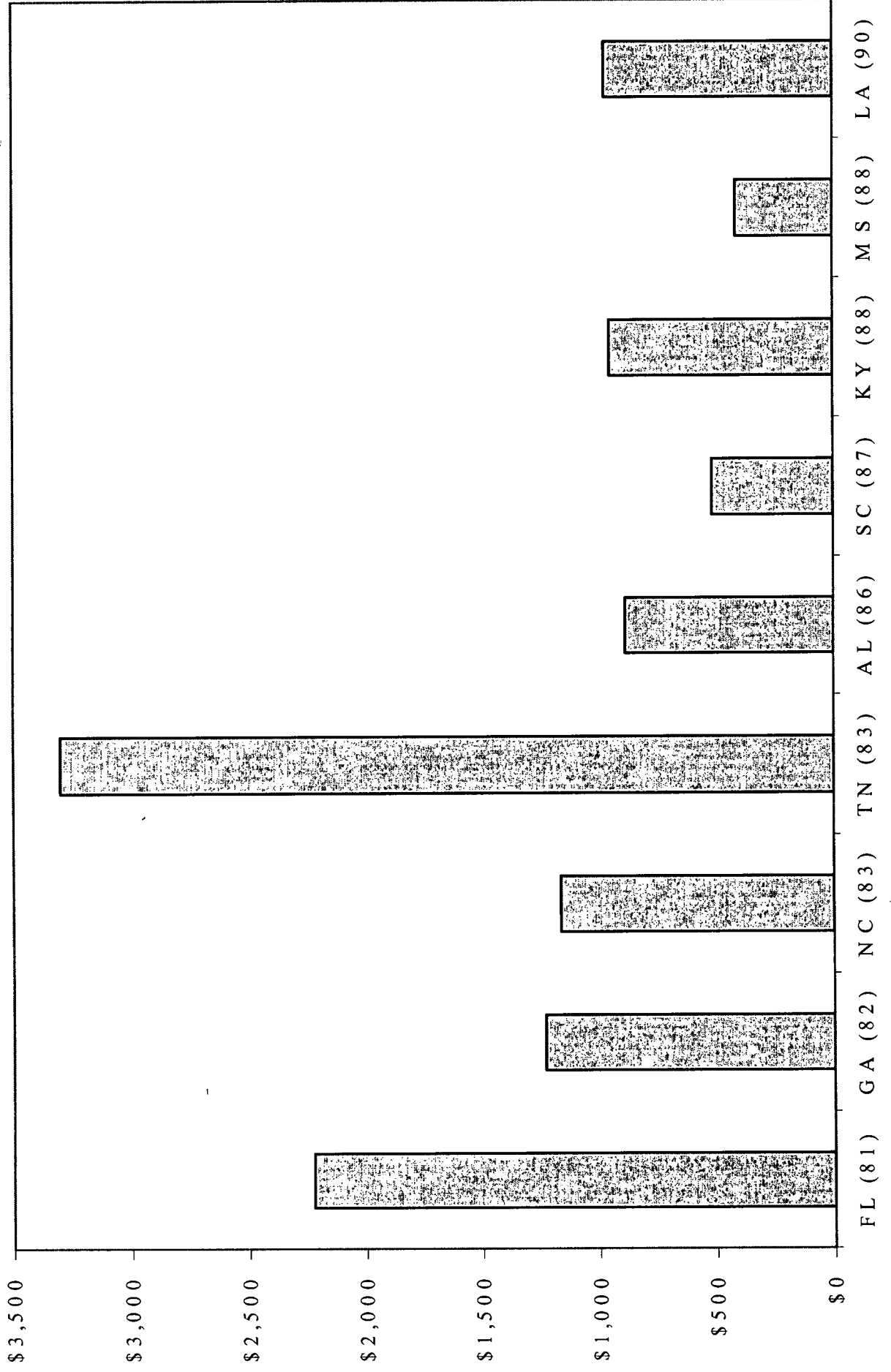# G: Reposting Of Performance Data and Recalculation of SEEM Payments

BellSouth will make available reposted performance data as reflected in the Service Quality Measurement (SQM) reports and recalculate Self-Effectuating Enforcement (SEEM) payments using the Parity Analysis and Remedy Information System (PARIS), to the extent technically feasible, under the following circumstances:

1. Those measures included in a state's specific SQM plan with corresponding sub-metrics are subject to reposting. A notice will be placed on the PMAP website advising CLECs when reposted data is available.

2. Performance sub-metric calculations that result in a shift in the performance in the aggregate from an "in parity" condition to an "out of parity" condition will be available for reposting.

3. Performance sub-metric calculations with benchmarks that are in an "out of parity" condition will be available for reposting whenever there is a >= 2% decline in BellSouth's performance at the sub-metric level

4. Performance sub-metric calculations with retail analogues that are in an "out of parity" condition will be available for reposting whenever there is a decline in performance as shown by an adverse change of <= .5 in the z-score at the sub-metric level.

5 Any data recalculations that reflect an improvement in BellSouth's performance will be reposted at BellSouth's discretion. However, statewide performance must improve by at least 2% for benchmark measures and the z-score must improve by at least 0.5 for retail analogs at the sub-metric level to qualify for reposting

6. Performance data will be made available for a maximum of three months in arrears.

7. When updated performance data has been made available for reposting or when a payment error in PARIS has been discovered, BellSouth will recalculate applicable SEEM payments Where technically feasible, SEEM payments will be subject to recalculation for a maximum of three months in arrears from the date updated performance data was made available or the date when the payment error was discovered.

8. Any adjustments for underpayment of Tier 1 and Tier 2 calculated remedies will be made consistent with the terms of the state specific SEEM plan, including the payment of interest. Any adjustments for overpayment of Tier 1 and Tier 2 remedies will be made at BellSouth's discretion.

9 Any adjustments for underpayments will be made in the next month's payment cycle after the recalculation is made. The final current month PARIS reports will reflect the transmitted dollars, including adjustments for prior months where applicable Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.

Exhibit B

Relationship of SEEM payments per 1000 CLEC lines in Service - versus performance - % submetrics met in plan applicable to the state (Shown in parenthesis after State abbreviation) September 2003 - February 2004

Vertical axis (payments): $3,500 / $3,000 / $2,500 / $2,000 / $1,500 / $1,000 / $500 / $0

Horizontal axis (states): FL (81) / GA (82) / NC (83) / TN (83) / AL (86) / SC (87) / KY (88) / MS (88) / LA (90)

538156

CERTIFICATE OF SERVICE

I hereby certify that on May 13, 2004, a copy of the foregoing document was served on the parties of record, via hand delivery, facsimile, overnight or US Mail, addressed as follows:

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Tennessee SEEM Administrative Plan

Self-Effectuating Enforcement Mechanism (SEEM)

Version 2.01

May 12, 2004

Contents

1: Administrative Plan

1.1 Scope

This Administrative Plan (Plan) includes Service Quality Measurements (SQM) with corresponding Self Effectuating Enforcement Mechanisms (SEEM) to be implemented by BellSouth pursuant to the Order (to be determined) issued by the Tennessee Regulatory Authority (Authority) in Docket No. 97-00309.

1.2 Reporting

In providing services pursuant to the Interconnection Agreements between BellSouth and each CLEC, BellSouth will report its performance to each CLEC in accordance with BellSouth's SQMs and pay penalties in accordance with the applicable SEEMs, which are posted on the Performance Measurement Reports website.

BellSouth will make performance reports available to each CLEC on a monthly basis. The reports will contain information collected in each performance category and will be available to each CLEC via the Performance Measurements Reports website. BellSouth will also provide electronic access to the raw data underlying the SQMs.

Final validated SEEM reports will be posted on the Performance Measurements Reports website on the 15th of the month following the final validated SQM reports.

BellSouth shall pay penalties to the Authority, in the aggregate, for all late SQM reports in the amount of $2000 per day. Such penalty shall be made to the Authority for deposit into the state General Revenue Fund within fifteen (15) calendar days of the end of the reporting month in which the late publication of the report occurs.

BellSouth shall pay penalties to the Authority, in the aggregate, for all reposted SQM reports in the amount of $400 per day. The cirumstances which may necessitate a reposting of SQM reports are detailed in Appendix G, Reposting of Performance Data and Recalculation of SEEM Payments. Such penalty shall be made to the Authority for deposit into the state General Revenue Fund within fifteen (15) calendar days of the final publication date of the report or the report revision date.

1.3 Review of Measurements

At the Authority's discretion, the SEEM Plan would be reviewed at the periodic 6-month SQM review.

1.4 Enforcement Mechanisms

1.4.1 Definitions

Enforcement Measurement Elements – the performance measurements identified as SEEM measurements in this Plan.

Enforcement Measurement Benchmark– level of performance used to evaluate the performance of BellSouth for CLECs where no analogous retail process, product or service is feasible.

Enforcement Measurement Retail Analog Compliance – comparing performance levels provided to BellSouth retail customers with performance levels provided by BellSouth to the CLEC customer for measures where retail analogs apply.

Test Statistic and Balancing Critical Value – the means by which enforcement will be determined using statistically valid equations. The Test Statistic and Balancing Critical Value are set forth in Appendix D, Statistical Formulas and Technical Description.

Cell – 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 resold services for residential customers, requiring a dispatch, in the same wire center, at a similar point in time. When determining compliance, these cells can have a positive or negative Test Statistic. See Appendix D, Statistical Formulas and Technical Description, attached.

Affected Volume – that proportion of the total impacted CLEC volume or CLEC Aggregate volume for which remedies will be paid.

Delta – a measure of the meaningful difference between BellSouth performance and CLEC performance. For individual CLECs the Delta value shall be 0.5 and for the CLEC aggregate the Delta value shall be 0.35.

Parity Gap – refers to the incremental departure from a compliant-level of service. This is also referred to as "diff" in Appendix D, Statistical Formulas and Technical Description.

Tier-1 Enforcement Mechanisms – self-executing liquidated damages paid directly to a CLEC when BellSouth delivers non-compliant performance of any one of the Tier-1 Enforcement Measurement Elements for any two consecutive months as calculated by BellSouth.

Tier-2 Enforcement Mechanisms – assessments paid directly to the Tennessee Regulatory Authority 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.

1.4.2   Application

The application of the Tier-1 and Tier-2 Enforcement Mechanisms does not foreclose other legal and regulatory claims and remedies available to each CLEC.

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 Mechanism to a CLEC shall be credited against any liability associated with or related to BellSouth's service performance.

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 Authority. CLECs will not oppose any effort by BellSouth to set off Tier-2 Enforcement Mechanisms from any assessment imposed by the Authority.

The Enforcement Mechanisms contained in this Plan have been provided by BellSouth on a voluntary basis in order to maintain compliance between BellSouth and each CLEC. As a result, CLECs 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.

1.4.3   Methodology

Tier-1 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for each CLEC for the State of Tennessee for a given Enforcement Measurement Element for two (2) consecutive months. Liquidated damages will be applicable to each of the two months of failure. 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 Appendix D, Statistical Formulas and Technical Description.

Tier-1 Enforcement Mechanisms apply on a per transaction basis for each Enforcement Mechanism Element for which BellSouth has reported non-compliance. All transactions for individual CLEC subsidiaries will be consolidated for purposes of calculating Tier-1 Enforcement Mechanisms.

When a measurement has five or more transactions for the CLEC, calculations will be performed to determine remedies according to the methodology described in the remainder of this document.

The Standard and Low Performance Fee Schedules for Tier-1 Enforcement Mechanisms are shown in "Table 1: Liquidated Damages For Tier-1 Measures". Standard Fee Schedule amounts are used when BellSouth's overall performance in a given month remains within three standard deviations of a baseline performance level. This baseline level is the average of the percent of submetrics met each month for the 12 consecutive months ending prior to the month an Authority order adopting the plan goes into effect. These averages will be taken from across

all reporting domains. These domains are: OSS/Pre-ordering, Ordering, Provisioning, Maintenance and Repair, LNP, Billing, Interconnection Trunks, Collocation, and Service Order Accuracy.

Should BellSouth's performance as measured by the percent of submetrics met in the current data month fall below three standard deviations from the established baseline level of performance, the Tier 1 Low Performance Fee Schedule fees will be utilized for that month. If BellSouth's performance in the current month should exceed the baseline level by three standard deviations, no Tier 1 payment will apply for any CLEC in that month.

Tier-2 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for the State of Tennessee 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 Appendix D, Statistical Formulas and Technical Description.

Tier- 2 Enforcement Mechanisms apply, for an aggregate of all CLEC data generated by BellSouth, on a per transaction basis for each Enforcement Mechanism Element for which BellSouth has reported non-compliance.

The Standard and Low Performance Fee Schedules for Tier-2 Enforcement Mechanisms are shown in "Table 2: Liquidated Damages For Tier-2 Measures". Standard Fee Schedule amounts are used when BellSouth's overall performance in a given month remains within three standard deviations of a baseline performance level. The baseline performance level which Tier 2 performance will compare against shall be the same as that utilized for Tier 1. Three consecutive months of failure are necessary to trigger a Tier 2 payment. The percent submetrics met for the average of the three month period compared against the established baseline will be used to determine which Fee Schedule applies when calculating a Tier 2 payment.

Should BellSouth's performance, as measured by the average percent of submetrics met for the three months used to determine whether Tier 2 applies in the current data month, fall below three standard deviations from the established basline level of performance, the Tier 2 Low Performance Fee Schedule will be utilized. If BellSouth's performance, as measured by the average percent of submetrics met for the three months used to determine whether Tier 2 applies in the current data month, exceeds the baseline performance by three standard deviations, no Tier 2 payment will apply in the current data month.

1.4.4   Payment of Tier-1 and Tier-2 Amounts

If BellSouth performance triggers an obligation to pay Tier-1 Enforcement Mechanisms to a CLEC or an obligation to remit Tier-2 Enforcement Mechanisms to the Authority 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 1.2 above.

For each day after the due date that BellSouth fails to pay a CLEC the required amount, BellSouth will pay the CLEC 6% simple interest per annum.

For each day after the due date that BellSouth fails to pay the Tier-2 Enforcement Mechanisms, BellSouth will pay the Authority an additional $1,000 per day.

If a CLEC disputes the amount paid for Tier-1 Enforcement Mechanisms, the CLEC 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 the CLEC written findings within thirty (30) days after receipt of the claim. If BellSouth determines the CLEC is owed additional amounts, BellSouth shall pay the CLEC such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.

For Tier-2 Enforcement Mechanisms, if the Authority requests clarification of an amount paid, a written claim shall be submitted 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 the Authority written findings within thirty (30) days after receipt of the claim. If BellSouth determines the Authority is owed additional amounts, BellSouth shall pay such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.

BellSouth may set off any SEEM payment to a CLEC against undisputed amounts owed by a CLEC to BellSouth pursuant to the Interconnection Agreement between the parties which have not been paid to BellSouth within ninety (90) days past the Bill Due Date as set forth in the Billing Attachment of the Interconnection Agreement.

Any adjustments for underpayment or overpayment of calculated Tier 1 and Tier 2 remedies will be made consistent with the terms of BellSouth's Policy On Reposting Of Performance Data and Recalculation of SEEM Payments, as set forth in Appendix G of this document.

Any adjustments for underpayments will be made in the next month's payment cycle after the recalculation is made. The final current month PARIS reports will reflect the final paid dollars, including adjustments for prior months where applicable. Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.

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 Accounting Principles (GAAP).

1.4.5   Limitations of Liability

BellSouth will not be obligated to to pay Tier-1 or Tier-2 Enforcement Mechanisms for non-compliance with a performance measure if such non-compliance results from CLEC acts or omissions that cause or contribute towards failed or missed performance measures. These acts or omissions include but are not limited to accumulation and submission of orders at

unreasonable quantities or times, failure to follow established and documented procedures, or failure to submit accurate orders or inquiries. BellSouth shall provide each CLEC with reasonable notice of such acts or omissions and provide each CLEC any such supporting documentation.

BellSouth shall not be obligated to pay Tier-1 or Tier-2 Enforcement Mechanisms for non-compliance with a performance measurement if such non-compliance was the result of any of the following: a Force Majeure event (as defined in BellSouth's Statements of Generally Available Terms and Conditions for access and interconnection); an act or omission by a CLEC that is contrary to any of its obligations under the Telecommunications Act of 1996 ("the Act"), Authority rule, or state law; or an act or omission associated with third-party systems or equipment.

In addition to these specific limitations of liability, BellSouth may petition the Authority to consider a waiver based upon other circumstances.

1.4.6   Change of Law

Although SEEM payments are voluntary, such payments are, among other things, designed to prevent performance backsliding following BellSouth's receipt of long distance authority pursuant to Section 271 of the Act ("Obligations"). Accordingly, if any effective legislative, regulatory, judicial or other legal action eliminates such Obligations, including any SEEM metric (or submetric) associated with such Obligations, BellSouth, upon providing sixty (60) days written notice to the Authority and affected CLECs, may discontinue any SEEM payment(s) that arises out of any eliminated Obligations.

