BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF

CHERYL BURSH

ON BEHALF OF

AT&T COMMUNICATIONS OF THE SOUTHERN STATES, INC.
WORLDCOM, INC.
DIECA COMMUNICATIONS COMPANY D/B/A COVAD COMMUNICATIONS COMPANY
NEW SOUTH COMMUNICATIONS CORP.
MPOWER COMMUNICATIONS CORP.
E.SPIRE COMMUNICATIONS, INC.
ITC^DELTACOM COMMUNICATIONS, INC.
RHYTHMS LINKS INC.
Z-TEL COMMUNICATIONS, INC.*

DOCKET NO. 000121-TP

MARCH 1, 2000

* Z-Tel endorses the testimony of Ms. Bursh except as it relates to the area of statistical approaches. Z-Tel witness George Ford will address that subject separately.

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Cheryl Bursh. My business address is 1200 Peachtree Street, Atlanta, Georgia.

Q. PLEASE DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A. I am employed by AT&T as a Senior Policy Witness. My area of expertise is the development of an effective methodology for measuring BellSouth's performance in providing services to ALECs. My responsibilities include developing Performance Measurements testimony and affidavits for regulatory proceedings, as well as representing AT&T in performance measurements workshops and hearings, including those held in Georgia, Louisiana, Florida, and North Carolina. I have held a variety of management positions at AT&T over the last 19 ½ years, including the sale of large business systems and telecommunications services, systems development for operation support systems, and product marketing and technical support for computer systems. I have a Bachelor of Science Degree from Johnson C. Smith University and a Master of Science Degree from George Washington University.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. My testimony focuses on the ALEC Coalition's Joint Performance Incentive Plan that is designed to ensure that ALECs receive the level of service from BellSouth that will enable them to successfully compete in the provision of local telephone service in Florida. I describe why the remedy plan proposed by the ALECs is the appropriate plan for this Commission to adopt in order to ensure that (1) BellSouth is providing service to ALECs that is in parity with that it provides to its own retail operations and affiliates, (2) the telephone industry in Florida is open to competition in the provision of local service, and (3) Florida's telephone industry remains open to competition in the event BellSouth obtains 271 approval. Specifically, my testimony covers Issues 2.A, 2.B, 3.A, 3.B, 4.A, 4.B., 4.C, 5.A, 5.B, 6.A, 6.B, 7, 8, 9, 10, 11.A, 11.C.3 – 5, 12.A, 12.C.3 – 5, 13, 14.A, 14.B, 15, 16, 17, 18, 19.A, 19.B, 20, 21, 22 & 23 .

Q. WHAT DO YOU MEAN BY SELF-EXECUTING PERFORMANCE REMEDIES?

A. Self-executing remedies are monetary and non-monetary consequences that are automatically triggered against BellSouth upon an objective demonstration that BellSouth has failed to provide service at the level required by a specific performance standard.

ISSUE 8: WHEN SHOULD THE PERFORMANCE ASSESSMENT PLAN BECOME EFFECTIVE?

Q. WHY IS THERE A NEED FOR A REMEDIES PLAN?

A. The ALECs believe that the only way for BellSouth to establish that its local market is irreversibly open to competition as required by the Telecommunications Act of 1996 (the "Act"),[1] is by demonstrating that it provides ALECs with non-discriminatory access to its services and facilities. BellSouth's level of performance is determined through the use of a set of comprehensive measures. A remedies plan is needed to incent BellSouth and any other Incumbent Local Exchange Carrier ("ILEC") to provide nondiscriminatory service to ALECs, to enforce the market opening provisions of Section 251 of the Act,[2] and also to prevent any deterioration in BellSouth's provision of service to ALECs subsequent to Section 271 approval.[3]

Q. IS A PERFORMANCE INCENTIVE PLAN NECESSARY FOR OPENING LOCAL MARKET?

[1] 47 U.S.C Section 251 c (2) c and (d).

[2] In order to enforce the market opening provisions of Section 251 Texas, Pennsylvania, and Massachusetts have implemented self-executing remedy plans that became effective prior to an ILEC obtaining 271 approval.

[3] See 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, Memorandum Opinion And Order, (BA-NY Order) Federal Communications Commission, CC Docket No. 99-295, para. 429.

performance standards, then those standards are useless. The remedies provide the incentive for BellSouth to comply. Therefore, remedies must be significant enough to ensure that it is more beneficial for BellSouth to comply with the performance standards than to pay the remedies for non-compliance. If remedies are not sufficient to incent BellSouth to provide ALECs parity service, sufficient competition will not develop and BellSouth will continue to hold a monopoly in the local telephone market in Florida.

Q. WHAT PRINCIPLES DO THE ALEC COALITION CONTEND ARE THE FOUNDATION OF AN EFFECTIVE REMEDIES PLAN?

A. There are several principles that the ALEC Coalition contend provide the foundation of an effective remedies plan. They are:

1. Remedies must be set at a level high enough to incent BellSouth to meet its obligations under the Act to provide nondiscriminatory access to services and facilities. The ALECs' plan provides for remedies for poor performance that increase with the level of ALEC activity. The ALECs' plan is "scalable" according to the size of the market in the state. Under the ALECs' plan, the more harm that is done to competition, the greater the remedy payment.

2. Enforcement mechanisms must not produce remedies so large that an ALEC is more desirous of receiving discriminatory

performance and collecting large remedies than receiving non-discriminatory performance.

3. The structure of a remedies plan should be based on a verified (audited) system with verifiable data and processes. There should be a thorough audit of the performance measurements system by a recognized neutral party who utilizes a disclosed and industry-reviewed methodology before it is officially implemented for the industry. For example, there should be a validation of BellSouth's processes and systems used for data collection, reporting, storage, and retrieval. An effective plan should provide reasonable assurances that the reported data is accurate. See BA-NY Order, at ¶.433.

4. Remedies must be self-executing – no delay, no expense to the harmed ALEC; no litigation required to invoke remedies. ALECs should not be required to undergo costly and time-consuming litigation when the performance measurement systems shows discrimination. The FCC has stated that an effective enforcement plan shall "have a self-executing mechanism that does not leave the door open unreasonably to litigation and appeal." See BA-NY Order, at ¶433.

5. Remedies must escalate according to the duration and magnitude of poor performance.

6. The remedies plan should be structured so that it is simple to implement and administer. This is especially important in light of the complexity of BellSouth's proposal.

7. Interest must accumulate on monetary payments that are not paid in accordance with the remedies plan.

Q. DO THE ALECS HAVE A JOINT PROPOSAL FOR REMEDIES IN FLORIDA THAT MAKE IT MORE ECONOMICAL FOR BELLSOUTH TO PROVIDE COMPLIANT SUPPORT THAN TO DISCRIMINATE AGAINST COMPETING PROVIDERS?

A. Yes. That proposal, the Performance Incentive Plan, Version 2.0, is attached to this testimony as Exhibit CLB-1. By adopting the Performance Incentive Plan, this Commission can be assured that there is a sound remedy plan in place to protect the end user - the Florida consumer. This remedy plan will also assist in the rapid and sustainable development of a competitive local telecommunications market in Florida.

Q. DOES THE FLORIDA PUBLIC SERVICE COMMISSION STAFF HAVE ANY REMEDY PLAN PREFERENCE?

A. No. Paul Stallcup stated that it was not his intent in preparing the Strawman Proposal to express any preference for a particular remedy plan. He conveyed that he was merely attempting to provide a conceptual framework for the parties to identify issues and make their case about how different components of the plan should be specified.(Stallcup Deposition, pp. 8-10)

ISSUE 2A: WHAT ARE THE APPROPRIATE ENFORCEMENT MEASURES TO BE REPORTED BY BELLSOUTH FOR TIER I AND TIER II?

ISSUE 2B: WHAT ARE THE APPROPRIATE LEVELS OF DISSAGREGATION FOR COMPLIANCE REPORTING?

ISSUE 9: WHAT ARE THE APPROPRIATE ENFORCEMENT MEASUREMENT BENCHMARKS AND ANALOGS?

ISSUE 11.A: WHAT IS THE APPROPRIATE METHODOLOGY THAT SHOULD BE EMPLOYED TO DETERMINE IF BELLSOUTH IS PROVIDING COMPLIANT PERFORMANCE TO AN INDIVIDUAL ALEC? (TIER I)

Q. DESCRIBE THE STRUCTURE OF THE ALECS' PROPOSED REMEDIES PLAN.

A. Generally, the ALEC Plan is structured to evaluate, (1) the quality of service BellSouth delivers to each individual ALEC as compared to its own retail operations, and (2) the quality of service BellSouth delivers to the ALEC industry as a whole when compared to its own retail operations.

In the ALEC Plan, BellSouth's service to ALECs and to its own retail operations is gauged using a comprehensive set of performance measurements, referred to in the Plan as "sub-measures." These sub-measures cover the full panoply of BellSouth's activities that ALECs must rely upon in order to deliver their retail service offerings in the local market place. Every sub-measure is designed to identify and measure a key area of activity that affects ALEC and BellSouth customers, and consequently, the development of competition in Florida's local telecommunications market. In order for the Commission and ALECs to monitor BellSouth's performance for a particular sub-measure, and impose remedies in a case where BellSouth performance is discriminatory, any remedy plan must first set performance standards that will be used to determine whether BellSouth's performance is compliant.

The performance standard for each sub-measures included in the ALEC remedy plan are divided into two categories, retail analogs and benchmarks. Retail analogs are for those measures for which the performance standard requires BellSouth to provide service to ALECs that is in parity with service it provides to its own retail operations. In order to make a parity determination, a retail analog is established for each submeasure being compared. A direct comparison is then made between BellSouth's performance data for its retail operations and an

ALEC's performance data. A statistical methodology is then used to determine if any observed differences in the data are significant.

The ALEC Plan advocates the use of the modified Z-statistic to determine whether BellSouth's performance is parity with the analog set for a particular sub-measure. Dr. Bell's direct testimony will addresses the details of the statistical methodology in the ALEC Plan. There is no statistical test needed or applied to measures using a benchmark as the performance standard. Measures for which the performance standard is a benchmark require BellSouth to meet an absolute level of required performance. For example, if a benchmark for a particular order requires BellSouth to complete ninety-five percent of the orders within 3 days, but BellSouth completed only seventy percent of the orders for a given month in 3 days only, BellSouth's performance would not be compliant.

The measures proposed in the ALEC remedy plan are set forth in of the direct testimony of Karen Kinard (including disaggregation, benchmarks and retail analogs). In the ALEC Plan, because the sub-measures monitor key areas of ALEC and BellSouth activity, all sub-measures proposed by the ALECs are included in the determination of remedy payments.

Remedy consequences for discriminatory performance by BellSouth or any other ILEC operate on two tiers. Tier I addresses the consequences for non-compliant performance delivered to an

individual ALEC. Tier I remedies are paid to the individual ALECs for the harm suffered by the ALEC and its customers. Under Tier I of the ALEC Plan, however, remedies are only generated for an individual ALEC if that ALEC's business activity touches upon a particular sub-measure. For example, an ALEC who does not sell port and loop combinations (UNE P) would not have compliance determinations made for the submeasure Missed Installation Appointment – UNE P. Tier II addresses the consequences for non-compliant performance delivered to the ALEC industry as a whole. Tier II remedies are paid to the state for harm done to the competitive market and consumers as a whole.

Q. SHOULD REMEDIES APPLY TO PERFORMANCE MEASURES THAT ARE SHOWN TO BE DUPLICATIVE OF OR "HIGHLY CORRELATED" WITH OTHER MEASURES?

A. No. However, data and methods are lacking to omit any measures at this time. The decision whether or not to apply a remedy depends on the strength of the correlation between measures. Because two measures appear to be similar does not mean they are duplicative or correlated enough to warrant exclusion of either. An analysis of the performance data is required to make a determination. The data-dictated degree of correlation will determine whether remedies are appropriate. Without data, there cannot be any correlation

determination. If a thorough and appropriate data investigation discloses that two measures are highly correlated, then they are in effect measuring the same thing. In this case, applying penalties to each of them could double the consequences and remedies are not appropriate for both measures. If the correlation is determined to be small to moderate, the metrics are not measuring the same thing and remedies should apply. An industry-developed correlation analysis should be developed to make valid correlation determinations.

Q. HAS AN INDUSTRY-DEVELOPED CORRELATION TEST BEEN APPLIED TO MEASURES RECOMMENDED IN THE STAFF TESTIMONY OR MEASURES SPECIFIED IN BELLSOUTH'S SQM?

A. No. The industry (ALECs, BellSouth & FL PSC) has not agreed upon or implemented correlation tests to assess the possibility of correlation of BellSouth measures in Florida. Currently, there is no agreed upon basis for exempting measures from remedies due to correlation. Therefore, any comments relating to measure overlap are non-substantiated and it is premature to exclude any measures from the remedy plan based on claims that the excluded measure is correlated. An industry-developed correlation analysis needs to be developed and implemented.

Q. SHOULD REMEDIES APPLY TO MEASURES THAT REFLECT MANUAL AND PARTIALLY MECHANIZED PROCESSING

A. Yes. Discriminatory performance can occur no matter what the level of mechanization. Manual orders can represent key aspects of a ALEC's business. Moreover, in some cases, for example, some xDSL services, and other UNEs, or branded OS/DA, etc. ALECs have no choice but to use non-mechanized ordering. BellSouth should not be able to discriminate against an ALEC who uses non-mechanized ordering. Accordingly, remedies should be applied to sub-measures that report on manual and partially mechanized order processing.

Q. WHAT IS DISAGGREGATION?

A. Disaggregation is the process of breaking down performance data into sufficiently specific categories or dimensions so that like-to-like comparisons can be made. For example, BellSouth retail offerings contain a number of varying products. In order to compare BellSouth's performance for its own retail customers to its performance for ALECs, it is necessary for UNE analog loops product to be compared separately with BellSouth retail POTS product. Therefore, appropriate disaggregation which compares like-to-like is an essential component to a remedy plan.

Q. WHY IS DISSAGREGATION CRITICAL TO AN EFFECTIVE REMEDY PLAN?

A. Disaggregation is critical to an effective remedy plan because it prevents poor performance in one area (such as xDSL) from being obscured by being lumped together with dissimilar performance data. For example, comparing central office provisioning work to field dispatch provisioning work masks discriminatory performance. Sufficient disaggregation is absolutely essential for accurate comparison of results to expected performance. This is true regardless of whether a retail analog or a benchmark serves as the performance standard.

