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October 1, 2010

VIA HAND DELIVERY

filed electronically in docket office on 10/01/10

Hon. Mary Freeman, Chairman
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37238

Re: *Notice of Settlement Agreement and Revisions to SQM and SEEM Plans*
Docket 04-00150

Dear Chairman Freeman:

Based upon a settlement agreement reached between AT&T and CompSouth¹, recently approved by the Florida Public Service Commission, revising and streamlining the Florida SQM and SEEM Plan,² AT&T Tennessee provides this notification to the Tennessee Regulatory Authority of modifications to the AT&T Tennessee SQM and SEEM Plan. The SQM and SEEM Plan changes are principally directed to streamlining the SQM and SEEM Plan, providing for certainty of the Plans over time and continuing to provide adequate assurance of continued good wholesale performance by AT&T.

Consistent with the terms of the settlement agreement, oversight of and enforcement authority for the revised SQM and SEEM Plan will remain with the Authority.

1. Pursuant to the settlement agreement in Docket 04-00150, the SQM and SEEM Plan adopted by the Florida Public Service Commission ("FPSC") were approved by the Tennessee Regulatory Authority ("Authority") for use in Tennessee on August 25, 2005. This approval was given in connection with a settlement agreement, pursuant to which the parties in Tennessee agreed to the adoption in Tennessee of the Florida Plan. AT&T has notified the

¹ Individual CompSouth Members in Florida included: Access Point, Inc.; Birch Communications; Cavalier Telephone; Covad Communications Company; DeltaCom; NuVox Communications, Inc.; tw telecom, Inc. and XO Communications, Inc.

² Service Qualify Measurement Plan and Self-Effectuating Enforcement Mechanisms Plan.

Authority periodically as the Plans have been modified over time to reflect modifications to the performance measures as well as the remedies provided in the Plans.³

2. The FPSC has recently completed its review of the Florida SQM and SEEM Plan and given approval to modifications to the Florida SQM and SEEM Plan.⁴ The FPSC approval followed months of extensive analysis and numerous workshops and conference calls, held by the FPSC Staff, opened to all interested parties, wherein proposed SQM and SEEM revisions were analyzed, discussed and debated. During the SQM/SEEM review process conducted by the FPSC, AT&T and CompSouth entered into a Settlement Agreement applicable to each of the nine states formerly constituting the BellSouth states, including Tennessee. The parties to the Settlement agree that the Settlement reflects a reasonable compromise of all issues. The various terms and provisions, where appropriate, are incorporated in the proposed documentation changes to the proposed SQM and SEEM Plan.

3. Subsequent to the AT&T/CompSouth Settlement Agreement, AT&T reached an agreement with Saturn Telecommunications Services, Inc. which resulted in additional changes which were incorporated in the SQM and SEEM Plan. In addition, AT&T and the Florida Cable Telecommunications Association ("FCTA") reached consensus on further changes which were incorporated in the SQM and SEEM Plan.⁵

4. The modified SQM and SEEM Plan, included here as Exhibits "A" and "B", include all the changes made to the Florida SQM and SEEM Plan and approved by the FPSC.⁶ Effective January 1, 2011, the modified SQM and SEEM Plan will supersede and replace the current SQM and SEEM Plan in Tennessee.⁷

5. The SQM and SEEM Plan changes are principally directed to streamlining the SQM and SEEM Plan, providing for certainty of the Plan over time and continuing to provide

³ For example, see Notice of OSS Migration, December 20, 2007; Notice of introduction of LEX system, December 18, 2009; Notice of introduction of EBTA and retirement of ECTA, May 11, 2010; Notice of Retirement of EDI and TAG/XML, June 28, 2010; Notice of retirement of LENS and LSR, July 7, 2010.

⁴ See Order No. PSC-10-0545-PAA-TP, issued August 25, 2010. A copy of the Order is attached hereto as Exhibit "C". A copy of the settlement agreement between AT&T and CompSouth filed with the FPSC on March 22, 2010 is attached hereto as Exhibit "D".

⁵ FCTA represents cable telephony providers throughout the state of Florida. FCTA's five largest members include Atlantic Broadband, Brighthouse Networks, Comcast, Cox and Mediacom. FCTA was not a party to the settlement agreement reached between AT&T and CompSouth. FCTA's position is that the consensus for the SQM/SEEM Plan is only binding in Florida.

⁶ Both Exhibit "A" and "B" show the changes in redline form.

⁷ The modified SQM and SEEM Plan will be implemented for Florida on November 1, 2010.

adequate assurance of continued good wholesale performance by AT&T. The changes to the SQM and SEEM Plan include⁸:

a) Increases to Tier 1 remedies – Tier 1 remedy payments will increase by 20% to 35%, depending on the metric, when the SQM has been missed for three consecutive months or more except for billing and collocation remedied metrics. This is similar in structure to the current methodology employed for Tier 2 remedies. However, the revision will provide the remedies directly to the CLECs. The revised Tier 1 Fee Schedule provides ample incentive for AT&T Tennessee to continue to provide compliant levels of service and ensure an open market as it has since receiving Section 271 approval. Those levels of performance continue to provide efficient CLECs with meaningful opportunities to compete and support open competition for the industry as a whole. Implementation of this SEEM Plan change will necessitate the failure month count for the Tier 1 Fee Schedule to be reset to month one for all remedied metrics commencing with the first full data month under the revised SEEM Plan.

b) Elimination of Tier 2 remedies – Tier 2 remedies were initially implemented to provide additional assurance, in addition to Tier 1 remedies, that AT&T structured and implemented its OSS and associated processes in a way that enhanced the competitive landscape while preventing “backsliding.” When SEEM Plans were first being developed, concerns were expressed that payments to CLECs might create incentives for gaming or arbitrage, and the creation of a second tier of penalties from which the CLEC derived no financial benefit was intended in part to limit this risk. Experiences with such plans throughout the country, however, have mitigated this concern. The Tennessee local telecommunications market is irreversibly open. Since Section 271 approval in 2002, AT&T has unquestionably maintained its ordering, provisioning, maintenance & repair, and billing systems and associated processes at levels that support the CLEC industry and provide an efficient CLEC with a meaningful opportunity to compete.⁹ With competition firmly entrenched, Tier 2 remedies no longer serve their intended purpose and should be eliminated. Importantly, Tier 2 remedies have been eliminated by all states comprising AT&T’s Midwest, West, and Southwest regions.¹⁰

⁸ While CompSouth supports the Settlement Agreement, CompSouth does not take a position on the content of this letter.

⁹ The nine states comprising the AT&T Southeast Region have successfully completed three FCC Section 272 biennial compliance audits; the latest – and final – in 2007.

¹⁰ AT&T was never subject to Tier 2 remedies in its East region.

c) Other SEEM Plan Changes – Other revisions to the SEEM Plan eliminate several provisions that impose penalties on performance for activities that have no impact on the level of service provided to the CLEC.

- The \$1,000 per day fine for late payments due the Authority is eliminated. The elimination of Tier 2 remedies makes the late payment charge inapplicable. In addition, late payments are the result of inadvertent and unintentional errors in monthly data reporting and occur very rarely. Third, a late payment has no impact on the services AT&T provides to CLECs or the overall competitive landscape.
- The \$400 per day fine for reposting SQM reports is eliminated. When AT&T discovers or is informed of an inconsistency in the posted SQM performance reports, the data is corrected as quickly as possible and the reports are reposted to the performance measurement website. The primary objective of performance measurement reporting is to provide complete and accurate results, identify omissions and errors should they occur, and correct them expeditiously. The number of measurements and sub-metrics, the volume of data processed and the complexity of the Plan imposes significant demands on AT&T that can result in a data restatement. To the extent that omissions and errors are identified, AT&T Tennessee should not be fined for taking action to correct the posted results. Clearly, the CLECs did not experience any discriminatory actions nor can any competitive harm be presumed because of reposting performance reports, particularly where the CLECs were provided better service than originally reported.
- The automatic penalty of \$2,000 per day for the late posting of SQM reports is eliminated. Historically, late posting of reports is rare; late posting has not occurred in the last six (6) years throughout the nine-state Southeast region. AT&T has made and will make every reasonable effort to meet all deadlines imposed by the SQM Plan. With the volume of data and reports, it is unreasonable to assume that an issue will never arise regarding the posting of a report. Moreover, there is nothing to suggest that late reporting is harmful to the CLECs or to the Authority.

d) Miscellaneous Changes – The modified SQM and SEEM Plans provide for other modifications, additions, and deletions to the Plans.

- Administrative changes were made for clarity, such as name change from BellSouth to AT&T, updating website addresses, and grammatical changes.
- An Administrative Changes section has been added to both the SQM and SEEM Plan permitting non-substantive administrative changes to be made without a formal PSC review. Such administrative changes are not without oversight in that AT&T will be required to provide written notice to the Authority regarding all such administrative changes. An administrative change is one that corrects typographical, spelling, grammatical, or computational errors, updates website addresses, and incorporates modifications to architecture implemented in an OSS release following the approved Change Management process.
- The annual review requirement has been eliminated. Both the proposed SQM and SEEM Plans call for a Plan review to be held “periodically or at the request of either party”. In view of the maturity of the SQM and SEEM Plans, there is no need for an annual review of the plans.¹¹
- The SQM Plan has been re-structured to be independent from the SEEM Plan. This revision results in all references to SEEM being removed from the SQM Plan. In addition, provisions that previously only existed in the SEEM Plan such as Change of Law and Review of Measurements have been added to the SQM Plan.

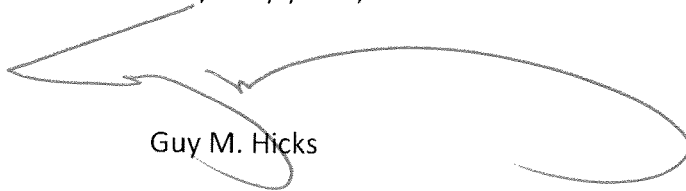
6. The settlement agreement and modified SQM and SEEM Plan will be implemented throughout AT&T’s nine-state southeast region. If any objection to the modified SQM and SEEM Plan results in undue delay or any changes, AT&T Tennessee and CompSouth each reserve all rights they may have, including the right to propose further revisions to the modified SQM and SEEM Plan.

¹¹ The AT&T/CompSouth settlement agreement provides that none of the parties to the agreement will seek a review for any non-administrative change to the SQM and SEEM Plan for a period of four (4) years. This provision will give certainty and predictability for AT&T and the CLECs for a period of four years.

Hon. Mary Freeman, Chairman
October 1, 2010
Page 6

A copy of this letter is being provided to counsel of record.

Very truly yours,

A handwritten signature in black ink, consisting of a large, sweeping loop that starts under the word "yours," and extends to the right, then loops back down and to the left, ending under the name "Guy M. Hicks".

Guy M. Hicks

CERTIFICATE OF SERVICE

I hereby certify that on October 1, 2010, a copy of the foregoing document was served on the following, via hand delivery, facsimile, overnight, electronic mail or US Mail, addressed as follows:

- ☐ Hand
- ☐ Mail
- ☐ Facsimile
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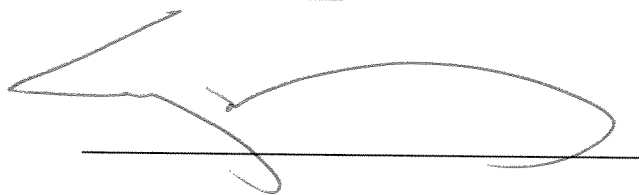
A handwritten signature in black ink, appearing to be "H. Walker", is written over a horizontal line.

Exhibit A

~~BellSouth~~

**AT&T Service Quality
Measurement Plan
(SQM)**

Tennessee Performance Metrics

**Measurement Descriptions
Version ~~3.06~~4.00**

Effective ~~Data Month: July 3, 2010~~Date: TBD

Note: ~~This version of the TN SQM was approved by the Tennessee Regulatory Authority (TRA) at the June 27, 2005 Agenda Conference, and was adopted by the TRA in its Order issued on August 25, 2005 in Docket 04-00150. This SQM version is issued to reflect the OSS architecture changes implemented on July 3, 2010.~~



Introduction

~~BellSouth~~ ~~AT&T~~ Service Quality Measurement ~~Plan~~ (SQM) ~~Plan~~ describes in detail the measurements produced to evaluate the quality of service delivered to ~~BellSouth's~~ ~~AT&T's~~ wholesale customers. The SQM was developed to respond to the requirements of the Communications Act of 1996 Section 251 (96 Act) which required ~~BellSouth~~ ~~AT&T~~ to provide non-discriminatory access to Competitive Local Exchange Carriers (CLEC)¹. The reports produced by the SQM provide regulators, CLECs and ~~BellSouth~~ ~~AT&T~~ the information necessary to monitor the delivery of non-discriminatory access.

This plan results from the many divergent forces evolving from the 96 Act. This specific SQM is based on the TRA Order issued on ~~TBD~~ ~~August 25, 2005~~ in Docket No. 04-00150 ~~and modifications resulting from the implementation of OSS architecture changes on April 19, 2008, July 18, 2009, November 14, 2009, April 15, 2010, May 29, 2010, and July 3, 2010.~~

The SQM and the reports flowing from it must change to reflect the dynamic requirements of the industry. New measurements are added as new products, systems, and processes are developed and fielded. New products and services are added as the markets develop and the processes stabilize. The measurements will be changed to reflect the dynamic changes described above and to correct errors, respond to 3rd Party audits, Orders of the TRA, FCC, and the appropriate Courts of Law.

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

Report Publication Dates

Each month, preliminary SQM reports will be posted to ~~BellSouth's~~ ~~PMAP~~ ~~AT&T's~~ ~~performance measurement~~ website

~~(<http://pmap.bellsouth.com>)~~ (~~<http://pmap.wholesale.att.com>~~)

by 8:00 AM EST on the 21st day of each month or the first business day after the 21st. The ~~reports will contain information collected in each performance category and will be available to CLEC via the AT&T website. AT&T will also provide electronic access to the raw data underlying the SQMs subject to the retention period . Final~~ validated SQM reports will be posted by 8:00 AM on the last day of the month or the first business day after the last day of the month.

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

~~BellSouth~~ ~~AT&T~~ shall retain the performance measurement Supporting Data Files (SDF) for a period of 18 months and further retain the monthly reports ~~produced in PMAP~~ for a period of three years. Instructions for replicating the reports in the SQM are contained in the Supporting Data User Manual

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



(SDUM). The SDUM is available on the [PMAP AT&T performance measurement](#) website and is automatically provided with each SDF download.

Report Delivery Methods

CLEC SQM ~~and SEEM~~ reports will be considered delivered when posted to the [AT&T performance measurement](#) website. The State/Federal Commissions have been given access to the website.

Change of Law

Upon a particular Commission's issuance of an Order pertaining to the Service Quality Measurement (SQM) Plan in a proceeding expressly applicable to all CLECs, AT&T shall implement such plan covering its performance for the CLECs, as well as any changes to that plan ordered by the Commission, on the date specified by the Commission. If a change of law occurs which may change AT&T's obligations, parties may petition the Commission within 30 days to seek changes to the SQM Plan in accordance with such change of law. Performance measurements that have been ordered by the Commission can currently be accessed via the AT&T website. Should there be any difference between the SQM Plan on AT&T's website and the plan the Commission has approved as filed in compliance with its orders, the Commission-approved compliance plan will supersede as of its effective date.

Review of Measurements

A workshop and/or conference shall be organized and held periodically or at the request of either party for the purpose of evaluating the existing performance measures and determining whether any measures should be deleted, modified or any new measures added. Provided however, no new measures shall be added which measure activity already governed by existing measures. CLEC may actively participate in this periodical workshop with AT&T and other CLECs and state regulatory authority representative.

Administrative Changes

AT&T may make administrative changes that do not substantively change the SQM Plan. Such changes are excluded from the periodic review process noted above. AT&T will provide written notice to the Commission regarding all administrative changes. An administrative change is one that corrects typographical, spelling, grammatical, or computational errors, updates website addresses and incorporates modifications to architecture implemented in an OSS release following the approved Change Management process. Administrative changes will not change the intent or the plan language of the document.