1.4.7   Enforcement Mechanism Cap

BellSouth's total liability for the payment of Tier-1 and Tier-2 Enforcement Mechanisms shall be collectively and absolutely capped at 36 Percent of net revenues in Tennessee, based upon the most recently reported ARMIS data..

If projected payments exceed the state cap, a proportional payment will be made to the respective parties.

If BellSouth's payment of Tier-1 and Tier-2 Enforcement Mechanisms would have exceeded the cap referenced in this plan, a CLEC may commence a proceeding with the Authority to demonstrate why BellSouth should pay any amount in excess of the cap. The CLEC shall have the burden of proof to demonstrate why, under the circumstances, BellSouth should have additional liability.

1.4.8   Audits

BellSouth currently provides many CLECs with certain audit rights as a part of their individual interconnection agreements. However, it is not reasonable for BellSouth to undergo an audit of

the SQM for every CLEC with which it has a contract. BellSouth has developed a proposed regional 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 an audit of the aggregate level reports for both BellSouth and the CLEC(s) every other year for the next five (5) years (2005-2010) to be conducted by an independent third party. The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information. This aggregate level audit includes the following specifications:

1. The cost shall be borne 50% by BellSouth and 50% by the CLEC or CLECs.

2. The independent third party auditor shall be selected by BellSouth, with input from the PSC, if applicable, and the CLEC(s).

3. BellSouth, the PSC and the CLEC(s) shall jointly determine the scope of the audit.

BellSouth reserves the right to make changes to this audit policy as growth and changes in the industry dictate.

1.4.9   Dispute Resolution

Notwithstanding any other provision of the Interconnection Agreement between BellSouth and each CLEC, any dispute regarding BellSouth's performance or obligations pursuant to this Plan shall be resolved by the Authority.

1.5   Regional and State Coefficients

Some metrics are calculated for the entire BellSouth region, rather than by state.

- A regional coefficient is calculated to split Tier 1 payments for regional metrics among CLECs by submetric depending on the volume of certain activities in each OCN for the current month.
- A state coefficient is calculated to split Tier 2 payments for regional metrics among states by submetric.

All measures using regional (Tier 1) or state (Tier 2) coefficients are benchmark measures. The following metrics require calculation of a coefficient:

- Acknowledgement Completeness
- Percent Flow Through CLEC Aggregate - Residence
- Percent Flow Through CLEC Aggregate - Business
- Percent Flow Through CLEC Aggregate – UNE Loop & Port Combo
- Percent Flow Through CLEC Aggregate – UNE Loops
- Percent Flow Through CLEC Aggregate - LNP
- Timeliness of Change Management - Notices
- Timeliness of Documents Associated with Change - Documents
- Percent of Software Errors Corrected in X (10, 30, 45) Business Days – Errors Corrected

- Percent Change Requests Accepted or Rejected in 10 Days – Requests Accepted or Rejected
- Percent of Change Request Implemented Within 60 Weeks of Prioritization – Type 4 Requests Implemented
- Percent of Change Request Implemented Within 60 Weeks of Prioritization - Type 5 Requests Implemented
- Interface Availability – Pre-Ordering/Ordering
- Interface Availability – Maintenance & Repair

The methodology for calculating coefficients is detailed in Appendix E.

A: Fee Schedule

Table 1: Liquidated Damages For Tier-1 Measures

Performance Measurement	Standard Performance		Low Performance	
	Per Affected Item Month 1	Per Affected Item Month 2	Per Affected Item Month 1	Per Affected Item Month 2
OSS/Pre-Ordering	$10	$13	$20	$30
Ordering	$20	$25	$40	$50
Provisioning - Resale	$45	$56	$100	$125
Provisioning UNE	$95	$119	$400	$450
Provisioning - UNEP	$40	$50	$400	$450
Maintenance and Repair - Resale	$45	$56	$100	$125
Maintenance and Repair UNE	$35	$44	$400	$450
Maintenance and Repair - UNEP	$25	$31	$400	$450
LNP	$95	$119	$150	$250
Billing – BIA	$0.02	$0.025	$1.00	$1.00
Billing – BIT	$5	$7	$1.00	$1.00
IC Trunks	$25	$31	$100	$125
Collocation	$3,640	$4,550	$5000	$5000
Service Order Accuracy	$20	$25	$50	$50

Table 2: Liquidated Damages For Tier-2 Measures

Performance Measurement	Standard Performance	Low Performance
	Per Affected Item	Per Affected Item
OSS/Pre-Ordering	$15	$20
Ordering	$30	$60
Provisioning - Resale	$68	$300
Provisioning - UNE	$143	$875
Provisioning - UNEP	$60	$875
Maintenance and Repair - Resale	$68	$300
Maintenance and Repair – UNE	$53	$875
Maintenance and Repair - UNEP	$38	$875
Billing – BIA	$0.03	$1.00
Billing – BIT	$8	$1.00
LNP	$150	$500
IC Trunks	$75	$500
Collocation	$5460	$15,000
Change Management	$1000	$1000
Service Order Accuracy	$30	$50

B: SEEM Submetrics

B.1 Tier 1 Submetrics

Item No.	SQM Ref	Submetric
1	ERT	Loop Makeup - Response Time - Electronic
2	AKC	Acknowledgement Message Completeness - EDI
3	AKC	Acknowledgement Message Completeness - TAG
4	RI	Reject Interval - Fully Mechanized
5	FOCRC	Firm Order Confirmation and Reject Response Completeness - Fully Mechanized
6	PIAM	Percent Installation Appointments Met- Resale (POTS)
7	PIAM	Percent Installation Appointments Met - Resale Design
8	PIAM	Percent Installation Appointments Met - LNP (Standalone)
9	PIAM	Percent Installation Appointments Met - UNE Loops
10	PIAM	Percent Installation Appointments Met - UNE Loop and Port Combinations
11	PIAM	Percent Installation Appointments Met - UNE xDSL
12	PIAM	Percent Installation Appointments Met - UNE Line Splitting
13	PIAM	Percent Installation Appointments Met - Local Interconnection Trunks
14	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale (POTS)
15	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale Design
16	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - LNP (Standalone)
17	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loops
18	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loop and Port Combinations
19	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE EELs
20	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE xDSL - With Conditioning
21	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE xDSL - Without Conditioning
22	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Line Splitting

SEEM Submetrics

Item No.	SQM Ref	Submetric
23	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Local Interconnection Trunks
24	CCCI	Coordinated Customer Conversions Interval - UNE Loops
25	CNDD	Non-Coordinated Customer Conversions - % Completed and Notified on Due Date
26	HCT	Coordinated Customer Conversions - Hot Cut Timeliness Percent Within Interval and Average Interval – UNE Loops
27	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale (POTS)
28	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale Design
29	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loops
30	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loop and Port Combinations
31	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE xDSL
32	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Line Splitting
33	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Local Interconnection Trunks
34	SOAC	Service Order Accuracy - Resale
35	SOAC	Service Order Accuracy - UNE
36	SOAC	Service Order Accuracy - UNE/P
37	LAT	LNP - Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date
38	LOOS	LNP - Percent Out of Service < 60 Minutes
39	DTNT	LNP - Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution (Non-Trigger)
40	PRAM	Repair Appointments Met - Resale (POTS)
41	PRAM	Repair Appointments Met - Resale Design
42	PRAM	Repair Appointments Met - UNE Loops
43	PRAM	Repair Appointments Met - UNE Loop and Port Combinations
44	PRAM	Repair Appointments Met - UNE xDSL
45	PRAM	Repair Appointments Met - UNE Line Splitting
46	PRAM	Repair Appointments Met - Local Interconnection Trunks
47	MAD	Maintenance Average Duration- Resale (POTS)
48	MAD	Maintenance Average Duration - Resale Design
49	MAD	Maintenance Average Duration - UNE Loops
50	MAD	Maintenance Average Duration - UNE Loop and Port Combinations
51	MAD	Maintenance Average Duration - UNE xDSL
52	MAD	Maintenance Average Duration - UNE Line Splitting
53	MAD	Maintenance Average Duration - Local Interconnection Trunks

SEEM Submetrics

Item No.	SQM Ref	Submetric
54	PRT	Percent Repeat Customer Troubles within 5 days - Resale (POTS)
55	PRT	Percent Repeat Customer Troubles Within 5 Days - Resale Design
56	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Loops
57	PRT	Percent Repeat Customer Troubles Within 5 days - UNE Loop and Port Combinations
58	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE xDSL
59	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Line Splitting
60	PRT	Percent Repeat Customer Troubles Within 5 Days - Local Interconnection Trunks
61	BIA	Invoice Accuracy
62	BIT	Mean Time to Deliver Invoices - CRIS
63	BIT	Mean Time to Deliver Invoices - CABS
64	TGPS	Trunk Group Performance – CLEC Specific
65	PMDD	Collocation Percent of Due Dates Missed

B.2 Tier 2 Submetrics

Item No	SQM Ref	Submetric
1	IA	Interface Availability - Pre-Ordering/Ordering
2	MRIA	Interface Availability - Maintenance & Repair
3	ERT	Loop Makeup - Response Time - Electronic
4	AKC	Acknowledgement Message Completeness - EDI
5	AKC	Acknowledgement Message Completeness - TAG
6	PFT	Percent Flow-through Service Requests – Residence
7	PFT	Percent Flow-through Service Requests – Business
8	PFT	Percent Flow-through Service Requests – UNE Loop & Port Combo
9	PFT	Percent Flow-through Service Requests – UNE Other
10	PFT	Percent Flow-through Service Requests - LNP
11	RI	Reject Interval - Fully Mechanized
12	FOCRC	Firm Order Confirmation and Reject Response Completeness – Fully Mechanized
13	PIAM	Percent Installation Appointments Met - Resale (POTS)
14	PIAM	Percent Installation Appointments Met - Resale Design
15	PIAM	Percent Installation Appointments Met - LNP (Standalone)
16	PIAM	Percent Installation Appointments Met - UNE Loops
17	PIAM	Percent Installation Appointments Met - UNE Loop and Port Combinations
18	PIAM	Percent Installation Appointments Met - UNE xDSL
19	PIAM	Percent Installation Appointments Met - UNE Line Splitting
20	PIAM	Percent Installation Appointments Met - Local Interconnection Trunks
21	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale (POTS)
22	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Resale Design
23	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - LNP (Standalone)
24	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loops
25	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Loop and Port Combinations
26	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE EELs
27	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) – xDSL - with conditioning

SEEM Submetrics

Item No	SQM Ref	Submetric
28	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) – xDSL - without conditioning
29	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - UNE Line Splitting
30	FOCI	Firm Order Confirmation Interval (FOCI) Plus Average Order Completion Interval (OCI) - Local Interconnection Trunks
31	CCCI	Coordinated Customer Conversions Interval - UNE Loops
32	CNDD	Non-Coordinated Customer Conversions - % Completed and Notified on Due Date
33	HCT	Coordinated Customer Conversions - Hot Cut Timeliness Percent Within Interval and Average Interval –UNE Loops
34	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale (POTS)
35	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Resale Design
36	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loops
37	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Loop and Port Combinations
38	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE xDSL
39	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - UNE Line Splitting
40	PPT	Percent Provisioning Troubles within 5 days of Service Order Completion - Local Interconnection Trunks
41	SOAC	Service Order Accuracy - Resale
42	SOAC	Service Order Accuracy - UNE
43	SOAC	Service Order Accuracy - UNE/P
44	LAT	LNP - Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date
45	LOOS	LNP - Percent Out of Service <60 Minutes
46	DTNT	LNP - Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution (Non-Trigger)
47	PRAM	Repair Appointments Met – Resale (POTS)
48	PRAM	Repair Appointments Met - Resale Design
49	PRAM	Repair Appointments Met - UNE Loops
50	PRAM	Repair Appointments Met - UNE Loop and Port Combinations
51	PRAM	Repair Appointments Met - UNE xDSL
52	PRAM	Repair Appointments Met - UNE Line Splitting
53	PRAM	Repair Appointments Met - Local Interconnection Trunks
54	MAD	Maintenance Average Duration - Resale (POTS)
55	MAD	Maintenance Average Duration - Resale Design

SEEM Submetrics

Item No	SQM Ref	Submetric
56	MAD	Maintenance Average Duration - UNE Loops
57	MAD	Maintenance Average Duration - UNE Loop and Port Combinations
58	MAD	Maintenance Average Duration - UNE xDSL
59	MAD	Maintenance Average Duration - UNE Line Splitting
60	MAD	Maintenance Average Duration - Local Interconnection Trunks
61	PRT	Percent Repeat Customer Troubles within 5 days - Resale (POTS)
62	PRT	Percent Repeat Customer Troubles Within 5 Days - Resale Design
63	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Loops
64	PRT	Percent Repeat Customer Troubles Within 5 days - UNE Loop and Port Combinations
65	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE xDSL
66	PRT	Percent Repeat Customer Troubles Within 5 Days - UNE Line Splitting
67	PRT	Percent Repeat Customer Troubles Within 5 Days - Local Interconnection Trunks
68	BIA	Invoice Accuracy
69	BIT	Mean Time to Deliver Invoices- CRIS
70	BIT	Mean Time to Deliver Invoices- CABS
71	TGPA	Trunk Group Performance - CLEC Aggregate
72	PMDD	Collocation Percent of Due Dates Missed
73	CMN	Timeliness of Change Management Notices – Region
74	CMD	Timeliness of Documents Associated with Change – Region
75	PSEC	Percent of Software Errors Corrected in X (10, 30, 45) Business Days – Region
76	PCRAR	Percent of Change Requests Accepted or Rejected Within 10 Days – Region
77	PCRIP	Percent of Change Requests Implemented Within 60 Weeks of Prioritization–Region

B.3   SEEM Retail Analogs

Retail Analogs - Provisioning Measures

SEEM Disaggregation	SEEM Analog
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 xDSL with conditioning*	6 Days*
UNE xDSL without conditioning*	12 days*
UNE Line Splitting	ADSL Provided to Retail
LNP (Standalone)	Retail Residence and Business POTS
Local Interconnection Trunks	Local Interconnection Trunks

*Applies to the measure Firm Order Confirmation Interval Plus Average Order Completion Interval only.

Retail Analogs – Maintenance and Repair Measures

SEEM Disaggregation	SEEM Analog
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 Splitting	ADSL Provided to Retail
Local Interconnection Trunks	Local Interconnection Trunks

B.4 SEEM Benchmark Thresholds

SQM Ref	Submetric	Analog / Benchmark
AKC	Acknowledgement Message Completeness - EDI	99.5%
AKC	Acknowledgement Message Completeness - TAG	99.5%
BIA	Invoice Accuracy	Parity With Retail
BIT	Mean Time to Deliver Invoices - CRIS	Parity With Retail
BIT	Mean Time to Deliver Invoices - CABS	Parity With Retail
CCCI	Coordinated Customer Conversions Interval - UNE Loops	95% <= 20 Minutes
CMD	Timeliness of Documents Associated with Change – Region	95% >=30 Days if New Feature Coding required; 95%>=5 days for documentation defects, corrections, or clarifications
CMN	Timeliness of Change Management Notices – Region	95% >= 30 Days of Release
CNDD	Non-Coordinated Customer Conversions - % Completed and Notified on Due Date	95% Completed on Due Date with CLEC Notification
DTNT	LNP - Average Disconnect Timeliness Interval & Disconnect Timeliness Interval Distribution (Non-Trigger)	95% Within 12 Hours
ERT	Loop Makeup - Response Time - Electronic	95% <= 1 Minute
FOCRC	Firm Order Confirmation and Reject Response Completeness – Fully Mechanized	95% Returned
HCT	Coordinated Customer Conversions - Hot Cut Timeliness Percent Within Interval and Average Interval – UNE Loops	SL1 – Time Specific: 95% Within +/- 15 Min. of Scheduled Start Time SL1 IDLC: 95% Within +/- 2 hours of Scheduled Start Time
IA	Interface Availability - Pre-Ordering/Ordering	>= 99.5%
LAT	LNP - Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date	>95%
LOOS	LNP - Percent Out of Service <60 Minutes	>95%
MRIA	Interface Availability - Maintenance & Repair	>= 99.5%
PCRAR	Percent of Change Requests Accepted or Rejected Within 10 Days – Region	95% Within Interval
PCRIP	Percent of Change Requests Implemented Within 60 Weeks of Prioritization – Region	95% Within Interval
PFT	Percent Flow-through Service Requests – Residence	90%
PFT	Percent Flow-through Service Requests – Business	90%
PFT	Percent Flow-through Service Requests – UNE Loop & Port Combo	85%
PFT	Percent Flow-through Service Requests – UNE Other	85%
PFT	Percent Flow-through Service Requests - LNP	85%
PMDD	Collocation Percent of Due Dates Missed	>=95% On Time
PSEC	Percent of Software Errors Corrected in X (10, 30, 45) Business Days – Region	95% Within Interval
RI	Reject Interval - Fully Mechanized	97% <= 1 hour
SOAC	Service Order Accuracy - Resale	95% Correct
SOAC	Service Order Accuracy - UNE	95% Correct
SOAC	Service Order Accuracy - UNE/P	95% Correct
TGPA	Trunk Group Performance - CLEC Aggregate	Any 2 consecutive hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1,3,4,5,10 (where applicable), 16 for CLECs and 1,9,10 (where applicable), and 16 for BellSouth
TGPS	Trunk Group Performance – CLEC Specific	Any 2 consecutive hour period in 24 hours where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1,3,4,5,10 (where applicable), 16 for CLECs and 1,9,10 (where applicable), and 16 for BellSouth

C: Statistical Properties and Definitions

C.1 Statistical Methods for BellSouth Performance Measure Analysis

C.1.1 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, and 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.