Q. IS THE DISAGGREGATION PROPOSED BY ALECS FOR PERFORMANCE REPORTING THE SAME LEVEL OF DISAGGREGATION REQUIRED FOR COMPLIANCE DETERMINATIONS?

A. Yes. The reporting would provide the documentation necessary to provide understanding and supporting documentation for the compliance determination.

Q. WHAT DISAGGREGATION IS PROPOSED BY THE ALECS?

A. Disaggregation should be required by interface type, pre-order query type, product, volume category, work activity type, trouble type, trunk

design and type (for trunk blockage measurements), maintenance and repair query type and collocation category. The required disaggregation for each specific measure is included in the direct testimony of Karen Kinard.

ISSUE 11.C: WHAT IS THE APPROPRIATE STRUCTURE:

3. What is the appropriate remedy calculation?

4. What is the appropriate benchmark table for small sample sizes?

5. Should there be a floor on the balancing critical value?

Q. WHAT REMEDY CALCULATION IS PROPOSED IN THE ALECS' PERFORMANCE INCENTIVE PLAN FOR TIER I MEASURES?

A. The ALECs' plan contains two calculation methods. The first remedy calculation methodology is applied to parity submeasures. The second remedy calculation methodology is applied for benchmark submeasures.

Q. WHAT IS THE REMEDY CALCULATION USED FOR PARITY MEASURES?

A. For parity submeasures, Tier 1 payments are paid to individual ALECs if the difference in a given month between BellSouth's performance for

itself or affiliates and that which it provides to a particular ALEC exceeds the gap specified in the ALECs' remedy plan. Tier I has three categories of violations, depending upon how big the gap in performance between what BellSouth provides for itself or its affiliates and the performance it provides to ALECs. Once a submeasure failure is determined, the calculated remedy should be a continuous function of severity of the failure. Severity is represented by the magnitude of the gap between the modified z and the balancing critical value. As specified in Table I, the consequences are a function of severity of the failure.

TABLE I[4]

Range of modified z-statistic value (z)	Performance Designation	Applicable Consequence ($)
greater than or equal z*	Compliant	0
less than z* to 5z*/3	Basic Failure	$a(z/z^*)^2 + b(z/z^*) + c$
less than 5z*/3 to 3z*	Intermediate Failure	
less than 3z*	Severe Failure	25,000

Q. WHAT IS THE REMEDY CALCULATION USED FOR BENCHMARK DETERMINATIONS?

[4] z represents the modified z-statistic value and z* represents the balancing critical value. The coefficients of the consequence function are a=5625, b=-11250, & c=8125.

A. When the benchmark serves as the performance standard, the measurement establishes a performance failure directly and assesses the degree to which performance departs from the standard. For benchmark measures, the performance is expressed as "B% meet or exceed the benchmark" where B% is a proportion figure set less than 100%. Accordingly, a performance failure should be declared if the calculated performance is not equal to or greater than the "B%" level. As performance becomes increasingly worse as compared to the benchmark, additional consequences will be incurred as reflected in Table 2. The consequences depend on the magnitude of non-compliance.

TABLE 2[5]

Range of Benchmark Result (x)	**Performance Designation**	**Applicable Consequence ($)**
Meets or exceeds B%	Compliant	0
Meets or exceeds (1.5B-50)% but worse than B%	Basic Failure	$d[x/(100-B)]^2 + eB[x/(100-B)^2] + f[B/(100-B)]^2 + g$
Meets or exceeds (2B-100)% but worse than (1.5B-50)%	Intermediate Failure	
Worse than (2B-100)%	Severe Failure	25,000

Q. HOW ARE TIER I PAYMENTS CALCULATED FOR BENCHMARK MEASURES WHEN MEASUREMENT SETS ARE SMALL?

A. Benchmark measures are "pass/fail". However, the ALECS recognize that in some instances the number of transactions (e.g., in a particular geographic area) may be small. In those situations, BellSouth could have a harder task to meet the benchmark.

Consider this example:

The benchmark for a particular submeasure requires BellSouth to perform a function in 2 hours, 95% of the time. Due to disaggregation, there could be a situation where there are only 4 transactions for which to determine BellSouth's performance. With only 4 transactions, BellSouth fails this benchmark if it misses the measure only one time. The ALECs' remedy plan allows for adjustments to be made when the size of the data set is very small, such as in the example above.[6] The Benchmark Adjustment Table is specified in Exhibit CLB-2.

Q. ARE ADDITIONAL TIER I REMEDIES INCURRED BASED ON THE DURATION OF A FAILURE? IF SO, HOW IS THE ADDITIONAL AMOUNT DETERMINED?

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[5] In Table 2, the quantity x is the actually measured proportion and the coefficients are d=25000, e=-45000, f=22,500, and g=2500.

[6] The Benchmark Adjustment Table that is used to adjust for small data sets is attached as Exhibit CLB-2.

A. Yes, The ALECs' plan calls for a $25,000 payment to the ALEC for "chronic" or recurring performance failures. The $25,000 payment is levied beginning with the third month that a particular submeasure is missed. The $25,000 monthly payment continues for every month until the performance for that submeasure returns to the "compliant". One month of compliant performance resets the clock. Chronic failures are remedied at the same rate as severe violations.

Q. IS THERE A NEED FOR A FLOOR ON THE BALANCING CRITICAL VALUE AS APPLIED IN THE ALEC REMEDY CALCULATION? IF SO, WHY?

A. No. You do not need the floor on the Balancing Critical Value in the ALEC remedy plan because the balancing is based on a materiality that is reasonable.

ISSUE 23: SHOULD THE PERFORMANCE ASSESSMENT PLAN INCLUDE A COMPETITIVE ENTRY VOLUME ADJUSTMENT, AND IF SO HOW SHOULD SUCH AN ADJUSTMENT BE STRUCTURED?

Q. DOES A TRANSACTION-BASED PLAN REQUIRE SPECIAL ADJUSTMENTS BECAUSE OF SMALL TRANSACTION VOLUMES?

A. Yes. For a transaction-based plan, payments on a per transaction basis will be too small to incent BellSouth to behave in a nondiscriminatory manner. As a result, nascent services or embryonic ALECs would be most negatively affected by a transaction-based plan. In an attempt to address this inadequacy, some type of adjustment is necessary.

Q. IS THE COMPETITIVE ENTRY VOLUME ADJUSTMENT A FEATURE IN A TRANSACTION-BASED REMEDY PLAN?

A. Yes. This feature attempts to compensate for the inadequate remedies generated by the transaction-based plan.

Q. IS THE COMPETITIVE ENTRY VOLUME ADJUSTMENT A REQUIRED FEATURE IN A MEASURE-BASED PLAN SUCH AS THE ALECS' PERFORMANCE INCENTIVE PLAN?

A. No. By design, a measure-based plan will generate sufficient remedies to motivate compliant behavior by BellSouth even though the transaction volumes for embryonic ALECs and nascent services are very low. Regardless of transaction volumes, the Performance Incentive Plan is effective without the complexity of a competitive entry volume adjustment

ISSUE 12.A: WHAT IS THE APPROPRIATE METHODOLOGY THAT SHOULD BE EMPLOYED TO DETERMINE IF BELLSOUTH IS PROVIDING COMPLIANT PERFORMANCE ON A STATEWIDE ALEC-AGGREGATE BASIS?(TIER II)

ISSUE12.C: WHAT IS THE APPROPRIATE STRUCTURE:

3. What is the appropriate remedy calculation?

4. What is the appropriate benchmark table for small sample sizes?

5. Should there be a floor on the balancing critical value?

ISSUE 22: SHOULD THE PERFOMANCE ASSESSMENT PLAN INCLUDE A MARKET PENETRATION ADJUSTMENT, AND IF SO HOW SHOULD SUCH AN ADJUSTMENT BE STRUCTURED?

Q. ARE THE RULES FOR MAKING TIER II PERFORMANCE DETERMINATIONS SIMILAR TO THOSE THAT APPLY FOR TIER I?

A. Yes. The same business rules apply under Tier II to aggregate data of the individual ALECs as are employed for the individual ALEC data under Tier I, except that a different consequence threshold is used.

Therefore, a modified consequence table, which is specified as Table 3, is applied for Tier II calculations.

Q. WHAT IS THE TIER II REMEDY CALCULATION FOR PARITY SUBMEASURES?

A. For parity submeasures, Tier II payments are paid to a public fund identified by the Commission if the difference in a given month between BellSouth's performance for itself or affiliates and that which it provides to the aggregate of ALECs exceeds the gap specified in the ALECs' remedy plan. Once a submeasure failure is determined, the calculated remedy should be a continuous function of severity of the failure. Severity is represented by the magnitude of the gap between the modified z and the balancing critical value calculated based on the aggregate data of the individual ALECs. The form of consequences as a function of severity is most simply accomplished by the use of a quadratic function specified below:

TABLE 3[7]

Range of modified z-statistic value (z)	Performance Designation	Applicable Consequence ($)
greater than or equal 5z*/3	Indeterminate	0
less than 5z*/3 to 3z*	Market Impacting	n [a(z/z*)^2 + b(z/z*) + c]
less than 3z*	Market Constraining	n25,000

Q. WHAT IS THE REMEDY CALCULATION USED FOR BENCHMARK MEASURES?

A. When the benchmark serves as the performance standard, the measurement establishes a performance failure directly and assesses the degree to which performance departs from the standard. For benchmark measures, the performance is expressed as "B% meet or exceed the benchmark" where B% is a proportion figure set less than 100%. Accordingly, a performance failure should be declared if the calculated performance for the entire industry is not equal to or greater than the "B%" level. As with measurements that are judged against a parity standard, those compared to a benchmark standard should be subject to additional

[7] z represents the modified z-statistic value and z* represents the balancing critical value. The coefficients of the consequence function are a=5625, b=-11250, & c=8125. The quantity n is the market penetration factor.

consequences as the performance becomes increasingly worse compared to the benchmark as specified below:

The following describes when a Tier 2 payment is triggered with benchmark submeasures:

Range of Benchmark Result (x)	Failure Designation	Applicable Consequence ($)
Meets or exceeds (1.5B-50)%	Indeterminate	0
Meets or exceeds (2B-100)% but worse than (1.5B-50)%	Market Impacting	$n \{d[x/(100-B)]^2 + eB[x/(100-B)^2] + f[B/(100-B)]^2 + g\}$
Worse than (2B-100)%	Market Constraining	n25,000

All violations count. Tier 2 payments are paid directly into a state designated fund. BellSouth should have no direct or indirect interest in this fund. An example of this fund is the State Treasury.

Q. IS THE TIER II REMEDY AMOUNT BASED ON ALEC MARKET PENETRATION LEVELS?

A. Yes. "n" corresponds to the number of ALEC-served lines in the state of Florida.

Q. WHAT IS THE "n" FACTOR USED IN THE TIER II REMEDY CALCULATION FOR BENCHMARK AND PARITY MEASURES?

A. The Tier II remedy calculation includes a factor "n" in the calculation. This multiplier depends upon the openness of the local market to competition. In other words, "n" is based on ALEC market penetration levels. The value of "n" decreases as the number of ALEC served lines increases. This results in Tier 2 payments decreasing as the ALEC market penetration increases. The following table illustrates how the market penetration adjustment is determined:

Tier II – Determinining "n"

Lines provided to CLECs	Value of "n"
more than or equal to 40% less than 50%	1
more than or equal to 30% less than 40%	2
more than or equal to 20% less than 30%	4
more than or equal to 10% less than 20%	6
more than or equal to 5% less than 10%	8
0% to less than 5%	10

Q. HOW ARE TIER II PAYMENTS CALCULATED FOR BENCHMARK MEASURES WHEN MEASUREMENT SETS ARE SMALL?

A. The application of the Benchmark Adjustment Table for Tier I remedy calculations is also appropriate for Tier II remedy calculations.

Q. IS THERE A NEED FOR A FLOOR ON THE BALANCING CRITICAL VALUE AS APPLIED IN THE ALEC REMEDY CALCULATION? IF SO, WHY?

A. No. You do not need the floor on the Balancing Critical Value in the ALEC remedy plan because the balancing is based on a materiality that is reasonable.

ISSUE 18: WHAT LIMITATION OF LIABILITY, IF ANY, SHOULD BE APPLICABLE TO BELLSOUTH?

ISSUE 19A: WHAT TYPE OF CAP, IF ANY, IS APPROPRIATE FOR INCLUSION IN THER PERFORMANCE ASSESSMENT PLAN?

ISSUE 19B: WHAT IS THE APPROPRIATE DOLLAR VALUE OF A CAP IF APPLICABLE?

ISSUE 20: WHAT PROCESS, IF ANY, SHOULD BE USED TO

DETERMINE WHETHER PENALTIES IN THE EXCESS OF THE CAP SHOULD BE REQUIRED?

ISSUE 21: IF THERE IS A CAP, FOR WHAT PERIOD SHOULD THE CAP APPLY?

Q. WHAT IS AN ABSOLUTE CAP?

A. An absolute cap represents a limit on BellSouth's liability for providing non-compliant service to ALECs.

Q. WHY IS AN ABSOLUTE CAP UNACCEPTABLE?

A. An absolute cap provides ILECs with the means to evaluate the cost of market share retention through the delivery of non-compliant performance. Second, absolute caps send the signal that once the ILEC's performance deteriorates to a particular level (i.e. reaching the absolute cap) then further deterioration in performance is irrelevant.

Q. DOES THE ALECS'S REMEDY PLAN INCLUDE AN ABSOUTE CAP?

A. No. ALECs do not support an absolute cap on remedy payments. However, a review threshold (procedural cap)—which allows for a regulatory hearing when a certain level of remedy payments are exceeded—may be appropriate. Procedural caps establish a preset

level at which the ILEC could seek regulatory review of the consequences that are due. However, the procedural cap would not automatically absolve an ILEC of liability for a consequence. Procedural caps, therefore, avoid both the problems of absolute caps. They do not provide ILECs with the opportunity to evaluate the "cost" of retaining share through non-compliance. Likewise, they do not absolve an ILEC from consequences for unchecked performance deterioration.

If a procedural cap is adopted, it should not stop Tier 1 payments to ALECs because Tier 1 payments are intended to at least partially compensate ALECs for the harm incurred because of the performance failure. Absolute caps also create complexity and ambiguity for how to allocate a portion of the legitimate remedies among the ALECs and the state.