Contents

Section 1: Operations Support Systems (OSS)

OSS-1 [ARI]:	OSS Response Interval (Pre-Ordering/Ordering/Maintenance & Repair).....	3
OSS-2 [IA]:	OSS Interface Availability (Pre-Ordering/Ordering/Maintenance & Repair)	5
PO-2 [LMT]:	Loop Makeup - Response Time - Electronic.....	6
PO-3 [BMA]:	UNE Bulk Migration Batch Scheduler Availability (Pre-Ordering)	7

Section 2: Ordering

O-2 [AKC]:	Acknowledgement Message Completeness	8 7
O-3 [FT]:	Percent Flow-Through Service Requests	9 8
O-8 [RI]:	Reject Interval.....	11 10
O-9 [FOCT]:	Firm Order Confirmation Timeliness.....	13 12
O-11 [FOCC]:	Firm Order Confirmation and Reject Response Completeness	15 14
O-12 [OAAT]:	Average Answer Time - Ordering Centers.....	17 15

Section 3: Provisioning

P-1 [HOI]:	Held Order Interval.....	18 16
P-2A [PJ48]:	Percentage of Orders g Given Jeopardy Notices >= 48 Hours	20 18
P-2B [PJ]:	Percentage of Orders Given Jeopardy Notices	22 19
P-3 [MIA]:	Percent Missed Installation Appointments	24 20
P-4 [OCI]:	Order Completion Interval (OCI).....	26 21
P-5 [CNI]:	Average Completion Notice Interval	28 23
P-7 [CCI]:	Coordinated Customer Conversions– Hot Cut Duration	30 25
P-7A [CCT]:	Coordinated Customer Conversions – Hot Cut Timeliness Percent within Interval.....	34 26
P-7B [CCRT]:	Coordinated Customer Conversions – Average Recovery Time	32
P-7C [CPT]:	Hot Cut Conversions – Percent Provisioning Troubles Received within 5 Days of a Completed Service Order	33
P-7D [NCDD]:	Non-Coordinated Customer Conversions – Percent Completed and Notified on Due Date.....	34 27
P-9 [PPT]:	Percent Provisioning Troubles within “X” Days of Service Order Completion	35 28
P-11 [SOA]:	Service Order Accuracy	37 30
P-13B [LOOS]:	LNP-Percent Out of Service < 60 Minutes	39 32
P-13C [LAT]:	LNP-Percentage of Time BellSouth AT&T Applies the 10-Digit Trigger Prior to the LNP Order Due Date	40 33
P-13D [LDT]:	LNP-Disconnect Timeliness (Non-Trigger).....	41 34
P-13E [ILPP]:	Incomplete Standalone LNP Provisioning Process	35
P-13F [SIR]:	Short Interval 10-Digit Trigger Readiness	36

Section 4: Maintenance & Repair

M&R-1 [MRA]:	Percent Missed Repair Appointments	42 38
M&R-2 [CTRR]:	Customer Trouble Report Rate	44 40
M&R-2A [CTRR-NPRR]:	Customer Trouble Report Rate Net of Provisioning Trouble and Repeat Reports.....	41
M&R-3 [MAD]:	Maintenance Average Duration	46 43
M&R-4 [PRT]:	Percent Repeat Customer Troubles within 30 Calendar Days.....	48 45
M&R-5 [OOS]:	Out of Service (OOS) > 24 Clock Hours	50 46
M&R-6 [MAAT]:	Average Answer Time – Repair Centers.....	52 47

Section 5: Billing

B-1 [BIA]:	Invoice Accuracy	53 48
B-2 [BIT]:	Mean Time to Deliver Invoices.....	54 49
B-5 [BUDT]:	Usage Data Delivery Timeliness.....	55 50



Tennessee Performance Metrics

B-10 [BEC]:	Percent Billing Adjustment Requests (BAR) Responded to within 4540 Business Days	5651
-------------	--	------

Section 6: Trunk Group Performance

TGP-1 [TGP]:	Trunk Group Performance	5752
--------------	-------------------------------	------

Section 7: Collocation

C-1 [ART]:	Collocation Average Response Time	5953
C-2 [AT]:	Collocation Average Arrangement Time	6054
C-3 [MDD]:	Collocation Percent of Due Dates Missed.....	6455

Section 8: Change Management

CM-1 [NT]:	Timeliness of Change Management Notices	6256
CM-3 [DT]:	Timeliness of Documentation Associated with Change	6357
CM-5 [ION]	Notification of CLEC Interface Outages	6458
CM-6 [SEC]:	Percentage of Software Errors Corrected in "X" Business Days	6559
CM-7 [CRA]:	Percentage of Change Requests Accepted or Rejected within 10 Days	66
CM-8 [CRR]:	Percent Change Requests Rejected	6760
CM-9 [NDPR]:	Number of Defects in Production Releases (Type 6 CR)	6861
CM-10 [SV]:	Software Validation	6962
CM-11 [SCRI]:	Percentage of Software Change Requests Implemented within 60 Weeks of Prioritization	7063
CM-11A [PCRI]:	Average Time to Implement Process Change Requests	71

Appendix A: Glossary of Acronyms and Terms.....	64
.....	72

Appendix B: BellSouth AT&T Audit <u>and Dispute Resolution</u> Policy	74
.....	82

Appendix C: OSS Interface Tables.....	75
.....	83

Appendix D: BellSouth's AT&T's Policy on Reposting of Performance Data <u>and Recalculation of SEEM Payments</u>	79
.....	86

Appendix E: Description of Raw Data and Other Supporting Data Files.....	80
.....	88

Appendix F: BellSouth PMAPAT&T Data Notification Process.....	83
.....	91

Appendix G: SQM Equity Determination.....	84
.....	92

Appendix H: Special Access Measurements.....	86
.....	93



Section 1: Operations Support Systems (OSS)

OSS-1 [ARI]: OSS Response Interval (Pre-Ordering/Ordering/Maintenance & Repair)

Definition

The response interval is the average ~~percentage of~~ time to retrieve pre-order/order/maintenance and repair information from a given legacy system.

Exclusions

- Syntactically Incorrect queries
- Scheduled OSS Maintenance
- Test Transactions/Records
- AT&T may exclude transactions submitted by an individual CLEC that are an unanticipated significant increase in the monthly volume of transactions submitted by that individual CLEC. This exclusion will only be applied when the individual CLEC's transactions are directly attributable to a failure of the SQM measure. An unanticipated, significant increase in CLEC volume is indicated by either a 100% increase over the individual CLEC's forecasted volumes or over the average of the normalized volumes for the most recent prior six months. AT&T will notify the individual CLEC whose transactions caused this exclusion to be invoked, and will provide general notification to CLECs that such transactions were excluded.

Business Rules

OSS Response Interval is designed to monitor the time required for the CLEC and ~~BellSouth~~ AT&T interface systems to obtain, from ~~BellSouth's AT&T's~~ legacy systems, the information required to handle Pre-Ordering/Ordering/Maintenance and Repair functions. The clock starts on the date and time when the request is received on the ~~BellSouth~~ AT&T side of the interface and the clock stops when the appropriate response has been transmitted through the same point to the requester.

The average response interval for retrieving Pre-~~Order/Order~~ Ordering/Ordering/Maintenance & Repair information from a given legacy system is determined by summing the response times for all requests submitted to the legacy systems during the reporting period and dividing by the total number of legacy system requests for that month.

~~The following systems are observed in the Pre-Ordering/Ordering OSS Response Interval measurement: RSAG-Address, RSAG-TN, ATLAS, COFFI, DSAP, and CRIS.~~

~~The percent response interval for retrieving Maintenance and Repair information from a given legacy system is determined by dividing the number of responses returned within 10 seconds by the total number of queries submitted in the reporting period and multiplying by 100.~~

~~The following systems are observed in the Maintenance and Repair OSS Response Interval measurement: CRIS, DLETH, DLR, LMOS, LMOSupd, LNP Gateway, MARCH, OSPCM, Predictor, SOCS, and NIW.~~

Calculation

Pre-Ordering/Ordering/Maintenance & Repair OSS Response Interval = (a - b)

- a = Date and time of legacy response
- b = Date and time of legacy request

Pre-Ordering/Ordering/Maintenance & Repair Average Response Interval = (c / d)

- c = Sum of response intervals
- d = Number of legacy requests during the reporting period

~~Maintenance & Repair OSS Response Interval = (a - b)~~



Tennessee Performance Metrics

Operations Support Systems (OSS)

- ~~a = Query Response date and time~~
- ~~b = Query Request date and time~~

~~Maintenance & Repair Percent Response Interval (per category) = (c / d) X 100~~

- ~~c = Number of responses returned within 10 seconds~~
- ~~d = Number of queries submitted in the reporting period~~

Report Structure

- Pre-Ordering/Ordering/~~Maintenance & Repair~~ OSS Average Response Interval
- ~~Maintenance & Repair OSS Percent Response Interval~~
- Legacy System/Interface Specific
- Geographic Scope
 - ~~Region~~

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

Legacy System/Interface

- Pre-Ordering/Ordering OSS Response Average Interval
 - Regional Level Parity + 2 seconds
- Maintenance & Repair OSS Response ~~Percent within 10 Seconds~~ Average Interval
 - Regional Level, Per OSS Interface Parity ~~with Retail~~ +1 second

(See Appendix C: -OSS Interface Tables)

~~SEEM Measure~~

~~SEEM~~ ~~Tier I~~ ~~Tier II~~
~~Yes~~ ~~X~~

OSS-1 [ARI]: OSS Response Interval (Pre-Ordering/Ordering/Maintenance & Repair)



OSS-2 [IA]: OSS Interface Availability (Pre-Ordering/Ordering/Maintenance & Repair)

Definition

Percent of time OSS interface is functionally available compared to scheduled availability. Availability percentages for CLEC interface and for all Legacy systems accessed by them are captured. ("Functional Availability" is the amount of time in hours during the reporting period that the legacy systems are available to users. The planned System Scheduled Availability is the time in hours per day that the legacy system is scheduled to be available.)

Scheduled availability is posted on the ~~Interconnection website: (<http://www.interconnection.bellsouth.com/oss/oss-hour.html>).~~
~~AT&T website: (http://wholesale.att.com/alerts_and_notifications/network/oss/index.html).~~

Exclusions

- ... CLEC-impacting troubles caused by factors outside of ~~BellSouth's~~ ~~AT&T's~~ purview, e.g., troubles in customer equipment, troubles in networks owned by telecommunications companies other than ~~BellSouth~~ ~~AT&T~~, etc.
- ... Degraded service outages which are defined as a critical function that is normally performed by the CLEC or is normally provided by an application or system available to the CLEC, but with significantly reduced response or processing time. Scheduled OSS Maintenance

Business Rules

This measurement captures the functional availability of applications/interfaces as a percentage of scheduled availability for the same systems. Only full and Loss of Functionality outages are included in the calculation for this measure.

- Full outages are defined as occurrences of either of the following:
 - Application/Interface application is down or totally inoperative
 - Application is totally inoperative for customers attempting to access or use the application (this includes transport outages when they may be directly associated with a specific application)
- Loss of Functionality outages are defined as: A critical function that is normally performed by the CLEC or is normally provided by an application or system is temporarily unavailable to the CLEC.

Calculation

OSS Interface Availability (Pre-Ordering/Ordering/Maintenance & Repair) = $(a - \cancel{b}) / \cancel{a - X} \times 100$

- a = Functional Availability in Minutes
- b = Scheduled Availability in Minutes

Report Structure

- Legacy System/Interface Specific
- Geographic Scope
 - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

Regional Level, Per OSS Interface>= 99.5%

(See Appendix C: -OSS Interface Availability Tables for SQM)

SEEM Measure



Tennessee Performance Metrics

Docket No. 04-00150
Operations Support Systems (OSS)

~~SEEM~~ ~~Tier I~~ ~~Tier II~~
~~Yes~~ ~~X~~



PO-2 [LMT]: Loop Makeup - Response Time - Electronic

Definition

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

Exclusions

- Manually Submitted Inquiries
- Canceled Requests
- Scheduled OSS Maintenance
- Test Transactions/Records
- AT&T may exclude transactions submitted by an individual CLEC that are an unanticipated significant increase in the monthly volume of transactions submitted by that individual CLEC. This exclusion will only be applied when the individual CLEC's transactions are directly attributable to a failure of the SQM measure. An unanticipated, significant increase in CLEC volume is indicated by either a 100% increase over the individual CLEC's forecasted volumes or the average of the normalized volumes for the most recent prior six months. AT&T will notify the individual CLEC whose transactions caused this exclusion to be invoked, and will provide general notification to CLECs that such transactions were excluded.

Business Rules

The response interval starts when the CLEC's Mechanized Loop Makeup Service Inquiry (LMUSI) is submitted electronically through the ordering interface gateways. It ends when ~~BellSouth's~~ AT&T's Loop Facility Assignment and Control System (LFACS) responds electronically to the CLEC with the requested Loop Makeup data via the ordering interface gateways.

Note: The Loop Makeup Service Inquiry Form does not require the CLEC to furnish the type of Loop. The CLEC determines whether the loop makeup will support the type of service they wish to order and qualifies the loop. If a CLEC concludes that the loop makeup will support the service, and wants to order it, an LSR must be submitted by the CLEC.

Calculation

Response Interval = (a - b)

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

Percent within Interval = (c / d) ~~X~~ 100

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

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
 - State
- ~~Interval for electronic LMUSIs:~~
 - ~~0 <= 1 minute~~

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

Version ~~3.06~~ 4.00



Tennessee Performance Metrics

Docket No. 04-00150
Operations Support Systems (OSS)

-
- Loops..... Benchmark: 95% <= 1 Minute

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X



PO-3 [BMA]: ~~UNE Bulk Migration Batch Scheduler Availability (Pre-Ordering)~~

Definition

~~This measure captures the functional availability of the UNE Bulk Migration Batch Scheduler application as a percentage of scheduled availability for the same system. Scheduled availability is posted on the PMAP website (<http://pmap.bellsouth.com/content/documentation.aspx>).~~

Exclusions

- ~~• CLEC impacting troubles caused by factors outside of BellSouth's purview, e.g., troubles in customer equipment, troubles in networks owned by telecommunications companies other than BellSouth, etc.~~
- ~~• Scheduled Downtime for Maintenance~~

Business Rules

~~The Interface Availability calculations are based upon availability of UNE Bulk Migration Batch Scheduler application utilized by CLECs for pre-ordering. "Functional Availability" is defined as the number of hours in the reporting period the UNE Bulk Migration Batch Scheduler is available to users. "Scheduled Availability" is defined as the number of hours in the reporting period the UNE Bulk Migration Batch Scheduler is scheduled to be available. Outages occur when: The application is totally inoperative for customers attempting to access or use the application (this includes transport outages when they may be directly associated with a specific application).~~

Calculation

~~Interface Availability = $(a - b) / a \times 100$~~

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

Report Structure

- ~~• Geographic Scope~~

~~State~~

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation _____ SQM
Analog/Benchmark

- ~~• UNE Bulk Migration Batch Scheduler Availability.....Diagnostic~~

SEEM Measure

SEEM _____ Tier I _____ Tier II

No.



Section 2: Ordering

O-2 [AKC]: Acknowledgement Message Completeness

Definition

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

Exclusions

- ~~Manually Submitted~~ Email LSRs
- Test Transactions/Records

Business Rules

Ordering interface gateways send Functional Acknowledgements for all transmissions/LSRs, which are electronically submitted by a CLEC. Users of XML Gateway may package many LSRs from multiple states in one transmission. If more than one CLEC uses the same ordering center, an Acknowledgement Message will be returned to the "Aggregator", however, ~~BellSouth~~ AT&T will not be able to determine which specific CLEC this message represented.

Calculation

Acknowledgement Completeness = $(a / b) \times 100$

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

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Acknowledgments Benchmark: 99.75%

SQM/~~SEEM~~ Analog/Benchmark

~~SEEM~~ Measure

~~SEEM~~ Tier I Tier II
~~Yes~~ ~~X~~ ~~X~~



O-3 [FT]: Percent Flow-Through Service Requests

Definition

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

Exclusions

- Fatal Rejects
- Auto Clarification
- Planned Manual Fallout
- CLEC System Fallout
- Test Transactions/Records
- LSRs that received a Z Status

Business Rules

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

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

Auto-Clarification: Clarifications that are mechanically returned to the CLEC due to invalid data entry within the LSR. Edits contained within the source systems will perform data validity checks to ensure the data within the LSR is complete and accurate. For example, if the address on the LSR is not valid according to RSAG, or if the LNP is not available for the NPA NXX requested, the CLEC will receive an Auto-Clarification.

Planned Manual Fallout*: Fallout that occurs by design. Certain LSRs are designed to fallout of the Mechanized Order Process due to their complexity. These LSRs are manually processed by the LESC. When a CLEC submits an LSR, the source systems will determine if the LSR should be forwarded to LESC for manual handling.

*See LSR Flow-Through Matrix on [BellSouth's PMAP AT&T's performance measurement](http://pmap.bellsouth.com) website (<http://pmap.bellsouth.com>) in the Documentation/Exhibits folder for a list of services, including complex services, and whether LSRs issued for the services are eligible to flow through

Total System Fallout: Errors that require manual review by the LESC to determine if the error is caused by the CLEC, or is due to [BellSouth AT&T](#) system functionality. If it is determined the error is caused by the CLEC, the LSR will be sent back to the CLEC for clarification. If it is determined the error is due to [BellSouth AT&T's](#) system functionality, the LESC representative will correct the error and the LSR will continue to be processed.

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

Calculation

Percent Flow Through = $a / [b - (c + d + e + f)] \times 100$

- a = The total number of LSRs that flow through the source systems and reach a status for a FOC to be issued
- b = The number of LSRs that passed the basic system edits and are accepted for further service order processing



Tennessee Performance Metrics

- c = The number of LSRs that fallout for planned manual processing
- d = The number of LSRs that are returned to the CLEC for auto clarification
- e = The number of LSRs that are returned to the CLEC from the LCSC due to CLEC data entry error
- f = The number of LSRs that receive a Z status

Percent Achieved Flow Through = $a / [b - (c + d + e)] \times 100$

- a = The number of LSRs that flow through LESOG/LAUTO and reach a status for a FOC to be issued
- b = The number of LSRs passed from LASR/LNP Gateway to LESOG/LAUTO
- c = The number of LSRs that are returned to the CLEC for auto clarification
- d = The number of LSRs that are returned to the CLEC from the LCSC due to CLEC clarification
- e = The number of LSRs that receive Z status

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
- Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/SEEM Analog/Benchmark

- Residence Benchmark: 95%
 - Business Benchmark: 90%
- UNE-L (includes UNE-L with LNP) Benchmark: 85%
- UNE-P Benchmark: 95%
- LNP Benchmark: 95%

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes X X

Notes:

- The Flow-Through Error Analysis ~~will be posted with the Flow Through report~~ is available on the AT&T performance measurement website. The Flow-Through Error Analysis provides an analysis of each error type (by error code) that was experienced by the LSRs that did not flow through or reached a status for a FOC to be issued.
- The CLEC LSR ~~Information, (a.k.a. LSR Detail Report)~~ information is available ~~by subscription. A for any~~ CLEC ~~wishing to receive a copy of their report should submit a feedback form (see link located in on the "Resources" section on left side of PMAP AT&T performance measurement website). Enter the name of the report in the Comments section.~~



O-8 [RI]: Reject Interval

Definition

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

Exclusions

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

Business Rules

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

For Partially Mechanized and Emailed LSRs or Non-Mechanized LSR/ASRs, only normal business hours will be included in the interval calculation for this measure. The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours. In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute. The hours of operation can be found on the Interconnection AT&T website (<http://www.interconnection.bellsouth.com/centers>) (<https://clec.att.com/clec/>).

Fully Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) until the LSR is rejected (date and time stamp of reject in ordering interface gateways). Auto Clarifications are considered in the Fully Mechanized category.

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

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

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

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

Calculation

Reject Interval = (a - b)

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



Tennessee Performance Metrics

Percent within Interval = (c / d) ~~X~~ 100

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

Report Structure

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

- Fully Mechanized:
~~0~~ ~~<= 1 hour~~
- Partially Mechanized:
~~0~~ ~~<= 10 hours~~
- ~~Non Mechanized:~~
~~0~~ ~~<= 24 hours~~
- ~~Email~~
- Local Interconnection Trunks:
~~0~~ ~~<= 4 days~~
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
~~-~~ State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM/ SEEM Analog/Benchmark
Fully Mechanized	97% <= 1 Business Hour
Partially Mechanized	95% <= 10 Business Hours
Non Mechanized Email	95% <= 24 14 Business Hours
Local Interconnection Trunks	90% <= 4 Business Days

~~SEEM Measure~~

~~SEEM~~ ~~Tier I~~ ~~Tier II~~
~~Yes~~ ~~X~~ ~~X~~

O-8 [R]: Reject Interval



O-9 [FOCT]: Firm Order Confirmation Timeliness

Definition

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

Exclusions

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

Business Rules

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

For Partially Mechanized and Emailed LSRs or Non-Mechanized LSR/ASRs, only normal business hours will be included in the interval calculation for this measure. The interval will be the amount of time accrued from receipt of the LSR/ASR until normal closing of the center, if an LSR/ASR is worked using overtime hours. In the case of a partially mechanized LSR/ASR received and worked outside normal business hours, the interval will be set at one (1) minute. The hours of operation can be found on the Interconnection AT&T website (<http://www.interconnection.bellsouth.com/centers>).