C.1.2   Measurement Types

The performance measures that will undergo testing are of three types:

- means,
- proportions, and
- ratios

While all three have similar characteristics, proportions are derived from count data while means and ratios are derived from interval measurements.

C.2   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.

C.2.1   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.

C.2.2   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 Appendix D, Statistical Formulas and Technical Description.

C.2.3   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.

D: Statistical Formulas and Technical Description

We start by assuming that the data are disaggregated so that comparisons are made within appropriate classes or adjustment cells that define "like" observations.

D.1 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

$$= \begin{cases} X_{1jk} & k = 1,\ldots,n_{1j} \\ X_{2jk} & k = n_{1j} +1,\ldots,n_j \end{cases}$$

$\Phi^{-1}() =$ 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

S_{2j}^2 =   The CLEC sample variance in cell j

$\{y_{jk}\}$ =   a random sample of size n_{2j} from the set of $Y_{j1}, \ldots, Y_{jn_j}$; k = 1, ,n_{2j}

M_j =   The total number of distinct pairs of samples of size n_{1j} and n_{2j};

$$= \binom{n_j}{n_{1j}}$$

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

$$HG(h) = P(H = h) = \begin{cases} \dfrac{\dbinom{n_{1j}}{h}\dbinom{n_{2j}}{a_j - h}}{\dbinom{n_j}{a_j}}, & \max(0, a_j - n_{2j}) \le h \le \min(a_j, n_{1j}) \\[20pt] 0 & \text{otherwise} \end{cases}$$

and the cumulative hypergeometric distribution is

$$CHG(x) = P(H \le x) = \begin{cases} 0 & x < \max(0, a_j - n_{2j}) \\[6pt] \displaystyle\sum_{h=\max(0,a_j-n_{1j})}^{x} HG(h), & \max(0, a_j - n_{2j}) \le x \le \min(a_j, n_{1j}) \\[6pt] 1 & x > \min(a_j, n_{1j}) \end{cases}$$

The exact distribution for a parity test is the binomial distribution. The binomial probability mass function distribution for cell j is

$$BN(k) = P(B = k) = \begin{cases} \dbinom{n_j}{k} q_j^k (1 - q_j)^{n_j - k}, & 0 \le k \le n_j \\[12pt] 0 & \text{otherwise} \end{cases}$$

and the cumulative binomial distribution is

$$CBN(x) = P(B \le x) = \begin{cases} 0 & x < 0 \\[6pt] \displaystyle\sum_{k=0}^{x} BN(k), & 0 \le x \le n_j \\[6pt] 1 & x > n_j \end{cases}$$

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.,

$$\sum_k U_{ijk} \bigg/ \sum_k X_{ijk}$$

D.2   Calculating the Truncated Z

The general methodology for calculating an aggregate level test statistic is outlined below.

D.2.1   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

$$W_j = \sqrt{\frac{n_{2j}n_{1j}}{n_j} \cdot \frac{a_j}{n_j} \cdot \left(1 - \frac{a_j}{n_j}\right)}$$

D.2.2   Calculate a Z Value (Z_j) for each Cell

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 determined by the following algorithm.

If $\min(n_{1j}, n_{2j}) > 6$, then determine α as

$$\alpha = P(t_{n_{1j}-1} \leq T_j)$$

that is, α is the probability that a t random variable with $n_{1j} - 1$ degrees of freedom, is less than

$$T_j = \begin{cases} t_j + \dfrac{g}{6}\left(\dfrac{n_{1j} + 2n_{2j}}{\sqrt{n_{1j}\,n_{2j}(n_{1j} + n_{2j})}}\right)\left(t_j^2 + \dfrac{n_{2j} - n_{1j}}{n_{1j} + 2n_{2j}}\right) & t_j \geq t_{\min j} \\[4mm] t_j + \dfrac{g}{6}\left(\dfrac{n_{1j} + 2n_{2j}}{\sqrt{n_{1j}\,n_{2j}(n_{1j} + n_{2j})}}\right)\left(t_{\min j}^2 + \dfrac{n_{2j} - n_{1j}}{n_{1j} + 2n_{2j}}\right) & \text{otherwise} \end{cases}$$

where

$$t_j = \frac{\overline{X}_{1j} - \overline{X}_{2j}}{s_{1j}\sqrt{\frac{1}{n_{1j}} + \frac{1}{n_{2j}}}}$$

$$t_{\min j} = \frac{-3\sqrt{n_{1j}n_{2j}n_j}}{g(n_{1j} + 2n_{2j})}$$

and g is the median value of all values of

$$\gamma_{1j} = \frac{n_{1j}}{(n_{1j} - 1)(n_{1j} - 2)} \sum_k \left(\frac{X_{1jk} - \overline{X}_{1j}}{s_{1j}}\right)^3$$

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 $\min(n_{1j}, n_{2j}) \leq 6$, and

- $M_j \leq 1,000$ (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.

$$\alpha = 1 - \frac{R_0 - 0.5}{M_j}$$

- $M_j > 1,000$
  - 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

$$Z_j = \frac{n_j\, a_{1j} - n_{1j}\, a_j}{\sqrt{\dfrac{n_{1j}\, n_{2j}\, a_j\, (n_j - a_j)}{n_j - 1}}}$$

Ratio Measure

$$Z_j = \frac{\hat{R}_{1j} - \hat{R}_{2j}}{\sqrt{V(\hat{R}_{1j})\left(\dfrac{1}{n_{1j}} + \dfrac{1}{n_{2j}}\right)}}$$

$$V(\hat{R}_{1j}) = \frac{\sum\limits_k \left(U_{1jk} - \hat{R}_{1j}X_{1jk}\right)^2}{\overline{X}_{1j}^2(n_{1j} - 1)} = \frac{\sum\limits_k U_{1jk}^2 - 2\hat{R}_{1j}\sum\limits_k\left(U_{1jk}X_{1jk}\right) + \hat{R}_{1j}^2\sum\limits_k X_{1jk}^2}{\overline{X}_{1j}^2(n_{1j} - 1)}$$

D.2.3   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

$$Z^*_j = \min(0, Z_j)$$

D.2.4 Calculate the Theoretical Mean and Variance

Calculate the theoretical mean and variance of the truncated statistic under the null hypothesis of parity, $E(Z_j^* | H_0)$ and $Var(Z_j^* | H_0)$. 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, or n_{1j} and n_{2j} are large for a ratio measure then

$$E(Z_j^* | H_0) = -\frac{1}{\sqrt{2\pi}}$$

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.

$$E(Z_j^* | H_0) = \sum_i \theta_{ji} z_{ji}$$

and

$$Var(Z_j^* | H_0) = \sum_i \theta_{ji} z_{ji}^2 - \left[E(Z_j^* | H_0)\right]^2$$

The actual values of the z's and θ's depends on the type of measure.

Mean Measure

$$N_j = \min(M_j, 1{,}000), \quad i = 1, \ldots, N_j$$

$$z_{ji} = \min\left\{0, \Phi^{-1}\left(1 - \frac{R_i - 0.5}{N_j}\right)\right\} \quad \text{where } R_i \text{ is the rank of sample sum } i$$

$$\theta_j = \frac{1}{N_j}$$

Proportion Measure

$$z_{ji} = \min\left\{0, \frac{n_j \, i - n_{1j} \, a_j}{\sqrt{\dfrac{n_{1j} \, n_{2j} \, a_j \, (n_j - a_j)}{n_j - 1}}}\right\}, \quad i = \max(0, a_j - n_{2j}), \ldots, \min(a_j, n_{1j})$$

$$\theta_{ji} = HG(i)$$

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.

D.2.5   Calculate the Aggregate Test Statistic (Z^T)

$$Z^T = \frac{\sum_j W_j Z_j^* - \sum_j W_j E(Z_j^* \mid H_0)}{\sqrt{\sum_j W_j^2 \, Var(Z_j^* \mid H_0)}}$$

The Balancing Critical Value

There are four key elements of the statistical testing process:

- the null hypothesis, H_0, that parity exists between ILEC and CLEC services
- the alternative hypothesis, H_a, that the ILEC is giving better service to its own customers
- the Truncated Z test statistic, Z^T, and
- a critical value, c

The decision rule[1] is

- If $Z^T < c$ then   accept H_a.
- If $Z^T \ c$ 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:

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[1] 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.

- **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.

$$c_B = \frac{\sum_j W_j M(m_j, se_j) - \sum_j W_j \frac{-1}{\sqrt{2\pi}}}{\sqrt{\sum_j W_j^2 V(m_j, se_j)} + \sqrt{\sum_j W_j^2 \left(\frac{1}{2} - \frac{1}{2\pi}\right)}}$$

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: $\mu_{2j} = \mu_{1j} + \delta_j \sigma_{1j}$, $\sigma_{2j}^2 = \lambda_j \sigma_{1j}^2$ $\quad \delta_j > 0$, λ_j 1 and $j = 1, ,L.$

Under this form of alternative hypothesis, the cell test statistic Z_j has mean and standard error given by

$$m_j = \frac{-\delta_j}{\sqrt{\frac{1}{n_{1j}} + \frac{1}{n_{2j}}}}$$

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:

$$H_0: \quad \frac{p_{2j}(1 - p_{1j})}{(1 - p_{2j})p_{1j}} = 1$$

$$H_a: \quad \frac{p_{2j}(1 - p_{1j})}{(1 - p_{2j})p_{1j}} = \psi_j \qquad \psi_j > 1 \text{ and } j = 1, ,L.$$

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[1]

$$E(a_{1j}) = n_j \pi_j^{(1)}$$

$$var(a_{1j}) = \frac{n_j}{\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}}}$$

where

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[1] Stevens, W. L. (1951) Mean and Variance of an entry in a Contingency Table. *Biometrica*, 38, 468-470.

$$\pi_j^{(1)} = f_j^{(1)} \left(n_j^2 + f_j^{(2)} + f_j^{(3)} - f_j^{(4)} \right)$$

$$\pi_j^{(2)} = f_j^{(1)} \left(-n_j^2 - f_j^{(2)} + f_j^{(3)} + f_j^{(4)} \right)$$

$$\pi_j^{(3)} = f_j^{(1)} \left(-n_j^2 + f_j^{(2)} - f_j^{(3)} + f_j^{(4)} \right)$$

$$\pi_j^{(4)} = f_j^{(1)} \left(n_j^2 \left(\frac{2}{\psi_j} - 1 \right) - f_j^{(2)} - f_j^{(3)} - f_j^{(4)} \right)$$

$$f_j^{(1)} = \frac{1}{2n_j^2 \left(\frac{1}{\psi_j} - 1 \right)}$$

$$f_j^{(2)} = n_j n_{1j} \left(\frac{1}{\psi_j} - 1 \right)$$

$$f_j^{(3)} = n_j a_j \left(\frac{1}{\psi_j} - 1 \right)$$

$$f_j^{(4)} = \sqrt{n_j^2 \left[4n_{1j} \left(n_j - a_j \right) \left(\frac{1}{\psi_j} - 1 \right) + \left(n_j + \left(a_j - n_{1j} \right) \left(\frac{1}{\psi_j} - 1 \right) \right)^2 \right]}$$

Recall that the cell test statistic is given by

$$Z_j = \frac{n_j a_{1j} - n_{1j} a_j}{\sqrt{\dfrac{n_{1j} n_{2j} a_j (n_j - a_j)}{n_j - 1}}}$$

Using the equations above, we see that Z_j has mean and standard error given by

$$m_j = \frac{n_j^2 \pi_j^{(1)} - n_{1j} a_j}{\sqrt{\dfrac{n_{1j} n_{2j} a_j (n_j - a_j)}{n_j - 1}}}$$

and

$$se_j = \sqrt{\frac{n_j^3 (n_j - 1)}{n_{1j} n_{2j} a_j (n_j - a_j) \left(\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}} \right)}}$$

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.

D.2.6 Determining the Parameters of the Alternative Hypothesis

In this section 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 – $\delta_j = \delta \angle$ might be fine for tests across individual CLECs where currently in Tennessee 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.

D.2.7 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.

E: BST SEEM Remedy Calculation Procedures

E.1 BST SEEM Remedy Procedure

E.1.1 Tier-1 Calculation For Retail Analogs

1. Tier 1 is triggered by two consecutive monthly failures of any Tier 1 Remedy Plan submetric.
2. Calculate the overall test statistic for each CLEC; z^T_{CLEC-1} (Per Statistical Methodology)
3. Calculate the balancing critical value ($^cB_{CLEC-1}$) that is associated with the alternative hypothesis (for fixed parameters δ, Ψ, or ϵ)
4. If the overall test statistic is equal to or above the balancing critical value, stop here. That is, if $^cB_{CLEC-1} <= z^T_{CLEC-1}$, stop here. Otherwise, go to step 5.
5. Calculate the Parity Gap by subtracting the value of step 2 from that of step 1. ABS ($z^T_{CLEC-1} - {}^cB_{CLEC-1}$)
6. Calculate the Volume Proportion using a linear distribution with slope of 1/4. This can be accomplished by taking the absolute value of the Parity Gap from step 4 divided by 4; ABS (($z^T_{CLEC-1} - {}^cB_{CLEC-1}$) / 4). All parity gaps equal or greater to 4 will result in a volume proportion of 100%.
7. Calculate the Affected Volume by multiplying the Volume Proportion from step 6 by the Total Impacted CLEC-1 Volume (I_c) in the negatively affected cell; where the cell value is negative.
8. Calculate the payment to CLEC-1 by multiplying the result of step 7 by the appropriate dollar amount from the fee schedule.
9. Then, CLEC-1 payment = Affected Volume$_{CLEC1}$ * $$from Fee Schedule. For the example that follows, fee amounts are from the default Standard Performance fee schedule.
10. Repeat steps 5 - 9 for the first (1st) month of failure.

E.1.2 Example: CLEC-1 Installation Apppointments Met (PIAM) 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_{CLEC-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_{CLEC-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

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where n_I = ILEC observations and n_C = CLEC-1 observations

Assuming this is at least the second consecutive month of failure, payout for CLEC-1 is (29 units) * ($45/unit) = $1,305 plus the previous failed month's calculated amount.

E.2 Tier-2 Calculation For Retail Analogs

1. Tier-2 is triggered by three consecutive monthly failures of any Tier 2 Remedy Plan sub-metric.
2. Therefore, calculate monthly statistical results and affected volumes as outlined in steps 2 through 6 for the CLEC 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.
4. Therefore, State Designated Agency payment = Average monthly volume * $$from Fee Schedule. For the example that follows, fee amounts are from the default Standard Performance fee schedule.

E.2.1 Example:CLEC-A Installation Apppointments Met (PIAM) for Resale (POTS)

State	n_I	n_C	I_c	MIA_I	MIA_C	$z^T{}_{CLEC\text{-}A}$	C_B	Parity Gap	Volume Proportion	Affected Volume
Month 1	180000	2100	336	9%	16%	-1.92	-0.21	1.71	0.4275	
Cell						$z_{CLEC\text{-}A}$				
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

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where n_I = ILEC observations and n_C = CLEC-A observations

Assume Months 2 and 3 have the same affected volumes. Payout 99 units * $68/unit = $6,732.