Q. WHAT WOULD HAPPEN ONCE THE PROCEDURAL CAP IS REACHED?

A. If the procedural cap is reached, BellSouth should continue to make Tier 2 payments into an interest-bearing registry or escrow account that earns a minimum interest rate as approved by the Commission. BellSouth would have the burden of showing that the amount due for poor performance to the ALECs in aggregate do not merit the remedies invoked. The Commission would then decide whether and

to what extent the amount in excess of the procedural cap should be paid out. The procedural cap needs to be set sufficiently high enough so as not to negate the benefits of self-executing remedies.

Q. SHOULD AN ANNUAL OR MONTHLY PROCEDURAL CAP BE ESTABLISHED?

A. The procedural cap should apply on a rolling twelve month basis. The 39% procedural cap in the Strawman Proposal is reasonable.

ISSUE 3A: WHAT PERFORMANCE DATA AND REPORTS SHOULD BE MADE AVAILABLE BY BELLSOUTH TO ALECS?

ISSUE 3B: WHERE, WHEN, AND IN WHAT FORMAT SHOULD BELLSOUTH PERFORMANCE DATA AND REPORTS BE MADE AVAILABLE?

Q. SHOULD PERFORMANCE REPORTS PROVIDE SUFFICIENT INFORMATION FOR MAKING PERFORMANCE DETERMINATIONS?

A. Yes. BellSouth's reporting should be sufficient for making performance determinations. The reports should include BellSouth's provision of:

a. Services to BellSouth's retail customers in aggregate;

b. Services and facilities provided to any BellSouth local exchange affiliate purchasing interconnection, unbundled network elements or resale;

c. Services and facilities provided to carriers purchasing interconnection, unbundled network elements or resale in aggregate; and

d. Services and facilities provided to individual carriers purchasing interconnection, unbundled network elements or resale.

The reports should reflect the outcome of statistical procedures applied to each sub-measure for which a parity determination will be made. Additionally, benchmark results should be reported.

Q. IS IT POSSIBLE TO VALIDATE THE ACCURACY AND IMPACT OF THE ILECS' REPORTED PERFORMANCE WITHOUT ACCESS TO THE RAW DATA THE ILEC USES TO CREATE REPORTS?

A. No. Access to raw data used to create performance reports is essential to report validation.

Q. IF ERRORS IN DATA AND PERFORMANCE REPORTS ARE IDENTIFIED, SHOULD THEY BE CORRECTED AND THE ALECS NOTIFIED?

A. Yes. If an ILEC or ALEC discovers that raw data records or performance reports exclude data, omit data, are calculated incorrectly, or contain an error of any type, the ILEC should be required to immediately notify affected ALECs. The ILEC should then make arrangements to correct the raw data raw data or performance reports and submit the corrected report to the ALECs. If an ILEC or ALEC discovers a data error after the report is no longer accessible to ALECs, the ILEC should remain responsible for correcting the error and immediately notifying the ALECs of the error and the measures taken to make the correction. The obligation to correct errors after access to the reports has ended should remain for 12 months after the date the report is no longer accessible to ALEC.

Q. WHEN AND WHERE SHOULD PERFORMANCE DATA AND REPORTS BE MADE AVAILABLE?

A. Performance data and reports should be made available in a readily accessible manner on an Internet web site. The data and reports should be made available on the 15th day of each month. If any data are excluded, the ILEC must be required to justify all exclusions before they are made.

Q. SHOULD ADDITIONAL SUPPORT BE PROVIDED TO ENABLE INTERPRETATION OF THE DATA?

A. Yes. The ILEC should maintain a current and accurate user's manual to support ALECs in accessing and interpreting the raw data. The user's manual should include detailed descriptions of what the data means, i.e., beginning and ending parameters for fields, and include definitions for the codes use by the ILEC. The ILEC should also provide a knowledgeable single point of contact with whom ALECs can confer to resolve questions about accessing the raw data including, but not limited to, explanations of the fields, parameters, code definitions, file column purposes and headings.

Q. HOW SHOULD PERFORMANCE REPORTS AND DATA BE MADE AVAILABLE?

A. The performance reports should be specified in a summarized spreadsheet format and include, at a minimum, those fields of information specified on the attached spreadsheet. See Exhibit CLB-3 for an illustrative example of this format. The performance data should be provided in format that can be readily utilized by standard database management tools such as Excel, Access, or Oracle.

ISSUE 5a.: SHOULD BELLSOUTH BE PENALIZED WHEN BELLSOUTH FAILS TO POST THE PERFORMANCE DATA AND REPORTS TO THE WEB SITE BY THE DUE DATE?

ISSUE 5b.: IF SO, HOW SHOULD THE PENALTY AMOUNT BE DETERMINED, AND WHEN SHOULD BELLSOUTH BE REQUIRED TO PAY THE PENALTY.

ISSUE 6.a.: SHOULD BELLSOUTH BE PENALIZED IF THE PERFORMANCE DATA AND REPORTS PUBLISHED ON THE BELLSOUTH WEBSITE ARE INCOMPLETE OR INACCURATE?

ISSUE 6.b.: IF SO, HOW SHOULD THE PENALTY AMOUNT BE DETERMINED, AND WHEN SHOULD BELLSOUTH BE REQUIRED TO PAY THE PENALTY.

Q. ARE THERE OTHER PERFORMANCE FAILURES TO WHICH THE ALECS' REMEDY PLAN APPLIES.

A. Yes. The ALECs' remedy plan calls for payments to be made when BellSouth posts performance data and reports late. If performance data and associated reports are not available to the ALECs by the due day, the ILEC should be liable for payments of $5,000 to a state fund for every day past the due date for delivery of the reports and data. The ILECs' liability should be determined based on the latest report delivered to an ALEC.

Q. SHOULD REMEDIES BE INCURRED FOR INCOMPLETE OR INACCURATE PERFORMANCE DATA AND REPORTS?

A. Yes. If performance data and reports are incomplete, or if previously reported data are inaccurate, then the ILEC should be liable for payments of $1,000 to a state fund for every day past the due date for delivery of the original reports.

ISSUE 17: WHAT IS THE APPROPRIATE MECHANISM FOR ENSURING THAT ALL PENALTIES UNDER TIER I AND TIER II ENFORCEMENT MECHANISMS HAVE BEEN PAID AND ACCOUNTED FOR?

Q. SHOULD TIER I AND TIER II REMEDIES PAID BY BELLSOUTH BE VALIDATED?

A. Yes. On a random basis, the Commission should have an independent auditing and accounting firm certify that all the penalties under Tier I and Tier II Enforcement Mechanisms are properly and accurately assessed and paid in accordance with Generally Accepted Accounting Principles.

ISSUE 10: UNDER WHAT CIRCUMSTANCES, IF ANY, SHOULD BELLSOUTH BE REQUIRED TO PERFORM ROOT CAUSE ANALYSIS?

Q. SHOULD BELLSOUTH BE REQUIRED TO PERFORM ROOT-CAUSE ANALYSIS?

A. Yes. Root cause analysis is a useful procedure for building action plans for unacceptable performance and should be incorporated within a performance measurement system, but it cannot serve as a vehicle for delaying or otherwise avoiding payment of identified performance failures.

Q. HAS ROOT-CAUSE ANALYSIS BEEN PREVIOUSLY ORDERED IN THE BELLSOUTH REGION?

A. Yes. The Georgia Public Service Commission Order stated that BellSouth must perform a "root cause analysis" and file with the Commission a corrective action plan within 30 days of the failure. The root cause analysis would be triggered if any measure fails twice in any 3 consecutive months in a calendar year.

ISSUE 7: WHAT REVIEW PROCESS, IF ANY, SHOULD BE INSTITUTED TO CONSIDER REVISIONS TO THE PERFORMANCE ASSESSMENT PLAN THAT IS AOPTED BY THIS COMMISSION?

Q. SHOULD THE PERFORMANCE ASSESSMENT PLAN APPROVED BY THIS COMMISSION BE REVIEWED EVERY 6 MONTHS?

A. Yes. A collaborative work group, including ALECs, the Florida Public Service Commission and BellSouth, should be established to review the Performance Assurance Plan for additions, deletions and modifications. A review cycle should start six months after the date of the Florida Public Service Commission order. BellSouth and the ALECs should file any proposed revisions to the Performance Assessment Plan one month prior to the beginning of each review period. BellSouth may be ordered by the Florida Public Service Commission to modify or amend the Service Quality Measurements or Enforcement Measures. Nothing should preclude either party from participating in any proceeding involving BellSouth's Service Quality Measurements or Enforcement Measures or from advocating that those measurements be modified.

In the event a dispute arises regarding the ordered modification or amendments the parties will refer the dispute to the Florida Public Service Commission.

ISSUE 8: WHEN SHOULD THE PERFORMANCE ASSESSMENT PLAN BECOME EFFECTIVE?

Q. SHOULD A REMEDY PLAN GO INTO EFFECT AS SOON AS IT IS ORDERED?

A. Yes. The remedy plan should go into effect as soon as it is ordered by the Commission so that the benefits of its effect on the marketplace can be realized. The plan can be used to measure compliance, so that the state regulators can make the appropriate recommendation to the FCC. Also, the systems can be tested and burned in prior to acceptance, so backsliding can be disincented. It would illustrate to regulatory authorities that BellSouth is committed to irreversibly opening the local market to competition.

ISSUE 13: WHEN SHOULD BELLSOUTH BE REQUIRED TO MAKE PAYMENTS FOR TIER I AND TIER II NONCOMPLIANCE, AND WHAT SHOULD BE THE METHOD OF PAYMENT.

ISSUE 14A: SHOULD BELLSOUTH BE REQUIRED TO PAY INTEREST IF BELLSOUTH IS LATE IN PAYING AN ALEC THE REQUIRED AMOUNT FOR TIER I?

ISSUE 14B: IF SO, HOW SHOULD THE INTEREST BE DETERMINED?

ISSUE 15: SHOULD BELLSOUTH BE FINED FOR LATE PAYMENTS OF PENALTIES UNDER TIER II? IF SO, HOW?

ISSUE 16: WHAT IS THE APPROPRIATE PROCESS FOR HANDLING TIER I DISPUTES REGARDING PENALTIES PAID TO AN ALEC?

Q SHOULD THE COMMISSION HANDLE DISPUTES REGARDING TIER I PENALTIES PAID TO AN ALEC?

A. Yes. When the ALEC and Bellsouth are unable to reach a mutually agreeable settlement pertaining to the penalties paid, the Commission should settle the dispute.

Q. SHOULD BELLSOUTH BE PENALIZED WHEN BELLSOUTH FAILS TO REMIT A CONSEQUENCE PAYMENT BY THE DUE DATE? IF SO, HOW SHOULD THE PENALTY AMOUNT BE DETERMINED, AND WHEN SHOULD BELLSOUTH BE REQUIRED TO PAY THE PENALTY.

A. Yes. If the ILEC fails to remit a consequence payment by the 15th business day following the due date of the data and the reports upon which the consequences are based, then it should be liable for accrued interest for every day that the payment is late. A per diem interest rate that is equivalent to the ILEC's rate of return for its regulated services for the most recent reporting year should apply.

Q. ARE THERE REMEDIES THAT THE ALECS SUPPORT IN ADDITION TO THE TIER 1 AND TIER 2 PAYMENTS?

A. Yes. The ALECs reserve their right to seek individual legal and regulatory remedies for harm they incur due to BellSouth's performance. This Commission also retains its authority to monitor BellSouth's performance and initiate proceedings to investigate the status of competition within this state. In addition, the FCC retains its ability under the Act to suspend or revoke authority that BellSouth may attain in the future to provide in-region, interLATA long distances services.

Q. SHOULD THIS COMMISSION ADOPT THE PERFORMANCE INCENTIVE PLAN, VERSION 2.0?

A. Yes, I urge this Commission to order the remedy plan, Performance Incentive Plan (PIP) Version 2.0, proposed by the ALECs. The PIP should be adopted for the following reasons:

1. PIP is a comprehensive plan crafted on sound principles;
2. The multi-tiered structure serves to incent BellSouth to provide compliant service by escalating consequences for continued violations;
3. The Plan includes all measures to properly reflect all parts of customer experiences;

4. Consequences under the plan escalate with increased level of severity of violation;
5. The Plan provides for two separate evaluations: (1) the quality of support delivered to each individual ALEC, and (2) the quality of support delivered to the ALEC industry in the aggregate;
6. The Plan includes consequences payable to individual ALECs and consequences payable to a public fund identified by this Commission;
7. The Plan includes a sound statistical methodology to make performance determinations when measures have a retail analog;
8. Benchmarks are established for measures that do not have retail analogs;
9. The Tier II consequence calculation takes ALEC market penetration levels into consideration; and
10. The consequences are applied at the submeasure level.

By adopting the ALEC's proposed Performance Incentive Plan Version 2.0, this Commission can be assured that there is a sound remedy plan in place to protect the end user - the Florida consumer. This remedy plan will also assist in the rapid and sustainable

development of a competitive local telecommunications market in Florida.

ISSUE 4A: DOES THE COMMISSION HAVE THE LEGAL AUTHORITY TO ORDER IMPLEMENTATION OF A SELF-EXECUTING REMEDY PLAN?

ISSUE 4B: WITH BELLSOUTH'S CONSENT?

ISSUE 4C: WITHOUT BELLSOUTH'S CONSENT?

Q. DOES THE COMMISSION HAVE THE LEGAL AUTHORITY TO ORDER A REMEDY PLAN IN FLORIDA?

A. I am not an attorney, however, it is the ALEC Coalition's position that the Commission does have authority under the Telecommunications Act of 1996 to order the implementation of a self-executing remedy plan without BellSouth's consent. This position will be fully discussed in the post-hearing briefs filed by the parties.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

Performance Incentive Plan

Version 2.0

Introduction

It is well recognized that a meaningful system of self-enforcing consequences for discriminatory ILEC performance is critically important to the protection of the public's interest and the rapid and sustainable development of a competitive local telecommunications market. Incumbent LECs have strong business incentives and means to maintain their current monopolies through the delivery of inadequate and unlawful levels of operations support for CLECs. Thus, an appropriate system of self-enforcing consequences is absolutely necessary to assure that the competitive local telecommunications markets envisioned by the 1996 Act will be able to develop and survive.