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

Partially Mechanized: The elapsed time from receipt of a valid electronically submitted LSR (date and time stamp in ordering interface gateways) which falls out for manual handling until appropriate service orders are issued by a BellSouth an AT&T service representative ~~via Direct Order Entry (DOE) or Service Order Negotiation Generation System (SONGS) to SOCS~~ and a Firm Order Confirmation is returned to the CLEC via ordering interface gateways.

Non-Mechanized Email: The elapsed time from receipt of a valid paper LSR not submitted via electronic systems (date and time stamp of FAX or date and time paper LSRs received in LCSC Email) until ~~appropriate service orders are issued by a BellSouth service representative via Direct Order Entry (DOE) or Service Order Negotiation Generation System (SONGS) to SOCS and~~ a Firm Order Confirmation is sent to the CLEC via FAX Server Email.

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

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

Calculation

Firm Order Confirmation Interval = (a - b)

- a = Date and time of Firm Order Confirmation



Tennessee Performance Metrics

- b = Date and time of service request receipt

Percent within Interval = $(c / d) \times 100$

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

Report Structure

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

- Fully Mechanized:
~~0 <= 3 hours~~
- Partially Mechanized:
~~0 <= 10 hours~~
- ~~Non-mechanized:~~
~~0 <= 24 hours~~
- ~~Email~~
- Local Interconnection Trunks:
~~0 <= 5 business days~~
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
- State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Resale – Residence (Non-Design)
- Resale – Business (Non-Design)
- Resale – Design (Special)
- LNP (Standalone)
- UNE Analog Loop
- UNE Analog Loop with LNP
- UNE Digital Loop >= DS1
- ... UNE Loop + Port Combinations
- UNE ISDN/UDC/IDSL
- UNE Other
- UNE Line Splitting
- UNE EELs
- UNE xDSL (ADSL, HDSL, UCL)
- Local Interconnection Trunks95% <= 5 business days

SQM/SEEM Analog/Benchmark

Fully Mechanized: 95% <= 3 ~~Hours~~ business hours
Partially Mechanized: 95% <= 10 ~~Hours~~ business hours
~~Non-Mechanized~~ Email: 95% <= ~~24 Hours~~ 17 business hours

SEEM Measure

SEEM ~~_____~~ Tier I ~~_____~~ Tier II
~~Yes~~ ~~X~~ ~~X~~



O-11 [FOCC]: Firm Order Confirmation and Reject Response Completeness

Definition

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

Exclusions

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

Business Rules

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

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

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

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

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

Calculation

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

- a = Total number of service requests for which a Firm Order Confirmation or Reject is sent
- b = Total number of service requests received in the report period

Report Structure

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



SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Fully Mechanized ~~95~~98% Returned
- Partially Mechanized 95% Returned
- ~~Non-Mechanized~~Email 95% Returned
- Local Interconnection Trunks 95% Returned

~~SEEM Measure~~

~~SEEM~~ _____ ~~Tier I~~ _____ ~~Tier II~~
~~Yes~~ ~~X~~ ~~X~~

0-11 [FOCC]: Firm Order Confirmation and Reject Response Completeness



O-12 [OAAT]: Average Answer Time - Ordering Centers

Definition

This report measures the average time a customer is in queue when calling a ~~BellSouth~~ AT&T Ordering Center.

Exclusions

- ... Volume of abandoned calls

Business Rules

The duration starts when a CLEC representative or ~~BellSouth~~ AT&T customer makes a choice on the ordering center's menu and is put in queue for the next service representative and stops when a ~~BellSouth~~ AT&T service representative answers the call. Abandoned calls are not included in the volume of calls handled but are included in total seconds. ~~Small Business has a universal call center where the same service representatives handle both ordering and maintenance calls. Twenty percent of these calls stem from ordering-related activity and are reported in this measurement.~~

Calculation

Answer Time for ~~BellSouth~~ AT&T Ordering Centers = (a - b)

- ... a = Time ~~BellSouth~~ AT&T service representative answers call
- ... b = Time of entry into queue

Average Answer Time for ~~BellSouth~~ AT&T Ordering Centers = (c / d)

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

Report Structure

- CLEC Aggregate
 - ~~BellSouth~~ Aggregate
 - ~~Business Service Center~~
 - ... Geographic Scope
 - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- ... CLEC Local ~~Carrier~~ Service Center

SQM/~~SEEM~~ Analog/Benchmark

~~Parity with Retail (Business Service Center)~~ Average Answer Time <=30 seconds

~~SEEM~~ Measure

~~SEEM~~ _____ ~~Tier I~~ _____ ~~Tier II~~
~~Yes~~ _____ ~~X~~



Section 3: Provisioning

P-1 [HOL]: Held Order Interval

Definition

This report measures delays in completing CLEC orders due to ~~BellSouth~~AT&T reasons. This report is based on orders still pending, held and past their committed due date at the end of the reporting period.

Exclusions

- Order Activities of ~~BellSouth~~AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T).
- Disconnect Orders
- Orders with Appointment Code of 'A', i.e., orders for locations requiring special construction including locations where no address exists and a technician must make a field visit to determine how to get facilities to the location.
- Listing Orders

Business Rules

This metric is computed at the close of each reporting period. The held order interval is established by first identifying all orders, at the close of the reporting interval, that both have not been reported as completed in SOCS and have passed the currently committed due date for the order. For each held order, the interval is determined from the number of calendar days between the earliest committed due date on which ~~BellSouth~~AT&T had a company missed appointment and the close of the reporting period. The total number of held order days are accumulated and then divided by the number of held orders to produce the mean held order interval. The interval is expressed in calendar days with no exclusions for Holidays or Sundays.

Calculation

Mean Held Order Interval = a / b

- a = Sum of held-over-days for all held orders
- b = Total number of held orders

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

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

SQM Analog/Benchmark

Retail Residence (Non-Design)
Retail Business (Non-Design)
Retail Design
Retail Residence, Business, and Design (Dispatch) (Excluding Digital Loops)
Retail Residence and Business – (POTS (Excluding Switch Based Orders)



Tennessee Performance Metrics

•..... UNE Digital Loop >= DS1	Retail Digital Loop >= DS1
•..... UNE Loop + Port Combinations	Retail Residence and Business
•..... UNE EELs	Retail DS1/DS3
•..... UNE xDSL (HDSL, ADSL, <u>UCL</u> , and <u>UCL</u> <u>Line Splitting</u>)	ADSL Provided to Retail
•..... UNE ISDN/UDC/IDSL	Retail ISDN – BRI
•..... UNE Line <u>Splitting</u> /Sharing	ADSL Provided to Retail
•..... UNE Other Design	Diagnostic
•..... UNE Other Non-Design	Diagnostic
•..... Local Interconnection Trunks	<u>Parity with Retail Trunks</u> <u>.<=</u> <u>2% held for 5 days or more due to lack of facilities</u>

SEEM Measure

SEEM Tier I Tier II

No



Tennessee Performance Metrics

P-2A [PJ48]: Percentage of Orders Given Jeopardy Notices >= 48 Hours

Definition

This report measures the percentage of jeopardy notices that ~~BellSouth~~AT&T provides in advance to the CLECs indicating a committed due date is in jeopardy due to a facility delay.

Exclusions

- Order activities of ~~BellSouth~~AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T).
- Disconnect Orders
- Orders jeopardized on the due date. This exclusion only applies when the technician on premises has attempted to provide service but must refer to Engineer or Cable Repair for facility jeopardy.
- Orders issued with a due date of less than 48 hours
- Listing Orders

Business Rules

When ~~BellSouth~~AT&T can determine in advance that a committed due date is in jeopardy for facility delay, it will provide advance notice to the CLEC. Orders that have a due date in the reporting period are included in the calculation. The interval is calculated using the date/time the notice is released to the CLEC/~~BellSouth~~AT&T systems/FAX Server until 5 PM on the due date of the order. This report measures dispatched orders only.

Calculation

Percentage of Orders Given Jeopardy Notice >= 48 Hours = (a / b) ~~x~~ 100

- a = Number of orders given jeopardy notice >= 48 ~~consecutive~~ hours in the reporting period
- b = Number of orders given jeopardy notices in the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence (Non-Design)	95% >= 48 hours
• Resale Business (Non-Design).....	95% >= 48 hours
• Resale Design	95% >= 48 hours
• UNE Analog Loop (Design)	95% >= 48 hours
• UNE Analog Loop (Non-Design)	95% >= 48 hours
• UNE Digital Loop >= DS1	95% >= 48 hours
• UNE Loop + Port Combinations.....	95% >= 48 hours
• UNE EELs	95% >= 48 hours
• UNE xDSL (HDSL, ADSL, UCL , and UCL Line Splitting)	95% >= 48 hours
• UNE ISDN/UDC/IDSL	95% >= 48 hours
• UNE Line Splitting /Sharing.....	95% >= 48 hours
• UNE Other Design.....	95% >= 48 hours
• UNE Other Non-Design.....	95% >= 48 hours
• Local Interconnection Trunks.....	95% >= 48 hours



SEEM Measure

SEEM _____ Tier I _____ Tier II

No.

P-2A [PJ48]: Percentage of Orders given Jeopardy Notices >= 48 Hours



P-2B [PJ]: Percentage of Orders Given Jeopardy Notices

Definition

This report measures the percentage of orders given jeopardy notices, due to facility delay, out of the total orders due in the reporting period.

Exclusions

- Order activities of ~~BellSouth~~AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T).
- Disconnect Orders
- Listing Orders
- Orders jeopardized on the due date
- ~~Orders issued with a due date of less than or equal to 48 hours~~

Business Rules

Orders that have a due date in the reporting period are included in the calculation.

Calculation

Percent of Orders Given Jeopardy Notice = (a / b) ~~X~~ 100

- a = Number of orders given jeopardy notices in the reporting period
- b = Number of orders ~~confirmed~~ ~~(with a due)~~ date in the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence (Non-Design)	Retail Residence-(Non-Design)
• Resale Business (Non-Design).....	Retail Business (Non-Design)
• Resale Design	Retail Design
• UNE Analog Loop (Design).....	Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
• UNE Analog Loop (Non-Design).....	Retail Residence and Business - POTS (Excluding Switch Based Orders)
• UNE Digital Loop >= DS1	Retail Digital Loop >= DS1
• UNE Loop + Port Combinations.....	Retail Residence and Business
• UNE EELs	Retail DS1/DS3
• UNE xDSL (HDSL, ADSL, <u>UCL</u> , and <u>UCL</u> <u>Line Splitting</u>)	ADSL Provided to Retail
• UNE ISDN/UDC/IDSL	Retail ISDN - BRI
• UNE Line <u>Splitting</u> /Sharing.....	ADSL Provided to Retail
• UNE Other Design.....	Diagnostic
• UNE Other Non-Design.....	Diagnostic
• Local Interconnection Trunks	Parity with Retail Trunks



SEEM Measure

SEEM _____ Tier I _____ Tier II

No.

P-2B (PJI): Percentage of Orders Given Jeopardy Notices



Tennessee Performance Metrics

P-3 [MIA]: Percent Missed Installation Appointments

Definition

This report measures the percentage of total orders for which ~~BellSouth~~AT&T is unable to complete the service orders on the committed due date.

Exclusions

- Orders canceled on or prior to the due date ~~including orders that are to be provisioned on the same day they are placed. (“Zero Due Date Orders”)~~
- Order activities of ~~BellSouth~~AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Disconnect Orders
- Listing Orders

Business Rules

All Service orders are considered as met, unless the first missed appointment code is due to ~~BellSouth~~AT&T company reasons. If an attempt is made to provision service prior to the commitment time, but there is no access, a miss will not be counted unless ~~BellSouth~~AT&T fails to meet the original commitment time. If no access occurs after the commitment time, the report is flagged a missed appointment.

Calculation

Percent Missed Installation Appointments = (a / b) ~~X~~ 100

- a = Number of orders where the installation appointment is not met
- b = Total number of orders completed during the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Dispatch/Non-Dispatch (except Trunks)
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM/ SEEM Analog/Benchmark
• Resale Residence (Non-Design)	Retail Residence (Non-Design)
• Resale Business (Non-Design).....	Retail Business (Non-Design)
• Resale Design	Retail Design
• LNP (Standalone)	Retail Residence and Business (POTS)
• UNE Analog Loop (Design)	Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
• UNE Analog Loop (Non-Design).....	Retail Residence and Business – POTS (Excluding Switch Based Orders)
• UNE Analog Loop with LNP-Design	Retail Residence, Business-and Design (Dispatch) (Excluding Digital Loops)
• UNE Analog Loop with LNP-Non-Design	Retail Residence and Business – POTS (Excluding Switch Based Orders)
• UNE Digital Loop >= DS1	Retail Digital Loop >= DS1
• UNE Loop + Port Combinations	Retail Residence and Business
• UNE EELs.....	Retail DS1/DS3



Tennessee Performance Metrics

- ~~UNE xDSL (HDSL, ADSL, UCL and UCL Line Splitting)~~ADSL Provided to Retail
- ~~UNE ISDN/UDC/IDSL~~.....Retail ISDN - BRI
- ~~UNE Line Splitting/~~SharingADSL Provided to Retail
- ~~UNE Other Design~~.....Diagnostic
- ~~UNE Other Non-Design~~.....Diagnostic
- ~~Local Interconnection Trunks~~.....~~Parity with Retail Trunks~~ <= 5%

SEEM Measure

SEEM ~~_____~~ ~~Tier I~~ ~~_____~~ ~~Tier II~~
~~Yes~~ ~~_____~~ ~~X~~ ~~_____~~ ~~X~~



P-4 [OCI]: Order Completion Interval (OCI)

Definition

This report measures the interval of time it takes ~~BellSouth~~AT&T to provide service for the CLEC or its own customers.

Exclusions

- Canceled Service Orders
- Order activities of ~~BellSouth~~AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Disconnect Orders
- "L" Appointment coded orders (where the customer has requested a later than offered interval)
- CLEC/End user-caused misses
- Listing Orders

Business Rules

The completion interval is determined for each order processed during the reporting period. The completion interval is the elapsed time from when ~~BellSouth~~AT&T issues a FOC/SOCS date time-stamp indicating receipt of an order (application date) from the CLEC to ~~BellSouth's~~AT&T's order completion date. Orders worked on zero due dates are calculated with a .33-day interval (8 hours). Orders can be either dispatch or non-dispatch.

Only valid business days will be included in the calculation of this interval. Valid business days may be found at the ~~following~~ AT&T website: (<http://www.interconnection.bellsouth.wholesale.att.com/#localorderinghandbook/intervalguide>)/[contact/centers/](#).

Calculation

Order Completion Interval = (a - b)

- a = Completion Date
- b = FOC or SOCS date time-stamp (application date)

Average Order Completion Interval = (c / d)

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Dispatch/Non-Dispatch categories applicable to all levels except trunks
- All Levels are reported < 6 lines/circuits; >= 6 lines/circuits (except trunks)
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- | | |
|--------------------------------------|--------------------------------------|
| • Resale Residence (Non-Design)..... | Retail Residence (Non-Design) |
| • Resale Business (Non-Design)..... | Retail Business (Non-Design) |
| • Resale Design..... | Retail Design |
| • LNP (Standalone)..... | Retail Residence and Business (POTS) |



Tennessee Performance Metrics

- UNE Analog Loop (Design).....Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
- UNE Analog Loop (Non-Design).....Retail Residence and Business (Dispatch)
- UNE Analog Loop with LNP-Design.....Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
- UNE Analog Loop with LNP-Non-Design.....Retail Residence and Business (Dispatch)
- UNE Digital Loop >= DS1.....Retail Digital Loop >= DS1(Dispatch)
- UNE Loop + Port Combinations.....Retail Residence and Business
 - Dispatch In- Dispatch In
 - Switch Based- Switch Based
- UNE EELs.....Retail DS1/DS3(Dispatch)
- UNE xDSL (HDSL, ADSL, UCL and UCL)Line Splitting
 - without conditioning.....<= 5-Business Days
 - with conditioning.....<= 12.....<= 11 Business Days
- UNE ISDN/UDC/IDSL.....Retail ISDN - BRI
- UNE Line Splitting/Sharing without Conditioning.....ADSL Provided to Retail
 - with Conditioning.....<= 12 Days
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection TrunksParity with Retail Trunks

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes.....X.....X

P-4 [OCI]: Order Completion Interval (OCI)



P-5 [CNI]: Average Completion Notice Interval

Definition

This report measures the elapsed time between the ~~BellSouth~~AT&T reported completion of work and the issuance of a valid completion notice to the CLEC.

Exclusions

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

Business Rules

The interval begins with the completion date and time and the interval ends with release of the notice of completion status to the CLEC. The field technician notifies the CLEC the work was complete and then he/she enters the completion time stamp information in his/her computer. This information switches through to the SOCS systems to the Work Management Center (WMC), either completing or rejecting the order. If the completion is rejected, it is manually corrected and then completed by the WMC. The notice is returned on each individual order.

The end time for mechanized orders is the time stamp when the notice was delivered to the CLEC interface. ~~For non-mechanized orders~~For Emailed LSRs or Non-Mechanized ASRs, the end time will be date and timestamp of order update from the C-SOTS system. For the retail analog, the start time begins when the technician completes the order and ends when the order status is changed to complete in SOCS.