If the above example represented performance for each of months 1 through 3, then

E.2.2   Example: CLEC-A Installation Apppointments Met (PIAM)

State	Miss	Remedy Dollars
Month 1	X	0
Month 2	X	0
Month 3	X	$6,732
Payment for Rolling 3 Mo. Period		$6,732

E.3   Tier-1 Calculation For Benchmarks

1. For each CLEC with five or more observations, calculate monthly performance results for the State.
2. CLECs 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%		18	77.78%	83.33%
6	66.67%	83.33%		19	78.95%	84.21%
7	71.43%	85.71%		20	80.00%	85.00%
8	75.00%	75.00%		21	76.19%	85.71%
9	66.67%	77.78%		22	77.27%	86.36%
10	70.00%	80.00%		23	78.26%	86.96%
11	72.73%	81.82%		24	79.17%	87.50%
12	75.00%	83.33%		25	80.00%	88.00%
13	76.92%	84.62%		26	80.77%	88.46%
14	78.57%	85.71%		27	81.48%	88.89%
15	73.33%	86.67%		28	78.57%	89.29%
16	75.00%	87.50%		29	79.31%	86.21%
17	76.47%	82.35%		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 CLEC-1 Volume.
6. Calculate the payment to CLEC-1 by multiplying the result of step 5 by the appropriate dollar amount from the fee schedule.
7. Repeat steps 3-6 for the first month of failure.
8. CLEC-1 payment = (Affected Volume$_{CLEC-1(month\ 1)}$* $$from Fee Schedule) + (Affected Volume$_{CLEC-1(month\ 2)}$* $$ from Fee Schedule). For the purpose of this example, fee amounts are from the default Standard Performance fee schedule.

E.3.1   Example: CLEC-1 Percent Missed Due Dates for Collocations

	n_C	Benchmark	MIA_C	Volume Proportion	Affected Volume
State	600	10%	13%	.03	18

Payout for CLEC-1 is (18 units) * ($5460/unit) = $98,280

E.4   Tier-1 Calculation For Benchmarks (In The Form Of A Target)

1. For each CLEC with five or more observations calculate monthly performance results for the State.
2. CLECs 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 CLEC-1 Volume.
7. Calculate the payment to CLEC-1 by multiplying the result of step 6 by the appropriate dollar amount from the fee schedule. CLEC-1 payment = Affected Volume$_{CLEC1}$ * $ from Fee Schedule.. For this example, fee amounts are from the default Standard Performance fee schedule.

E.4.1   Example: CLEC-1 Reject Interval – Fully Mechanized

	n_C	Benchmark	Reject Interval	Volume Proportion	Affected Volume
State	600	97% <= 1 hour	95% <= 1 hour	.02	12

Assuming two consecutive months of failure, payout for CLEC-1 is (12 units) * ($20/unit) = $240 plus the previous failed month's calculated amount.

E.5   Tier-2 Calculations For Benchmarks

Tier-2 calculations for benchmark measures are the same as the Tier-1 benchmark calculations, except the CLEC Aggregate data will have failed for three (3) consecutive months.

E.6   Regional and State Coefficients

This section describes the method of calculating regional and state coefficients.

E.6.1   AKC

- Acknowledgement Completeness (AKC_EDI & AKC-TAG)

Regional Coefficient Formula (Tier 1)

Coefficient = (A+B) / (C+D) where:

- A= number of valid FOC transactions of the CLEC in the state (fully & partially mechanized)
- B = number of valid RI transactions of the CLEC in the state (fully & partially mechanized)
- C = total valid FOC transactions of the CLEC in the region (fully & partially mechanized)
- D = total valid RI transactions of the CLEC in the region (fully & partially mechanized)

State Coefficient Formula (Tier 2)

State Coefficient = (A+B) / (C+D) where:

- A= number of valid FOC transactions for all CLECs in the state (fully & partially mechanized)
- B = number of valid RI transactions for all CLECs in the state (fully & partially mechanized)
- C = total valid FOC transactions in the region (fully & partially mechanized)
- D = total valid RI transactions in the region (fully & partially mechanized)

E.6.2   PFT

- Percent Flow Through CLEC Aggregate - Residence (PFT-RES)
- Percent Flow Through CLEC Aggregate - Business (PFT- BUS)
- Percent Flow Through CLEC Aggregate - UNE Other (PFT-UOTH)
- Percent Flow Through CLEC Aggregate - UNE Loop & Port Combo (PFT-UNEPC)
- Percent Flow Through CLEC Aggregate - LNP (PFT-LNP)

Regional Coefficient Formula (Tier 1)

Coefficient = A / B where:

- A= number of valid FOC transactions of the CLEC in the state (fully mechanized)
- B = total valid FOC transactions of the CLEC in the region (fully mechanized)

State Coefficient Formula (Tier 2)

State Coefficient = A / B where:

- A= number of valid FOC transactions for all CLECs in the state (fully-mechanized)

- B = total valid FOC transactions in the region (fully-mechanized)

E.6.3 CMN, PSEC, PCRAR, PCRIP

- Timeliness of Change Management (CMN)
- Percent of Software Errors Corrected in X (10, 30, 45) Business Days - Region (PSEC)
- Percent Change Requests Accepted or Rejected in 10 Days - Region (PCRAR)
- Percent of Change Request Implemented Within 60 Weeks of Prioritization - Region (PCRIP)

State Coefficient Formula (Tier 2)

Coefficient = (A+B) / (C+D) where:

- A= number of valid FOC transactions for all CLECs in the state (fully & partially mechanized)
- B = number of valid RI transactions for all CLECs in the state (fully & partially mechanized)
- C = total valid FOC transactions in the region (fully & partially mechanized)
- D = total valid RI transactions in the region (fully & partially mechanized)

E.6.4 IA

- Interface Availability (IA)

State Coefficient Formula (Tier 2)

Coefficient = (A+B) / (C+D) where:

- A= number of valid FOC transactions for all CLECs in the state (fully & partially mechanized)
- B = number of valid RI transactions for all CLECs in the state (fully & partially mechanized)
- C = total valid FOC transactions in the region (fully & partially mechanized)
- D = total valid RI transactions in the region (fully & partially mechanized)

F: OSS Tables

F.1   IA: Interface Availability (Pre-Ordering/Ordering)

SEEM Interface Availability

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/XML	CLEC	X

F.2   MRIA: Interface Availability (Maintenance and Repair)

SEEM Availability (M&R)

Interface	% Availability
CLEC TAFI	X
CLEC ECTA	X

G: Reposting Of Performance Data and Recalculation of SEEM Payments

BellSouth will make available reposted performance data as reflected in the Service Quality Measurement (SQM) reports and recalculate Self-Effectuating Enforcement (SEEM) payments using the Parity Analysis and Remedy Information System (PARIS), to the extent technically feasible, under the following circumstances:

1. Those measures included in a state's specific SQM plan with corresponding sub-metrics are subject to reposting. A notice will be placed on the PMAP website advising CLECs when reposted data is available.

2. Performance sub-metric calculations that result in a shift in the performance in the aggregate from an "in parity" condition to an "out of parity" condition will be available for reposting.

3. Performance sub-metric calculations with benchmarks that are in an "out of parity" condition will be available for reposting whenever there is a >= 2% decline in BellSouth's performance at the sub-metric level.

4. Performance sub-metric calculations with retail analogues that are in an "out of parity" condition will be available for reposting whenever there is a decline in performance as shown by an adverse change of <= .5 in the z-score at the sub-metric level.

5. Any data recalculations that reflect an improvement in BellSouth's performance will be reposted at BellSouth's discretion. However, statewide performance must improve by at least 2% for benchmark measures and the z-score must improve by at least 0.5 for retail analogs at the sub-metric level to qualify for reposting.

6. Performance data will be made available for a maximum of three months in arrears.

7. When updated performance data has been made available for reposting or when a payment error in PARIS has been discovered, BellSouth will recalculate applicable SEEM payments. Where technically feasible, SEEM payments will be subject to recalculation for a maximum of three months in arrears from the date updated performance data was made available or the date when the payment error was discovered.

8. Any adjustments for underpayment of Tier 1 and Tier 2 calculated remedies will be made consistent with the terms of the state specific SEEM plan, including the payment of interest. Any adjustments for overpayment of Tier 1 and Tier 2 remedies will be made at BellSouth's discretion.

9. Any adjustments for underpayments will be made in the next month's payment cycle after the recalculation is made. The final current month PARIS reports will reflect the transmitted dollars, including adjustments for prior months where applicable. Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.

BellSouth Service Quality Measurement Plan (SQM)

Tennessee Proposed Performance Metrics

Measurement Descriptions
Version 2.01

Issue Date: May 12, 2004

Introduction

The BellSouth Service Quality Measurement Plan (SQM) describes in detail the measurements produced to evaluate the quality of service delivered to BellSouth's wholesale customers. 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]. 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. This specific SQM is based on Order No. (to be determined) in TRA Docket No. 97-00309 dated (to be determined).

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 develop and the processes stabilize. The measurements will be changed to reflect the dynamic changes described above and to correct errors, respond to 3rd Party audits, Orders of the TRA, FCC and the appropriate Courts of Law.

This document is intended for use by someone with knowledge of the telecommunications industry, information technologies and a functional knowledge of the subject areas covered by 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 BellSouth's PMAP website (http://pmap.bellsouth.com) in the Documentation/Exhibits folder.

Report Publication Dates

Each month, preliminary SQM reports will be posted to BellSouth's PMAP website (http://pmap.bellsouth.com) by 8:00 AM EST on the 21st day of each month or the first business day after the 21st. The validated SQM reports will be posted by 8:00 AM on the last day of the month or the first business day after the last day of the month. Validated SEEM reports will be posted on the 15th of the following month or the first business day after the 15th. SEEM payments will be made on the 15th of the following month or the first business day after the 15th. For instance: May data will be posted in preliminary SQM reports on June 21st. Final validated SQM reports will be posted on the last day of the month. Final validated SEEM reports will be posted and payments mailed on the 15th of the following month.

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

For details on SEEM, please refer to the SEEM Administrative Plan.

BellSouth shall retain the performance measurement Supporting Data Files (SDF) for a period of 18 months and further retain the monthly reports produced in PMAP for a period of three years. Instructions for replicating the reports in the SQM are contained in the Supporting Data User Manual (SDUM). The SDUM is available on the PMAP website and is automatically provided with each SDF download.

Report Delivery Methods

CLEC SQM and SEEM reports will be considered delivered when posted to the website. The State/Federal Commissions have been given access to the website.

Contents

Section 8: Change Management

Appendix A: Glossary of Acronyms and Terms

Appendix B: BellSouth Audit Policy

Appendix C: Interface Tables

Appendix D: BellSouth's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

Appendix E: Description of Raw Data and Other Supporting Data Files

Section 1: Operations Support Systems (OSS)

IA: Interface Availability (Pre-Ordering/Ordering)

Definition

This measure captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems. "Functional Availability" is defined as the number of hours in the reporting period the applications/interfaces are available to users. "Scheduled Availability" is defined as the number of hours in the reporting period the applications/interfaces are scheduled to be available.

Scheduled availability is posted on the Interconnection website (http://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.

Business Rules

The Interface Availability (Full Outages) calculations are based upon availability of applications and interfacing applications utilized by CLECs for pre-ordering and ordering.

Types of outages are defined as follows:

- Full outages are defined as occurrences of either of the following:
    - Application/Interface 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)
- Partial Loss of Functionality outages are incurred when any function the customer normally performs or a function normally provided by an application or system is unavailable to any customer.
- Degraded Service is defined as occurrences of either of the following:
    - When the application or system is known by any IT organization to be processing 20% or more below normal capacity
    - When 20% or more of the clients experience slow response from the system or application

Total Outages include Full Outages, Degraded Services and Loss of Functionality minutes, and will be calculated for diagnostic purposes.

Calculation

Interface Availability (Pre-Ordering/Ordering)

Interface Availability (Full Outages) = (a – b) / a X 100

- a = Scheduled Availability Minutes
- b = Full Outage Minutes

Interface Availability (Total Outages) = [a - (b + c + d)] / a X 100

- c = Loss of Functionality Minutes
- d = Degraded Service Minutes

Report Structure
- Legacy System/Interface Specific
- Geographic Scope
    - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Interface Availability (Full Outages) ....>= 99.5%
- Interface Availability (Total Outages) ....Diagnostic

SEEM Measure
SEEM   **Tier I**   **Tier II**

Yes........................ X

IA: Interface Availability (Pre-Ordering/Ordering)

MRIA: Interface Availability (Maintenance & Repair)

Definition

This measurement captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems. "Functional Availability" is defined as the number of hours in the reporting period the applications/interfaces are available to users. "Scheduled Availability" is defined as the number of hours in the reporting period the applications/interfaces are scheduled to be available.

Scheduled availability is posted on the Interconnection website (http://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.

Business Rules

The Interface Availability (Full Outages) calculations are based upon availability of applications and interfacing applications utilized by CLECs for maintenance and repair.

Types of outages are defined as follows:

- Full outages are defined as occurrences of either of the following:
    - Application/Interface 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)
- Partial Loss of Functionality outages are incurred when any function the customer normally performs or a function normally provided by an application or system is unavailable to any customer.
- Degraded Service is defined as occurrences of either of the following:
    - When the application or system is known by any IT organization to be processing 20% or more below normal capacity
    - When 20% or more of the clients experience slow response from the system or application

Total Outages include Full Outages, Degraded Services and Loss of Functionality minutes, and will be calculated for diagnostic purposes.

Calculation

Interface Availability (M&R)

Interface Availability (Full Outages) = $(a - b) / a \times 100$

- a = Scheduled Availability Minutes
- b = Full Outages Minutes

Interface Availability (Total Outages) = $[a - (b + c + d)] / a \times 100$

- c = Loss of Functionality Minutes
- d = Degraded Services Minutes

Report Structure
- Legacy System/Interface Specific
- Geographic Scope
    - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Interface Availability (Full Outages) ....>= 99.5%
- Interface Availability (Total Outages) ....Diagnostic

SEEM Measure

    SEEM   **Tier I**   **Tier II**

       Yes........................ X

MRIA: Interface Availability (Maintenance & Repair)

ERT: Loop Makeup - Response Time - Electronic

Definition

This report measures 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
- Canceled Requests
- Scheduled OSS Maintenance
- Test Transactions/Records

Business Rules

The response interval starts when the CLEC's Mechanized Loop Makeup Service Inquiry (LMUSI) is submitted electronically through the ordering interface gateways. It ends when BellSouth's Loop Facility Assignment and Control System (LFACS) responds electronically to the CLEC with the requested Loop Makeup data via the ordering interface gateways.

> **Note**: The Loop Makeup 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 and qualifies the loop. If a CLEC concludes that the loop makeup will support the service, and wants to order it, an LSR must be 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

Percent within Interval = (c / d) X 100

- c = Total LMUSIs received within the interval
- d = Total number of LMUSIs processed within the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - State
- Interval for electronic LMUSIs:
  0 – <= 1 minute

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Loops..Benchmark: 95% <= 1 Minute

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

BMRT: UNE Bulk Migration - Response Time

Definition

This report measures the average interval and percent within the interval from the submission of a UNE Bulk Migration Notification Form to the distribution of Bulk Notification Form, including negotiated due date back to the CLEC.

Exclusions

- Projects not identified as UNE Bulk Migration
- Weekends and Holidays
- Canceled Requests

Business Rules

The CLEC Bulk Migration process includes the submission of a Bulk Migration Notification Form to BellSouth via email. The project manager negotiates due date, assigns Bulk Order Package Identification (BOPI) number, and validates related PONs in the Bulk package. BellSouth then returns the Bulk Notification Form, including negotiated due date to the CLEC.

The "Receive Date" is defined as the date the Bulk Migration Notification Form is received by the BellSouth Project Manager via email. It is counted as day zero. Bulk Migration "Return Date" is defined as the date BellSouth returns a response. The interval calculation is reset to zero when a CLEC initiated change occurs on the Bulk Migration Notification Form.

This measurement combines three sub-metrics:

1. From receipt of a valid Bulk Migration Notification Form (up to 99 individual telephone numbers) to the return of the Bulk Notification Form, including negotiated due date, back to the CLEC.
2. From receipt of a valid Bulk Migration Notification Form (100 up to 200 individual telephone numbers) to the return of the Bulk Notification Form, including negotiated due date, back to the CLEC.
3. From receipt of a valid Bulk Migration Notification Form (201 or more individual telephone numbers) to the return of the Bulk Notification Form, including negotiated due date, back to the CLEC.

Calculation

Response Interval = (a - b)

- a = Date BellSouth returns a response
- b = Date the Bulk Migration Notification Form is received

Average Interval = (c / d)

- c = Sum of all response intervals
- d = Total number of Bulk Migration Notification Forms received within the reporting period

Percent within Interval = (e / f) X 100

- e = Total Bulk Migration Notification Forms received within the interval
- f = Total number of Bulk Migration Notification Forms processed within the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - State
- Intervals for manual Bulk Migration Notification Forms:
  0 - <= 99 individual telephone numbers
    - 0 – <= 4 Business days
    - > 4 Business days
  100 - <= 200 individual telephone numbers
    - 0 - <= 6 Business days

- > 6 Business days
>= 201 individual telephone numbers
- Average Interval in days

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- 0 - <= 99 individual telephone numbers ....Benchmark: 95% <= 4 Business Days
- 100 - <= 200 individual telephone numbers.................................Benchmark: 95% <= 6 Business Days
- >= 201 individual telephone numbers...Benchmark: Diagnostic

SEEM Measure

SEEM	Tier I	Tier II
No		

Section 2: Ordering

AKC: Acknowledgement Message Completeness

Definition

This measure provides the percent of transmissions/LSRs received via ordering interface gateways, which are acknowledged electronically.