In order to be effective, prompt enforcement of appropriate consequences must be assured. Because of the extensive delays inherent in the adjudication and appeals process, CLECs cannot rely solely upon the legal/regulatory process to obtain appropriate remedies for discriminatory ILEC performance. Furthermore, the consequences must provide ILECs with incentives that exceed the benefits it may derive by inhibiting competition, and such consequences must be immediately imposed upon a demonstration of poor ILEC performance. The objective is to set the incentives in amounts that encourage ILECs to take proactive steps to prevent its performance from becoming non-compliant and, when it does reach that level, to correct its performance failures promptly.

It is beyond dispute that any system of self-enforcing consequences must be based upon an underlying set of performance measurements that cover the full panoply of ILEC activities upon which CLECs must rely to deliver their own retail service offerings. The Act requires that these activities, which touch upon every aspect of the business relationship between incumbents and CLECs, must be provided in a non-discriminatory manner. Thus, the interconnection agreements between incumbents and CLECs should ideally serve as a source for performance measurements. However, experience in Florida and elsewhere has proven that CLECs have generally been unable to individually negotiate, or even arbitrate, a sufficiently robust set of performance measurements.[1] For that reason, the first step in constructing a system of self-enforcing consequences must include careful consideration of the adequacy of the underlying measurement set. At a minimum, the performance measurements must supply each CLEC with reliable data on the incumbent's performance for that CLEC. Such data must be sufficiently discrete (as to the processes monitored) and detailed (to isolate and compare only comparable conditions) so as to permit a CLEC to enforce the terms of its interconnection agreement with the incumbent. In addition, the underlying performance measurement system should demonstrate quality implementation of the following characteristics:

- A comprehensive set of comparative measurements that monitors all areas of support (i.e., pre-ordering, ordering, provisioning, maintenance & repair and billing) without preference to any particular mode of market entry
- Measurements and methodologies that are documented in detail so that clarity exists regarding what will be measured, how it will

[1] As a starting point, the CLEC industry generally supports the measurement areas specified in Attachment B.

be measured and in what situations a particular event may be excluded from monitoring (such exclusions must also be tracked and reported)

- Sufficient disaggregation of results, so that only the results for similar operational conditions are compared and, particularly, so that the averaging of results will not mask discrimination[2]
- Pre-specified and pro-competitive performance standards exist. This includes identifying reasonably analogous performance delivered by the incumbent to its own operations[3] or, when such comparative standards are not readily identifiable, then absolute minimum standards for performance (benchmarks) are established[4]
- Sound quantitative methodology is used to compare CLEC experiences to analogous incumbent support[5]
- The overall performance measurement system is subject to initial and periodic validation, in order to assure that the performance results which form the foundation for all decisions regarding the

[2] The importance of sufficient disaggregation is more fully discussed in Attachment A

[3] Analogous performance must be broadly interpreted and consider not only retail operations of the incumbent but also operations of affiliates. Often the incumbent's asserted lack of analogous performance relies upon very narrow (and inappropriate) interpretation of the term "analogous" to mean "precisely identical" rather than "similar in key aspects." Furthermore, if the incumbent delivers different levels of performance to an affiliate and its the retail operations, the CLEC experience should be compared to the better of the two.

[4] In all cases, benchmarks must provide an efficient competitor with a meaningful opportunity to compete.

[5] As a general rule, when benchmarks are employed, statistical comparisons of the measured result for the CLEC to the benchmark are not appropriate. Typically, the standards state a minimum performance level that is required to support effective competition and the minimum success level that must be demonstrated to attain the benchmark. Thus, the typical form of the standard is, for example, "95% installed within 3 days." Note that in the preceding example a 5% deviation from the benchmark is permitted and, as a result, the potential for random variation of the performance is fully

quality of the performance delivered by the ILEC are correct representations of the CLECs' marketplace experience.

It is critical that a performance measurement system incorporating all of the above characteristics exist before applying an incentive plan, because a robust and independently audited performance measurement system is a prerequisite to any effective system of self-enforcing consequences.[6]

Objectives of the Plan

A system of self-enforcing consequences must fully implement the following objectives:

- Consequences must be based upon the quality of support delivered on individual measures to individual CLECs
- Total consequences, in the aggregate, must have sufficient impact to motivate compliant performance without the need to apply a remedy repeatedly
- The imposition of financial consequences must be prompt and certain, and consequences should be self-executing so that opportunities for delay through litigation and regulatory review are minimized

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addressed. Any further accommodation of variation, as would occur if statistical procedures were employed, would effectively "double count" forgiveness of variability.

[6] For example, business rules for individual performance measurements may provide for automatic exclusions of data points from the calculation. If such provisions are made, however, the exclusions must be according to clearly defined rules and the number of data points excluded for each submeasurement and for each CLEC should be reported on a monthly basis.

- Consequences must escalate as the basis for concluding that a performance failure exists becomes more substantial and/or the performance repeatedly fails to meet the applicable standard
- Additional consequences must apply when non-compliant performance is provided to CLECs on an industry-wide basis
- Exclusions from consequences must be minimized and the exclusions that are provided for must be monitored and limited to assure they do not mask discrimination
- Incumbents must have minimal opportunities to avoid consequences through such means as liability caps, offsetting credits, or a requirement that CLECs must demonstrate an ILEC's intent to harm
- Potential "entanglement" costs must be minimized so that, for example, access to mitigation measures for the incumbent does not become a means to revert to the legal/regulatory process and delay the application of consequences that should be self-enforcing

Structure of Consequences for Discriminatory ILEC Performance

Consequences operating on two tiers are proposed. The first tier addresses the consequences for non-compliant performance delivered to an individual CLEC. The second addresses the consequences for non-compliant performance delivered to the CLEC industry as a whole. In general terms, Tier I provides a form of non-exclusive liquidated damages payable to individual CLECs. Tier II, by contrast, incorporates what can be characterized as regulatory fines that are necessary when the ILEC's performance affects the competitive market – and consumers -- as a whole.

The total amount of Tier I payments (which are only an estimate of the CLECs' actual damages) is unlikely to provide the ILEC with sufficient incentives to take the actions necessary to eliminate its monopoly. Rather, an ILEC may decide to treat such payments as the price for retaining its monopoly and voluntarily incur them as a cost of doing business. Moreover, the harm that results when the ILEC provides discriminatory support for the CLEC industry in the aggregate has a major impact not only on CLECs but also on the operation of the competitive marketplace in general, which directly affects all Florida consumers of telecommunications services. Thus, it is appropriate to establish incentives to prevent this type of harm from occurring (or continuing), and both Tier I and Tier II are necessary and complementary elements of an effective system of consequences. Together, they work in tandem to achieve the goals of the Act.

Tier I

A Tier I consequence should be payable to an affected CLEC whenever any performance result indicates support delivered by the ILEC to an individual CLEC fails to meet or exceed the applicable performance standard.[7]
The first step in establishing Tier I consequences is to define the rule for determining if performance for a particular period "passes" or "fails" and, if it fails, whether additional consequences are warranted. Defining "pass/fail" rules requires that the underlying measurements be mapped into one of two classes:

[7] In the course of establishing Tier I consequences, the rights of an individual CLEC to pursue actual damages must be retained. However, if a CLEC sought to pursue a claim for actual damages, it would be reasonable to offset the damage award by any Tier I payments it received from the ILEC for the same time period and performance areas. In addition, a CLEC must retain the right to waive Tier I claims and pursue its individually negotiated contract remedies (if and only if the claims and remedies are not mutually payable.).

(1) those for which the performance standard is parity with analogous incumbent LEC performance results, and

(2) those for which the performance standard is an absolute level of required performance (otherwise known as a benchmark)

The differentiation is important because when parity is the standard, statistical procedures are usually necessary to draw conclusions regarding compliance. In such situations (which should apply to the vast majority of cases), two separate data sets are compared – one for the CLEC and one for the ILEC. Each data set is characterized by a mean and standard deviation. Statistical tests are used to draw a conclusion regarding the likelihood that the data sets with the observed means and standard deviations were drawn from the same population (in this case a support process for CLECs with the same quality and/or timeliness as that employed for the ILEC). The proper test further allows determination that parity does not exist, but it does not quantify "how far out of parity" the process is when parity is not indicated.[8]

In contrast, when a benchmark serves as the performance standard, measurement establishes a performance failure directly and assesses the degree to which performance departs from the standard. As explained below, the detailed mechanism for determining a performance failure differs for each of these types of measurement standards, but the principle governing the application of the Tier I consequence is consistent: the consequence escalates with increasing evidence and level of non-compliant performance.

[8] Clearly, however, when all other factor are held constant, increased statistical confidence is directly correlated (monotonic) with larger differences in the two sample

Tier I Business Rules for Parity Measurements

1. Use the Modified z-Statistic to Determine Compliance

The determination of whether performance is compliant (i.e., equal to or better than the appropriate standard) is based on the calculation of the modified z-statistic (z).[9] The calculated modified z-statistic is then compared to the cumulative normal distribution table to determine if parity exists.[10] For any such decision rule, the probability of an erroneous decision is known. For example, if the critical value is -3.00 and parity actually exists, the probability of saying it is not is 0.13%.

2. Use Permutation Analysis for Small Samples

Permutation analysis is employed for small data sets (those with 30 or fewer observations in one of the data sets to be compared) to create a probability distribution as an alternative to the cumulative normal distribution.[11] By

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means being compared and therefore is a reasonable indication of how different ILEC performance was for itself versus that of the CLEC in the period of observation.

[9] See: Local Competition Users Group - Statistical Tests for Local Service Parity, February 6, 1998, Version 1.0 for documentation of the calculation and use of the modified z-statistic.

[10] The modified z-statistic computation provides for the CLEC mean to be subtracted from the ILEC mean. Thus, a negative z-statistic critical value presumes that worse performance exists when the CLEC mean becomes larger than the ILEC mean. For example, worse performance exists when the order completion interval for the CLEC exceeds that for the ILEC. Thus a negative z-statistic critical value is appropriate. On the other hand, for a metric like "% completed within x days", worse performance for the CLEC occurs when the metric result is smaller for the CLEC vis-à-vis the ILEC. In this case a positive z-statistic critical value is appropriate.

[11] See Attachment C for a description of the procedural steps for performing permutation analysis. Again, BST and the CLECs generally concur that permutation analysis is appropriate for data sets of this size.

mutual agreement, permutation analysis can also be employed for larger data sets.

3. Use the Balancing Critical Value

The threshold level to determine whether or not a performance failure exists is established by balancing Type I and Type II error.[12] This balance point is a function of the size of the CLEC data set (assuming the ILEC data set is very large) and the extent to which the means for the two data sets differ (assuming that both data sets are normally distributed). Simulation comparing relatively small data sets (as would be likely for a CLEC) to a much larger data set (as would likely exist for an ILEC) demonstrates that the balancing of Type I and Type II error can reasonably be expected to occur in the range of 25% for "samples" with fewer than 100 data points but is about 5% for samples with 1000 data points.[13] The statistical methodology developed by AT&T and Ernst & Young in Louisiana is an appropriate method for calculating the critical values which depend on the sample size and balances Type I and Type II error probabilities for each given submeasure. Furthermore, the definition of the alternative hypothesis required to perform the balancing is fundamental to the applicability of the method. THE ALECS

[12]The key consideration is balancing the probability of drawing erroneous conclusions -- either that performance is "bad" when it is actually "good" (Type I error) or that performance is "good" when it is actually "bad" (Type II error). The former error adversely impacts ILECs and the latter adversely impacts CLECs. Unfortunately, reducing the likelihood of one type of error increases the likelihood of the other type of error occurring. Thus the best means to create an equitable outcome for all parties is to balance the Type I and Type II error.

[13] See Response to Question 3 contained in AT&T Ex Parte filed in CC Docket 98-56 dated July 13, 1999.

proposes a value of 0.25 for the parameter δ and appropriately corresponding values for ε and ψ.[14][15]

4. Increase Consequences as the Confidence in a "Non-Parity" Conclusion Increases

An appropriate means to take increased confidence into consideration is to provide for higher amounts of monetary consequences as the confidence in the "non-parity" conclusion increases. This is justified because (all other factors held constant) as the difference in the mean performance for the CLEC compared to the ILEC becomes larger, the absolute value of the modified z-statistic also becomes larger for the sample in the time period of interest. Thus, it is appropriate that the performance consequence should escalate based upon the calculated value of the modified z-statistic.

5. After a Failed Parity Test the Consequences Should Escalate and Vary Continuously with Severity of Failure

A parity failure is established for a submeasure by comparing the measured value of the modified z-statistic (z) to the balancing critical value (z*) appropriate for the submeasure's sample size during the given monthly period. Once a submeasure failure is obtained, the calculated remedy should be a continuous function of severity of the failure as measured by the magnitude of the modified z-statistic. In this way small changes in severity lead to small changes in consequences thus assuring that mathematically chaotic behavior is avoided at step thresholds. However, to incent the ILEC appropriately, the change in consequences should increase with each unit of

[14] Statistical Techniques For The Analysis And Comparison Of Performance Measurement Data. Submitted to Louisiana Public Service Commission (LPSC) Docket U-22252 Subdocket C

severity. This form of consequences as a function of severity is most simply accomplished by the use of a quadratic function of the ratio of the measured modified z score to the balancing critical value (z/z*). Fixing the value of the quadratic or its slope at three points completely determines the function.

Table 1

Range of modified z-statistic value (z)	Performance Designation	Applicable Consequence ($)
greater than or equal z*	Compliant	0
less than z* to 5z*/3	Basic Failure	$a(z/z^*)^2 + b(z/z^*) + c$
less than 5z*/3 to 3z*	Intermediate Failure	
less than 3z*	Severe Failure	25,000

Table 1 shows the applicable consequences for each Tier I parity submeasure failure for each CLEC. In this table z* is the (negative) balancing critical value for the submeasure, and the coefficients of the smooth consequence function are:

a = 5625

b = -11250

c = 8125.

Note that the smooth consequences formula is an explicit function of the ratio of the modified z-statistic and the balancing critical value (z/z*). This means that the dollar amount does not depend on the number of observations but only on the degree of violation. If we had 100 times as

[15] See Attachment D for a further discussion of this position.

many observations, with means and standard deviations staying the same, both z and z* will increase by a factor of 10 and the consequences will be unchanged. Note also that both basic and intermediate failures are defined and may occur in the smooth region of the formula. The plan retains these designations to allow for classification of performance for more general performance monitoring such as compliance testing, if needed.

A graph of the applicable consequences as a function of the measured modified z-statistic is given in Attachment G in Figure G-1. The attachment also contains a small step tabulation of the function that approximately represents it in Table G-1.