Calculation

Completion Notice Interval = (a - b)

- a = Date and time of notice of completion
- b = Date and time of work completion

Average Completion Notice Interval = c / d

- c = Sum of all completion notice intervals
- d = Number of orders with notice of completion in the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Mechanized Orders
- ~~Non-Mechanized~~Email Orders
- Reporting intervals in hours
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark



Tennessee Performance Metrics

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale Residence (Non-Design)	Retail Residence (Non-Design)
• Resale Business (Non-Design).....	Retail Business (Non-Design)
• Resale Design.....	Retail Design
• LNP (Standalone).....	Retail Residence and Business (POTS)
• UNE Analog Loop (Design).....	Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
• UNE Analog Loop (Non-Design).....	Retail Residence and Business – POTS (Excluding Switch Based Orders)
• UNE Analog Loop with LNP – Design.....	Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
• UNE Analog Loop with LNP- Non-Design.....	Retail Residence and Business – POTS (Excluding Switch Based Orders)
• UNE Digital Loop >= DS1.....	Retail Digital Loop >= DS1
• UNE Loop + Port Combinations.....	Retail Residence and Business
• UNE EELs	Retail DS1/DS3
•	UNE xDSL (HDSL, ADSL, <u>UCL</u> and <u>UCL</u> <u>Line Splitting</u>)
.....	ADSL Provided to Retail
• UNE ISDN/UDC/IDSL	Retail ISDN - BRI
• <u>UNE Line Splitting/</u> Sharing.....	ADSL Provided to Retail
• UNE Other Design.....	Diagnostic
• UNE Other Non-Design.....	Diagnostic
• Local Interconnection Trunks	Parity with Retail Trunks

SEEM Measure

SEEM _____ Tier I _____ Tier II
No



P-7 [CCI]: Coordinated Customer Conversions– Hot Cut Duration

Definition

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

Exclusions

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

Business Rules

Coordinated conversions are scheduled between the CLEC and ~~BellSouth~~AT&T. The start time will be captured when the physical conversion begins and the stop time will be when the CLEC is notified after the conversion is complete. The conversion interval for the entire service order is calculated and then divided by the number of loops converted to determine the average duration per loop.

When the cut interval for a conversion is greater than zero, yet less than one minute, that conversion will reflect a one minute cut interval.

Calculation

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

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

Percent Coordinated Customer Conversions = (d / e) ~~X~~ 100

- d = Total number of Coordinated Customer Conversions (loops) within <= 15 minutes
- e = Total number of Coordinated Customer Conversions (loops) for the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
- ~~State~~

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Coordinated Customer Conversions (Loops).....95% <= 15 Minutes

~~SEEM~~ Measure

~~SEEM~~ _____ ~~Tier I~~ _____ ~~Tier II~~
~~Yes~~ _____ ~~X~~ _____ ~~X~~



P-7A [CCT]: Coordinated Customer Conversions – Hot Cut Timeliness Percent within Interval

Definition

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

Exclusions

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

Business Rules

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

Calculation

Percent within Interval = $(a / b) \times 100$

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
-State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Product Reporting Level
 - Non-IDLC 95% within + or – 15 minutes of scheduled start time
 - IDLC 95% within + or – 2 hours of scheduled start time

SQM/~~SEEM~~ Analog/Benchmark

~~SEEM~~ Measure

~~SEEM~~ Tier I Tier II
Yes X X



~~P-7B [CGRT]: Coordinated Customer Conversions — Average Recovery Time~~

~~Definition~~

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

~~Exclusions~~

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

~~Business Rules~~

~~Measures the outage duration time related to Coordinated Customer Conversions from the initial trouble notification until the service has been restored and the CLEC has been notified. The interval is calculated on the total outage time for the circuits divided by the total number of outages restored during the report period to give the average outage duration. This measure also displays the overall percentage of orders which did not experience a trouble during a coordinated conversion.~~

~~Calculation~~

~~Recovery Time = (a - b)~~

- ~~• a = Date and time the initial trouble is cleared and the CLEC is notified~~
- ~~• b = Date and time the initial trouble is opened with BellSouth~~

~~Average Recovery Time = (c / d)~~

- ~~• c = Sum of all the Recovery Times~~
- ~~• d = Number of troubles referred to BellSouth~~

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

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

~~Report Structure~~

- ~~• CLEC Specific~~
- ~~• CLEC Aggregate~~
- ~~• Geographic Scope~~

~~State~~

~~SQM Disaggregation — Analog/Benchmark~~

~~SQM Level of Disaggregation _____ SQM~~

~~Analog/Benchmark~~

- ~~• Coordinated Customer Conversions (Loops) <= 5 Hours~~

~~SEEM Measure~~

~~SEEM _____ Tier I _____ Tier II~~

~~No.~~

P-7B [CGRT]: Coordinated Customer Conversions — Average Recovery Time



~~P-7C [CPT]: Hot Cut Conversions -- Percent Provisioning Troubles Received within 5 Days of a Completed Service Order~~

Definition

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

Exclusions

- ~~CLEC Canceled Orders~~
- ~~Troubles caused by Customer Provided Equipment (CPE) or CLEC Equipment~~
- ~~Listing Orders~~
- ~~Order activities of BellSouth or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T)~~
- ~~Troubles outside of BellSouth's control~~
- ~~A cut or damaged cable, caused by other than BellSouth employees or contractors~~
- ~~Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than BellSouth~~
- ~~Disconnect orders~~

Business Rules

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

Calculation

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

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

Report Structure

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

~~SQM Disaggregation -- Analog/Benchmark~~

- ~~SQM Level of Disaggregation~~ ~~SQM Analog/Benchmark~~
- ~~UNE Loops~~ ~~≤ 3%~~

SEEM Measure

~~SEEM~~ ~~Tier I~~ ~~Tier II~~
~~No~~



P-7D [NCDD]: Non-Coordinated Customer Conversions - Percent Completed and Notified on Due Date

Definition

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

Exclusions

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

Business Rules

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

Calculation

Percent Completed and Notified on Due Date = $(a / b) \times 100$

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Non-Coordinated Conversions.....95% Completed on Due Date with CLEC Notification

SQM/~~SEEM~~ Analog/Benchmark

~~SEEM~~ Measure

SEEM	Tier I	Tier II
Yes.....	X.....	X.....



P-9 [PPT]: ~~Percent Provisioning Troubles within "X" Days of Service Order Completion~~ Trouble Rate

Definition

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

Exclusions

- Canceled Service Orders
- Order activities of ~~BellSouth~~ AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T)
- Disconnect Orders
- Trouble reports caused and closed out to Customer Provided Equipment (CPE) or CLEC Equipment
- Listing Orders
- Troubles outside of ~~BellSouth's~~ AT&T's control
 - A cut or damaged cable, caused by other than ~~BellSouth~~ AT&T employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than ~~BellSouth~~ AT&T

Business Rules

The first trouble report received after the completion of a service order is counted in this measure. ~~When the completed service order is matched to a trouble report, it is uniquely counted one time in the~~ The numerator. ~~Candidates are identified by searching the prior report period for all completed service orders and then searching for all~~ is the number of closed trouble reports received within 5 days (POTS and Non-Designed services) or 14 days (Designed services) of the service order completion date. The denominator is the total number of service orders completed within the reporting month.

Calculation

Percent Provisioning Troubles ~~within "X" Days of Service Order Completion~~ report rate = (a / b) ~~X~~ 100

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~ AT&T Aggregate
- Dispatch /Non-Dispatch (except trunks)
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

~~SQM/SEEM~~ Analog/Benchmark

- | | |
|--------------------------------------|-------------------------------|
| • Resale Residence (Non-Design)..... | Retail Residence (Non-Design) |
| • Resale Business (Non-Design)..... | Retail Business (Non-Design) |
| • Resale Design..... | Retail Design |



Tennessee Performance Metrics

- LNP (Standalone).....Retail Residence and Business (POTS)
- UNE Analog Loop (Design).....Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
- UNE Analog Loop (Non-Design).....Retail Residence and Business - POTS (Excluding Switch Based Orders)
- UNE Analog Loop with LNP Design.....Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
- UNE Analog Loop with LNP Non-Design.....Retail Residence and Business - POTS (Excluding Switch Based Orders)
- UNE Digital Loop >= DS1.....Retail Digital Loop >= DS1
- UNE Loop + Port Combinations.....Retail Residence and Business
 - Dispatch In..... - Dispatch In
 - Switch Based..... - Switch Based
- UNE EELs.....Retail DS1/DS3
- UNE xDSL (HDSL, ADSL, ~~and~~ UCL and Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL.....Retail ISDN-BRI
- UNE Line Splitting/Sharing.....ADSL Provided to Retail
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection TrunksParity with Retail Trunks

SEEM Measure

SEEM Tier I Tier II
Yes X X

P-9 [PPT]: Percent Provisioning Troubles with "X" Days of Service Order Completion
P-9 [PPT]: Provisioning Trouble Rate



P-11 [SOA]: Service Order Accuracy

Definition

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

Exclusions

- Canceled Service Orders
- Order activities of ~~BellSouth~~ AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Disconnect Orders
- CLEC LSRs submitted electronically that are not manually handled by ~~BellSouth~~ AT&T (Flow-Through)
- "Projects" with no LSR

Business Rules

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

Selected CLEC Affecting Service Attributes

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

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

~~BellSouth~~ AT&T will maintain a list of ~~LESC~~ /System workarounds which will not be considered service affecting. This list will be identified in a document posted on the ~~Interconnection~~ AT&T website: (<http://wholesale.att.com/notifications/soams/index.html>). CLECs may discuss any of the posted ~~LESC~~ /System workarounds during the regular ~~PMAP~~ AT&T notification calls.

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



Tennessee Performance Metrics

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

* Feature Detail will only be checked for the following USOCs: GCE, GCJ, CREX4, GCJRC, GCZ, DRS, VMSAX, S98VM, S98AF, SMBBX, MBBRX. USOCs and FIDs for Feature Detail will be posted on the [Interconnection Website](#). [AT&T website](#). Any changes to the USOCs and FIDs required to continue checking the identical service will be updated on this [W](#)website.

Calculation

Percent Service Order Accuracy = (a / b) ~~X~~ 100

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - Region

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

SQM ~~SEEM~~ Analog/Benchmark

- ~~Resale~~ [Service order accuracy](#)95% Accurate
- ~~UNE~~95% Accurate

Version ~~3.06~~ [4.00](#)



Tennessee Performance Metrics

Docket No. 04-00150
Provisioning

• ~~UNE-P~~ ~~95% Accurate~~

SEEM Measure

SEEM	Tier I	Tier II
Yes	X	X



P-13B [LOOS]: LNP-Percent Out of Service < 60 Minutes

Definition

This report measures the percentage of time that ~~BellSouth~~AT&T performs electronic system updates within 60 minutes of receiving LNP activations.

Exclusions

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

Business Rules

The interval starts when the ~~ESI Number Manager~~ broadcast message is sent to ~~BellSouth's~~AT&T's gateway. The end time is the confirmation receipt time in the Local Service Management Systems (LSMS), which advises that ~~BellSouth's~~AT&T's electronic systems have successfully been updated. A disconnect time for all telephone numbers contained within an order will be calculated and averaged to present a disconnect time for the order as a whole.

Calculation

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

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 ~~-~~State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- LNP.....>= 96.5%

~~SEEM~~ Measure

~~SEEM~~ ——— Tier I ——— Tier II
~~Yes~~.....X.....X

P-13B [LOOS]: LNP-Percent Out of Service < 60 Minutes



P-13C [LAT]: LNP-Percentage of Time ~~BellSouth~~AT&T Applies the 10-Digit Trigger Prior to the LNP Order Due Date

Definition

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

Exclusions

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

Business Rules

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

Calculation

Percentage of 10-Digit Trigger Applications = $(a / b) \times 100$

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
-State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/SEEM Analog/Benchmark

- LNP.....>= 95%

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes _____ X _____ X



P-13D [LDT]: LNP-Disconnect Timeliness (Non-Trigger)

Definition

This report measures the percentage of time translations are removed from ~~BellSouth's~~ AT&T's switch within 4 hours of the receipt of a non-triggerable port activation message. When multiple numbers are ported on a single order, translations for each number must be removed within the interval

Exclusions

- Canceled Service Orders
- Order activities of ~~BellSouth~~ AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R, or T)
- Listing Orders
- CLEC Caused Errors
- NPAC Errors, unless caused by ~~BellSouth~~ AT&T
- Incomplete ports where only a subset of the total requested lines on the LSR are submitted via Activate Messages
- LSRs where the CLEC did not contact ~~BellSouth~~ AT&T within 30 minutes after Activate Message

Business Rules

Disconnect Timeliness is the elapsed time from when ~~BellSouth~~ AT&T receives a valid 'Number Ported' message ~~in ESI Number Manager~~ (signifying the CLEC 'activate') for each telephone number ported until each number is disconnected in the ~~BellSouth~~ AT&T switch. Non-business hours will be excluded from the duration calculation for unscheduled LNP ports.

Calculation

Disconnect Timeliness = $(a / b) \times 100$

- a = Number of non-triggerable orders with translations removed in less than 4 hours
- b = Total number of non-triggerable orders during report period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

- LNP (Normal Working Hours and Approved After Hours).....95% <= 4 Hours
- LNP (Unscheduled After Hours Ports).....95% <= 4 Hours (excluding non-business hours)

SQM/~~SEEM~~ Analog/Benchmark

~~SEEM~~ Measure

~~SEEM~~ _____ Tier I _____ Tier II
Yes X X



Tennessee Performance Metrics

P-13E [ILPP]: Incomplete Standalone LNP Provisioning Process

Definition

Measure the effectiveness of the end to end standalone LNP provisioning process for all standalone LNP order types that require a 10 digit trigger. This is an interim measurement which will be in place for four years from the date of implementation at which time it will be discontinued.

Exclusions

- Service Orders cancelled by CLEC
- Non-flow through eligible orders

Business Rules

This measure captures; 1) the number of standalone LNP flow through orders eligible for application of the 10 digit trigger by AT&T that receive the 10 digit trigger, 2) the number of Service Order Completion (SOC) notices sent on standalone LNP flow through orders, and 3) the number of Billing Completion Notices (BCNs) sent on standalone LNP orders requiring a SOC.

The SOC and BCN measurements will be reported one month in arrears in order to capture the associated SOC's and BCN's for the standalone LNP flow through orders. The application of the 10 digit trigger will be reported with the current month reporting period.

Calculation

$LNP\ Disconnect\ Performance = (A / B) \times 100; (C / D) \times 100; (E / F) \times 100$

- A = Number of standalone LNP flow through orders eligible for application of the 10 digit trigger that have the trigger applied.
- B = Total number of standalone LNP flow through orders eligible for application of the 10 digit trigger during report period.
- C = Number of service order completion notices (SOC) issued on standalone LNP flow through orders.
- D = Total number of standalone flow through LNP service orders that required a service order completion notices (SOC) sent during the report period.
- E = Number of billing completion notices (BCN) issued on standalone LNP flow through orders requiring a SOC..
- F = Total number of standalone LNP flow through orders that required Billing Completion Notices (BCN) sent during the report period.

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - State

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

SQM Analog/Benchmark

- | | |
|---|-------------------|
| <u>% standalone LNP orders with 10 digit trigger applied where required</u> | <u>Diagnostic</u> |
| <u>% SOC's issued on standalone LNP flow through orders</u> | <u>Diagnostic</u> |
| <u>% BCNs issued on standalone LNP flow through order requiring a SOC</u> | <u>Diagnostic</u> |



P-13F [SIR]: Short Interval 10-Digit Trigger Readiness

Definition

This report measures the percentage of time 10 digit triggers are set prior to the due date for short interval simple ports where the Local Service Request (LSR) is received before 1:00 pm eastern time and after 1:00 pm eastern time.

Exclusions

- Non- Simple Ports
- Long Interval Simple Ports
- Order activities of AT&T or the CLEC associated with internal or administrative use of local services (Record Orders, Test Orders, etc., which may be order types C, N, R or T)
- Ports which include changes to directory listings¹

Business Rules

Two disaggregations are provided: 1) simple port LSRs received prior to 1:00 PM eastern time and 2) simple port LSRs received after 1:00 pm eastern time. AT&T will have met the requirements for each scenario when the 10 digit trigger is established prior to 12:01 am on the port's due date.

Based on AT&T's implementation of the FCC Order, a short interval simple port is only considered Simple if all of the following conditions are true and has a requested due date of 1 or 2 business days² from the receipt of the LSR:

1. The port is for an account that has only a single telephone number.
2. The port does not involve unbundled network elements
3. The port does not include complex switch translations³
4. The port does not include a reseller
5. The port does not include changes to directory listings (see footnote 1)

A non-simple port is any port that does not meet the above definition for simple. A list of porting requests and services that do not qualify for treatment as a simple port is located in the Local Number Portability document on the CLEC Online website in the Products/Services section of the CLEC Handbook.

A business day is:

- Monday through Friday, excluding AT&T recognized Holidays
- 8:00 a.m. through 5:00 p.m.
- For AT&T's Southeast Region, all times are based upon the Eastern Time Zone
- Valid LSRs received after the 1:00 p.m. cutoff will be deemed to have been received at 8:00 a.m. the next business day.

¹ Directory listing changes are not considered simple ports in AT&T's implementation of the FCC order. If at such time this changes AT&T will eliminate this exclusion.

² FCC Order 10-85; Local Number Portability Porting Interval and Validation Requirements; Telephone Number Portability, WC Docket No. 07-244, CC Docket No. 95-116, Report and Order, adopted May 20, 2010.

³ The FCC provides the following list of examples for complex switch translations: Centrex, ISDN, AIN services, remote call forwarding, and multiple services on the loop.



Tennessee Performance Metrics

- End user readiness to port is 12:01 a.m. of the due date.

Calculation

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

- a = Count of LNP short interval simple port requests for which a 10 digit trigger was established prior to 12:01 am on the due date.
- b = Total LNP short interval simple port requests for which a 10 digit trigger was applicable.

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM Analog/Benchmark

- Port Requests received prior to 1:00 PM Eastern TimeDiagnostic
- Port Requests received after 1:00 PM eastern time.....Diagnostic



Section 4: Maintenance & Repair

M&R-1 [MRA]: Percent Missed Repair Appointments

Definition

This report measures the percentage of customer trouble reports closed in the current reporting period and not cleared by the committed date and time.

Exclusions

- Trouble tickets canceled at the CLEC request
- ~~BellSouth~~AT&T trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of ~~BellSouth's~~AT&T's control
 - A cut or damaged cable, caused by other than ~~BellSouth~~AT&T employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than ~~BellSouth~~AT&T

Business Rules

The negotiated commitment date and time is established when the repair report is received. The cleared time is the date and time ~~BellSouth~~AT&T personnel clear the trouble and close the customer trouble report in their workstation. If this is after the commitment time, the report is flagged as a 'missed commitment' or a 'missed repair appointment'. If no access occurs after the commitment time, the report is flagged a missed appointment.