Exclusions
- Manually Submitted LSRs
- Test Transactions/Records

Business Rules

Ordering interface gateways 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.

Calculation

Acknowledgement Completeness = (a / b) X 100

- a = Total number of Functional Acknowledgements returned in the reporting period for transmissions/LSRs electronically submitted by ordering interface gateways respectively
- b = Total number of electronically submitted transmissions/LSRs received in the reporting period by ordering interface gateways respectively

Report Structure
- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Acknowledgements...Benchmark: 99.5%

SEEM Measure
    SEEM   **Tier I**   **Tier II**

    Yes........................ X

PFT: Percent Flow-Through Service Requests

Definition

The percentage of Local Service Requests (LSRs) and Local Number Portability 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
- Planned Manual Fallout
- CLEC System Fallout
- Test Transactions/Records
- LSRs that receive a Z Status

Business Rules

The CLEC mechanized ordering process includes all LSRs, including supplements (subsequent versions) submitted through one of the mechanized ordering interface gateways, 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: Planned Manual Fallout).

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

Auto-Clarification: Clarifications that are mechanically returned to the CLEC due to invalid data entry within the LSR. Edits contained within the source systems will perform data validity checks to ensure the data within the LSR is complete and accurate. 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.

Planned Manual Fallout*: Fallout that occurs 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, the source systems will determine if the LSR should be forwarded to LCSC for manual handling.

*See LSR Flow-Through Matrix on BellSouth's PMAP website (http://pmap.bellsouth.com) in the Documentation/Exhibits folder 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 due to BellSouth system functionality, 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 the source systems and reach a status for a FOC to be issued
- b = The number of LSRs that passed the basic system edits and are accepted for further service order processing
- c = The number of LSRs that fallout for planned manual processing
- d = The number of LSRs that are returned to the CLEC for auto clarification
- e = The number of LSRs that are returned to the CLEC from the LCSC due to CLEC data entry error
- f = The number of LSRs that receive a Z status

Report Structure
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• UNE	Benchmark: 85%
• Resale	Benchmark: 90%
• LNP	Benchmark: 85%

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

Notes:

- The Flow-Through Error Analysis will be posted with the Flow-Through report. The Flow-Through Error Analysis provides 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.
- The CLEC LSR Information, (a.k.a. LSR Detail Report) is available by subscription. A CLEC wishing to receive a copy of their report should submit a feedback form (see link located in the "Resources" section on left side of PMAP website). Enter the name of the report in the Comments section.

RI: Reject Interval

Definition

The interval for the return of a reject is the response time from the receipt of a service request [Local Service Request (LSR) or Access Service Request (ASR)] to the distribution of a reject.

Exclusions

- Service requests canceled by CLEC prior to being rejected/clarified
- Fatal Rejects
- LSRs which are identified as "Projects" with the exception of valid "Project IDs" for UNE-P to UNE Loop Bulk Migration
- Scheduled OSS Maintenance
- Test Transaction/Records

Business Rules

Service Requests are considered valid when submitted by the CLEC and pass edit checks to ensure the data received is correctly formatted and complete. When there are multiple rejects on a single LSR, the first reject issued is used for the calculation of the interval duration.

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) until the LSR is rejected (date and time stamp of reject in ordering interface gateways). 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 ordering interface gateways) which falls out for manual handling until the LCSC Service Representative clarifies the LSR back to the CLEC via ordering interface gateways.

Non-Mechanized: The elapsed time from receipt of a valid LSR not submitted via electronic ordering systems (date and time stamp of FAX or date and time paper LSRs are received in the LCSC) until notice of the reject (clarification) is returned to the CLEC via FAX Server.

Local Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs). ASRs are submitted to and processed by the Carrier Interconnection Switching Center (CISC).

Only normal business hours will be included in the interval calculation for this measure. The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours. In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute. The hours of operation can be found on the Interconnection website (http://www.interconnection.bellsouth.com/centers).

Bulk Migrations: Requests for Bulk Migrations will come into BellSouth via a Global Request. The Global Request will be broken down into individual LSRs. These individual LSRs will be used for the measurements and will be reported within the correct product disaggregation for each measure. For the interval calculations, the original versions of the individual LSRs will be assigned the "start time-stamp" from the receipt of the original Global Request.

Calculation

Reject Interval = (a - b)

- a = Date and time of service request rejection
- b = Date and time of service request receipt

Percent within Interval = (c / d) X 100

- c = Service requests rejected in reported interval
- d = Total service requests rejected in report period

Report Structure

One report with the following four Disaggregation Levels and their associated interval buckets:

- Fully Mechanized:
  0 - <= 1 hour
- Partially Mechanized:
  0 - <= 10 hours
- Non-Mechanized:
  0 - <= 18 hours
- Local Interconnection Trunks:
  0 - <= 4 days
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Fully Mechanized	97% <= 1 Hour
• Partially Mechanized	90% <= 10 Hours
• Non-Mechanized	85% <= 18 Hours
• Local Interconnection Trunks	85% <= 4 Days

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

RI: Reject Interval

FOCT: Firm Order Confirmation Timeliness

Definition

The interval for return of a Firm Order Confirmation (FOC) is the response time from the receipt of a valid Access Service Request (ASR)/Local Service Request (LSR) to distribution of a FOC.

Exclusions

- Service Requests canceled by CLEC prior to a FOC being returned
- Designated Holidays are excluded from the interval calculation for partially mechanized and non-mechanized LSRs/ASRs only
- LSRs which are identified as "Projects" with the exception of valid "Projects IDs" for /UNE-P to UNE Loop Bulk Migrations
- Test Transactions/Records
- Scheduled OSS Maintenance

Business Rules

When multiple FOCs occur on a single LSR/ASR, the first FOC is used to measure the interval.

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) until the LSR is processed, appropriate service orders are generated and a Firm Order Confirmation is returned to the CLEC via ordering interface gateways.

Partially Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) 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 ordering interface gateways.

Non-Mechanized: The elapsed time from receipt of a valid paper LSR not submitted via electronic systems (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 FAX Server.

Local Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs). ASRs are submitted to and processed by the Carrier Interconnection Switching Center (CISC).

Only normal business hours will be included in the interval calculation for this measure. The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours. In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute. The hours of operation can be found on the Interconnection website (http://www.interconnection.bellsouth.com/centers).

Bulk Migrations: Requests for Bulk Migrations will come into BellSouth via a Global Request. The Global Request will be broken down into individual LSRs. These individual LSRs will be used for the measurements and will be reported within the correct product disaggregation for each measure. For the interval calculations, the original versions of the individual LSRs will be assigned the "start time-stamp" from the receipt of the original Global Request.

Calculation

Firm Order Confirmation Interval = (a - b)

- a = Date and time of Firm Order Confirmation
- b = Date and time of service request receipt

Percent within Interval = (c / d) X 100

- c = Service requests confirmed in reported interval
- d = Total service requests confirmed in the report period

Report Structure

One report with the following four Disaggregation Levels and their associated interval buckets:

- Fully Mechanized:
  0 - <= 3 hours
- Partially Mechanized:
  0 - <= 10 hours
- Non-mechanized:
  0 - <= 24 hours
- Local Interconnection Trunks:
  0 - <= 10 days
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	**SQM Analog/Benchmark**
• Fully Mechanized	95% <= 3 Hours
• Partially Mechanized	90% <= 10 Hours
• Non-Mechanized	90% <= 24 Hours
• Local Interconnection Trunks	95% <= 10 Days

SEEM Measure

SEEM	**Tier I**	**Tier II**
No		

FOCRC: Firm Order Confirmation and Reject Response Completeness

Definition

This measurement provides the percent of Local Service Requests (LSRs)/Access Service Requests (ASRs) received during the reporting period that are responded to with either a reject or firm order confirmation.

Exclusions

- Service requests canceled by the CLEC prior to FOC or Reject being sent
- Fatal Rejects
- LSRs which are identified as "Projects" with the exception of valid "Projects IDs" for UNE-P to UNE Loop Bulk Migrations
- Test Transactions/Records

Business Rules

Fully Mechanized: The number of FOCs or Rejects sent to the CLEC from ordering interface gateways in response to electronically submitted LSRs (date and time stamp in ordering interface gateways).

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

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

Local Interconnection Trunks: Interconnection Trunks are ordered on Access Service Requests (ASRs). ASRs are submitted to and processed by the Carrier Interconnection Switching Center (CISC).

Bulk Migrations: Requests for Bulk Migrations will come into BellSouth via Global Requests. The Global Request will be broken down into individual LSRs. These individual LSRs will be used for the measurements and will be reported within the correct product disaggregation for each measure.

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

Report Structure

- One report with the following four Disaggregation Levels:
    - Fully Mechanized
    - Partially Mechanized
    - Non-Mechanized
    - Local Interconnection Trunks
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
    - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Fully Mechanized ....95% Returned
- Partially Mechanized ....95% Returned
- Non-Mechanized..95% Returned
- Local Interconnection Trunks ....95% Returned

SEEM Measure

SEEM	Tier I	Tier II
Yes.......................	X	

SOAC: Service Order Accuracy

Definition

This report measures the accuracy and completeness of CLEC requests for service by comparing the CLEC Local Service Request (LSR) to the completed service order after provisioning has been completed. Only electronically submitted LSRs that require manual handling (Partially Mechanized) by a BellSouth service representative in the LCSC are measured.

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Disconnect Orders
- CLEC LSRs submitted electronically that are not manually handled by BellSouth (Flow-Through)
- LSRs which are identified as "Projects"
- Listings Orders

Business Rules

The CLEC requested services on the LSR are mechanically compared to the completed service order using the CLEC affecting service attributes shown below.

Selected CLEC Affecting Service Attributes

The BellSouth Local Service Request (LSR) fields identified below will be used, as applicable, for this Service Order Accuracy review process.

A service affecting comparison of the fields listed below will determine the accuracy of the provisioning process. If any of the fields listed below are populated on the LSR and do not match the corresponding field on the Service Order and are service affecting, the order will be scored as a miss.

BellSouth will maintain a list of LCSC/System workarounds which will not be service affecting. This list will be identified in a document posted on the Interconnection website. CLECs may discuss any of the posted LCSC/System workarounds during the regular PMAP notification calls.

- Company Code
- PON
- Billed Telephone Number
- Telephone Number
- Ported Telephone Number
- Circuit ID
- PIC
- LPIC
- Directory Listing
    - Directory Delivery Address
    - Listing Activity
    - Alphanumeric Listing Identifier Code
    - Record Type
    - Listing Type
    - Listed Telephone Number
    - Listed Name, Last Name
    - Listed Name, First Name
    - Address Indicator
    - Listed Address House Number
    - Listed Address House Number Suffix
    - Listed Address Street Directional
    - Listed Address Street Name
    - Listed Address Thoroughfare
    - Listed Address Street Suffix

- Listed Address Locality
- Yellow Pages Heading
- Features
  - Feature Activity
  - Feature Codes
  - Feature Detail*
- Hunting
  - Hunt Group Activity
  - Hunt Group Identifier
  - Telephone Number Identifier
  - Hunt Type Code
  - Hunt Line Activity
  - Hunting Sequence
  - Number Type
  - Hunting Telephone Number
- E911 Listing
  - Service Address House Number
  - Service Address House Number Suffix
  - Service Address Street Directional
  - Service Address Street Name
  - Service Address Thoroughfare
  - Service Address Street Suffix
  - Service Address Descriptive Location
- EATN
- ATN
- APOT
- CFA
- NC
- NCI

* Feature Detail will only be checked for the following USOCs: GCE, GCJ, CREX4, GCJRC, GCZ, DRS, VMSAX, S98VM, S98AF, SMBBX, MBBRX. USOCs and FIDs for Feature Detail will be posted on the Interconnection Website. Any changes to the USOCs and FIDs required to continue checking the identical service will be updated on this Website.

Calculation

Percent Service Order Accuracy = (a / b) X 100

- a = Orders completed without error
- b = Orders completed in reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - Region

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation   **SQM Analal/Benchmark**

- Resale...95% Accurate
- UNE..95% Accurate
- UNE-P ....95% Accurate

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

Section 3: Provisioning

PIAM: Percent Installation Appointments Met

Definition

This report measures the percentage of total orders for which BellSouth meets the committed due date.

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Disconnect Orders
- Listing Orders

Business Rules

All service orders are considered as met, unless the first missed appointment code is due to BellSouth company reasons.

Calculation

Percent Installation Appointments Met = (a / b) X 100

- a = Number of orders where the installation appointment is met
- b = Total number of orders completed during the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)
Resale Design	Retail Design
LNP/INP (Standalone)	Retail Residence and Business (POTS)
UNE Analog Loop (Design)	Retail Residence, Business and Design (Dispatch)
UNE 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 EELs	Retail DS1/DS3
UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
UNE ISDN	Retail ISDN - BRI
UNE Line Splitting	ADSL Provided to Retail
UNE Other Design	Diagnostic
UNE Other Non-Design	Diagnostic
Local Interconnection Trunks	Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

FOCI: Firm Order Confirmation Average Completion Interval

Definition

The "Firm Order Confirmation Average Completion Interval" measures the interval of time it takes BellSouth to provide service for the CLEC or its own customers. This report measures how well BellSouth meets the interval offered to customers on service orders from receipt of a Local Service Request (LSR) to the order completion. It is a combined report of FOC and OCI.

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be coded C, N, R, or T)
- Disconnect Orders
- "L" Appointment coded orders (where the customer has requested a later than offered interval)
- End-User Caused Missed Appointments
- Rejected LSRs
- LSRs identified as "Projects"
- Scheduled OSS Maintenance
- Listing Orders

Business Rules

For CLEC orders, the actual FOC interval and completion interval is determined for each order processed during the reporting period. The duration starts when BellSouth receives a valid LSR or ASR and stops when the technician or system completes the order in SOCS. For BellSouth retail orders, an interval representing FOC time is added to the actual completion interval to create an analogous retail analog since BellSouth retail orders do not have a comparable ordering process. The start time for the completion interval for BellSouth retail orders is the timestamp of the first entry into SOCS and the stop time is when the technician or system completes the order in SOCS. Orders 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). Only valid business hours/days will be included in the calculation of this interval for FOC interval and valid business days for OCI interval. Valid business days and hours can be found on the Interconnection website (http://www.interconnection.bellsouth.com/#local orderinghandbook/intervalguide).

LSR/ASR Business Hours:

Only normal business hours will be included in the interval calculation for this measure. The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours. In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute. The hours of operation can be found on the Interconnection website (http://www.interconnection.bellsouth.com/centers).

Mechanized Rules For LSR Receipt:

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) that does not fall out for manual handling until the LSR is processed, appropriate service orders are generated and a Firm Order Confirmation is returned to the CLEC via ordering interface gateways.

Partially Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways), 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 ordering interface gateways.

Non-Mechanized: The elapsed time from receipt of a valid LSR (date and time stamp of FAX or date and time LSRs received in the center) 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.

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

When multiple FOCs occur on a single request, the first FOC is used to measure the interval.

Calculation

Firm Order Confirmation Completion Interval = (a - b)

- a = Service order completion date
- b = Service request receipt date and time

Firm Order Confirmation Average Completion Interval = (c / d)

- c = Sum of all completion intervals
- d = Count of orders completed in reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Reported in categories of < 6 lines/circuits, >= 6 lines/circuits (except trunks)
- Dispatch/Non-Dispatch categories applicable to all levels except trunks
- Fully Mechanized; Partially Mechanized; Non-Mechanized; Local Interconnection Trunks
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

Performance Standard (FOC+OCI)

Disaggregation	Analog/Benchmark (OCI)	Business Days (FOC) (Days Added to Interval)		
		FM	PM	NM
Resale Residence (Non-Design)	Retail Residence (Non-Design)	.5	1.0	2.5
Resale Business (Non-Design)	Retail Business (Non-Design)	.5	1.0	2.5
Resale Design	Retail Design	.5	1.0	2.5
LNP\INP (Standalone)	Retail Residence and Business (POTS)	.5	1.0	2.5
UNE Analog Loop (Dispatch)	Retail Residence, Business and Design (Dispatch)	.5	1.0	2.5
UNE Analog Loop (Non-Dispatch)	Retail Residence and Business (Non-Dispatch) (Excluding Switched Based Orders) Plus One Day	.5	1.0	2.5
UNE Digital Loop < DS1	Retail Digital Loop < DS1	.5	1.0	2.5
UNE Digital Loop >= DS1	Retail Digital Loop >= DS1	.5	1.0	2.5
UNE Loop + Port Combinations	Retail Residence and Business	.5	1.0	2.5
UNE EELs	Retail DS1/DS3	.5	1.0	2.5
UNE xDSL (HDSL, ADSL and UCL) without conditioning	6 Days	.5	1.0	2.5
UNE xDSL (HDSL, ADSL and UCL) with conditioning	12 Days	.5	1.0	2.5
UNE Line Splitting without conditioning	ADSL Provided to Retail	.5	1.0	2.5
UNE Line Splitting with conditioning	12 Days	.5	1.0	2.5
UNE ISDN	Retail ISDN – BRI	.5	1.0	2.5
UNE Other Design	Diagnostic	.5	1.0	2.5
UNE Other Non-Design	Diagnostic	.5	1.0	2.5
Local Interconnection Trunks	Retail Trunks			10

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

CCCI: Coordinated Customer Conversions Interval – Hot Cut Duration

Definition

This report measures the average time it takes BellSouth to disconnect loops from the BellSouth switch, connect the loops to the CLEC, and notify the CLEC after the conversion is complete. This measurement applies to service orders where the CLEC has requested BellSouth to provide a coordinated conversion.