Examples

Three hypothetical examples of consequence calculations are given in the matrix below.

Example	z*	z	Performance	Consequence
1	-2.00	-1.80	Compliant	$0
2	-2.50	-3.33	Basic Failure	$3,125
3	-3.00	-6.00	Intermediate Failure	$8,125
4	-3.50	-12.00	Severe Failure	$25,000

In example 1 the hypothetical balancing critical value for the submeasure is calculated to be -2.00 on the basis of sample size and equal type I and type II error probabilities. The observed value of the modified z-statistic, based on ILEC and CLEC performance for that submeasure, is -1.80. The ILEC is compliant for this submeasure and no consequences are due to this CLEC.

Example 2 shows a balancing critical value calculated to be -2.50. Furthermore in this example, the measured value of the modified z-statistic is -3.33. This is a Basic Failure and the consequence is calculated to be $3,125 by the formula in Table 1.

In example 3, although the hypothetical balancing critical value is -3.00, the measured value of the modified z-statistic is well below this at -6.00. According to the range of modified z-statistics in Table 1 this is an Intermediate Failure. The same smooth formula is used to calculate the remedy amount as $8,125.

The final example 4 shows a balancing critical value of -3.50, but a very poor measured value of the modified z-statistic of -12.00. According to Table 1 this is classified as a Severe Failure and generates a consequence of $25,000. This is the largest consequence for which the ILEC would be liable for this submeasure this month to this CLEC.

Tier I Business Rules for Benchmark Measurements

1. Use a "Bright Line" Test for Benchmark Measurements

A benchmark is set to define the level of performance that is judged essential to permit competition to develop on a going-forward basis. As such, the benchmark level is at the lower range of what a viable competitive support process should be capable of delivering on a routine basis. Indeed, to assume otherwise would imply that the benchmark would not be achieved on a routine basis. In all events, because even the most tightly controlled process will produce performance outside the expected range, some margin of error is typically provided for the incumbent. Thus, the limiting performance is expressed as "B% meet or exceed the benchmark" where "B%" is a proportion figure set less than 100% in order to account for random variation considerations. Accordingly, a performance failure should be declared if the calculated performance is not equal to the "B%" level. For example, if the calculated result for a month was 94.5% of all orders completed within 3 days but the benchmark was 95% within 3 days, then a

performance failure occurred. No subsequent application of a statistical test is appropriate.

2. Apply an Adjustment for Small Data Sets When Necessary

Because some measurement results may be calculated using small data sets, some adjustment is warranted. This need arises because the benchmark proportion for a particular measure with few underlying data points may be practically impossible to attain unless the ILEC always performs perfectly. The metric discussed in the prior paragraph can be used to illustrate the point: if only ten orders were completed in the month, then compliance would occur only if all 10 orders were (correctly) completed within three days. One order taking longer than 3 days would mean that, at best, the performance result would be 90% within 3 days, i.e., a failing performance level.

This situation is addressed through application of the following table[16]:

Table 2

CLEC Data Set Size	Benchmark Percentage Adjustments for Small Data Sets (Applicable to Data Sets < 30)		
	85.0%	90.0%	95.0%
5	80.0%	80.0%	80.0%
6	83.3%	83.3%	83.3%
7	85.0%	85.7%	85.7%
8	75.0%	87.5%	87.5%
9	77.8%	88.9%	88.9%
10	80.0%	90.0%	90.0%
20	85.0%	90.0%	95.0%
30	83.3%	90.0%	93.3%

3. Increase Consequences for Increasingly Poor Performance

As with measurements that are judged against a parity standard, those compared to a benchmark standard should be subject to additional consequences as the performance becomes increasingly worse compared to the benchmark. The escalation is as follows (Note that "B" in Table 3, is the Benchmark Percentage as determined from Table 2):

Table 3

Range of Benchmark Result (x)	Performance Designation	Applicable Consequence ($)
Meets or exceeds B%	Compliant	0
Meets or exceeds (1.5B-50)% but worse than B%	Basic Failure	$d[x/(100-B)]^2 + eB[x/(100-B)^2] + f[B/(100-B)]^2 + g$
Meets or exceeds (2B-100)% but worse than (1.5B-50)%	Intermediate Failure	
Worse than (2B-100)%	Severe Failure	25,000

In Table 3 the quantity x is the actually measured proportion and the coefficients are given by:

d = 22500

e = -45000

f = 22500

g = 2500

[16] The table can be expanded to include all possible data set sizes from 1 upward.

A graph of the applicable consequences as a function of the measured benchmark result, x, for B = 95% is given in Attachment G in Figure G-2. The attachment also contains a small step tabulation of the function that approximately represents it in Table G-2.

Example:
As an example of this consequence calculation, consider a benchmark with a proportion B = 95%. Now if the measured performance is 93%, the first and second columns show that this is a Basic Failure. Plugging this 2% failure of the 95% benchmark proportion into the quadratic equation of the third column in the table gives a calculated consequence of $6,100 for this submeasure and CLEC.

Table 3 is applicable for any benchmark expressed as B% proportion better than L level, and all benchmarks may be easily expressed in this form.

Additional Tier I Business Rules Applicable to All Measurements

1. Increase Consequences for Chronic Performance Failures

Regardless of the type of measurement (parity or benchmark), if performance fails to achieve the Compliant level in consecutive reporting periods, then additional consequences should apply. The recommended treatment for chronic failures is to assess a chronic failure over-ride in the third consecutive month of non-compliant performance. When the chronic failure override applies, a consequence equal to a "Severe Failure" ($25,000 per chronic failure per month) should apply until such time as performance for the specific measurement result is again classified as Compliant.[17]

[17] Alternatively, it is possible to institute consequences for repeated failures as early as the second consecutive month of failure. The amount of the consequence under such a

2. No Additional Protection of the ILEC is needed through Forgiveness Mechanisms or Mitigation Methods

Properly calibrated performance measures and balancing the probabilities of statistical errors eliminate any need for additional forms of protection for incumbents with respect to considerations of random variation.[18] Moreover, a procedural cap such as the one described below should allay any fears that additional protections are necessary for the ILEC.[19]

Tier II

Tier II consequences are intended to enhance the the ILEC's incentives to provide performance that complies with its statutory obligations. Tier I consequences only compensate individual CLECs who actually receive discriminatory treatment from the ILEC. Tier II consequences are designed to counterbalance the ILEC's incentive to damage not just individual firms but the competitive marketplace itself. Thus, the two types of consequences are complementary, and both are necessary to achieve the intended results.

The applicability of Tier II consequences should be determined using the aggregate data for all CLECs within a particular submeasurement result and

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structure would escalate more gradually. See Attachment A, Table A of MCI Worldcom and AT&T Joint Remedies Proposal Ex Parte filed in CC Docket 98-56, filed June 2, 1999.

[18] See Attachment E for further discussion of random variation and the inappropriateness of providing further mitigation if Type I and Type II error is balanced as recommended in this proposal.

[19] Because the rationale for providing consequence offsets is the possibility of random variation, there is no justification for applying offsets to measurements that are monitored through the use of benchmarks. As explained above, random variability impacts are fully cared for in the structure of the benchmark standard, by permitting in advance a percentage of performance "misses."

disaggregation.[20] Except as noted below, identical business rules and measurements should be utilized as for Tier I. Thus, virtually the same data and computational processes can be utilized for both tiers. The differences are highlighted below and are due largely to a reduction of the consequence threshold below the balancing critical value. The smaller threshold is recommended because higher consequences are proposed, so the confidence in the decision to apply a consequence should be greater.

Because Tier II consequences reflect harm to the public interest in a competitive marketplace, consequences under Tier II, unlike Tier I payments, should be paid to a public fund identified by the Commission and may be used for competitively neutral public purposes.[21]

Tier II Business Rules for Parity Measurements.

The same business rules apply under Tier II to the aggregate (or pooled) data of the individual CLECs as are employed for the individual CLEC data under Tier I, except a smaller consequence threshold is used.[22] As a result, the applicable consequence table (Table 1 above) is modified as follows:

[20] Each occurrence counts equally in this calculation. Thus, the individual results for individual CLECs are not averaged together; rather the performance for all CLECs is pooled for each submeasurement result. Thus the pooled data analysis effectively creates a "super CLEC" for the purposes of determining Tier II consequences.
[21] Thus, under Tier II, individual CLECs are not compensated.
[22] Alternative methodology exists for determining Tier II consequences. See, for example, the June 2, 1999 Joint AT&T and MCI ex parte filing made with the FCC in CC Docket 98-56.

Table 4

Range of modified z-statistic value (z)	Performance Designation	Applicable Consequence ($)
greater than or equal 5z*/3	Indeterminate	0
less than 5z*/3 to 3z*	Market Impacting	$n\,[a(z/z^*)^2 + b(z/z^*) + c]$
less than 3z*	Market Constraining	n25,000

Here z* is the balancing critical value for the given submeasure aggregated over all the CLECs, and the coefficients of the smooth consequence function are again:

a = 5625

b = -11250

c = 8125.

The quantity n is the market penetration factor explained below.

A graph of the applicable consequences as a function of the measured modified z-score (z) is given in Attachment G in Figure G-3. The attachment also contains a small step tabulation of the function that approximately represents it in Table G-3.

Tier II Business Rules for Benchmark Measurements

The same business rules apply under Tier II to the aggregate (or pooled) data of the individual CLECs as are employed for the individual CLEC data under Tier I, except that consequences do not apply until the pooled CLEC performance results degrades to a point that is equivalent to an intermediate

failure designation at the Tier I level. As with parity measures, the applicable consequences are adjusted to reflect the broader consequences of poor performance for the entire CLEC industry and the concomitant effects on the market and consumers.

Table 5

Range of Benchmark Result (x)	Failure Designation	Applicable Consequence ($)
Meets or exceeds (1.5B-50)%	Indeterminate	0
Meets or exceeds (2B-100)% but worse than (1.5B-50)%	Market Impacting	$n \{d[x/(100-B)]^2 + eB[x/(100-B)^2] + f[B/(100-B)]^2 + g\}$
Worse than (2B-100)%	Market Constraining	n25,000

For Table 5, x is the actually measured proportion and the coefficients are again given by:

d = 22500
e = -45000
f = 22500
g = 2500

The quantity n is the market penetration factor explained below.

A graph of the applicable consequences as a function of the measured benchmark result, x, for B = 95% and n = 10 is given in Attachment G in Figure G-4. The attachment also contains a small step tabulation of the function that approximately represents it in Table G-4.

Establishing the Value of "n" for Tier II

For both Tier II tables (Tables 4 and 5), the value for "n" should be determined based upon the most recent data for the state and company under consideration (in this caseFlorida) relating to resold lines (Table 3.1) and UNE loops (Table 3.3) as reported in the most recent Report of Local Competition published by the FCC.[23] In effect, "n" is a multiplier for the Tier II consequence amount that takes into account, in general terms, the extent of competitive penetration within the state.[24]

Table 6

Lines provided to CLECs/Total ILEC and CLEC Lines	Value of "n"
more than 50%	0
more than 40% to less than or equal 50%	1
more than 30% to less than or equal 40%	2
more than 20% to less than or equal 30%	4
more than 10% to less than or equal 20%	6
more than 5% to less than or equal 10%	8
0% to less than or equal 5%	10

[23] If a company is not explicitly identified, then the aggregate result for the state would be utilized

[24] The calculation for a particular ILEC and state would be based on the most current data reported to the FCC and be as follows: (resold lines + UNE loops)/(total switched lines).

Thus, as competition becomes established, the size of the applicable Tier II consequence is reduced to zero if the ILEC no longer provides a majority of the local lines to the CLECs in its serving area.

Other Considerations

1. Procedural Caps May Be Useful If Properly Implemented

In the course of early state consideration of consequence plans, regulators and incumbents expressed concern regarding the possible size of payments that an incumbent might be required to pay. In response, proposals were made to cap incumbents' potential liability. As a threshold matter, it should be noted that this concern reflects a tacit acknowledgement that the performance delivered by the incumbents has to date been largely non-complaint. Moreover, to the extent that any cap is considered at all, the very important difference between absolute and procedural caps must be recognized. As shown below, if the Commission establishes any caps at all, they should be purely procedural and not place an absolute limit on the potential consequence payments due from the ILEC.[25]

The difference between procedural and absolute caps is significant. Absolute caps should be avoided entirely. First, such caps provide an ILEC with the means to evaluate the cost of market share retention through delivery of non-compliant performance. Second, absolute caps send the signal that once the ILEC's performance deteriorates to a particular level (i.e., reaching the absolute cap) then further deterioration is irrelevant.[26]

[25] In this regard, it should be noted that the main purpose of any system of incentives is to have an ILEC accept its legal responsibility to perform at appropriate levels and not pay any consequences at all.

[26] Similarly, the use of weightings for individual performance measurements to determine the amount of consequences should also be avoided. Any weighting process is inherently subjective and thus arbitrary. Moreover, use of weightings may inappropriately influence the market entry mode selected by a particular CLEC. It is far superior to permit the

Procedural caps, on the other hand, establish a preset level at which the ILEC could seek regulatory review of the consequences that are due; however, the cap would not automatically absolve an ILEC of liability for a consequence. Procedural caps, therefore, avoid both of the problems of absolute caps. They do not provide ILECs with the opportunity to evaluate the "cost" of retaining share through non-compliance. Likewise, they do not absolve an ILEC from consequences for unchecked performance deterioration.

To the extent a procedural cap is employed, it should be tailored to achieve the following:

(1) A meaningful level of consequences must be available before the procedural cap applies;
(2) The procedural cap should apply on a rolling twelve-month period and not to individual months;
(3) The procedural cap should not apply to Tier I consequences for the CLECs but only Tier II consequences.[27] No other caps should be applicable.
(4) To the extent that a procedural cap is exceeded, the ILEC must pay out consequences up to the procedural cap and put the amount in excess of the cap in an escrow account that earns a minimum interest rate as approved by the Commission;
(5) The Commission shall decide whether and to what extent the amount in excess of the procedural cap should be paid out. The ILEC

market to determine which measures are most important by seeing what functions customers need from CLECs, and that CLECs in turn need from the ILEC.
[27] As noted above, Tier I consequences principally act as a form of liquidated damages. Thus, there is no justification for capping such consequences whether for an individual CLEC or for the CLEC industry as a whole.

should pay out any amount in excess of the cap, including accrued interest, according to Commission order.