Calculation

Percentage of Missed Repair Appointments = $(a / b) \times 100$

- a = Count of customer troubles not cleared by the quoted commitment date and time
- b = Total customer trouble reports closed in the reporting period

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Resale Residence (Non-Design).....Retail Residence (Non-Design)
- Resale Business (Non-Design).....Retail Business (Non-Design)
- Resale Design.....Retail Design
- UNE Analog Loop (Design).....Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)
- UNE Analog Loop (Non-Design).....Retail Residence and Business - POTS (Excluding Switch)



Tennessee Performance Metrics

Maintenance & Repair

- Based Feature Troubles)
- UNE Digital Loop >= DS1.....Retail Digital Loop >= DS1
 - UNE Loop + Port Combinations.....Retail Residence and Business
 - UNE EELs.....Retail DS1/DS3
 - UNE xDSL (HDSL, ADSL, ~~UCL~~, and ~~UCL~~) ~~Line Splitting~~.....ADSL Provided to Retail
 - UNE ISDN/UDC/IDSL.....Retail ISDN – BRI
 - UNE Line ~~Splitting~~/Sharing.....ADSL Provided to Retail
 - UNE Other Design.....Diagnostic
 - UNE Other Non-Design.....~~Diagnostic~~
 - Local Interconnection Trunks Parity with Retail Trunks

SEEM Measure

SEEM ~~Tier I~~ ~~Tier II~~
~~Yes~~.....~~X~~.....~~X~~

M&R-1 [MRA]: Percent Missed Repair Appointments



M&R-2 [CTRR]: Customer Trouble Report Rate

Definition

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

Exclusions

- Trouble tickets canceled at the CLEC request
- ~~AT&T~~~~BellSouth~~ trouble reports/lines associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of ~~AT&T's~~~~BellSouth's~~ control
 - A cut or damaged cable, caused by other than ~~AT&T~~~~BellSouth~~ employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than ~~AT&T~~~~BellSouth~~

Business Rules

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

Calculation

Customer Trouble Report Rate = (a / b) ~~x~~ 100

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

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- CLEC Specific
- CLEC Aggregate
- ~~AT&T~~~~BellSouth~~ Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- | | |
|---|--|
| • Resale Residence (Non-Design) | Retail Residence (Non-Design) |
| • Resale Business (Non-Design)..... | Retail Business (Non-Design) |
| • Resale Design | Retail Design |
| • UNE Analog Loop (Design) | Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops) |
| • UNE Analog Loop (Non-Design) | Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles) |
| • UNE Digital Loop >= DS1 | Retail Digital Loop >= DS1 |
| • UNE Loop + Port Combinations..... | Retail Residence and Business |
| • UNE EELs | Retail DS1/DS3 |
| • UNE xDSL (HDSL, ADSL, <u>UCL</u> and <u>Line Splitting</u> UCL) | ADSL Provided to Retail |
| • UNE ISDN/UDC/IDSL | Retail ISDN – BRI |
| • UNE Line <u>Splitting</u> /Sharing..... | ADSL Provided to Retail |
| • UNE Other Design..... | Diagnostic |
| • UNE Other Non-Design..... | Diagnostic |
| • Local Interconnection Trunks | Parity with Retail Trunks |



SEEM Measure

SEEM	Tier I	Tier II
Yes.....	X.....	X.....

M&R-2[CTRR]- Customer Trouble Report Rate



M&R-2A [CTRR-NPRR]: Customer Trouble Report Rate Net of Provisioning Trouble and Repeat Reports

Definition

This report measures the percentage of customer troubles exclusive of provisioning and repeat trouble reports closed within a calendar month.

Exclusions

- Trouble tickets canceled at the CLEC request
- AT&T trouble reports/lines associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Provisioning trouble reports. A provisioning trouble report is defined as any report that comes in within "X" calendar days of service order completion, where "X" is 5 days (POTS Non-Designed services) or 14 days (Designed services).
- Repeat trouble reports. A repeat trouble is defined as a customer report on the same line/circuit, received within 30 days of an original customer trouble report
- Troubles outside of AT&T's control
 - A cut or damaged cable, caused by other than AT&T employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than AT&T

Business Rules

Customer Trouble Report Rate contains all closed customer and/or CLEC direct reports, net of provisioning and repeat reports, divided by the total "number of service" lines.

Calculation

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

- a = Count of customer trouble reports (net of provisioning and repeat trouble reports) closed in the current reporting period
- b = Number of lines in service at end of the reporting period

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- CLEC Specific
- CLEC Aggregate
- AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

<u>SQM Level of Disaggregation</u>	<u>SQM Analog/Benchmark</u>
• <u>Resale Residence (Non-Design)</u>	<u>Retail Residence (Non-Design)</u>
• <u>Resale Business (Non-Design).....</u>	<u>Retail Business (Non-Design)</u>
• <u>Resale Design</u>	<u>Retail Design</u>
• <u>UNE Analog Loop (Design)</u>	<u>Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops)</u>
• <u>UNE Analog Loop (Non-Design)</u>	<u>Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles)</u>
• <u>UNE Digital Loop >= DS1</u>	<u>Retail Digital Loop >= DS1</u>
• <u>UNE Loop + Port Combinations.....</u>	<u>Retail Residence and Business</u>
• <u>UNE EELs</u>	<u>Retail DS1/DS3</u>



Tennessee Performance Metrics

Maintenance & Repair

- UNE xDSL (HDSL, ADSL, UCL and Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSLRetail ISDN – BRI
- UNE Line Sharing.....ADSL Provided to Retail
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection TrunksParity with Retail Trunks

M&R-2A [CTRR - NPRR]: Customer Trouble Report Rate Net of Provisioning Trouble and Repeat Reports



M&R-3 [MAD]: Maintenance Average Duration

Definition

This report measures the average duration of customer troubles closed during the reporting period.

Exclusions

- Trouble tickets canceled at the CLEC request
- ~~BellSouth~~ AT&T trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of ~~BellSouth's~~ AT&T's control
 - A cut or damaged cable, caused by other than ~~BellSouth~~ AT&T employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than ~~BellSouth~~ AT&T

Business Rules

The duration starts on the date and time of receipt of a repair request and stops on the date and time the service is restored (when the technician completes the trouble ticket on his/her CAT or work systems).

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

Calculation

Maintenance Duration = (a - b)

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

Average Maintenance Duration = (c / d)

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

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- Affecting Service/Out of Service (Non-Design only)
- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~ AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Resale Residence (Non-Design).....Retail Residence (Non-Design)
- Resale Business (Non-Design).....Retail Business (Non-Design)
- Resale Design.....Retail Design
- UNE Analog Loop (Design).....Retail Residence, Business and Design (Dispatch) (Excluding



Tennessee Performance Metrics

Maintenance & Repair

- UNE Analog Loop (Non-Design).....Digital Loops)
Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles)
- UNE Digital Loop >= DS1.....Retail Digital Loop >= DS1
- UNE Loop + Port Combinations.....Retail Residence and Business
- UNE EELs.....Retail DS1/DS3
- UNE xDSL (HDSL, ADSL, ~~and~~ UCL and Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL.....Retail ISDN – BRI
- UNE Line Splitting/Sharing.....ADSL Provided to Retail
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks.....Parity with Retail Trunks

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes _____ X _____ X

M&R-3 [MAD]: Maintenance Average Duration



M&R-4 [PRT]: Percent Repeat Customer Troubles within 30 Calendar Days

Definition

This report measures the percentage of customer trouble reports received within 30 calendar days of a previous trouble report.

Exclusions

- Trouble tickets canceled at the CLEC request
- ~~BellSouth~~ AT&T trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of ~~BellSouth's~~ AT&T's control
 - A cut or damaged cable, caused by other than ~~BellSouth~~ AT&T employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than ~~BellSouth~~ AT&T

Business Rules

Customer trouble reports considered for this measure are those on the same line/circuit, received within 30 calendar days of an original customer trouble report. Candidates for this measure are determined by using either the 'cleared date' from LMOS or the 'closed date' from WFA of the first trouble, and the 'received date' of the next trouble.

Calculation

Percent Repeat Customer Troubles within 30 Calendar Days = (a / b) ~~X~~ x 100

- a = Count of repeat customer trouble reports, within a continuous 30 calendar day period
- b = Total customer trouble reports cleared or closed in the reporting period

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~ AT&T Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- | | |
|---|--|
| • Resale Residence (Non-Design)..... | Retail Residence (Non-Design) |
| • Resale Business (Non-Design)..... | Retail Business (Non-Design) |
| • Resale Design..... | Retail Design |
| • UNE Analog Loop (Design)..... | Retail Residence, Business and Design (Dispatch) (Excluding Digital Loops) |
| • UNE Analog Loop (Non-Design)..... | Retail Residence and Business - POTS (Excluding Switch Based Feature Troubles) |
| • UNE Digital Loop >= DS1..... | Retail Digital Loop >= DS1 |
| • UNE Loop + Port Combinations..... | Retail Residence and Business |
| • UNE EELs..... | Retail DS1/DS3 |
| • UNE xDSL (HDSL, ADSL, and <u>UCL and Line Splitting</u>)..... | ADSL Provided to Retail |
| • UNE ISDN/UDC/IDSL..... | Retail ISDN – BRI |
| • UNE Line <u>Splitting</u> /Sharing..... | ADSL Provided to Retail |



Tennessee Performance Metrics

Maintenance & Repair

- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks.....Parity with Retail Trunks

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes _____ X _____ X

M&R-4 [PRT]: Percent Repeat Customer Troubles within 30 Days

**M&R-5 [OOS]: Out of Service (OOS) > 24 Clock Hours****Definition**

This report measures the amount of Out of Service Customer Troubles (no dial tone, cannot be called, or cannot call out) and is represented as a percentage of Total OOS Customer Troubles cleared in excess of 24 clock hours. (All design service troubles are considered to be out of service).

Exclusions

- Trouble reports canceled at the CLEC request
- AT&T BellSouth trouble reports associated with administrative service
- Customer Provided Equipment (CPE) Troubles or CLEC Equipment Troubles
- Informational Tickets
- Troubles outside of AT&T's BellSouth's control
 - A cut or damaged cable, caused by other than AT&T BellSouth employees or contractors
 - Troubles caused by vandalism/theft, motor accidents or petroleum/chemical accidents caused by parties other than AT&T BellSouth

Business Rules

Customer trouble reports that are out of service and cleared in excess of 24 clock hours. The clock starts when the customer trouble report is created in LMOS/WFA and is counted if the elapsed time exceeds 24 clock hours.

Calculation

Out of Service (OOS) > 24 Clock Hours ~~hours~~ = (a / b) ~~x~~ 100

- a = Total Cleared Customer Troubles OOS > 24 clock hours ~~Hours~~
- b = Total OOS Customer Troubles in reporting period ~~Reporting Period~~

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- CLEC Specific
- CLEC Aggregate
- AT&T BellSouth Aggregate
- Geographic Scope
 - State

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

- | | |
|--|---|
| • Resale Residence (Non-Design) | Retail Residence (Non-Design) |
| • Resale Business (Non-Design) | Retail Business (Non-Design) |
| • Resale Design | Retail Design |
| • UNE Analog Loop (Design) | Retail Residence, Business and Design (Dispatch)
(Excluding Digital Loops) |
| • UNE Analog Loop (Non-Design) | Retail Residence and Business - POTS (Excluding Switch
Based Feature Troubles) |
| • UNE Digital Loop >= DS1 | Retail Digital Loop >= DS1 |
| • UNE Loop + Port Combinations | Retail Residence and Business |
| • UNE EELS | Retail DS1/DS3 |
| • UNE xDSL (HDSL, ADSL, and UCL <u>and Line Splitting</u>) | ADSL provided to Retail |
| • UNE ISDN/UDC/IDSL | Retail ISDN – BRI |
| • UNE Line <u>Splitting</u> /Sharing | ADSL Provided to Retail |
| • UNE Other Design | Diagnostic |
| • UNE Other Non-Design | Diagnostic |
| • Local Interconnection Trunks | Parity with Retail Trunks |



SEEM Measure

SEEM	Tier I	Tier II
Yes.....	X.....	X.....

M&R-5 [OOS]: Out of Service (OOS) > 24 Hours



M&R-6 [MAAT]: Average Answer Time – Repair Centers

Definition

This report measures the average time a customer is in queue when calling a ~~BellSouth~~ AT&T repair center.

Exclusions

- Volume of abandoned calls

Business Rules

The duration starts when a CLEC representative or ~~BellSouth~~ AT&T customer makes a choice on the repair center menu and is put in queue for the next repair attendant and stops when the repair attendant answers the call. Abandoned calls are not included in the volume of calls handled but are included in total seconds. Small Business has a universal call center where the same service representatives handle both ordering and maintenance calls. ~~Eighty percent of these calls stem from maintenance-related activity and are reported in this measurement.~~

Calculation

Answer Time for ~~BellSouth~~ AT&T Repair Centers = (a - b)

- a = Time ~~BellSouth~~ AT&T repair attendant answers call
- b = Time of entry into queue

Average Answer Time for ~~BellSouth~~ AT&T Repair Centers = (c / d)

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

Report Structure

- CLEC Aggregate
- ~~BellSouth~~ AT&T Aggregate
- Geographic Scope
 - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- CLEC Average Answer Time

SQM Analog/Benchmark

~~BellSouth~~ AT&T Average Answer Time

SEEM Measure

SEEM ——— Tier I ——— Tier II
No



Section 5: Billing

B-1 [BIA]: Invoice Accuracy

Definition

This measure reports the accuracy of billing invoices rendered by ~~BellSouth~~AT&T to wholesale and retail customers.

Exclusions

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

Business Rules

Absolute value of total billed revenue and absolute value of adjustment amounts related to billing errors and manual OC & C's (Other Charges and Credits) indicative of back-billing errors or manual back-billing greater than 3 bill periods appearing on the bill during the report month are used to compute invoice accuracy. All bill periods are included in a report month.

Calculation

Invoice Accuracy = $[(a - b) / a] \times 100$

- a = Absolute value of total billed revenues during data month
- b = Absolute value of total billing error related adjustments ~~entered~~ during data month

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
 - State
- Number of Adjustments

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

CLEC Invoice Accuracy

- Resale.....Retail Invoice Accuracy
- UNE.....Retail Invoice Accuracy
- Interconnection.....Retail Invoice Accuracy

~~SEEM Measure~~

~~SEEM~~ _____ ~~Tier I~~ _____ ~~Tier II~~
~~Yes~~.....~~X~~.....~~X~~



B-2 [BIT]: Mean Time to Deliver Invoices

Definition

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

Exclusions

None

Business Rules

Invoice timeliness is determined by calculating the interval between the bill period date and actual transmission or distribution of the invoice.

To determine the number of workdays, begin counting the bill period date as the first workday (or the next workday if the bill period date is a weekend or holiday). The invoice transmission date is counted as the last workday. Invoice transmission date is the workday the invoice is delivered to the Post Office or transmitted to the customer. CLEC bills and ~~BellSouth~~AT&T bills transmitted in less than or equal to one day difference will be considered parity.

Calculation

Invoice Timeliness = (a - b)

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

Mean Time to Deliver Invoices = (c / d)

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
-State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

The average delivery intervals are compared as follows:

- Resale CRIS Retail CRIS
- UNE CRIS Retail CRIS
- Interconnection UNE CABS Retail CABS

~~SEEM Measure~~

~~SEEM~~ _____ Tier I _____ Tier II
~~Yes~~ X X



B-5 [BUDT]: Usage Data Delivery Timeliness

Definition

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

Exclusions

None

Business Rules

The timeliness interval of usage recorded by other companies is measured from the date ~~BellSouth~~AT&T receives the records to the date ~~BellSouth~~AT&T distributes to the CLEC. Method of delivery is at the option of the CLEC.

Calculation

Usage Data Delivery Timeliness Current Month = (a / b) ~~X~~ 100

- a = Total number of usage records sent within six (6) calendar days from initial recording/receipt
- b = Total number of usage records sent during the reporting period

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
 - Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Usage Data Delivery Timeliness.....>= 95% in Six Calendar Days

~~SEEM~~ Measure

~~SEEM~~ ———— Tier I ———— Tier II
Yes.....X.....X



B-10 [BEC]: Percent Billing Adjustment Requests (BAR) Responded to within ~~45~~40 Business Days

Definition

This report measures timely responses to carrier bill adjustment requests.

Exclusions

- Adjustments initiated by ~~BellSouth~~AT&T

Business Rules

This measure applies to CLEC wholesale bill adjustment requests. IXC Access billing adjustment requests are not reflected in this measure. Elapsed time is measured in business days. The clock starts when ~~BellSouth~~AT&T receives the CLEC Billing Adjustment Request (BAR) form and the clock stops when ~~BellSouth~~AT&T either makes an adjustment through BOCRIS or ACATS (generally next CLEC bill unless adjustment request after middle of the month) or ~~BellSouth~~AT&T denies the request in BDATS or ACATS and ~~BellSouth~~AT&T notifies the CLEC of the BAR resolution. ~~BellSouth~~AT&T will report separately those adjustment requests that are disputed by ~~BellSouth~~AT&T. (BAR form and instructions are found at www.interconnection.bellsouth.com/forms/html/billing&collections.html)-http://wholesale.att.com/tools_forms_and_reports/forms/billing-collections.html).

Calculation

Percent Billing Adjustments Responded to within ~~45~~40 Business Days = (a / b) ~~X~~x 100

- a = Total number of BAR requests received in the data month that were responded to in ~~45~~40 business days
- b = Total number of BAR requests received in the data month

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Percent Billing Adjustment Requests responded to ~~90%~~ 95% ~~<=~~ <= ~~45~~ 40 business days

SEEM Measure

~~SEEM~~ _____ ~~Tier I~~ _____ ~~Tier II~~
~~Yes~~ _____ ~~X~~ _____ ~~X~~



Section 6: Trunk Group Performance

TGP-1 [TGP]: Trunk Group Performance

Definition

This report displays Trunk Group blocking performance for both BellSouth and CLECs. Percentage of calls blocked on outgoing traffic for alternate final and direct final trunk groups from AT&T end office to CLEC end office and from AT&T Tandem to CLEC end office.