Exclusions

- Canceled Service Orders
- Delays caused by the CLEC
- Non-Coordinated Conversions
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Listing Orders

Business Rules

Coordinated conversions are scheduled between the CLEC and BellSouth. The start time for this measure will be the mutually agreed upon start of the conversion and the stop time will be when the CLEC is notified after the conversion is complete. The conversion interval for the entire service order is calculated and then divided by the number of loops converted to determine the average duration per loop.

Calculation

Coordinated Customer Conversions Interval = (a - b) / c

- a = Completion date and time of CLEC notification
- b = Start date and time of conversion
- c = Number of loops per order

Percent Coordinated Customer Conversions (d / e) X 100

- d = Total number of Coordinated Customer Conversions (loops) within <= 20 minutes
- e = Total number of Coordinated Customer Conversions (loops) for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Coordinated Customer Conversions (Loops)	95% <= 20 Minutes

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

HCT: Coordinated Customer Conversions – Hot Cut Timeliness

Definition

This report measures the percentage of orders where BellSouth begins the conversion of a loop on a coordinated and/or a time specific order within a timely manner of the CLEC requested start time.

Exclusions

- Any order canceled by the CLEC
- Delays caused by the CLEC
- Loops where there is no existing subscriber loop and loops where coordination is not requested
- Subsequent loops on multiple loop orders after the first loop
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Listing Orders

Business Rules

The cut is considered "on time" if it starts <= 15 minutes before or after the requested start time. If a cut involves multiple lines, the cut will be considered "on time" if the first line is cut within the "on time" interval. If Integrated Digital Loop Carrier (IDLC) is involved, BellSouth must notify the CLEC by 10:30 AM on the day before the due date and then the "on time" interval is <= 2 hours before or after the requested start time.

Calculation

Percent within Interval = (a / b) X 100

- a = Total number of coordinated unbundled loop orders converted "on time"
- b = Total number of coordinated unbundled loop orders for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Product Reporting Level	
- Non-IDLC	95% within + or – 15 minutes of scheduled start time
- IDLC	95% within + or – 2 hours of scheduled start time

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

RT: Coordinated Customer Conversions – Average Recovery Time

Definition

This report measures outages associated with Coordinated Customer Conversions prior to service order completion, which can be isolated to BellSouth's side of the network.

Exclusions

- Conversions where service outages are due to CLEC caused reasons
- Conversions where service outages are due to end-user caused reasons
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Listing Orders

Business Rules

Measures the outage duration time related to Coordinated Customer Conversions from the initial trouble notification until the service 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. This measure also displays the overall percentage of orders which did not experience a trouble during a coordinated conversion.

Calculation

Recovery Time = (a - b)

- a = Date and time the initial trouble is cleared and the CLEC is notified
- b = Date and time the 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

Percentage of Items with No Troubles = (e /f) X 100

- e = Total items in the reporting period that did not have a trouble during a coordinated conversion
- f = Total items for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Coordinated Customer Conversions (Loops)................................Diagnostic

SEEM Measure

SEEM   **Tier I**   **Tier II**

No ....

PT: Hot Cut Conversions - Percent Provisioning Troubles Received within 5 Days of a Completed Service Order

Definition

This report measures the percentage of provisioning troubles received within 5 days of a completed service order associated with a Coordinated and Non-Coordinated Customer Conversion and ensures the quality and accuracy of Hot Cut Conversion activities.

Exclusions
- CLEC Canceled Orders
- Troubles caused by Customer Provided Equipment (CPE) or CLEC Equipment
- Listing Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T)
- Troubles outside of BellSouth's control
- Disconnect Orders

Business Rules

The first trouble report received on a circuit ID within 5 days following a service order completion is counted in this measure. Subsequent trouble reports are measured in Repeat Report Rate.

Calculation

Percentage of Provisioning Troubles within 5 Days of Service Order Completion = (a / b) X 100

- a = The sum of all Hot Cut Circuits with a trouble within 5 days following service order(s) completion
- b = The total number of Hot Cut Circuits completed in the previous reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- UNE Loops ....<= 5%

SEEM Measure
SEEM   **Tier I**   **Tier II**

   No ....

CNDD: Non-Coordinated Customer Conversions - Percent Completed and Notified on Due Date

Definition

This report measures the percentage of non-coordinated conversions that BellSouth completed and provided notification to the CLEC on the due date during the reporting period.

Exclusions

- CLEC Canceled Service Orders
- Delays Caused by the CLEC
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T)

Business Rules

The order is considered successfully completed if the order is completed on the due date and the CLEC is notified on the due date.

Calculation

Percent = (a / b) X 100

- a = Total number of non-coordinated conversions completed on the due date with CLEC notification
- b = Total number of non-coordinated conversions for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	**SQM Analog/Benchmark**
• Non-Coordinated Conversions	95% Completed on Due Date with CLEC Notification

SEEM Measure

SEEM	**Tier I**	**Tier II**
Yes	X	X

PPT: Percent Provisioning Troubles within 5 Days of Service Order Completion

Definition

This report measures the quality and accuracy of the provisioning process by calculating the percentage of troubles received within 5 days of service order completion.

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc. which may be order types C, N, R or T)
- Disconnect Orders
- Trouble reports caused and closed out to Customer Provided Equipment (CPE) or CLEC Equipment
- Listing Orders
- Troubles outside of BellSouth's control

Business Rules

The first trouble report received after the completion of a service order is counted in this measure. When the completed service order is matched to a trouble report, it is uniquely counted one time in the numerator. Candidates are identified by searching the prior report period for all completed service orders and then searching for all trouble reports received within 5 days of the service order completion date.

Calculation

Percent Provisioning Troubles within 5 Days of Service Order Completion = (a / b) X 100

- a = Total completed orders receiving a trouble report within 5 days of the service order(s) completion
- b = All service orders completed in the previous reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation **SQM Analog/Benchmark**

- Resale Residence (Non-Design) ....Retail Residence (Non-Design)
- Resale Business (Non-Design)..Retail Business (Non-Design)
- Resale Design ....Retail Design
- UNE Analog Loop (Design) ....Retail Residence, Business and Design (Dispatch)
- UNE 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 EELs ....Retail DS1/DS3
- UNE xDSL (HDSL, ADSL and UCL)..ADSL Provided to Retail
- UNE ISDN...Retail ISDN – BRI
- UNE Line Splitting ....ADSL Provided to Retail
- UNE Other Design..Diagnostic
- UNE Other Non - Design..Diagnostic
- Local Interconnection Trunks ....Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

PPT: Percent Provisioning Troubles within 5 Days of Service Order Completion

LOOS: LNP–Percent Out of Service < 60 Minutes

Definition

This report measures the percentage of time that BellSouth performs electronic system updates within 60 minutes of receiving LNP activations.

Exclusions

- CLEC Caused Errors
- NPAC errors unless caused by BellSouth
- Standalone LNP orders with more than 500 number activations
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Listing Orders
- Scheduled OSS Maintenance

Business Rules

The interval starts when the ESI Number Manager broadcast message is sent to BellSouth's gateway. The end time is the confirmation receipt time in the Local Service Management Systems (LSMS), which advises that BellSouth's electronic systems have successfully been updated. A disconnect time for all telephone numbers contained within an order will be calculated and averaged to present a disconnect time for the order as a whole.

Calculation

Percent Out of Service < 60 Minutes = (a / b) X 100

- a = Number of orders containing activations provisioned in less than 60 minutes
- b = Total orders containing LNP Activations

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- LNP..>= 95%

SEEM Measure
SEEM	Tier I	Tier II
Yes		X

LAT: LNP-Percentage of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date

Definition

This report measures the percentage of time BellSouth applies a 10-digit trigger for orders containing ported telephone numbers prior to the due date.

Exclusions

- Remote Call Forwarding, DIDs, and ISDN Data TNs
- CLEC or customer caused misses or delays
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Zero due dated expedited orders requested by the CLEC
- Listing Orders

Business Rules

The number of LNP orders where the 10-digit trigger was applied prior to the due date, divided by the total number of LNP orders where the 10-digit trigger was applicable.

Calculation

Percentage of 10-Digit Trigger Applications = (a / b) X 100

- a = Count of LNP orders for which 10-digit trigger was applied prior to due date
- b = Total LNP orders for which 10-digit triggers were applicable

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- LNP..>= 95%

SEEM Measure

SEEM   **Tier I**   **Tier II**

Yes........................ X

DTNT: LNP-Disconnect Timeliness (Non-Trigger)

Definition

This report measures the percentage of time translations are removed from BellSouth's switch within 12 hours of the receipt of a non-triggerable port activation message. When multiple numbers are ported on a single order, translations for each number must be removed within the interval.

Exclusions

- Canceled Service Orders
- Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T)
- Listing Orders
- CLEC Caused Errors
- NPAC Errors, unless caused by BellSouth
- Incomplete ports where only a subset of the total requested lines on the LSR are submitted via Activate Messages
- LSRs where the CLEC did not contact BellSouth within 30 minutes after Activate Message

Business Rules

Disconnect Timeliness is the elapsed time from when BellSouth receives a valid 'Number Ported' message in ESI Number Manager (signifying the CLEC 'activate') for each telephone number ported until each number is disconnected in the BellSouth switch. Non-business hours will be excluded from the duration calculation for unscheduled LNP ports.

Calculation

Disconnect Timeliness = (a / b) X 100

- a = Number of non-triggerable orders with translations removed in less than 12 hours
- b = Total number of non-triggerable orders during report period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• LNP	95% <= 12 Hours

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

Section 4: Maintenance & Repair

PRAM: Repair Appointments Met

Definition

This report measures the percentage of customer trouble reports 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) or CLEC Equipment troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

The negotiated commitment date and time is established when the repair report is received. The cleared time is the date and time BellSouth personnel clear the trouble and closes the customer trouble report in their workstation. If this is after the commitment time, the report is flagged as a 'missed commitment' or a 'missed repair appointment'. "No Access" troubles are not considered as a missed appointment.

Calculation

Percentage of Repair Appointments Met = (a / b) X 100

- a = Count of customer troubles cleared by the quoted commitment date and time
- b = Total customer trouble reports closed in the reporting period

Report Structure
- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Resale Residence (Non-Design) ....Retail Residence (Non-Design)
- Resale Business (Non-Design)..Retail Business (Non-Design)
- Resale Design ....Retail Design
- UNE Analog Loop (Design) ....Retail Residence, Business and Design (Dispatch)
- UNE Analog Loop (Non-Design) ....Retail Residence and Business - POTS (Excluding 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 EELs ....Retail DS1/DS3
- UNE xDSL (HDSL, ADSL and UCL)..ADSL Provided to Retail
- UNE ISDN...Retail ISDN – BRI
- UNE Line Splitting ....ADSL Provided to Retail
- UNE Other Design...Diagnostic
- UNE Other Non - Design...Diagnostic
- Local Interconnection Trunks ....Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

CTRR: Customer Trouble Report Rate

Definition

This report measures the percentage of customer troubles closed within a calendar month.

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports/lines associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

Customer Trouble Report Rate contains all closed customer direct reports, including repeat reports divided by the total "number of service" lines.

Calculation

Customer Trouble Report Rate = (a / b) X 100

- a = Count of initial and repeated customer trouble reports closed in the current reporting period
- b = Number of lines in service at end of the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Resale Residence (Non-Design) ....Retail Residence (Non-Design)
- Resale Business (Non-Design)...Retail Business (Non-Design)
- Resale Design ....Retail Design
- UNE Analog Loop (Design) ....Retail Residence, Business and Design (Dispatch)
- UNE Analog Loop (Non-Design) ....Retail Residence and Business - POTS (Excluding 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 EELs ....Retail DS1/DS3
- UNE xDSL (HDSL, ADSL and UCL).......................................ADSL Provided to Retail
- UNE ISDN..Retail ISDN – BRI
- UNE Line Splitting...ADSL Provided to Retail
- UNE Other Design..Diagnostic
- UNE Other Non-Design...Diagnostic
- Local Interconnection Trunks ....Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
No		

MAD: Maintenance Average Duration

Definition

This report measures the average duration of customer troubles.

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

The duration starts on the date and time of receipt of a repair request and stops on the date and time the service is restored.

For tickets administered through WFA, (CLECs and BellSouth), durations do not include No Access, Delayed Maintenance and Referred Time.

Calculation

Maintenance Duration = (a - b)

- a = Date and time of service restoration
- b = Date and time customer trouble ticket was opened

Average Maintenance Duration = (c / d)

- c = Total of all maintenance durations in the reporting period
- d = Total closed customer troubles in the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Resale Residence (Non-Design) ....Retail Residence (Non-Design)
- Resale Business (Non-Design)..Retail Business (Non-Design)
- Resale Design ....Retail Design
- UNE Analog Loop (Design) ....Retail Residence, Business and Design (Dispatch)
- UNE Analog Loop (Non-Design)..Retail Residence and Business - POTS (Excluding 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 EELs ....Retail DS1/DS3
- UNE xDSL (HDSL, ADSL and UCL)..ADSL Provided to Retail
- UNE ISDN..Retail ISDN – BRI
- UNE Line Splitting ....ADSL Provided to Retail
- UNE Other Design...Diagnostic
- UNE Other Non - Design...Diagnostic
- Local Interconnection Trunks ....Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

PRT: Percent Repeat Customer Troubles within 5 Days

Definition

This report measures the number of customer trouble reports received within five days of a previous report.

Exclusions

- Trouble tickets canceled at the CLEC request
- BellSouth trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC equipment troubles
- Informational Tickets
- Troubles outside of BellSouth's control

Business Rules

Customer trouble reports considered for this measure are those on the same line/circuit, received within 5 days of an original customer trouble report. Candidates for this measure are determined by using the 'cleared date' of the first trouble and the 'received date' of the next trouble.

Calculation

Percent Repeat Customer Troubles within 5 Days = (a / b) X 100

- a = Count of repeat customer trouble reports, within a continuous 5 day period
- b = Total customer trouble reports closed in the reporting period

Report Structure

- Dispatch/Non-Dispatch
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)
Resale Design	Retail Design
UNE Analog Loop (Design)	Retail Residence, Business and Design (Dispatch)
UNE Analog Loop (Non-Design)	Retail Residence and Business - POTS (Excluding 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 EELs	Retail DS1/DS3
UNE xDSL (HDSL, ADSL and UCL)	ADSL Provided to Retail
UNE ISDN	Retail ISDN – BRI
UNE Line Splitting	ADSL Provided to Retail
UNE Other Design	Diagnostic
UNE Other Non - Design	Diagnostic
Local Interconnection Trunks	Retail Trunks

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

AAT: Average Answer Time – Repair Centers

Definition

This report measures the average time a customer is in queue when calling a BellSouth repair center.

Exclusions

None

Business Rules

The duration starts when a CLEC representative or BellSouth customer makes a choice on the repair center menu and is put in queue for the next repair attendant and stops when the repair attendant answers the call. Abandoned calls are not included in the volume of calls handled but are included in total seconds.

Calculation

Answer Time for BellSouth Repair Centers = (a - b)

- a = Time BellSouth repair attendant answers call
- b = Time of entry into queue

Average Answer Time for BellSouth Repair Centers = (c / d)

- c = Sum of all answer times
- d = Total number of calls in the reporting period

Report Structure

- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- CLEC Average Answer Time .... BellSouth Average Answer Time

SEEM Measure

SEEM   **Tier I**   **Tier II**

No ....

Section 5: Billing

BIA: Invoice Accuracy

Definition

This measure reports the accuracy of billing invoices rendered by BellSouth to wholesale and retail customers.

Exclusions

- Adjustments not related to billing errors (e.g., credits for service outage, special promotion credits, adjustments to satisfy the customer, adjustments as per agreements and/or settlements with CLEC, adjustments related to the implementation of regulatory mandated or contract negotiated rate changes).
- Test Accounts

Business Rules

Absolute value of total billed revenue and absolute value of adjustment amounts related to billing errors appearing on the bill during the report month are used to compute invoice accuracy. All bill periods are included in a report month.