The level of the procedural cap must be set high enough that meaningful incentives are immediately payable without intervention of the Commission. To permit otherwise would effectively prevent the performance consequences from being self-enforcing. It is reasonable to expect that any procedural cap should be proportionate to the size of the local market at issue. It is therefore recommended that, if a procedural cap is adopted, that it be determined from the estimated dollar amount that the ILEC stands to retain in monopoly based revenues.

2. Other Provisions Protect ILECs From The Impact Of Extraordinary Events

The cut of a single cable may result in higher trouble rates and longer mean times to repair over a short period of time. This is referred to as clustering. While clustering may in fact occur, there is no particular reason to believe that any such events would result in disproportionate impacts on the ILEC or even the CLECs. Furthermore, there may be other events demonstrably beyond the control of the ILEC that may affect its service quality differently from the CLECs'. This condition does not argue that automatic exclusion should be provided for an otherwise applicable consequence. Nevertheless, the ILEC should not be denied protection from extraordinary impacts not anticipated in the construction of the consequence plan[28]. As a result, if

[28] Root cause analysis should not defer payments of consequences. ILECs must be liable to pay any consequences for poor performance. Completion of root cause analysis must not be a prerequisite for the delivery of payments to either the CLEC(s) or to the designated Tier II fund. Root cause analyses tend to be time consuming to conduct. While root cause analysis is desirable for long range performance improvement purposes, it is antithetical to self-enforcing consequences. Finally, the provisions set forth in the immediately preceding section provide a procedural mechanism available to ILECs

such events occur, the ILECshould be permitted to pursue relief according to the following:

(1) The ILEC should notify the Commission and any potentially affected CLEC(s), using written and verifiable means of notice, of the intent to pursue an exception. Such notification must be provided before the applicable consequence is payable; otherwise the ILEC waives its rights.

(2) All consequences not at issue under the exception petition must be immediately payable as provided for elsewhere in the plan. Those that are subject of the potential exemption shall be paid into an interest bearing escrow account no later than the due date applicable to the consequences that are at issue.

(3) No later than 15 calendar days following the due date of the consequences for which an exemption is sought, the incumbent shall submit to the Commission and all other affected parties all factual evidence supporting the exemption. To the extent the ILEC seeks proprietary protection of the information submitted, it shall employ a standard nondisclosure form, approved by the Commission, before the plan is put into operation. The ILEC may not rely upon the lack of the proprietary form as a basis to delay the submission to the Commission, nor may the incumbent delay access to information by any CLEC that agrees to sign the standard nondisclosure form.

(4) By the later of 30 calendar days following notice by the incumbent or 15 calendar days following the ILEC's compliance with (3) above, interested

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should after-the-fact root cause analysis indicate that a consequence was misapplied from the ILEC's perspective.

CLECs shall file comments regarding the requested exemption. By mutual agreement, this period may be extended up to 15 calendar days.

(5) Following closure of the comment period provided in (4), if the ILEC and CLEC(s) have not reached a mutually agreeable settlement, the Commission shall either

(a) render a decision regarding the requested exemption, or

(b) seek further comment. The Commission shall render its decision regarding the exemption, which shall be binding on all parties, within 90 calendar days of the payment due date of the consequences at issue.

(6) Payout of the consequences shall be according to Commission direction and liquidate the entire escrow account, including accrued interest. In addition, the ILEC should be responsible for reimbursing reasonably incurred legal fees of the CLECs. Such amounts should be reimbursed in the following proportion:

[1-(amount returned to the incumbent)]/total escrow balance at liquidation.

As discussed in Attachment F, other steps may be taken to address potential measurement correlation issues once actual data has been gathered under the performance measurement system.

3. Additional Consequences Enforce the Operation of the Plan

Additional consequences should be applicable for other ILEC failures related to performance reporting. At a minimum, consequences for the following areas of non-compliance are appropriate:

Late performance reports - If performance data and associated reports are not available to the CLECs by the due day, the ILEC should be liable for payments of $5,000 to a state fund for every day past the due date for delivery of the reports and data. The ILEC's liability should be determined based on the latest report delivered to a CLEC.

Incomplete or revised reports - If performance data and reports are incomplete, or if previously reported data are revised, then the ILEC should be liable for payments of $1,000 to a state fund for every day past the due date for delivery of the original reports.

Inability to access detailed data - If a CLEC cannot access its detailed data underlying the ILEC's performance reports due to failures under the control of the ILEC, then the ILEC should pay the affected CLEC $1000 per day (or portion thereof) until such data are made available.

Interest on late consequence payments - If the ILEC fails to remit a consequence payment by the 15th business day following the due date of the data and the reports upon which the consequences are based, then it should be liable for accrued interest for every day that the payment is late. A per diem interest rate that is equivalent to the ILEC's rate of return for its regulated services for the most recent reporting year should apply.

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Attachment A

Sufficient Disaggregation Is Essential to Permit Detection of Discrimination

A meaningful system of performance consequences cannot operate without a high-quality system of performance measurements. This requires not only a robust system of performance measurements that monitors all key aspects of market entry and ILEC support but also that the results derived from such measurements are sufficiently discrete to permit meaningful comparisons.[29]

Sufficient disaggregation is absolutely essential for accurate comparison of results to expected performance. This is true regardless of whether parity or a benchmark serves as the performance standard. Inadequate disaggregation of results means that not all key factors driving differences in performance results have been identified, which in turn interjects needless variability into the computed results. Such an outcome has two adverse effects. First, the ability to detect real differences is reduced for parity measures, because the modified z-statistic employs only the incumbent's variance in the denominator, which will increase with inappropriate averaging of dissimilar results (thus causing the calculated z-statistic to be smaller). Second, benchmark standards may be more permissive, both in terms of the absolute standard and the percentage "miss" accepted (to the extent it is factually supported at all), if the factual data underlying them are averages of widely divergent processes. Accordingly, inadequately disaggregated data impose very lenient targets that result in a very low probability that performance requirements will be missed.

[29] Although some incumbents have raised vague concerns that sufficient disaggregation of results may over-burden regulators, those concerns are unfounded for two reasons. First, careful advance specification of disaggregation requirements will reduce, rather than increase, regulatory burden and permit superior quality decision making. Second, if fewer performance results are desired, statistical procedures for re-aggregating disaggregated results provide a superior approach to reliance upon overly aggregated measurement results.

Only incumbents, such as BellSouth, have access to the highly detailed information regarding their retail performance necessary to determine the level of disaggregation that is required to permit apples-to-apples comparisons. Moreover, there are analytical procedures that allow factual conclusions to be made regarding how much disaggregation is "enough."[30] Indeed, in the limited instances where CLECs have been provided access to ILEC data and at least limited public disclosure of analysis was permitted, the facts showed both that ILECs have very detailed data and that very disaggregated results comparisons are necessary to avoid bias.[31] Establishing the appropriate level of disaggregation is not a "once-and-done" undertaking. Provision can be made to review, perhaps annually, the appropriateness of the disaggregation contained in the ILEC's performance measurement system. In this review process, an ILEC may demonstrate, through data it has collected pursuant to its performance measurement system, that the existing level of disaggregation is not providing any additional insight to an assessment of its performance quality and nondiscrimination. In that same review process, individual CLECs should also be permitted to request additional disaggregation.[32] The party requesting a change should have the burden of showing why the proposed change is appropriate provided that all parties have equal access to detailed data necessary to support the proposal.

There should not be any presumption that additional disaggregation creates a burden, for either the ILEC or this Commission. For all incumbents in

[30] For example, regression procedures may provide a workable methodology for establishing the extent of disaggregation required to make accurate comparisons.
[31] See AT&T Ex Parte filed July 20, 1999 in CC Docket 98-56.
[32] In such cases, the requesting CLEC should be required to make its request for further disaggregation to the incumbent LEC at least three months before initiation of the review process.

general, additional disaggregation (once correct implementation is validated) simply involves repetitive computation – a task readily and quickly accomplished by today's computers. Such a small and largely one-time effort is a small price to pay for the vastly improved capability to protect the prospects for competition in Florida.

ATTACHMENT B

SERVICE QUALITY MEASUEMENTS

PRE-ORDERING

1. Average Response Time and Response Interval (Pre-Ordering)
2. Interface Availability (Pre-Ordering)
3. Interface Availability (Maintenance & Repair)
4. Response Interval (Maintenance & Repair)
5. Loop Make-up Manual
6. Loop Make-up Electronic

ORDERING

1. Percent Flow-through Service Requests
2. Order Acknowledgement Timeliness
3. Order Acknowledgement Completeness
4. Percent Rejected Service Requests
5. Reject Interval
6. Firm Order Commitment Timeliness
7. Firm Order Commitment/Rejection Response Completeness
8. Speed of Answer in Ordering Center
9. Percent Order Accuracy
10. Timeliness of Response for BST to CLEC Trunks
11. LNP Percent Rejected Service Requests
12. LNP Reject Interval
13. LNP Firm Order Commitment Timeliness
14. Call Abandonment Rate

PROVISIONING

1. Mean Held Order Interval & Distribution Intervals
2. Average Jeopardy Notice Interval & % of Orders Given Jeopardy Notices
3. Percent Orders Completed On Time (or missed appointment)
4. Average Completion Interval
5. Average Completion Notice Interval
6. Coordinated Customer Conversions
7. Hot Cut Timeliness with Interval
8. % Provisioning Troubles w/i 30 days of Service Order Completion
9. Percent Completions/Attempts without Notice or with Less Than 24 Hours Notice
10. % on time hot cuts
11. Percent of Orders Cancelled or Supplemented at the Request of the ILEC
12. Percent of Hot Cuts Not Working as Initially Provisioned
13. Average Recovery Time

14. Mean Time to Restore Customer to the ILEC
15. % Customer Restored to ILEC
16. % Cooperative Acceptance Testing
17. % Successful xDSL Loops Cooperatively Tested
18. % Completion of Timely Loop Modification
19. LNP Missed Appointments
20. LNP Disconnect Timeliness

MAINTENANCE & REPAIR

1. Customer Trouble Report Rate
2. Maintenance Average Duration
3. Percent Repeat Troubles w/i 30 days)
4. Average Answer Time - Repair Centers
5. Mean Jeopardy Interval for Maintenance & Trouble Handling
6. Percent Missed Repair Appointments
7. Mean Time To Answer Calls(Repair Service Center)

BILLING

1. Usage Data Delivery Accuracy
2. Mean Time to Deliver Usage
3. % Billing Errors Corrected in X Days
4. Usage Timeliness
5. Recurring charge completeness
6. Non recurring charge completeness
7. % on time mechanized invoice delivery
8. Invoice accuracy

OTHER

1. Mean Time To Answer(OS/DA)
2. E-911 Timeliness
3. E-911 Accuracy
4. E-911 Mean Interval
5. Percent Call Completion (Trunking)
6. Database Average Update Interval
7. Database Percent Update Accuracy
8. NNX and LRN loaded by LERG Effective Date
9. % On Time Response Commitments
10. Mean Time to Notify CLEC of Network Outages
11. % on Time Notification of Interface Outages
12. % Change Management Notices Sent on Time
13. % Change Management Documentation Sent on Time
14. Average Delay Days for Change Notices
15. Average Delay Days for Documentation
16. ILEC vs CLEC Changes Made
17. % Software Certification Failures
18. % Software Problems Resolved on Time

Attachment C

Permutation Analysis Procedural Steps

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

1. Choose a sufficiently large number T.

2. Pool and mix the CLEC and ILEC data sets

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

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

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

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

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

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

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

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

Attachment D

Statistical Demonstrations of Non-Parity are Sufficient: Notes on "Competitive Significance"

Some incumbents have proposed that, when comparing the CLEC data set to the ILEC data set for a particular performance measurement result, a lack of parity should not be declared unless both the performance difference is statistically significant and the difference has "competitive or economic significance." This notion is contrary to FCC's interpretation of the terms of the 1996 Act (the Act). The FCC has found that the term "nondiscriminatory" as used in the Act is a more stringent standard than the "unjust and unreasonable discrimination" standard set forth in other provisions of the Communications Act.[33] Thus, the term "nondiscriminatory access" means that: (1) the quality of performance must be equal among all carriers requesting the support, and (2) where technically feasible, the support must be no less in quality and timeliness than that which the incumbent provides to itself.[34]

Some ILECs have also argued that, as the number of data points underlying the computed performance result increases (all other factors held constant),

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[33] See FCC Docket No. 96-98, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order released August 8, 1996, ¶ 217, 859 ("Local Competition Order").

[34] Local Competition Order, ¶315 (access must be provided on terms that are "equal to the terms and conditions under which the incumbent LEC provisions such elements to itself"); Second Order on Reconsideration, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98 (released December 13, 1996) ¶9 (OSS access "must be equal to" the access that the ILEC provides to itself); FCC CC Docket No. 97-137, In the Matter of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region InterLATA Services in Michigan, Memorandum Opinion and Order released August 19, 1997 ("Ameritech Michigan Order"),¶139 ("BOC must provide access to competing carriers that is equal to the level of access that the BOC provides to itself . . . in terms of

smaller differences in means will be statistically significant. This statement is true; nevertheless, as explained in the text, the consequences defined by this plan do not increase with the number of data points. Therefore, the statistical test and z-score have achieved their exact purposes by *identifying unequal performance* and increasing consequences with *severity* of failure. Furthermore, the term "discriminatory" under the Act should not be confused with direct and provable competitive injury. The language of the Act does not permit the incumbent to discriminate against a CLEC by showing that no specific competitive harm was experienced by the CLEC.[35] Moreover, as a theoretical matter, although statistical science can be used to evaluate the impact of different choices of alternative hypothesis in the balancing methodology, there is not much that an appeal to statistical principles can offer in directing specific choices. These specific choices are best left to telephony experts.

These judgements should consider the financial impact (on the CLECs) of violations of various degrees. As a first approximation, the ILEC has data, generated by its routine management procedures, that could be used to calibrate the effect of various violations. The Commission should require the ILEC to produce evidence, relating to its management procedures, that would help the Commission understand what deviations from target performance routinely signal the need for correction.

It is certainly not sufficient to consider only the resulting critical values or error probabilities.

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quality, accuracy and timeliness"); ¶166 (ILEC "must provide competing carriers access to such OSS function equal to the access that it provides to its retail operations").

[35] Indeed, requiring a CLEC to demonstrate the specific anticompetitive consequences of an ILEC performance failure would effectively render these new protections into mere reiterations of Section II of the Sherman Act. Long experience under antitrust law shows how difficult and protracted such a requirement is in practice.