Exclusions

- ~~Trunk groups blocked due to unanticipated significant increases in CLEC traffic (An unanticipated, significant increase in traffic is indicated by a 20% increase for small trunk groups or 1800 CCS for large groups over the previous month's traffic when the increase was not forecasted by the CLEC)~~
- ~~Orders delayed or refused by CLEC~~
- ~~Trunk groups for which valid data is not available for an entire study period~~
- ~~Duplicate trunk group information~~
- ~~Trunk groups blocked due to CLEC network/equipment failure~~
- ~~Final groups actually overflowing, not blocked~~

Exclusions

- Excludes Weekends and Holidays
- CLECs have trunks busied-out for maintenance at their end, or have other network problems that are under their control.
- Blocking caused by unplanned load on a CLECs network
- AT&T is ready for turn-up on Due Date and CLEC is not ready or not available for turn-up of trunks, e.g. not ready to accept traffic from AT&T on the due date or CLEC has no facilities or equipment at CLEC end.
- CLEC does not take action upon receipt of Trunk Group Service Request (TGSR) or ASR within 3 business days (day 0 is the business day the TGSR is emailed/faxed to the CLEC) when a Call Blocking situation is identified by AT&T or in the timeframe specified in the InterConnection Agreement (ICA).
- If CLEC does not take action upon receipt of TGSR within 10 business days (day 0 as described above) when a pre-service of 75% or greater occupancy situation is identified by AT&T or in the time frame specified in the ICA.
- If CLEC fails to provide a forecast within the last six months unless a different timeframe is specified in an interconnection agreement.
- If a CLEC's actual trunk usage as shown by AT&T from traffic usage studies is more than 25% above the CLEC's most recent forecast which must have been provided within the last six months.
- New trunk groups that have not been in service for three months may be excluded from calculations for that 3 month period. Nevertheless, utilization data will be gathered upon the turn-up of the trunk group.

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

Business Rules

Twenty days of data consisting of blocked calls and total calls are collected, aggregated, and reported. The purpose of the Trunk Group Performance report is to provide trunk blocking measurements on CLEC and BellSouth trunk groups for comparison only. It is not the intent of the report that it be used for network management and/or engineering.

Monthly Average Blocking:

- ~~The reporting cycle includes both business and non-business days in a calendar month.~~
- ~~Monthly average blocking values are calculated for each trunk group for each of the 24 time consistent hours across a reporting cycle~~

Aggregate Monthly Blocking:



- Used to compare aggregate blocking across trunk groups which terminate traffic at CLEC points of presence versus BellSouth switches
- Aggregate monthly blocking data is calculated for each hour of the day across all trunk groups assigned to a category.

Trunk Categorization:

- This report displays, over a reporting cycle, aggregate, average blocking data for each hour of a day. Therefore, for each reporting cycle, 24 blocking data points are generated for two aggregate groups of selected trunk groups. These groups are CLEC affecting and BellSouth affecting trunk groups. In order to assign trunk groups to each aggregate group, all trunk groups are first assigned to a category. A trunk group's end points and the type of traffic that is transmitted on it define a category. Selected categories of trunk groups are assigned to the aggregate groups so that trunk reports can be generated. The categories to which trunk groups have been assigned for this report are as follows:

CLEC Affecting Categories:

	Point A	Point B
Category 1:	BellSouth End Office	BellSouth Access Tandem
Category 3:	BellSouth End Office	CLEC Switch
Category 4:	BellSouth Local Tandem	CLEC Switch
Category 5:	BellSouth Access Tandem	CLEC Switch
Category 10:	BellSouth End Office	BellSouth Local Tandem
Category 16:	BellSouth Tandem	BellSouth Tandem

BellSouth Affecting Categories:

	Point A	Point B
Category 1:	BellSouth End Office	BellSouth Access Tandem
Category 9:	BellSouth End Office	BellSouth End Office
Category 10:	BellSouth End Office	BellSouth Local Tandem
Category 16:	BellSouth Tandem	BellSouth Tandem

Calculation**Monthly Average Blocking:**

- For each hour of the day, each day's raw data are summed across all valid measurement days in a report cycle for blocked and attempted calls.

The sum of the **Percent Blocked Calls** = $((a - b) \div (c - b)) \times 100$

- a = count of blocked calls
- b = excluded blocked calls is divided by the
- c = total number of calls attempted in a reporting period offered

Aggregate Monthly Blocking:

- For each hour of the day, the monthly sums of the blocked and attempted calls from each trunk group are separately aggregated over all trunk groups within each assigned category.
 - The total blocked calls is divided by the total call attempts within a group to calculate an aggregate monthly blocking for each assigned group.
 - The result is an aggregate monthly average blocking value for each of the 24 hours by group.
- The difference between the CLEC and BellSouth affecting trunk groups are also calculated for each hour.

Report Structure

- CLEC Specific



- CLEC Aggregate
- ~~BellSouth Aggregate~~
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- ~~AT&T end office to CLEC end office~~ Blocked Calls on Dedicated Trunk Groups not to exceed blocking standard of B.01. [B.01 standard is 1%]
- ~~AT&T tandem to end office trunk~~ Blocked Calls on Dedicated Trunk Groups not to exceed blocking standard of B.01. [B.01 standard is 1%]

- ~~CLEC Aggregate and CLEC Specific~~ ~~BellSouth Aggregate~~
Any 2 consecutive hours in a 24 hour period where CLEC blockage exceeds BellSouth blockage by more than 0.5% using trunk groups 1, 3, 4, 5, 10 (where CLEC uses that Trunk Group and 16 for CLECs and 1, 9, 10 (where BellSouth uses that Trunk Group) and 16 for BellSouth

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes X X

TGP-1 [TGP]: Trunk Group Performance



Section 7: Collocation

C-1 [ART]: Collocation Average Response Time

Definition

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

Exclusions

- Any application canceled by the CLEC

Business Rules

The interval begins on the date BellSouthAT&T receives a complete and accurate collocation application accompanied by the appropriate application fee if required. The interval stops on the date BellSouthAT&T returns a response. The interval will restart upon receipt of changes to the original application request.

Calculation

Response Time = (a - b)

- a = Request Response Date
- b = Request Submission Date

Average Response Time = (c / d)

- c = Sum of all response times
- d = Count of responses returned within the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
-State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM Analog/Benchmark

- Virtual-Initial 15 Calendar Days
- Virtual-Augment 15 Calendar Days
- Physical Caged-Initial 15 Calendar Days
- Physical Caged Augment 15 Calendar Days
- Physical Cageless-Initial 15 Calendar Days
- Physical Cageless-Augment 15 Calendar Days

SEEM Measure

SEEM _____ Tier I _____ Tier II
No _____



C-2 [AT]: Collocation Average Arrangement Time

Definition

This report measures the average time (in calendar days) for provisioning a collocation arrangement.

Exclusions

- Any bona fide firm order canceled by the CLEC
- Any bona fide firm order with a CLEC negotiated interval longer than the benchmark interval

Business Rules

The interval (in calendar days) for collocation arrangements begins on the date that ~~BellSouth~~AT&T receives a complete and accurate bona fide firm order accompanied by the appropriate fee, if required, and ends on the date that ~~BellSouth~~AT&T completes the collocation arrangement and notifies the CLEC.

Calculation

Arrangement Time = (a - b)

- a = Date collocation arrangement is complete
- b = Date order for collocation arrangement submitted

Average Arrangement Time = (c / d)

- c = Sum of all arrangement times
- d = Total number of collocation arrangements completed during reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
-State

SQM Disaggregation - Analog/Benchmark

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

SEEM Measure

SEEM ——— Tier I ——— Tier II

No ———



C-3 [MDD]: Collocation Percent of Due Dates Missed

Definition

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

Exclusions

- Any bona fide firm order canceled by the CLEC

Business Rules

Percent Due Dates Missed is the percentage of total collocation arrangements which ~~BellSouth~~AT&T is unable to complete by the ~~BellSouth~~AT&T committed due date. The arrangement is considered a missed due date if it is not completed on or before the committed due date.

Calculation

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

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
 - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/SEEM Analog/Benchmark

- Virtual-Initial>= 95% on time
- Virtual- Augment.....>= 95% on time
- Physical Caged-Initial.....>= 95% on time
- Physical Caged-Augment.....>= 95% on time
- Physical Cageless-Initial.....>= 95% on time
- Physical Cageless-Augment.....>= 95% on time

SEEM Measure

SEEM _____ Tier I _____ Tier II
YesX.....X



Section 8: Change Management

CM-1 [NT]: Timeliness of Change Management Notices

Definition

This report measures whether CLECs receive required software release notices on time to prepare for ~~BellSouth~~AT&T interface/system changes so CLEC interfaces are not impaired by change. The CCP is used by ~~BellSouth~~AT&T and the CLECs to manage requested changes to the ~~BellSouth~~AT&T local interfaces.

Exclusions

- Changes to release dates for reasons outside ~~BellSouth~~AT&T control, such as the system software vendor changes (for example: a patch to fix a software problem)
- Type 6 Change Requests (Defects/Expedites), as defined by the Change Control Process (CCP)

Business Rules

The interval begins on the notification date and ends on the software release date. When project events occur (scope changes, analysis information, etc.), the software release date may change. A revised notification would be required and the interval would restart. Based on release constraints for defects/expedites, notification may be less than the agreed upon interval in the CCP for new features.

Calculation

Timeliness of Change Management Notices = $(a / b) \times 100$

- a = Total number of Change Management Notifications sent within required timeframes
- b = Total number of Change Management Notifications sent

Report Structure

- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
-Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Notices98% on time

~~SEEM~~ Measure

~~SEEM~~ _____ Tier I _____ Tier II
Yes X



CM-3 [DT]: Timeliness of Documentation Associated with Change

Definition

This report measures whether CLECs received requirements or business rule documentation on time to prepare for ~~BellSouth~~AT&T interface/system changes so CLEC interfaces are not impaired by change. The CCP is used by ~~BellSouth~~AT&T and the CLECs to manage requested changes to the ~~BellSouth~~AT&T local interfaces.

Exclusions

- Documentation for release dates that slip less than 30 days for a change mandated by regulatory or legal entities (Federal Communications Commission [FCC], a state commission/authority, or state and federal courts) or CLEC request
- Type 6 Change Requests (Defects/Expedites), as defined by the Change Control Process

Business Rules

The interval begins on the date the business rule documentation is released and ends on the software release date. When project events occur (scope changes, analysis information, etc.), the software release date may change. Revisions to documentation could be required and the interval would restart.

Documentation standards and timeframes can be found in the Change Control Process, on the ~~Interconnection~~AT&T website (http://www.interconnection.bellsouthwholesale.att.com/markets/leereference_library/processes/ccp_live/index.html).

Calculation

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

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

Report Structure

- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Documentation.....98% on Time

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes _____ X



Tennessee Performance Metrics

CM-5 [ION]: Notification of CLEC Interface Outages

Definition

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

Exclusions

None

Business Rules

~~BellSouth~~AT&T has 15 minutes to notify the CLECs via email, once the Help Desk has verified the existence of an outage. An outage is verified to exist when one or more of the following conditions occur:

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

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

Calculation

Notification of CLEC Interface Outages = (a / b) ~~X~~ 100

- a = Number of interface outages where CLECs are notified within 15 minutes
- b = Total number of interface outages

Report Structure

- CLEC Aggregate
- Geographic Scope
-Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM Analog/Benchmark

- By interface type for all interfaces accessed by CLECs97% <= 15 Minutes

Interface	Applicable to
CSOTS.....	CLEC
LEX.....	CLEC
Verigate.....	CLEC
XML Gateway.....	CLEC
EBTA.....	CLEC
TAFI.....	CLEC/ BellSouth AT&T

SEEM Measure

SEEM _____ Tier I _____ Tier II
No _____



CM-6 [SEC]: Percentage of Software Errors Corrected in “X” Business Days

Definition

This report measures the percentage of all outstanding software errors, due and overdue, to be-corrected by ~~BellSouth~~AT&T in “X” business days within the report period.

Exclusions

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

Business Rules

The interval begins when a Software Error is validated per the Change Control Process (CCP) and ends when the error is corrected and the notice is posted to the change control website. Currently “X” business days is defined in the CCP as 10 = Severity 2, 30 = Severity 3, and 45 = Severity 4. The current intervals for this measure will be consistent with the intervals set in the CCP if agreed to by the CLEC or ordered by the Commission. A copy of the most current CCP can be found on the [Interconnection website](http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html) (http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html). ~~AT&T website~~(http://wholesale.att.com/reference_library/processes/ccp_live/index.html). The monthly report should include all defects, due and overdue, to be corrected within the report period. Software defects are defined as Type 6 Change Requests in the Change Control Process.

Calculation

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

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

Report Structure

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

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Errors.....95% within Interval

SEEM Measure

SEEM _____ Tier I _____ Tier II
Yes _____ X

CM-6 [SEC]: Percentage of Software Errors Corrected in “X” Business Days



CM-7 [CRA]: ~~Percentage of Change Requests Accepted or Rejected within 10 Days~~

Definition

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

Exclusions

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

Business Rules

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

Calculation

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

- ~~a = Total number of change request responses due in the reporting period that were accepted or rejected within 10 business days~~
- ~~b = Total number of change requests due in the reporting period~~

Report Structure

- ~~BellSouth Aggregate~~
- ~~Geographic Scope~~
~~Region~~

SQM Level of Disaggregation – Analog/Benchmark

SQM Level of Disaggregation

SQM/SE

EM Analog/Benchmark

- ~~Requests Accepted/Rejected.....95% within Interval~~

SEEM Measure

SEEM _____ Tier I _____ Tier II

Yes _____ X

CM-7 [CRA]: ~~Percentage of Change Requests Accepted or Rejected within 10 Days~~



CM-8 [CRR]: Percent Change Requests Rejected

Definition

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

Exclusions

- Change requests canceled or withdrawn before a response from ~~BellSouth~~AT&T is due

Business Rules

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

Calculation

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

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

Report Structure

- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
 Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM Analog/Benchmark

- Reason – CostDiagnostic
- Reason – Technical FeasibilityDiagnostic
- ~~Reason – Industry Direction~~Diagnostic
- ~~Reason – Out of Scope (OOS)~~Diagnostic

SEEM Measure

SEEM _____ Tier I _____ Tier II
No _____



CM-9 [NDPR]: Number of Defects in Production Releases (Type 6 CR)

Definition

This report measures the number of defects in production releases. This measure will be presented as the number of Type 6 Severity 1 Defects, the number of Type 6 Severity 2 Defects without a mechanized work around, the number of Type 6 Severity 3 Defects, and the number of Type 6 Severity 4 Defects resulting within a three week period from a production release date. The definition of Type 6 Change Requests (CR) and Severity 1, Severity 2, Severity 3, and Severity 4 Defects can be found in the Change Control Process document.

Exclusions

None

Business Rules

This metric measures the number of Type 6 Severity 1 Defects, the number of Type 6 Severity 2 Defects without a mechanized work around, the number of Type 6 Severity 3 Defects, and the number of Type 6 Severity 4 Defects resulting within a three week period from a production release date. The definitions of Type 6 Change Requests (CR) and Severity 1, 2, 3, and 4 Defects can be found in the Change Control Process, which can be found on the [Interconnection website](http://www.interconnection.bellsouth.com/markets/lec/cep-live/index.html) (<http://www.interconnection.bellsouth.com/markets/lec/cep-live/index.html>)-[AT&T website](#).

Calculation

The number of Type 6 Severity 1 Defects, the number of Type 6 Severity 2 Defects without a mechanized work around, the number of Type 6 Severity 3 Defects, and the number of Type 6 Severity 4 Defects.

Report Structure

- Production Releases
- Number of Type 6 Severity 1 Defects
- Number of Type 6 Severity 2 Defects without a mechanized work around
- Number of Type 6 Severity 3 Defects
- Number of Type 6 Severity 4 Defects
- Geographic Scope
Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM Analog/Benchmark

- Number of Type 6 Severity 1 Defects.....0 Defects
- Number of Type 6 Severity 2 Defects.....0 Defects
without a mechanized work around0 Defects
- Number of Type 6 Severity 3 Defects.....0 Defects
- Number of Type 6 Severity 4 Defects.....0 Defects

SEEM Measure

SEEM _____ Tier I _____ Tier II

No _____

CM-9 [NDPR]: Number of Defects in Production Releases (Type 6 CR)



CM-10 [SV]: Software Validation

Definition

This report measures software validation test results for production releases of ~~BellSouth~~AT&T local interfaces.

Exclusions

None

Business Rules

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

~~BellSouth~~AT&T will begin to execute the software validation test deck within one (1) business day following a production release. Test deck transactions will be executed using production release software in the CAVE environment. Within seven (7) business days following completion of the production release software validation test in CAVE, ~~BellSouth~~AT&T will report the number of test deck transactions that failed. Each failed transaction will be multiplied by the transaction's weight factor.

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

The test deck scenario weight table can be found in the Change Control Process, a copy of which can be found on the [Interconnection website \(http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html\)](http://www.interconnection.bellsouth.com/markets/lec/ccp_live/index.html)-AT&T website.

Calculation

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

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

Report Structure

- ~~BellSouth~~AT&T Aggregate
- Geographic Scope
-Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

- Failed Transactions<= 5%

SQM Analog/Benchmark

SEEM Measure

SEEM _____ Tier I _____ Tier II
No _____



CM-11 [SCRI]: Percentage of Software Change Requests Implemented within 60 Weeks of Prioritization

Definition

This report measures whether ~~BellSouth~~AT&T provides CLECs timely implementation of prioritized software change requests.

Exclusions

- Software change requests implemented later than 60 weeks with the consent of the CLECs
- Software change requests where ~~BellSouth~~AT&T has regulatory authority to exceed the interval

Business Rules

The interval for each software change request begins when it has first been prioritized as described in the Change Control Process and ends when the software change request has been implemented by ~~BellSouth~~AT&T and made available to the CLECs. However, the 60-week clock may be restarted if a reprioritization is requested solely at the discretion of the CLECs and a CR is moved to a later release.

Calculation

Percentage of Type 5 CLEC Initiated Software Change Requests Implemented on Time = $(a / b) \times 100$

- a = Total number of prioritized Type 5 software change requests implemented each month that are less than or equal to 60 weeks of age from the date of their first prioritization plus all other prioritized change requests existing at the end of the month that are less than or equal to 60 weeks of age from prioritization
- b = All entries in "a" above plus all Type 5 software change requests prioritized more than 60 weeks before the end of the monthly reporting period

Percentage of Type 4 ~~BellSouth~~AT&T Initiated Software Change Requests Implemented on Time = $(c / d) \times 100$

- c = Total number of prioritized Type 4 software change requests implemented each month that are less than or equal to 60 weeks of age from the date of the release prioritization list plus all other Type 4 prioritized change requests existing at the end of the month that are less than or equal to 60 weeks of age from prioritization
- d = All entries in "c" above plus all Type 4 software change requests prioritized more than 60 weeks before the end of the monthly reporting period

Report Structure

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

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation

SQM/~~SEEM~~ Analog/Benchmark

- Type 4 Requests Implemented95% within Interval
- Type 5 Requests Implemented95% within Interval

~~SEEM~~ Measure

~~SEEM~~ Tier I Tier II
~~Yes~~ X



CM-11A (PCRI): Average Time to Implement Process Change Requests

Definition

This report measures the average time BellSouth takes to implement prioritized Process Change Requests.