Calculation

Invoice Accuracy = [(a - b) / a] X 100

- a = Absolute value of total billed revenues during report month
- b = Absolute value of total billing error related adjustments during report month

Report Structure

- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark

CLEC Invoice Accuracy

- Resale..Retail Invoice Accuracy
- UNE...Retail Invoice Accuracy
- Interconnection ....Retail Invoice Accuracy

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

BIT: Mean Time to Deliver Invoices

Definition

This report measures the mean interval for timeliness of billing invoices delivered to USPS (US Postal Service) or transmitted to the customer in an agreed upon format.

Exclusions

None

Business Rules

Invoice timeliness is determined by calculating the interval between the bill period date and actual transmission or distribution of the invoice. To determine the number of workdays, begin counting the bill period date as the first workday (or the next workday if the bill period date is a weekend or holiday). The invoice delivery date is counted as the last workday. Invoice delivery date is the workday the invoice is delivered to the Post Office or transmitted to the customer. CLEC bills and BellSouth bills delivered in less than or equal to one day difference will be considered parity.

Calculation

Invoice Timeliness = (a - b)

- a = Invoice Delivery Date
- b = Bill Cycle Period Date

Mean Time to Deliver Invoices = (c / d)

- c = Sum of all invoice timeliness intervals
- d = Count of invoices delivered in reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog Benchmark**

The average delivery intervals are compared as follows:

- Resale CRIS .... Retail CRIS
- UNE CRIS .... Retail CRIS
- Interconnection CABS .... Retail CABS

SEEM Measure
    SEEM   **Tier I**   **Tier II**

    Yes .... X X

UDDT: Usage Data Delivery Timeliness

Definition

This report measures recorded usage data that is delivered to the appropriate CLEC within six (6) calendar days from the receipt of the initial recording.

Exclusions

None

Business Rules

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
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Usage Data Delivery Timeliness...>= 95% in Six Calendar Days

SEEM Measure

SEEM	Tier I	Tier II
No	....	....

Section 6: Trunk Group Performance

TGPA: Trunk Group Performance

Definition

This report displays Trunk Group blocking performance for both BellSouth and CLECs.

Exclusions

- Trunk groups blocked due to unanticipated significant increases in CLEC traffic (An unanticipated, significant increase in traffic is indicated by a 20% increase for small trunk groups or 1800 CCS for large groups over the previous month's traffic when the increase was not forecasted by the CLEC.)
- Orders delayed or refused by the CLEC
- 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
- Final groups actually overflowing, not blocked

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 measurement 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
- CLEC Aggregate
- BellSouth Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- CLEC Aggregate and CLEC Specific .... BellSouth Aggregate

Any 2 consecutive hours in a 24-hour period where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1, 3, 4, 5, 10 (where applicable) and 16 for CLECs and 1, 9, 10 (where applicable) and 16 for BellSouth

SEEM Measure

SEEM	Tier I	Tier II
Yes.................................. X X		

Section 7: Collocation

ART: Collocation Average Response Time

Definition

This report measures the time it takes BellSouth to respond to the receipt of a complete and accurate collocation application. BellSouth must respond as to whether or not space is available within the required number of calendar days after having received a bona fide application for collocation.

Exclusions
- Any application canceled by the CLEC

Business Rules

The interval begins on the date BellSouth receives a complete and accurate collocation application accompanied by the appropriate application fee if required. The interval stops on the date BellSouth returns a response. The interval 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 the reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Virtual	15 Calendar Days
• Physical Caged	15 Calendar Days
• Physical Cageless	15 Calendar Days

SEEM Measure

SEEM	Tier I	Tier II
No		

AT: Collocation Average Arrangement Time

Definition

This report measures BellSouth's performance in provisioning a collocation arrangement.

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 interval for collocation arrangements begins on the date BellSouth receives a complete and accurate bona fide firm order accompanied by the appropriate fee, if required; and ends on the date 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

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Retail Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Virtual – Initial	60 Calendar Days
• Virtual Augment (without space increase)	60 Calendar Days
• Virtual-Augment (with space increase)	60 Calendar Days
• Physical Caged-Initial (Ordinary)	90 Calendar Days
• Physical Caged-Augment (without space increase)	45 Calendar Days
• Physical Caged-Augment (with space increase)	90 Calendar Days
• Physical Cageless Initial	90 Calendar Days
• Physical Cageless Augment (without space increase)	45 Calendar Days
• Physical Cageless Augment (with space increase)	90 Calendar Days

SEEM Measure

SEEM	Tier I	Tier II
No		

PMDD: Collocation Percent of Due Dates Missed

Definition

This report measures the percentage of missed due dates for collocation arrangements.

Exclusions
- Any bona fide firm order canceled by the CLEC

Business Rules

Percent Due Dates Missed is the percentage of total collocation arrangements which BellSouth is unable to complete by the BellSouth committed due date.

Calculation

Percent Due Dates Missed = (a / b) X 100

- a = Number of completed collocation arrangements that were not completed by the committed due date in the reporting period
- b = Total number of collocation arrangements completed in the reporting period

Report Structure
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Virtual	>= 95% on time
• Physical	>= 95% on time

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X

Section 8: Change Management

CMN: Timeliness of Change Management Notices

Definition

This report 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. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth local interfaces.

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

The interval begins on the notification date and ends 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 interval 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 sent

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Notices ....95% >= 30 Days of Release

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

CMD: Timeliness of Documents Associated with Change

Definition

This report 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. The CCP is used by BellSouth and the CLECs to manage requested changes to the BellSouth local interfaces.

Exclusions

- Documentation for release dates that slip less than 30 days for reasons outside BellSouth's 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

Documentation standards and timeframes can be found in the Change Control Process, on the Interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html).

The interval begins on the date the business rule documentation is released and ends 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 interval would restart.

Calculation

Timeliness of Documents Associated with Change = (a / b) X 100

- a = Change Management documents sent within required timeframes after notices
- b = Total number of Change Management documents sent

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Documents ....95% >= 30 days if new feature coding is required

95% >= 5 days for documentation defects, corrections or clarifications

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

ION: Notification of CLEC Interface Outages

Definition

This report measures the time it takes BellSouth to notify the CLECs of an interface outage as defined by the Change Control Process (CCP) documentation.

Exclusions

None

Business Rules

BellSouth has 15 minutes to notify the CLEC's via email, once the Help Desk has verified the existence of an outage. An outage is verified to exist when one or more of the following conditions occur:

1. BellSouth can duplicate a CLEC reported system error.
2. BellSouth finds an error message within the error log that identically matches a CLEC reported system outage.
3. When three or more CLECs report the identical type of outage.
4. BellSouth detects a problem due to the loss of functionality for users of a system.

The 15-minute interval begins once a CLEC reported outage or a BellSouth detected outage has lasted for 20 minutes and has been verified. If the outage is not verified within 20 minutes, the interval begins at the point of verification.

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
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- By interface type for all interfaces accessed by CLECs................97% <= 15 Minutes

Interface	Applicable to
EDI	CLEC
CSOTS	CLEC
LENS	CLEC
TAG	CLEC
ECTA	CLEC
TAFI	CLEC/BellSouth

SEEM Measure

SEEM	Tier I	Tier II
No		

PSEC: Percentage of Software Errors Corrected in "X" Business Days

Definition

This report measures the percentage of software errors corrected by BellSouth in "X" business days within the report period.

Exclusions

- Software corrections having implementation intervals that are longer than those defined in this measure and agreed upon by the CLECs
- Rejected or reclassified software errors (BellSouth must report the number of rejected or reclassified software errors disputed by the CLECs)

Business Rules

The interval begins when a Software Error is validated per the Change Control Process (CCP) and ends when the error is corrected and the notice is posted to the change control website. Currently "X" business days is defined in the CCP as 10 = Severity 2, 30 = Severity 3, and 45 = Severity 4. The current intervals for this measure will be consistent with the intervals set in the CCP. A copy of the most current CCP can be found on the Interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html). Software defects are defined as Type 6 Change Requests in the Change Control Process.

Calculation

Percentage of Software Errors Corrected in "X" Business Days = (a / b) X 100

- a = Total number of software errors corrected in "X" business days, as defined for each severity level (Severity 2, Severity 3, and Severity 4) within the reporting period
- b = Total number of Severity 2, Severity 3, and Severity 4 software errors corrected within the reporting period

Report Structure

- Severity 2 = 10 Business Days
- Severity 3 = 30 Business Days
- Severity 4 = 45 Business Days
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Errors Corrected...95% within Interval

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

PCRAR: Percentage of Change Requests Accepted or Rejected within 10 Days

Definition

This report measures the percentage of change requests, other than Type 1 or Type 6 Change Requests, submitted by CLECs that are accepted or rejected by BellSouth in 10 business days within the report period.

Exclusions

- Change requests canceled or withdrawn before a response from BellSouth is due

Business Rules

The acceptance/rejection interval begins when the acknowledgement is due to the CLEC per the Change Control Process, a copy of which can be found on the Interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html). The interval ends when BellSouth issues an acceptance or rejection notice to the CLEC. This metric includes all change requests not subject to the above exclusions that have been responded to within the reporting period.

Calculation

Percent of Change Requests Accepted or Rejected within 10 Business Days = (a / b) X 100

- a = Total number of change requests accepted or rejected within 10 business days
- b = Total number of change requests responded to within the reporting period

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Requests Accepted/Rejected ....95% within Interval

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

PCRR: Percent Change Requests Rejected

Definition

This report measures the percentage of change requests (other than Type 1 or Type 6 Change Requests) submitted by CLECs that are rejected within the report period.

Exclusions

- Change requests canceled or withdrawn before a response from BellSouth is due

Business Rules

This metric includes any rejected change requests in the reporting period, regardless of whether received early or late. The metric will be disaggregated by major categories of rejection per the Change Control Process, a copy of which can be found on the Interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html). These reasons are: cost, technical feasibility, and industry direction. This metric includes all change requests not subject to the above exclusions that have been responded to within the reporting period.

Calculation

Percent Change Requests Rejected = (a / b) X 100

- a = Total number of change requests rejected
- b = Total number of change requests responded to within the reporting period

Report Structure

- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Reason – Cost ....Diagnostic
- Reason – Technical Feasibility ....Diagnostic
- Reason – Industry Direction ....Diagnostic

SEEM Measure

SEEM   **Tier I**   **Tier II**

No ....

NDPR: Number of Defects in Production Releases (Type 6 CR)

Definition

This report measures the number of defects in production releases. This measure will be presented as the number of Type 6 Severity 2 Defects, the number of Type 6 Severity 3 Defects without a mechanized work around, and the number of Type 6 Severity 4 Defects resulting within a three week period from a production release date. The definition of Type 6 Change Requests (CR) and Severity 2, Severity 3, and Severity 4 Defects can be found in the Change Control Process document.

Exclusions

None

Business Rules

This metric measures the number of Type 6 Severity 2 Defects, the number of Type 6 Severity 3 Defects without a mechanized work around, and the number of Type 6 Severity 4 Defects resulting within a three week period from a production release date. The definitions of Type 6 Change Requests (CR) and Severity 2, 3, and 4 defects can be found in the Change Control Process, which can be found on the Interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html).

Calculation

The number of Type 6 Severity 2 Defects, the number of Type 6 Severity 3 Defects without a mechanized work around, and the number of Type 6 Severity 4 Defects.

Report Structure
- Production Releases
- Number of Type 6 Severity 2 Defects
- Number of Type 6 Severity 3 Defects without a mechanized work around
- Number of Type 6 Severity 4 Defects
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Number of Type 6 Severity 2 Defects...0 Defects
- Number of Type 6 Severity 3 Defects...0 Defects
  without a mechanized work around
- Number of Type 6 Severity 4 Defects...0 Defects

SEEM Measure
SEEM   **Tier I**   **Tier II**

No ....

SV: Software Validation

Definition

This report measures software validation test results for production releases of BellSouth local interfaces.

Exclusions

None

Business Rules

BellSouth maintains a test deck of transactions that are used to validate that functionality in software production releases work as designed. Each transaction in the test deck is assigned a weight factor based on the weights assigned to the metrics. Within the software validation metric, weight factors will be allocated among transaction types (e.g., Pre-Order, Order Resale, Order UNE, Order UNE-P) and then equally distributed across transactions within the specific type.

BellSouth will begin to execute the software validation test deck within one (1) business day following a production release. Test deck transactions will be executed using production release software in the CAVE environment. Within seven (7) business days following completion of the production release software validation test in CAVE, BellSouth will report the number of test deck transactions that failed. Each failed transaction will be multiplied by the transaction's weight factor.

A transaction is considered failed if the request cannot be submitted or processed, or results in incorrect or improperly formatted data.

The test deck scenario weight table can be found in the Change Control Process, a copy of which can be found on the interconnection website (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html).

Calculation

This software validation metric is defined as the ratio of the sum of the weights of failed transactions using production release software in CAVE to the sum of the weights of all transactions in the test deck.

- Numerator = Sum of weights of failed transactions
- Denominator = Sum of weights of all transactions in the test deck

Report Structure
- BellSouth Aggregate
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation   **SQM Analog/Benchmark**

- Failed Transactions ....<= 5%

SEEM Measure
SEEM   **Tier I**   **Tier II**

  No ....

PCRIP: Percentage of Change Requests Implemented within 60 Weeks of Prioritization

Definition

This report measures whether BellSouth provides CLECs timely implementation of prioritized change requests.

Exclusions

- Change requests implemented later than 60 weeks with the consent of the CLECs
- Change requests where BellSouth has regulatory authority to exceed the interval

Business Rules

The interval for each change request begins when it has been prioritized as described in the Change Control Process and ends when the change request has been implemented by BellSouth and made available to the CLECs.

Calculation

Percentage of Type 5 CLEC Initiatned Change Requests Implemented on Time = (a / b) X 100

- a = Total number of prioritized Type 5 CLEC initiated Change Requests implemented within the data month having an implementation interval less than or equal to 60 weeks from the most recent release prioritization date
- b = Total number of prioritized Type 5 CLEC initiated Change Requests implemented within the data month

Percentage of Type 4 CLEC Initiated Change Requests Implemented on Time = (c / d) X 100

- c = Total number of prioritized Type 4 CLEC initiated Change Requests implemented within the data month having an implementation interval less than or equal to 60 weeks from the release prioritization date
- d = Total number of prioritized Type 4 CLEC initiated Change Requests implemented within the data month

Report Structure

- BellSouth Aggregate
- Type 4 Requests Implemented
- Type 5 Requests Implemented
- Percent implemented within 16, 32, 48, and 60 weeks
- Geographic Scope
  - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Type 4 Requests Implemented	95% within Interval
• Type 5 Requests Implemented	95% within Interval

SEEM Measure

SEEM	Tier I	Tier II
Yes		X

Appendix A: Glossary of Acronyms and Terms

Symbols used in calculations

-
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 a like category, e.g. CLEC aggregate equals the sum total of all CLEC data for a given reporting level.

ALEC
Alternative Local Exchange Company – A customer who competes with the Incumbent Local Exchange Carrier (ILEC) in providing local service.

ADSL
Asymmetrical Digital Subscriber Line – A transmission technology that allows the use of one existing local twisted-pair to provide high-bandwidth data and voice services simultaneously.

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.

Auto Clarification
The number of LSRs electronically rejected from LESOG and electronically returned to the CLEC for correction.

B

BOCRIS
Business Office Customer Record Information System – System used to maintain customer account information which includes, but is not limited to, bills, payment history, and memo notations made during customer contact.

BRI
Basic Rate ISDN – This product offering is a two-way line side digital port on a two-wire digital loop. The two-wire digital loop is a dedicated digitial transmission facility.

BRC
Business Repair Center – The BellSouth Business Systems trouble receipt center which serves business and CLEC customers.

C

CABS
Carrier Access Billing System – The database that is used to store access customer service records, including customer bills and service record documents.

CCC
Coordinated Customer Conversions – A simultaneous coordination between the disconnection of existing service and the reconnection of the new service.

CCP
Change Control Process – The methods and procedures used consistently to make changes to the requirements of the metrics identified in the Service Quality Measurements Plan (SQM).

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).

CISC
Carrier Interconnection Switching Center - The BellSouth Center dedicated to handling CLEC access service requests.

CKTID
Circuit Identifier - A unique identifier for elements combined in a service configuration.

CLEC
Competitive Local Exchange Carrier – A customer who competes with the Incumbent Local Exchange Carrier (ILEC) in providing local service.

CLP
Competitive Local Provider – A customer who competes with the Incumbent Local Exhchange Carrier (ILEC) in providing local service.

CM
Change Management – The ongoing process that identifies, documents, and appropriately notifies a party of all changes and modifications.

CMDS
Centralized Message Distribution System - 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 indicates all services available to a customer.

COG
Corporate Gateway - System 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.

CRSG
Complex Resale Support Group – Provides Loop Makeup information on an address.