Attachment E

Mitigation for Potential Impacts of Random Variation is Unnecessary When Type I and Type II Error is Balanced

Random variation is differences in the expected output (or result) of a process that cannot be entirely explained as a result of differences in the inputs to the process. Said another way, running the very same process multiple times using exactly the same key inputs may not (and likely will not) produce exactly the same outcomes. The differences in the outcomes are "explained" as random variation.

There is little debate that the support processes that incumbents utilize to support CLECs tend to be complex and that a variety of factors influence the quantity and quality of the support delivered. As a result, provided the necessary steps have been taken to disaggregate measurement results sufficiently to account for factors correlated with different outcomes, random variation should be accommodated. In doing so, a reasonable balance needs to be struck between (1) protecting the ILEC from consequences that are a result of random variation, and (2) protecting competitors from the adverse effects of discrimination by the ILEC.

As discussed above, the first step in mitigating the effects of random variation is to minimize the risk of making an incorrect decision. In this situation, the two potential incorrect decisions are (1) declaring performance compliant when it is actually discriminatory and (2) declaring performance non-compliant when it is actually within acceptable limits. If these two probabilities are balanced, then, the consequences for "false" failures conceptually offset the consequences for undetected failures. Otherwise stated, the small remedy payment by the ILEC under falsely declared non-

compliance is conceptually balanced with the market losses experienced by the CLECs due to falsely declared compliance.

Some regulators have expressed concerns, in light of what they consider to be sizable consequences necessary to motivate compliant ILEC performance and the inability to precisely balance risk, that additional mitigating factors should be instituted. Unfortunately, virtually all the mechanisms discussed are designed to protect the incumbent at the expense of the protecting the competitive process. The following mechanisms have been proposed, but each suffer from serious flaws.

a. Credits for "Better than Required" Performance Permit Gaming

This approach to mitigation is misguided and has the potential to cause extreme harm with little upside potential. In this flawed approach to mitigation, consequences for failed performance could be negated if the incumbent provides "better than required" performance at a different time (or for a different measurement) and thus earns a "credit." For example, the incumbent could deliver bad performance in one area and offset the consequence through performance credits "earned" in a separate but unrelated area or through credits for compliant performance previously (or subsequently) delivered. In all cases, such credits provide incumbents extensive opportunities to "game the system." Credits give ILECs the opportunity to deliver highly variable results that swing between very good and extremely poor performance and still be absolved of any consequence. Likewise, incumbents have the opportunity to temporarily provide compliant performance and then discriminate with impunity. In either case, the CLECs' position in the marketplace compared to the incumbent is harmed. Moreover, because CLECs only learn of "better" performance after the fact (in a performance report), they cannot take practical advantage of such

performance. Thus they get no benefit that offsets the real harm they and their customers have actually suffered.

b. Absolute Caps On Liability Are Unwarranted

There is no logical or practical basis to set an absolute limit on any incumbent's liability under any consequences plan, especially for Tier I type consequences. Such consequences are intended to compensate CLECs for actual harm they have sustained as a result of documented poor performance. Thus, there should never be a limit on this type of consequence. Moreover, to the extent that Tier II consequences become especially large, it may be appropriate to establish a procedural cap to provide an opportunity to assess whether the calculated consequence for an incumbent's market-affecting behavior should be limited.

Attachment F

Addressing Measurement Overlap And Correlation

Measurement overlap occurs when one or more measurements effectively measure the same performance. If two measurements overlap, then consequences should attach to only one of them. Note, however, a measurement addressing timeliness and a measurement addressing quality for the same area of performance do not overlap.

Measurement correlation is different from measurement overlap. Measurement correlation occurs when one or more measurement results move at the same time. The direction of movement need not be the same. That is, one may improve (e.g., quality) while another deteriorates (e.g., timeliness). As such, measurement correlation does not automatically argue for adjustment to the measurements eligible for consequences. Indeed, an incumbent that is intentionally and pervasively discriminating would be capable of showing a high degree of correlation among all measurement results both within and across months – all results would be deteriorating.

If there are reasons to believe that measurements are somewhat overlapping and correlation is suspected, the solution is not to immediately eliminate one or both measurements. Rather the potentially superior approach is to create "families" for the purpose of applying consequences. Each measurement "family" would be eligible for only a single consequence. Whether and to what degree a family is eligible for a consequence would be determined by the worst performing individual measurement result within the family for the month under consideration. Thus, use of measurement families eliminates the possibility of consequence "double jeopardy"[36] without making any

[36] If the measurements in the family are truly overlapping and correlated they point to the same conclusion (incidents of failure and severity). Measurement families thus treat the

advance value judgement regarding the usefulness of individual measurements.

Use of measurement families has the potential for significant harm for an otherwise effective consequence plan due because: (1) inappropriate grouping can mask areas of discrimination by placing non-overlapped measurements in the same family; and, (2) by reducing eligible measurements, without adjusting the per measurement consequence, the overall plan incentives are diminished. As a result, establishment of measurement families must be approached with extreme caution and sparingly used. At least the following conditions must be imposed.

(1) measurements that address separate support functionality may not be placed in the same family;

(2) measurements that address different modes of market entry may not be placed in the same family;

(3) measurement families may not be used as a means to avoid disaggregation detail;

(4) measurements that address (a) timeliness, (b) accuracy, and (c) completeness may not be placed within the same family;

(5) measurement families, to the extent used, must be identical across all CLECs;

(6) even if correlation can be demonstrated, measurement families must not be used to combine otherwise independent measurements of a deficient process; and,

(7) establishment of measurement families must not reduce the maximum consequence payable by more than 10% without an

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incumbent preferentially: either the measurements are effectively the same and only one consequence applies or they were inappropriately grouped and the incumbent avoids one or more consequences that should have been incurred.

offsetting increase in the basic, intermediate, and severe consequence payable per failed measurement.

To the extent new measurement families are proposed or a proposal is set forth to eliminate or modify and existing family, the advocate of the change should bear the burden of demonstrating compliance with the above minimum requirements. The consideration should be in a public forum where all interested parties participate, and in the event of a disagreement, the Commission should decide based upon the record established. Prospective changes of measurement families should not affect any prior determinations regarding consequences.

No proposal to establish measurement families should be considered until the consequence plan has been operational and produced at least six months of independently verified data.

Attachment G

Graphs and Tables of Consequence Functions

The consequences as a function of performance are completely calculable from the equations presented in Tables 1,3,4, and 5 of the text. In fact using the equations in these tables directly is the appropriate way to program the computer that will perform the calculations when the plan is implemented. However, in this attachment we give graphical representations of the consequences as a function of performance and also present the functions in tabular form. The latter may be used as a less accurate alternative to the equations in the text tables to look up the consequence amounts.

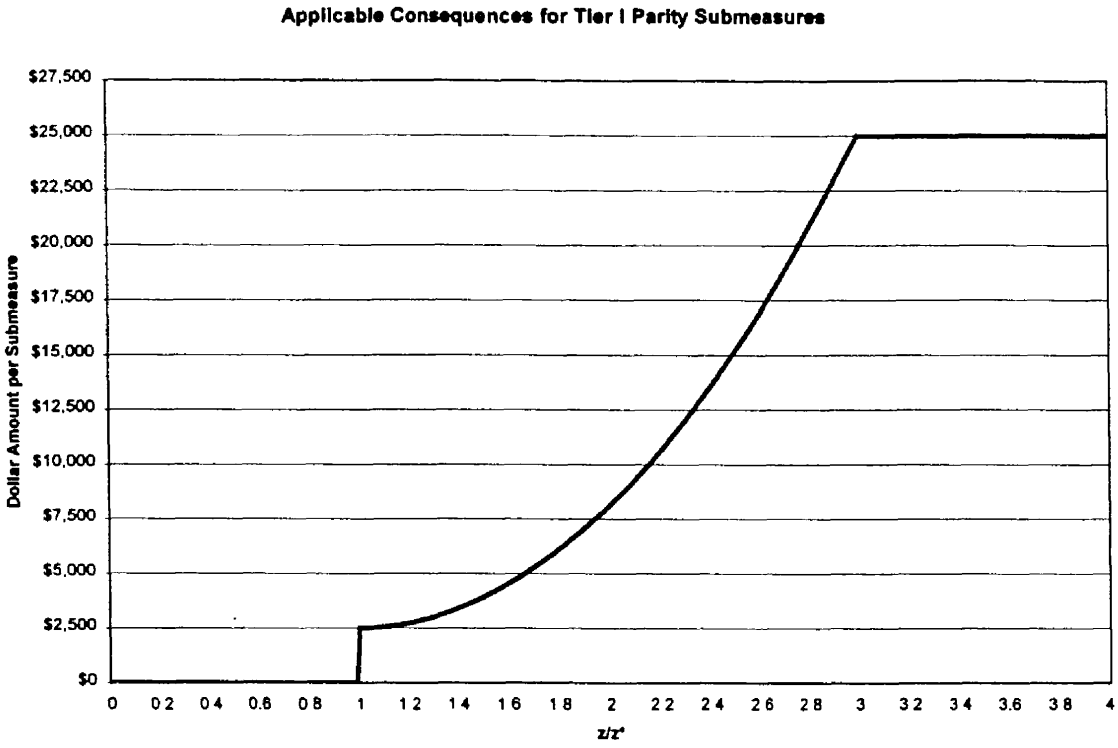
Applicable Consequences for Tier I Parity Submeasures
Dollar Amount per Submeasure
$27,500
$25,000
$22,500
$20,000
$17,500
$15,000
$12,500
$10,000
$7,500
$5,000
$2,500
$0
0 02 04 06 08 1 12 14 16 18 2 22 24 26 28 3 32 34 36 38 4
z/z*

Figure G-1

Table G-1 Applicable Tier I Consequences for Parity Submeasures

z/z*	Amount
0.0 or less	$0.00
0.1	$0 00
0.2	$0.00
0.3	$0.00
0.4	$0.00
0.5	$0.00
0.6	$0.00
0.7	$0.00
0.8	$0.00
0.9	$0.00
1.0	$2,500.00
1.1	$2,556.25
1.2	$2,725.00
1.3	$3,006.25
1.4	$3,400.00
1.5	$3,906.25
1.6	$4,525.00
1.7	$5,256.25
1.8	$6,100.00
1.9	$7,056 25
2.0	$8,125.00
2.1	$9,306.25
2.2	$10,600.00
2.3	$12,006.25
2.4	$13,525.00
2.5	$15,156.25
2.6	$16,900.00
2.7	$18,756.25
2.8	$20,725.00
2.9	$22,806.25
3.0 or more	$25,000.00

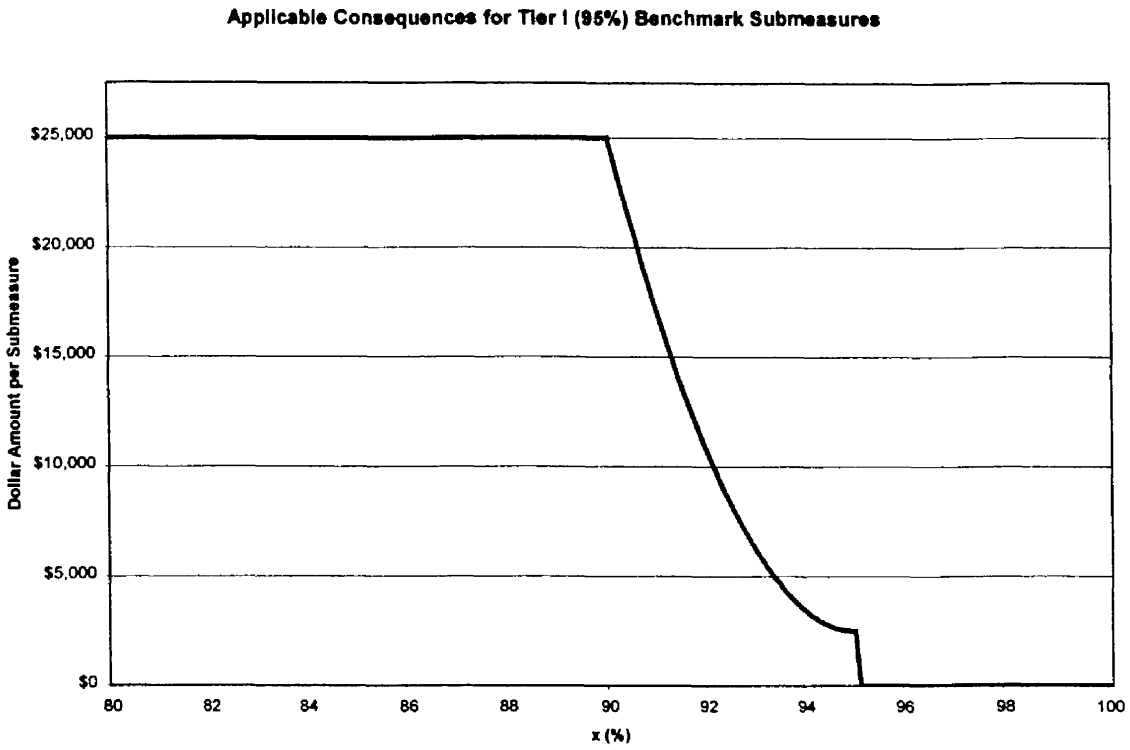
Applicable Consequences for Tier I (95%) Benchmark Submeasures
Dollar Amount per Submeasure
$25,000
$20,000
$15,000
$10,000
$5,000
$0
80
82
84
86
88
90
92
94
96
98
100
x (%)

Figure G-2

Table G-2 Applicable Tier I Consequences for (95%) Benchmark Submeasures

x (%)	Amount
90.0 or less	$25,000.00
90.5	$20,725.00
91.0	$16,900.00
91.5	$13,525.00
92.0	$10,600.00
92.5	$8,125.00
93.0	$6,100.00
93.5	$4,525.00
94.0	$3,400.00
94.5	$2,725.00
95.0	$2,500.00
95.5	$0.00
96.0	$0.00
96.5	$0.00
97.0	$0.00
97.5	$0.00
98.0	$0.00
98.5	$0.00
99.0	$0.00
99.5	$0.00
100.0	$0.00