Exclusions

- Process Change Requests implemented later than 60 days with the consent of the CLECs
- Process Change Requests where BellSouth has regulatory authority to exceed the interval

Business Rules

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

Calculation

Average Implementation Time for the Type 5 CLEC Initiated Process Change Requests = (a / b)

- a = Sum of implementation times for the prioritized Type 5 Process Change Requests implemented within the data month
- b = Total number of prioritized Type 5 Process Change Requests implemented within the data month

Average Implementation Time for the Type 4 BellSouth Initiated Process Change Requests = (c / d)

- c = Sum of implementation times for the prioritized Type 4 Process Change Requests implemented within the data month
- d = Total number of prioritized Type 4 Process Change Requests implemented within the data month

Report Structure

- BellSouth Aggregate
- Type 4 Process Change Requests implemented
- Type 5 Process Change Requests implemented
- Geographic Scope

Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation _____ SQM

Analog/Benchmark

- Type 4 Process Change Requests implementedDiagnostic
- Type 5 Process Change Requests implementedDiagnostic

SEEM Measure

SEEM _____ Tier I _____ Tier II

No _____

CM-11A (PCRI): Average Time to Implement Process Change Requests



Appendix A: Glossary of Acronyms and Terms

Symbols used in calculations

-

A mathematical operator representing subtraction.

+

A mathematical operator representing addition.

x

A mathematical operator representing multiplication

/

A mathematical operator representing division.

<

A mathematical symbol that indicates the metric on the left of the symbol is less than the metric on the right.

≤

A mathematical symbol that indicates the metric on the left of the symbol is less than or equal to the metric on the right.

>

A mathematical symbol that indicates the metric on the left of the symbol is greater than the metric on the right.

≥

A mathematical symbol that indicates the metric on the left of the symbol is greater than or equal to the metric on the right.

()

Parentheses, used to group mathematical operations which are completed before operations outside the parentheses.

A

ACD

Automatic Call Distributor - A service that provides status monitoring of agents in a call center and routes high volume incoming telephone calls to available agents while collecting management information on both callers and attendants.

Aggregate

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

ALEC

Alternative Local Exchange Company – ~~A BellSouth~~ ~~An AT&T~~ wholesale customer who competes with the Incumbent Local Exchange Carrier (ILEC) and other carriers in providing local service.

ADSL

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

ASR

Access Service Request - A request for access service terminating delivery of carrier traffic into a local exchange carrier's network.

ATLAS



Application for Telephone Number Load Administration System - The ~~BellSouth~~AT&T Operations System used to administer the pool of available telephone numbers and to reserve selected numbers from the pool for use on pending service requests/service orders.

Auto Clarification

A LSR that was electronically rejected from LESOG and electronically returned to the CLEC for correction.

B**BILLING**

The process and functions by which billing data is collected and by which account information is processed in order to render accurate and timely billing.

BOCRIS

Business Office Customer Record Information System (Front-end to the CRIS database) – System used to maintain customer account information which includes, but is not limited to bills, payment history, and memo notations made during customer contact.

BRI

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

BRC

Business Repair Center – The ~~BellSouth~~AT&T Business Systems trouble receipt center which serves business and CLEC customers.

C**CABS**

Carrier Access Billing System – The ~~BellSouth~~AT&T proprietary corporate database and billing system for access and certain UNE customers and/or services.

CCC

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

CCP OSS (Change Management)

Change Control Process OSS – The Change Control Process (CCP) methods and procedures, a collaborative documented process, used by ~~BellSouth~~AT&T and the CLECs to initiate OSS changes to ~~BellSouth~~AT&T pre-ordering, ordering, and provisioning interfaces. The process includes change requests, CLEC prioritization, release management, defect management, etc.

CCP SQM

Change Control Process SQM – The methods and procedures used by ~~BellSouth~~AT&T to implement changes to performance metrics that have been ordered by a state regulatory commission. This process is documented in the PMQAP.

Centrex

A business telephone service, offered by local exchange carriers, which is similar to a Private Branch Exchange (PBX) but the switching equipment is located in the telephone company Central Office (CO).

CISC

Carrier Interconnection Switching Center – Formerly known as the LISC, the ~~BellSouth~~AT&T Center dedicated to handling CLEC access service requests for interconnection trunks.

CKTID

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

CLEC



Competitive Local Exchange Carrier – ~~A BellSouth~~An AT&T wholesale customer who competes with the Incumbent Local Exchange Carrier (ILEC) and other carriers in providing local service.

CLP

Competitive Local Provider – ~~A BellSouth~~An AT&T wholesale customer who competes with the Incumbent Local Exchange Carrier (ILEC) and other carriers in providing local service.

CMDS

Centralized Message Distribution System - National system used to transfer specially formatted messages among companies.

CM OSS

Change Management OSS - See CCP OSS for definition.

CM SQM

Change Management SQM - See CCP SQM for definition.

COFFI

Central Office Feature File Interface - Provides information about USOCs and class of service. COFFI indicates all services available to a customer.

COG

Corporate Gateway – System designed for the electronic submission of xDSL Local Service Requests.

CRIS

Customer Record Information System - The ~~BellSouth~~AT&T proprietary corporate database and billing system for non-access customers and/or services.

CRSG

Complex Resale Support Group - The group within ~~BellSouth~~AT&T which serves as the interface between the ~~LESC~~ and the outside plant engineering group. The responsibility of this organization is to provide the parameters for the type of facilities available to provision the service the CLEC has selected.

C-SOTS

CLEC Service Order Tracking System – Provides CLECs the ability to query the service order database to monitor the progress of CLEC service order activity from service order issuance to order completion.

CSR

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

CTTG

Common Transport Trunk Group - Trunk groups between ~~BellSouth~~AT&T, Independent end offices, and the ~~BellSouth~~AT&T access tandems.

CWINS Center

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

D**Design**

Design Service is defined as any special or plain old telephone service order which requires ~~BellSouth~~AT&T design engineering activities.

Disposition & Cause

Types of trouble conditions, (e.g., No Trouble Found (NTF), Central Office Equipment (CO), Customer Premises Equipment (CPE),



etc.) – These codes identify the location, equipment and/or disposition of a particular trouble. Trouble reports will be closed to the most service affecting code which describes the trouble condition repaired.

DS0

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

DS1

24 DS0s (1.544Mb/sec.)

DOE

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

DOM

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

DSAP

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

DSL

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

DUI

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

E**EBTA**

Electronic Bonding Trouble Administration – A trouble administration system to perform maintenance and repair functions such as creating trouble tickets, performing mechanized loop tests, and retrieving trouble ticket status.

Enhanced Verigate

An online Web-based system, which provides CLECs electronic access to pre-order information.

ESSX

~~BellSouth~~AT&T Centrex Service – A central office housed communications system that provides the customer with direct inward and outward dialing, interconnection to all stations, and custom calling features.

F**Fatal Reject**

LSRs electronically rejected from LASR because the required fields are not correctly populated.

Flow-Through

In the context of this document, LSRs submitted electronically via the CLEC mechanized ordering process that flow through to the ~~BellSouth~~AT&T OSS without manual or human intervention.

FOC

Firm Order Confirmation - A notification returned to the CLEC confirming the LSR has been received and accepted, including the specified commitment date.

FX



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

G H

HDSL

High Bit Digital Subscriber Line – A dedicated digital transmission facility from ~~BellSouth's~~ AT&T's Main Distribution Frame (MDF) to an end user's premises.

I J K

IBS

Integrated Billing Solution-Processes and rates UNE data as it flows from CRIS to CABS for billing

ILEC

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

INP

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

ISDN

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

L

LAN

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

LASR

Local Access Service Request-Negotiation system for entry and processing of Local Service Requests. Stores all LSRs received mechanically from CLECs. Tracks status of requests and associated service orders.

LAUTO

The automatic processor in LNP Gateway that validates LSRs and issues service orders.

~~LESC~~

Local ~~Carrier~~-Service Center - The ~~BellSouth~~ AT&T center which is dedicated to handling CLEC LSRs and preordering transactions, along with associated expedite requests and escalations.

Legacy System

Term used to refer to ~~BellSouth~~ AT&T Operations Support Systems.

LERG

Local Exchange Routing Guide – The official document which lists all North American Class 5 office (COs or end offices) and which describes their relationship to Class 4 office (tandem offices). Carriers use the LERG in the network design process.

LESOG

Local Exchange Service Order Generator - ~~A BellSouth~~ An AT&T system which accepts the service order output of LASR and enters the service order into the Service Order Control System using terminal emulation technology.

LEX



Local Service Request Exchange (LEX) System – An AT&T browser based application for online creation, submittal, and maintenance of Local Service Requests (LSRs).

LFACS

Loop Facilities Assignment and Control System - Database of facilities inventory and assignment information.

LIDB

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

LMOS

Loop Maintenance Operations System - A ~~BellSouth~~ ~~An AT&T~~ operations system that stores the assignment and selected account information for use by downstream OSS and ~~BellSouth~~ ~~AT&T~~ personnel during provisioning and maintenance activities.

LMOS HOST

Loop Maintenance Operations System Host Computer

LMU

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

LMUSI

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

LNP

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

LNP Gateway

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

- (1) Linking ~~BellSouth~~ ~~AT&T~~ to the Number Portability Administration Center (NPAC).
- (2) Allowing for inter-company communications between ~~BellSouth~~ ~~AT&T~~ and the CLECs for electronic ordering.
- (3) Providing interface between NPAC and AIN SMS for LNP routing processes.

Loops

Transmission paths from the central office to the customer premises.

LRN

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

LSR

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

M**Maintenance & Repair**

The process and function by which trouble reports are sent to ~~BellSouth~~ ~~AT&T~~ and the related service problems are resolved.

MARCH

~~BellSouth~~ ~~AT&T~~ Operations System which accepts service orders and other data, interprets the coding contained in the service order image, and constructs the specific switching system recent change command messages for input into end office switches.



N

NBR

New Business Request - Process required by ~~BellSouth~~AT&T for CLECs to initiate a service, which is not included within its interconnection agreement.

NC

No Circuits - All circuits busy announcement.

NMLI

Native Mode LAN Interconnection – An intraLATA, shared fiber-based, LAN inter-networking service.

NPA

Numbering Plan Area – Area Code portion of a telephone number.

NXX

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

O

OBF

Ordering and Billing Forum Adapter-Provides gateway between XML Gateway/COBRA/Verigate and the various BIS systems to retrieve pre-order data from ~~the~~ legacy systems.

Ordering

The process and functions where resale services or unbundled network elements are ordered from ~~BellSouth~~AT&T, as well as the process by which an LSR or ASR is placed with ~~BellSouth~~AT&T

Ordering Interface Gateways

Gateways for CLECs to submit LSRs electronically

Order Types

The following order types are used in this document:

- (1) T - The “to” portion of a change of address. This Order Type is used to connect main service at a new address when a customer moves from one address to another in any of the nine states within the ~~BellSouth~~AT&T region. A “T” Order Type is always paired with an “F” Order Type which will have the same telephone number following the “F” Order Type Code unless the orders are within different central offices.
- (2) N - Orders establishing a new account. Also, this Order Type Code is occasionally used when changing from one type of system to another, such as when changing from PBX to Centrex.
- (3) C - Order Type used for the following conditions: changes or partial disconnections of service or equipment; change of telephone number, grade or class of main line, additional lines, auxiliary lines, PBX trunks and stations; addition of trunks or lines to existing accounts; move of equipment (other than change of address); temporary suspension and restoration of service at customer’s request.
- (4) R - Order Type used for the following conditions: additions, removals or changes in directory listings; responsibility change orders, addition, removal or changes in directory and billing information; other record corrections where no field work is involved.

**OSPCM**

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

OSS

Operations Support System – Multiple support systems and databases which are used to mechanize the flow and performance of work. The term is used to refer to the overall system consisting of complex hardware, computer operating system(s), and applications which are used to provide the support functions.

Out Of Service

Customer has no dial tone and cannot call out

P**PMAP**

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

PMQAP

Performance Measurement Quality Assurance Plan – ~~BellSouth~~AT&T Operational Guide which documents the systematic procedures used by ~~BellSouth Telecommunications (BST)~~AT&T to produce accurate and reliable service quality measurement reports.

PON

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

POTS

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

PREDICTOR

~~BellSouth~~AT&T system used to administer proactive maintenance and rehabilitation activities on outside plant facilities.

Preordering

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

PRI

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

Provisioning

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

Q R**RRC**

Residence Repair Center - The ~~BellSouth~~AT&T Consumer Services trouble receipt center which serves residential customers

RSAG

Regional Street Address Guide - The ~~BellSouth~~AT&T database which contains street addresses that have been validated for accuracy with state and local government records

RSAGADDR

Regional Street Address Guide Address - RSAG software contract for address search

RSAGTN

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

**S****SAC**

Service Advocacy Center– Resolves issues in the provisioning process

SDUM

Supporting Data User Manual

SEEM

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

SGG

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

SOCS

Service Order Control System – ~~BellSouth~~AT&T system which routes service order images among ~~BellSouth~~AT&T provisioning systems.

SOG

Service Order Generator - Designed to generate a service order for xDSL

SONGS

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

Syntactically Incorrect Query

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

T**TAFI**

Trouble Analysis Facilitation Interface - The ~~BellSouth~~AT&T Operations System that supports trouble receipt center personnel in taking and handling customer trouble reports.

Test Transactions/Records

Transactions created by ~~BellSouth~~AT&T, or in tests originated by CLECs, where the CLEC has coordinated the test with ~~BellSouth~~AT&T to enable identification of the transactions as part of a test used to test system functionality.

TN

Telephone Number

Total Manual Fallout

LSRs electronically submitted to ~~BellSouth~~AT&T, which fallout, requiring manual input into a service order generator.

U V**UCL**

Unbundled Copper Loop - A dedicated metallic transmission facility from ~~BellSouth's~~AT&T's Main Distribution Frame (MDF) to a customer's premises

UNE



Unbundled Network Element – Those parts of ~~BellSouth's~~ AT&T's network required to be unbundled by the Telecommunications Act of 1996 and the implementing regulatory body

USOC

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

W

WebTAXI

Web-based application for viewing and tracking claims and for creating CABS billing adjustments

WFA

Work Force Administration – Electronic document tracking system for trouble reports

WFM

Work Force Manager-Mechanizes work performed by LSCs. Manages the workload of all paper/email requests for local service.

WMC

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

WTN

Working Telephone Number

X Y Z

XML Gateway

eXtensible Markup Language Gateway – A machine-to-machine electronic interface designed to provide bi-directional flow of information between AT&T's OSS and CLEC's OSS for pre-ordering and ordering functionality.



Appendix B: ~~BellSouth~~AT&T Audit and Dispute Resolution Policy

Audit

~~BellSouth~~AT&T currently provides CLECs with certain audit rights as a part of their individual interconnection agreements. If ~~requested~~ordered by ~~a~~the Public Service Commission, ~~BellSouth~~AT&T will agree to undergo an SQM audit. ~~The~~ Unless otherwise agreed between AT&T and the Public Service Commission, the audit should be conducted by an independent third party auditor. The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information. Audit will be conducted under the following specifications:

1. The cost of one audit per version of the SOM plan shall be borne by ~~BellSouth~~AT&T.
2. Should an independent third party auditor be required, it shall be selected by ~~BellSouth~~AT&T and the PSC.
3. ~~BellSouth~~AT&T and the PSC shall jointly determine the scope of the audit.
4. The PSC may request input regarding selection of the auditor and audit scope from interested parties.

These audits are intended to provide the basis for the PSCs and CLECs to determine that the SQM and ~~PMAP~~ the AT&T performance measurement data report process produce accurate data that reflects each State's Order for performance measurements.

Dispute Resolution

Notwithstanding any other provision of the Interconnection Agreement between AT&T and each CLEC, if a dispute arises regarding AT&T's performance or obligations pursuant to this Plan, AT&T and the CLEC shall negotiate in good faith for a period of thirty (30) days to resolve the dispute. If at the conclusion of the 30 day period, AT&T and the CLEC are unable to reach a resolution, then the dispute shall be resolved by the Commission.