C-SOTS
CLEC Service Order Tracking System – Provides CLECs the ability to query the service order database.

CSR
Customer Service Record – A record of the customer/end-user information, including details about the services and physical address of the end-user.

CTTG
Common Transport Trunk Group - Trunk groups between BellSouth, independent end-offices, and the BellSouth access tandems.

CWINS Center
Customer Wholesale Interconnection Network Services Center (formerly the UNE Center) – This center provides CLECs with provisioning and maintenance for designed and non-designed local service.

D

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 (NTF), Central Office Equipment (CO), Customer Premises Equipment (CPE), etc.) – These codes identify the location, equipment and/or disposition of a particular trouble. Trouble reports will be closed to the most service affecting code which describes the trouble condition repaired.

DS0
The worldwide standard speed for one digital voice signal (64,000 bps).

DS1
24 DS0s (1.544Mb/sec.)

DOE
Direct Order Entry System - An internal BellSouth service order entry system used by BellSouth service representatives to input service orders in BellSouth format.

DOM
Delivery Order Manager – Determines the needed processing steps for the service request. It then forwards the request on to each required system, in sequence, checking for errors and accuracy.

DSAP
DOE (Direct Order Entry) Support Application - A BellSouth system which assists a service representative or similar carrier agent in negotiating service provisioning commitments for non-designed services and Unbundled Network Elements.

DSL
Digital Subscriber Line – Allows customers to provide simltaneous two-way transmission of digital signals at speeds of 256 kbps via a two-wire local channel.

DUI
Database Update Information – A functional area measuring the timeliness and accuracy of database updates.

E

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 – A central office housed communications system that provides the customer with direct inward and outward dialing, intercommunication to all stations, and custom calling features.

F

Fatal Reject
LSRs electronically rejected from LEO because the required fields are not 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 the LSR has been received and accepted, including the specified commitment date.

FX
Foreign Exchange – A network-provided service in which a telephone in a given local exchange area is connected, via a private line, to a central office in another exchange.

G H

HDSL
High Bit Digital Subscriber Line – A dedicated digital transmission facility from BellSouth's Main Distribution Frame (MDF) to an end user's premises.

I J K

ILEC
Incumbent Local Exchange Carrier – Regional Bell Operating Company (RBOC)

INP
Interim Number Portability – When the customer is originally provided service by an ILEC and decides to change service to a CLEC, the customer may retain their ILEC telephone number. Calls to the ILEC number are rerouted to the CLEC using either the Remote Call Forwarding feature or over a dedicated trunk group from the ILEC switch to the CLEC.

ISDN
Integrated Services Digital Network – An integrated digital network in which the same time-division switches and digital transmission paths are used to establish connections for different services. ISDN services include telephone, data, electronic mail, and facsmile.

L

LAN
Local Area Network – A data communications system that lies within a limited spatial area, has a specific user group, has a specific topology, and is not a public switched telecommunications network, but may be connected to one.

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 and preordering transactions, along with associated expedite requests and escalations.

Legacy System
Term used to refer to BellSouth Operations Support Systems.

LENS
Local Exchange Navigation System - The BellSouth application developed to provide both preordering and ordering electronic interface functions for CLECs.

LEO
Local Exchange Ordering – LEO stores information and is an interface for LSR processing. LEO provides first-level validation to ensure all appropriate fields are populated.

LERG
Local Exchange Routing Guide – System used to access legacy systems and gather information to process LSRs.

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 - Database of facilities assigned to the service order.

LIDB
Line Information Database – Contains information about the user's calling card and other billing data.

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
Loop Maintenance Operations System Host Computer

LMU
Loop Makeup - The physical characteristics of the loop facilities, starting at an ILEC's central office and ending at the serving distribution terminal.

LMUS
Loop Make-up Service Inquiry – The form submitted by the CLEC to obtain the loop make-up information.

LNP
Local Number Portability - In the context of this document, the capability for a subscriber to retain their current telephone number as they transfer to a different local service provider.

LNP Gateway
Local Number Portability (gateway) - A system that provides both internal and external communications with various interfaces and process including:

(1). Linking BellSouth to the Number Portability Administration Center (NPAC).

(2). Allowing for inter-company communications between BellSouth and the CLECs for electronic ordering.

(3). Providing interface between NPAC and AIN SMS for LNP routing processes.

Loops
Transmission paths from the central office to the customer premises.

LRN
Location Routing Number – A 10-digit number which routes calls to the appropiate end-user's ported telephone number.

LSR
Local Service Request – A request from a CLEC for local resale service or unbundled network elements.

M

Maintenance & Repair
The process and function by which trouble reports are sent to BellSouth, and the related service problems are resolved.

MARCH
BellSouth Operations System which accepts service order and other data, 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 - Process used by CLECs to initiate a service, which is not included within its interconnection agreement.

NC
No Circuits - All circuits busy announcement.

NMLI
Native Mode LAN Interconnection - Is an intralata, shared fibered-based LAN inter-networking service.

NPA
Numbering Plan Area - Area Code portion of a telephone number.

NXX
The exchange portion of a telephone number. The first three digits in a local telephone number which identify the specific telephone company central office serving that number.

O

Ordering
The process and functions where 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.

Ordering Interface Gateways
Gateways for CLECs to submit LSRs electronically

OSPCM
Outside Plant Contract Management System – Provides scheduling and completions information on outside plant construction activities.

OSS
Operations Support System – An overall support system or database which is used to mechanize the flow and performance of work.

Out Of Service
Customer has no dial tone and cannot call out

P

PMAP
Performance Measurement Analysis Platform – Provides delivery of performance reports via the web and facilitates analysis of the summary level data.

PMQAP
Performance Measurement Quality Assurance Plan – Documents and maintains the systematic procedures used to ensure BellSouth Telecommunications (BST) produces accurate and reliable service quality measurement reports.

PON
Purchase Order Number – Identifier assigned by the customer originating the service request

POTS
Plain Old Telephone Service – A term often used to distinguish basic voice telephone from data and other services.

PREDICTOR
BellSouth system used to administer proactive maintenance and rehabilitation activities on outside plant facilities.

Preordering
The process and functions by which information is obtained, verified, or validated prior to placing a service request.

PRI
Primary Rate ISDN – An integrated services digital network interface standard designated as having 23B+D channels.

Provisioning
The process and functions where necessary work is performed to activate a service requested via a LSR/ASR.

Q R

RRC
Residence Repair Center - The BellSouth Consumer Services trouble receipt center which serves residential customers.

RSAG
Regional Street Address Guide - Validates street addresses for accuracy with state and local government records.

RSAGADDR
Regional Street Address Guide/Address – RSAG software contract for address search

RSAGTN
Regional Street Address Guide/Telephone Number - RSAG software contract for telephone number search

S

SAC
Service Advocacy Center – Resolves issues in the provisioning process

SDUM
Supporting Data User Manual

SEEM
Self Effectuating Enforcement Mechanism – A tiered remedy structure in which payments are made either to the CLEC and/or state regulatory agency, depending on the type and level of parity/benchmark miss that occurs.

SGG
ServiceGate Gateway – A common gateway to receive and send interconnection requests.

SOCS
Service Order Control System - BellSouth system which routes service order images.

SOG
Service Order Generator – Designed to generate a service order for xDSL.

SONGS
Service Order Negotiation and Generation System – This system supports the Consumer, Small Business and Public COUs by providing data entry screens and prompts, to aid negotiation and entry of all order types.

Syntactically Incorrect Query
A query that cannot be fulfilled due to insufficient or incorrect input data from the end user. For example, A CLEC would like to query the legacy system for the following address: 1234 Main ST. Entering "1234 Main ST" will be considered syntactically correct because valid characters were used in the address field. However, entering "AB34 Main ST" will be considered syntactically incorrect because invalid characters (example: alpha characters were entered in numeric slots) were used in the address field.

T

TAFI
Trouble Analysis Facilitation Interface - 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
LSRs entered electronically, but require manual input into a service order generator.

U V

UCL
Unbundled Copper Link - A dedicated metallic transmission facility from BellSouth's Main Distribution Frame (MDF) to a customer's premises.

UNE
Unbundled Network Element – Provides connectivity from a Competitive Local Exchange Carrier to an end-user.

USOC
Universal Service Order Code – A set of alpha or numeric characters identifying a particular service or equipment.

W X Y Z

WFA
Work Force Administration – Electronic document tracking system.

WMC
Work Management Center – Serves as a single point of contact (SPOC) for all requests for dispatch to the Field Work Group (Central Office or outside technicians).

WTN
Working Telephone Number

XML
eXtensible Markup Language – An international standards-based data formatting option designed for information exchange on network systems.

Appendix B: BellSouth Audit Policy

BellSouth currently provides many CLECs with certain audit rights as a part of their individual interconnection agreements. However, it is not reasonable for BellSouth to undergo an audit of the SQM for every CLEC with which it has a contract. BellSouth has developed a proposed regional 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 an audit of the aggregate level reports for both BellSouth and the CLEC(s) every other year for the next five (5) years (2005-2010) to be conducted by an independent third party. The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information. This aggregate level audit includes the following specifications:

1. The cost shall be borne 50% by BellSouth and 50% by the CLEC or CLECs.
2. The independent third party auditor shall be selected by BellSouth, with input from the PSC, if applicable, and the CLEC(s).
3. BellSouth, the PSC and the CLEC(s) shall jointly determine the scope of the audit.

BellSouth reserves the right to make changes to this audit policy as growth and changes in the industry dictate.

Appendix C: Interface Tables

IA: Interface Availability (Pre-Ordering/Ordering)

SQM Interface Availability

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

MRIA: Interface Availability (Maintenance & Repair)

SQM Interface Availability (M&R)

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

Appendix D: BellSouth's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

BellSouth will make available reposted performance data as reflected in the Service Quality Measurement (SQM) reports and recalculate Self-Effectuating Enforcement Mechanism (SEEM) payments using the Parity Analysis and Remedy Information System (PARIS), to the extent technically feasible, under the following circumstances:

1. Those measures included in a state's specific SQM plan with corresponding sub-metrics are subject to reposting. A notice will be placed on the PMAP website advising CLECs when reposted data is available.

2. Performance sub-metric calculations that result in a shift in the performance in the aggregate from an "in parity" condition to an "out of parity" condition will be available for reposting.

3. Performance sub-metric calculations with benchmarks that are in an "out of parity" condition will be available for reposting whenever there is a >= 2% decline in BellSouth's performance at the sub-metric level.

4. Performance sub-metric calculations with retail analogues that are in an "out of parity" condition will be available for reposting whenever there is a decline in performance as shown by an adverse change of <= .5 in the z-score at the sub-metric level.

5. Any data recalculations that reflect an improvement in BellSouth's performance will be reposted at BellSouth's discretion. However, statewide performance must improve by at least 2% for benchmark measures and the z-score must improve by at least 0.5 for retail analogs at the sub-metric level to qualify for reposting.

6. Performance data will be made available for a maximum of three months in arrears.

7. When updated performance data has been made available for reposting or when a payment error in PARIS has been discovered, BellSouth will recalculate applicable SEEM payments. Where technically feasible, SEEM payments will be subject to recalculation for a maximum of three months in arrears from the date updated performance data was made available or the date when the payment error was discovered.

8. Any adjustments for underpayment of Tier 1 and Tier 2 calculated remedies will be made consistent with the terms of the state-specific SEEM plan, including the payment of interest. Any adjustments for overpayment of Tier 1 and Tier 2 remedies will be made at BellSouth's discretion.

9. Any adjustments for underpayments will be made in the next month's payment cycle after the recalculation is made. The final current month PARIS reports will reflect the transmitted dollars, including adjustments for prior months where applicable. Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.

Appendix E: Description of Raw Data and Other Supporting Data Files

BellSouth Service Quality Measurement Plan (SQMP)
Raw (Supporting) Data Files (SDF)
Other Supporting Data Files (OSDF)

I. Definitions and Overview

A. What is Raw Data?

Raw (Supporting) Data is supporting data or records captured in BellSouth Legacy Systems about activity initiated by CLECs or CLEC customers. Raw (Supporting) Data has been transformed from legacy system data to information (data with meaning). In some cases this supporting data is a combination of requests and response records, orders and troubles or other combination that provide logical transaction information. This supporting data has been normalized (converted from arcane system code to a more readable format) for easier use or, in some cases, the presentation is standardized so that the same data from different systems will be the same. In some cases, intervals have been previously calculated and, in other cases, the interval start and stop times are available. State, company, product, and other codes have been converted into English names. In short, the presentation of the information has been made more "user friendly" to facilitate use by SMEs, auditors and CLECs.

This supporting data represents all records that are used to calculate CLEC performance under the SQM sub-metrics.

II. Raw (Supporting) Data – General

Raw (Supporting) Data Files (SDF)

Raw (Supporting) Data Files for CLEC data will be published on the PMAP website each month. For the measures calculated in PMAP, these files will contain the CLEC initiated records required to replicate the report or reports as applicable. These files will be present for those reports generated from data processed by PMAP. Some reports are calculated outside of PMAP and the results are simply uploaded for posting. These reports will have less detailed Supporting Data Files.

Other Supporting Data Files (OSDF)

Other Supporting Data Files will also be provided upon CLEC request each month. These files contain CLECs initiated data/records extracted from the legacy systems, but "excluded" from the measures in each segment of the SQMP reports (Ordering, Flow Through Detail, Provisioning and Maintenance). The OSDF will contain only records not included in one of the SDFs. The CLEC will be able to access the request form by clicking on the OSDF folder in their section of the PMAP Web Site. The requested data will be loaded into the file within 10 business hours. The OSDF will also include partial and/or incomplete records if the CLEC owner can be identified. The OSDF will be regional in scope (not state-specific) and will include records for all related Measurements. The OSDF will not include records that are in any SDF. These four files may be large and the CLEC will be responsible for having an appropriate computer and the software necessary to accept and make manipulation of the files possible.

A. Raw Data (SDF) Records - Ordering

For Ordering Metrics:

Supporting data is provided for the following metrics:

- [AKC] Acknowledgement Message Completeness
- [RI] Reject Interval
- [FOCT] Firm Order Confirmation Timeliness
- [FOCRC] Firm Order Confirmation and Reject Response Completeness

As a general rule, all versions of transactions are provided in the Supporting Data Files. Records for Service Requests that are related to a project, cancelled prior to being FOC or Clarified/Rejected, and versions of records not used in the reports will be placed into the Other Supporting Data File – Ordering.

B. Raw Data (SDF) Records – Provisioning

For Provisioning Metrics:

Supporting data is provided for the following metrics:

- [PIAM] Percent Installation Appointments Met
- [FOCI] Firm Order Confirmation Average Completion Interval
- [CCCI] Coordinated Customers Conversions Interval – Hot Cut Duration
- [HCT] Coordinated Customers Conversions – Hot Cut Timeliness
- [RT] Coordinated Customer Conversions – Average Recovery Time
- [PT] Hot Cut Conversions - Percent Provisioning Troubles Received within 5 Days of a Completed Service Order
- [PPT] Percent Provisioning Troubles within "X" Days of Service Order Completion

All service order activity that results from Service Requests generated by the CLEC and used in the calculation of a report will be furnished as a part of the Supporting Data Files. Records for D, R, F, and M order types, as well as cancelled orders will be placed in the Other Supporting Data File – Provisioning.

C. Raw Data (SDF) Records – M&R

For Maintenance and Repair (M&R) Metrics:

Supporting data is provided for the following metrics:

- [PRAM] Percent Repair Appointments Met
- [CTRR] Customer Trouble Report Rate
- [MAD] Maintenance Average Duration
- [PRT] Percent Repeat Customer Troubles within 5 Days

All customer submitted reports used in the calculation of a metric will be furnished as a part of the Supporting Data Files. Reports that are excluded, canceled, or in error, will be placed in the Other Supporting Data File - M&R. Specifically not included are BellSouth generated tickets such as employee, auto-detect, and tickets associated with service order activity dispatches.

D. Raw Data (SDF) Records – Other

For Other Metrics:

Billing:

Supporting data is provided for the following metrics:

- [BIA] Invoice Accuracy
- [BIT] Mean Time to Deliver Invoices
- [UDDT] Usage Data Delivery Timeliness

The billing Supporting Data File used to create performance measurements for billing is provided for CLECs on the PMAP website. This SDF along with the reports resulting from billing supporting data can be used for replicating the measures. Any billing data used or not used in creating the billing measures is part of the CLEC's invoices sent to them on a monthly basis. Any charges or adjustments are part of their individual invoices, which identify the nature of the charges or adjustments, whether credits or debits.

Database Update Information - None

Trunk Group Performance - None

Collocation - None

Change Management – None

E. Supporting Data User Manual (SDUM) and Schema for Other Supporting Data Files (OSDF)

The SDUM and Schema can be found at URL (http://pmap.bellsouth.com) in the Documentation/Exhibits folder.