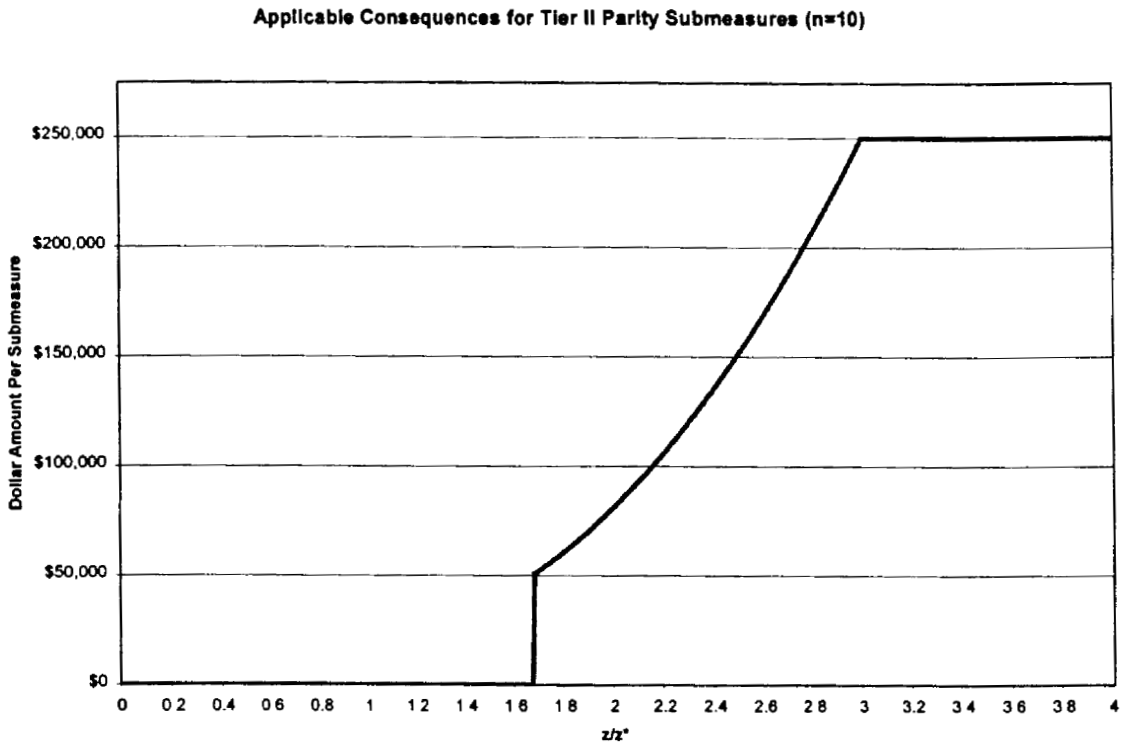
Applicable Consequences for Tier II Parity Submeasures (n=10)
Dollar Amount Per Submeasure
$250,000
$200,000
$150,000
$100,000
$50,000
$0
0 0.2 0.4 0.6 0.8 1 1.2 1.4 1.6 1.8 2 2.2 2.4 2.6 2.8 3 3.2 3.4 3.6 3.8 4
z/z*

Figure G-3

Table G-3 Applicable Tier II Consequences for Parity Submeasures (n = 10)

z/z*	Amount
0.0 or less	$0.00
0.1	$0.00
0.2	$0.00
0.3	$0.00
0.4	$0.00
0.5	$0.00
0.6	$0.00
0.7	$0.00
0.8	$0.00
0.9	$0.00
1.0	$0.00
1.1	$0.00
1.2	$0.00
1.3	$0.00
1.4	$0.00
1.5	$0.00
1.6	$0.00
1.7	$52,562.50
1.8	$61,000.00
1.9	$70,562.50
2.0	$81,250.00
2.1	$93,062.50
2.2	$106,000.00
2.3	$120,062.50
2.4	$135,250.00
2.5	$151,562.50
2.6	$169,000.00
2.7	$187,562.50
2.8	$207,250.00
2.9	$228,062.50
3.0 or more	$250,000.00

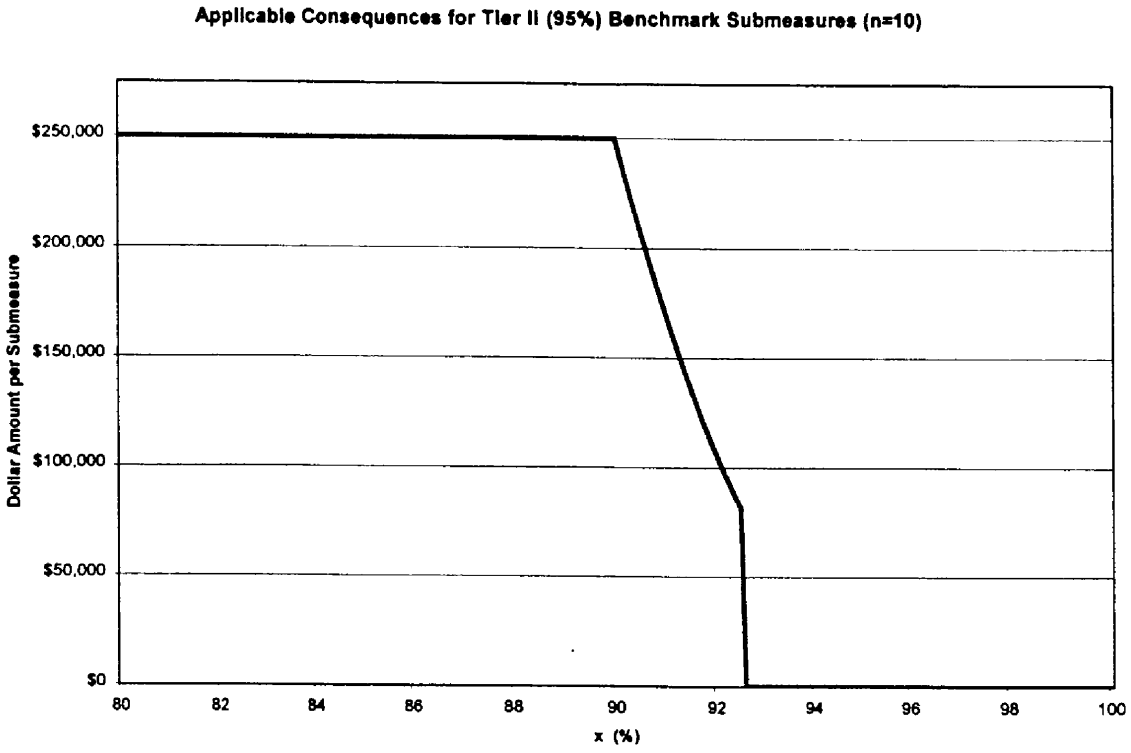
Applicable Consequences for Tier II (95%) Benchmark Submeasures (n=10)
Dollar Amount per Submeasure
$250,000
$200,000
$150,000
$100,000
$50,000
$0
80
82
84
86
88
90
92
94
96
98
100
x (%)

Figure G-4

Table G-4 Applicable Tier II Consequences for (95%) Benchmark Submeasures (n = 10)

x (%)	Amount
90.0 or less	$250,000.00
90.5	$207,250.00
91.0	$169,000.00
91.5	$135,250.00
92.0	$106,000.00
92.5	$81,250.00
93.0	$0.00
93.5	$0.00
94.0	$0.00
94.5	$0.00
95.0	$0.00
95.5	$0.00
96.0	$0.00
96.5	$0.00
97.0	$0.00
97.5	$0.00
98.0	$0.00
98.5	$0.00
99.0	$0.00
99.5	$0.00
100.0	$0.00

Sample Benchmark Adjustment Table

CLEC Data Set Size	Benchmark Percentage Adjustments for Small Data Sets (Applicable to Data Sets < 30)		
	85.0%	90.0%	95.0%
5	80.0%	80.0%	80.0%
6	83.3%	83.3%	83.3%
7	85.0%	85.7%	85.7%
8	75.0%	87.5%	87.5%
9	77.8%	88.9%	88.9%
10	80.0%	90.0%	90.0%
20	85.0%	90.0%	95.0%
30	83.3%	90.0%	93.3%

ILEC Monthly Performance Measurement Results Reporting

ATTACHMENT 01

Sample ILEC PM Results Summary Report

STANDARD REPORTING FIELDS FOR A PM RESULTS SUMMARY REPORT						THESE FILEDS WOULD BE REPORTED FOR EACH OF THE 12 MONTHS				
PM#	PM CATEGORY	PM NAME	STANDARD	BENCHMARK	GEO AREA	CLEC OBSV	CLEC VALUE	ILEC VALUE	Z-VALUE	RESULT
1-01	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Address Verification - DATAGATE	Benchmark	4.7	CO	x	3.2		(1.50)	Pass
1-02	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Req. for Telephone Number - DATAGATE	Benchmark	4.5	CO	x	3.2		(1.30)	Pass
1-03	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Req. for CSR - DATAGATE	Benchmark	6.6	CO	x	3.8		(2.80)	Pass
1-04	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Serv. Availability - DATAGATE	Benchmark	6.6	CO	x	0.8		(5.80)	Pass
1-05	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Serv. Appointment Scheduling - DATAGATE	Benchmark	1.0	CO	x	0.5		(0.50)	Pass
1-06	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Dispatch Required - DATAGATE	Benchmark	12.6	CO	x	9.4		(3.20)	Pass
1-07	Pre-Ordering	Avg. Resp. for OSS Pre-Order - PIC - DATAGATE	Benchmark	28.0	CO	x	21.2		(6.80)	Pass
1-08	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Address Verification -VERIGATE	Benchmark	4.7	CO	x	5.5		0.79	Pass
1-09	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Req. for Telephone Number - VERIGATE	Benchmark	4.5	CO	x	2.5		(2.01)	Pass
1-10	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Req. for CSR - VERIGATE	Benchmark	6.6	CO	x	2.6		(3.96)	Pass
1-11	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Serv. Availability - VERIGATE	Benchmark	6.6	CO	x	3.1		(3.46)	Pass
1-12	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Serv. Appointment Scheduling - VERIGATE	Benchmark	1.0	CO	x	0.5		(0.46)	Pass
1-13	Pre-Ordering	Avg. Resp. for OSS Pre-Order - Dispatch Required - VERIGATE	Benchmark	12.6	CO	x	8.6		(3.97)	Pass
1-14	Pre-Ordering	Avg. Resp. for OSS Pre-Order - PIC - VERIGATE	Benchmark		CO	x	19.2		n/a	-
2-01	Pre-Ordering	Avg. Resp. Rec. within 12 sec. - Address Verification - DATAGATE	Benchmark	95.0%	CO	x	98.6%		(3.60)	Pass
2-02	Pre-Ordering	Avg. Resp. Rec. within 9.5 sec. - Req. for Telephone Number - DATAGATE	Benchmark	95.0%	CO	x	98.6%		(3.60)	Pass
2-03	Pre-Ordering	Avg. Resp. Rec. within 13 sec. - Req. for CSR - DATAGATE	Benchmark	95.0%	CO	x	99.1%		(4.10)	Pass
2-04	Pre-Ordering	Avg. Resp. Rec. within 16 sec. - Service Availability - DATAGATE	Benchmark	95.0%	CO	x	99.9%		(4.90)	Pass
2-05	Pre-Ordering	Avg. Resp. Rec. within 2 sec. - Serv. Appointment Scheduling - DATAGATE	Benchmark	95.0%	CO	x	98.8%		(3.80)	Pass
2-06	Pre-Ordering	Avg. Resp. Rec. within 25 sec. - Dispatch Required - DATAGATE	Benchmark	95.0%	CO	x	99.8%		(4.80)	Pass
2-07	Pre-Ordering	Avg. Resp. Rec. within 60 sec. - PIC - DATAGATE	Benchmark	95.0%	CO	x	99.1%		(4.10)	Pass
2-08	Pre-Ordering	Avg. Resp. Rec. within 7 sec. - Address Verification - VERIGATE	Benchmark	90.0%	CO	x	85.8%		4.25	Fail
2-09	Pre-Ordering	Avg. Resp. Rec. within 6 sec. - Req. for Telephone Number - VERIGATE	Benchmark	80.0%	CO	x	80.0%		0.02	Pass
2-10	Pre-Ordering	Avg. Resp. Rec. within 10 sec. - Req. for CSR - VERIGATE	Benchmark	90.0%	CO	x	98.5%		(8.49)	Pass
2-11	Pre-Ordering	Avg. Resp. Rec. within 13 sec. - Service Availability - VERIGATE	Benchmark	90.0%	CO	x	97.9%		(7.85)	Pass
2-12	Pre-Ordering	Avg. Resp. Rec. within 3 sec. - Service Appointment Scheduling - VERIGATE	Benchmark	90.0%	CO	x	99.0%		(9.01)	Pass
2-13	Pre-Ordering	Avg. Resp. Rec. within 19 sec. - Dispatch Required - VERIGATE	Benchmark	90.0%	CO	x	97.2%		(7.20)	Pass
2-14	Pre-Ordering	Avg. Resp. Rec. within "x" sec. - PIC - VERIGATE	Benchmark		CO	x	n/a		n/a	-
3-01	Pre-Ordering	EASE Average Response Time	Parity		TX	x	0.71	0.74	0.00	Pass
4-01.1	Pre-Ordering	OSS Interface Availability - DATAGATE	Benchmark	99.5%	CO	x	100.0%		(0.50)	Pass
4-01.2	Pre-Ordering	OSS Interface Availability - VERIGATE	Benchmark	99.5%	CO	x	100.0%		(0.50)	Pass
4-01.3	Pre-Ordering	OSS Interface Availability - LEX	Benchmark	99.5%	CO	x	100.0%		(0.50)	Pass
4-01.4	Pre-Ordering	OSS Interface Availability - EDI	Benchmark	99.5%	CO	x	100.0%		(0.50)	Pass
4-01.5	Pre-Ordering	OSS Interface Availability - TOOLBAR	Benchmark	99.5%	CO	x	100.0%		(0.50)	Pass
4-01.6	Pre-Ordering	OSS Interface Availability - LRAF	Benchmark	99.5%	TX	x	100.0%		0.00	Pass
4-02	Pre-Ordering	Consumer EASE Availability	Benchmark	99.5%	TX	x	100.0%		0.00	Pass
4-03	Pre-Ordering	Business EASE Availability	Benchmark	95.0%	TX	x	95.8%		(0.84)	Pass
5-01	Pre-Ordering	% FOCs Rec. Within 5 Hours - Residence and Simple Business - LEX	Benchmark	94.0%	TX	x	93.4%		0.59	Pass
5-02	Pre-Ordering	% FOCs Rec Within 24 Hours - Complex Business (1 - 200 Lines) - LEX								