Appendix C: OSS ~~Interface Tables~~ Interface Tables

OSS-1 [~~PRR~~ARI]: OSS Response Interval (Pre-Ordering/Ordering/Maintenance & Repair)

Table 1: Legacy System Access Times For RNS

System	Contract	Data	Avg. Sec.	# of Calls
RSAG	RSAG-TN	Address	X	X
RSAG	RSAG-ADDR	Address	X	X
ATLAS	ATLAS-TN	TN	X	X
DSAP	DSAP-DDI	Schedule	X	X
CRIS	CRSACCTS	CSR	X	X
OASIS	OASISBIG	Feature/Service	X	X

Table 2: Legacy System Access Times For R0S

System	Contract	Data	Avg. sec.	# of Calls
RSAG	RSAG-TN	Address	X	X
RSAG	RSAG-ADDR	Address	X	X
ATLAS	ATLAS-TN	TN	X	X
DSAP	DSAP-DDI	Schedule	X	X
CRIS	CRSOCSR	CSR	X	X
OASIS	OASISBIG	Feature/Service	X	X

Table 3: Legacy System Access Times For LEX/Enhanced Verigate (Pre-Order only)

System	Contract	Data	Avg. sec.	# of Calls
RSAG	RSAG-TN	Address	X	X
RSAG	RSAG-ADDR	Address	X	X
ATLAS	ATLAS-TN	TN	X	X
DSAP	DSAP-DDI	Schedule	X	X
CRIS	CRSECSRL	CSR	X	X
COFFI	COFFI/USOC	Feature/Service	X	X
P/SIMS	PSIMS/ORB	Feature/Service	X	X

Table 4: Legacy System Access Times For XML Gateway

System	Contract	Data	Avg. sec.	# of Calls
RSAG	RSAG-TN	Address	X	X
RSAG	RSAG-ADDR	Address	X	X
ATLAS	ATLAS-TN	TN	X	X
ATLAS	ATLAS-MLH	TN	X	X
ATLAS	ATLAS-DID	TN	X	X
DSAP	DSAP-DDI	Schedule	X	X
CRIS	CRSECSRL	CSR	X	X
P/SIMS	PSIM/ORB	Feature/Service	X	X



Table 5: Legacy System Access Times for M&R (TAFI)

System	BellSouth <u>AT&T</u> & CLEC	Count <= 10
CRIS	x	x
DLETH	x	x
DLR	x	x
LMOS	x	x
LMOSupd	x	x
LNP Gateway	x	x
MARCH	x	x
OSPCM	x	x
Predictor	x	x
SOCS	x	x
NIW	x	x



OSS-2 [IA]: OSS Interface Availability (Pre-Ordering/Ordering/Maintenance & Repair)

OSS Table 1: SQM Interface Availability for Pre-Ordering/Ordering

OSS Interface Availability Application	Applicable to	% Availability
LEX.....	CLEC.....	X
LASR.....	CLEC.....	X
WFM.....	CLEC.....	X
OBF.....	CLEC.....	X
Enhanced Verigate.....	CLEC.....	X
LESOG.....	CLEC.....	X
LNP Gateway.....	CLEC.....	X
XML Gateway.....	CLEC.....	X
COG.....	CLEC.....	X
SGG.....	CLEC.....	X
DOE.....	CLEC/ BellSouth AT&T.....	X
SONGS.....	CLEC/ BellSouth AT&T.....	X
ATLAS/COFFI.....	CLEC/ BellSouth AT&T.....	X
BOCRIS/CRIS.....	CLEC/ BellSouth AT&T.....	X
DSAP.....	CLEC/ BellSouth AT&T.....	X
RSAG.....	CLEC/ BellSouth AT&T.....	X
SOCS.....	CLEC/ BellSouth AT&T.....	X
LFACS.....	CLEC/ BellSouth AT&T.....	X
RNS.....	BellSouth AT&T.....	X
ROS.....	BellSouth AT&T.....	X

OSS Table 2: SQM Interface Availability for Maintenance & Repair

OSS Interface	% Availability
BellSouth AT&T TAFI.....	X
CLEC TAFI.....	X
CLEC EBTA.....	-X
BellSouthAT&T & CLEC	
CRIS.....	X
LMOS HOST.....	X
LNP Gateway.....	X
MARCH.....	X



Tennessee Performance Metrics

Appendix C: OSS Interface Tables

OSPCM.....	X
PREDICTOR.....	X
SOCS	X



Appendix D: ~~BellSouth's~~**AT&T's** Policy on Reposting of Performance Data ~~and Recalculation of~~ ~~SEEM Payments~~

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

1. Those SQM measures included in a state's specific SQM plan with corresponding sub-metrics are subject to reposting. A notice will be placed on the ~~PMAP~~**AT&T performance measurement** website advising CLECs when reposted data is available.
2. SQM Performance sub-metric calculations that result in a shift in the statewide aggregate performance from an "in parity" condition to an "out of parity" condition will be available for reposting.
3. SQM Performance sub-metric calculations with benchmarks where statewide aggregate performance is in an "out of parity" condition will be available for reposting whenever there is a $\geq 2\%$ decline in ~~BellSouth's~~**AT&T's** performance at the sub-metric level.
4. SQM Performance sub-metric calculations with retail analogues that are in an "out of parity" condition will be available for reposting whenever there is a degradation in performance as shown by an adverse change of $\leq \pm .5$ in the ~~z-score~~**Z-Score** at the sub-metric level.
5. Any data recalculations that reflect an improvement in ~~BellSouth's~~**AT&T's** performance will be reposted at ~~BellSouth's~~**AT&T's** discretion. ~~However, statewide performance must improve by at least 2% for benchmark measures and the z-score must improve by at least 0.5 for retail analogs at the sub-metric level to qualify for reposting.~~
6. SQM Performance data will be reposted for a maximum of three months in arrears from ~~implementation of the change of programming request requirement (RQ) which corrects a detected error. RQs shall not be unreasonably delayed after the date of detection the error is detected.~~ As an example, ~~should an error be discovered during the analysis of the May data month, and this error performance that triggers a reposting, BellSouth but the RQ correcting the error is implemented in the calendar month of July with the June data month performance reports, AT&T will correct the data beginning with the month of detection (May) and the the RQ implementation (July), which would be for the June data month performance reports, and will repost the data month performance reports for the three months preceding data month performance reports – May, April, and March and February.~~
7. ~~When updated SQM performance data has been reposted or when a payment error in PARIS has been discovered, BellSouth will recalculate applicable SEEM payments where technically feasible, for a maximum of three months in arrears from date of detection. Recalculated SEEM payments due to reposted SQM data will be made for the same months that the applicable data was reposted. The three month period for recalculating SEEM payments due to an error in PARIS will be determined in the same manner previously described for the SQM. For example, should an error in PARIS be discovered for the data month of May, BellSouth will correct data for May and the three preceding months – April, March and February.~~
8. ~~Any adjustments for underpayment of Tier 1 and Tier 2 calculated remedies resulting from the application of this policy will be made consistent with the terms of the state-specific SEEM plan, including the payment of interest. Any adjustments for overpayment of Tier 1 and Tier 2 remedies will be made at BellSouth's discretion.~~
9. ~~Any adjustments for underpayments resulting from application of this policy will be made in the next month's payment cycle after the recalculation is made. The final current month PARIS reports will reflect the transmitted~~



Tennessee Performance Metrics

Appendix D: ~~BellSouth's~~AT&T's Policy on Reposting of
Performance Data ~~and Recalculation of SEEM Payments~~

~~dollars, including adjustments for prior months where applicable. Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.~~

When a CLEC believes that an error in its specific data requires reposting where the above statewide thresholds have not been met, the CLEC is responsible for identifying such issues and requesting ~~BellSouth~~AT&T to repost the data. Any failure to repost inaccurate data should be brought to the attention of the Commission for resolution if it is estimated that the thresholds described in items 3, ~~4~~, or ~~5~~4 have been met at the CLEC-specific level.

Determination of when Reposting Policy Applies

As part of the Change Notification Process, ~~BellSouth~~AT&T performs an analysis of impacts that are proposed to be made to ~~Performance Measurement Application Platform (PMAP)~~the AT&T performance measurement reporting process code. These impacts are used to identify changes to its reported SQM results.

To determine this impact, ~~BellSouth~~AT&T performs a query of the data warehouse to identify those records that would be impacted by the proposed change. Once the number of records are identified, the measurement is recalculated to determine the impact. This is the general framework for analysis - the specific steps used to evaluate the impact will vary with the issue being analyzed. However, the following example may assist in understanding.

Assume that service orders ~~with an activity code of T~~ were erroneously being included in a ~~UNE-P~~particular product disaggregation for Percent Missed Installation Appointments. They should have been in another product disaggregation. Further, assume that the number of records erroneously included ~~as UNEP~~ is 110 records out of a total of 86,000. In this example, the numerator and denominator would both be reduced by 110 records and the ~~zscore~~Z-Score would be recalculated. If the amount of the change was sufficient to meet criteria 2, 4 or 5 above, the Reposting policy will be invoked.



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

BellSouth~~AT&T~~ Service Quality Measurement Plan (SQMP) Raw (Supporting) Data Files (SDF) Other Supporting Data Files (OSDF)

I. Definitions and Overview

A. What is Raw Data?

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

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

II. Raw (Supporting) Data – General

Raw (Supporting) Data Files (SDF)

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

Other Supporting Data Files (OSDF)

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

A. Raw Data (SDF) Records – OSS

For OSS Metrics:

Supporting data is provided for the following metrics

**Tennessee Performance Metrics**

- OSS-1 [ARI]: OSS Response Interval (Pre-Ordering/Ordering/Maintenance & Repair)
- OSS-2 [IA]: Interface Availability (Pre-Ordering/Ordering/Maintenance & Repair)
- PO-2 [LMT]: Loop Makeup – Response Time – Electronic

B. Raw Data (SDF) Records - Ordering**For Ordering Metrics:**

Supporting data is provided for the following metrics:

- O-2 [AKC]: Acknowledgement Message Completeness
- O-8 [RI]: Reject Interval
- O-9 [FOCT]: Firm Order Confirmation Timeliness
- O-11 [FOCC]: Firm Order Confirmation and Reject Response Completeness

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

C. Raw Data (SDF) Records – Provisioning**For Provisioning Metrics:**

Supporting data is provided for the following metrics:

- P-1 [HOI]: Held Order Interval
- P-2A [PJ48]: Percentage of Orders Given Jeopardy Notices \geq 48 Hours
- P-2B [PJ]: Percentage of Orders Given Jeopardy Notices
- P-3 [MIA]: Percent Missed Installation Appointments
- P-4 [OCI]: Order Completion Interval
- P-5 [CNI]: Average Completion Notice Interval
- P-7 [CCI]: Coordinated Customer Conversions Interval – Hot Cut Duration
- P-7A [CCT]: Coordinated Customer Conversions – Hot Cut Timeliness Percent within Interval
- ~~P-7B [CCRT]: Coordinated Customer Conversions – Average Recovery Time~~
- ~~P-7C [CPT]: Hot Cut Conversions – Percent Provisioning Troubles Received within 5 Days of a Completed Service Order~~
- P-7D [NCDD]: Non-Coordinated Customer Conversions – Percent Completed and Notified on Due Date
- P-9 [PPT]: ~~Percent Provisioning Troubles within "X" Days of Service Order Completion~~ Trouble Rate
- P-11 [SOA]: Service Order Accuracy
- P-13B [LOOS]: LNP-Percent Out of Service < 60 Minutes
- P-13C [LAT]: LNP-Percentage of Time ~~BellSouth~~ AT&T Applies the 10-Digit Trigger Prior to the LNP Order Due Date
- P-13D [LDT]: LNP-Disconnect Timeliness (Non-Trigger)
- P-13E [ILPP]: Incomplete Standalone LNP Provisioning Process
- P-13F [SIR]: Short Interval 10-Digit Trigger Readiness

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

D. Raw Data (SDF) Records – M&R**For Maintenance and Repair (M&R) Metrics:**

Supporting data is provided for the following metrics:

- M&R-1 [MRA]: Percent Missed Repair Appointments
- M&R-2 [CTRR]: Customer Trouble Report Rate
- M&R-2A [CTRR-NPRR]: Customer Trouble Report Rate Net of Provisioning Trouble and Repeat Reports

**Tennessee Performance Metrics**

- M&R-3 [MAD]: Maintenance Average Duration
- M&R-4 [PRT]: Percent Repeat Customer Troubles within 30 Days
- M&R-5 [OOS]: Out of Service (OOS) > 24 Hours

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

E. Raw Data (SDF) Records – Other**For Other Metrics:****Billing:**

Supporting data is provided for the following metrics:

- B-1 [BIA]: Invoice Accuracy
- B-2 [BIT]: Mean Time to Deliver Invoices
- B-5 [BUDT]: Usage Data Delivery Timeliness
- B-10 [BEC]: Percent Billing Adjustment Requests (BAR) Responded to ~~Within 45~~within 40 Business Days

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

Database Update Information - None**Trunk Group Performance – None****Collocation – None:**

Supporting data is provided for the following metrics:

- C-1 [ART]: Collocation Average Response Time
- C-2 [AT]: Collocation Average Arrangement Time
- C-3 [MDD]: Collocation Percent of Due Dates Missed

Change Management - None**III. Supporting Data User Manual (SDUM) and Schema for Other Supporting Data Files (OSDF)**

The SDUM and Schema can be found at ~~URL (http://pmap.bellsouth.com)~~the AT&T ~~performance measurement website~~ in the Documentation/Exhibits folder.



Appendix F: ~~BellSouth PMAP~~AT&T Data Notification Process

- ~~1.~~ 1. On the first business day of the month preceding the data month for which ~~BellSouth~~AT&T proposes to make any change to the method by which its performance data is calculated, ~~BellSouth~~AT&T will provide ~~written~~ notice of any ~~such proposed change to the method by which its performance data is calculated. These~~ changes (hereinafter referred to as "~~Proposed~~ Data Notification Changes";") ~~will be published and viewable on the AT&T performance measurement website within the Exhibits/Data Notification section.~~ This notice will identify the affected measure(s), describe the proposed change, provide a reason for the proposed change, and outline its impact. ~~At the same time BellSouth will provide written notice of any known changes BellSouth is considering making to the method of calculating performance data for the following data month (hereinafter referred to as "Preliminary Data Changes").~~
- ~~2.~~ 2. No later than ~~four~~fifteen (15) business days after ~~the written notice referenced above has been provided, BellSouth will conduct an industry conference call at which time the affected parties as well as the Commission can ask questions about either the Proposed Data~~ Notification Changes ~~or the Preliminary Data Changes. The call will be conducted from 2:00 to 5:00 p.m. (Eastern Time).~~
- ~~3.~~ 3. No later than ~~ten~~ ten (10) business days after ~~the industry conference call~~ are published by AT&T, affected parties must file ~~written~~ comments with ~~the Commission~~AT&T to the extent they have objections or concerns about the ~~Proposed~~ Data Notification Changes.
3. AT&T will conduct an industry conference call with the affected parties to resolve objections or concerns no later than the 5 business days after written comments are received.
- ~~4.~~ 4. The ~~Proposed~~ Data Notification Changes set forth in the written notice referenced above would be presumptively valid and deemed approved ~~by the Commission~~ effective thirty (30) calendar days after that notice ~~unless the Commission staff directs BellSouth to go forward with the changes~~ on undisputed items. Items under discussion will remain open until agreement is reached by the affected parties.

Appendix G: SQM Equity Determination

This document describes the approach utilized in the determination of Equity for mean, proportion, and rate measures within the ~~BellSouth~~AT&T Single Report Structure (SRS). The statistical comparison of ~~BST~~AT&T performance data to CLEC performance data is based upon the “Modified Z” methodology.

A. Standard Error (S)

The Standard Error must be calculated for use as the denominator in the formula for the Z-Score. The appropriate calculation of Standard Error is dependent on the measure type as shown below:

MEAN:

$$S = StDev_{BST} \sqrt{\frac{1}{n_{BST}} + \frac{1}{n_{CLEC}}}$$

PROPORTION:

$$S = \sqrt{\hat{p}_{BST} (1 - \hat{p}_{BST}) \left(\frac{1}{n_{BST}} + \frac{1}{n_{CLEC}} \right)}$$

RATE:

$$S = \sqrt{\hat{r}_{BST} \left(\frac{1}{n_{BST}} + \frac{1}{n_{CLEC}} \right)}$$

n_{BST} = number of observations for ~~BellSouth~~AT&T in current time period

n_{CLEC} = number of observations for CLECs in current time period

$StDev_{BST}$ = estimated standard deviation of ~~BellSouth~~AT&T performance calculated using current time period’s data.

~~\hat{p}_{BST}~~ \hat{p}_{BST} = estimated ~~BellSouth~~AT&T performance proportion calculated using current time period’s data.

~~\hat{r}_{BST}~~ \hat{r}_{BST} = estimated ~~BellSouth~~AT&T performance rate calculated using current time period’s data.

B. Z-Score (Z)

Once the Standard Error has been calculated, the Z-Score is then calculated using the formula below:

$$Z = \frac{BST^* - CLEC^*}{S}$$

BST* = estimated ~~BellSouth~~AT&T mean (\bar{X}_{BST}), proportion (\hat{p}_{BST}), or rate (\hat{r}_{BST}) calculated using the current time period’s data.

CLEC* = estimated CLEC mean (\bar{X}_{CLEC}), proportion (\hat{p}_{CLEC}), or rate (\hat{r}_{CLEC}) calculated using the current time period’s data.

C. Equity Determination

After calculation of the Z-Score, Equity is determined using the criteria shown in the table below:

	Better Performance ↑	Better Performance ↓
YES	$Z \leq 1.645$	$Z \geq -1.645$
NO	$Z > 1.645$	$Z < -1.645$

Exception 1: A Z-Score value cannot be determined if a Standard Error value is 0. In that case, Equity is determined using the “Direct Comparison” criteria shown in the table below:

Exception 2: Measures OSS-1 [ARI], O-12 [OAAT], B-1 [BIA], B-2 [BIT], and M & R-6 [MAAT] also use the “Direct Comparison” criteria.



Tennessee Performance Metrics

Appendix G: SQM Equity Determination

	Better Performance ↑	Better Performance ↓
YES	CLEC Measure \geq BS <u>AT&T</u> Measure	CLEC Measure \leq BS <u>AT&T</u> Measure
NO	CLEC Measure $<$ BS <u>AT&T</u> Measure	CLEC Measure $>$ BS <u>AT&T</u> Measure



Appendix H: Special Access Measurements

TABLE OF CONTENTS

REPORTING DIMENSIONS

..... ~~94~~87

ORDERING

SA-1 FOC RECEIPT..... ~~95~~88

SA-2 FOC RECEIPT PAST DUE..... ~~97~~90

SA-3 OFFERED VERSUS REQUESTED DUE DATE..... ~~98~~91

PROVISIONING

SA-4 ON TIME PERFORMANCE TO FOC DUE DATE..... ~~99~~ 92

SA-5 DAYS LATE..... ~~100~~93

SA-6 AVERAGE INTERVALS – REQUESTED / OFFERED / INSTALLATION..... ~~102~~95

SA-7 PAST DUE CIRCUITS..... ~~103~~96

SA-8 NEW INSTALLATION TROUBLE REPORT RATE..... ~~105~~98

MAINTENANCE AND REPAIR

SA-9 FAILURE RATE..... ~~106~~99

SA-10 MEAN TIME TO RESTORE..... ~~107~~100

SA-11 REPEAT TROUBLE REPORT RATE..... ~~109~~102

GLOSSARY

..... ~~110~~103

SYMBOLS USED IN CALCULATIONS

..... ~~111~~104



Reporting Dimensions

CLEC or IXC Carrier specific total, with the following reporting dimensions for all measurements.

- ◆● Special Access disaggregated by bandwidth
 - Sub Totaled by State
 - Totaled by BellSouth ~~AT&T~~

Comparison reports are required for:

- ◆● CLEC/ IXC Carrier Aggregate
- ◆● BellSouth ~~AT&T~~ Long Distance (~~BSLD~~) Aggregate

Special Access is any exchange access service that provides a transmission path between two or more points, either directly, or through a central office, where bridging or multiplexing functions are performed, not utilizing BellSouth ~~AT&T~~ end office switches.

Special Access Services include dedicated and shared facilities configured to support analog/voice grade service, metallic and/or telegraph service, audio, video, digital data service (DDS), digital transport and high capacity service (DS1, DS3 and OCn), collocation transport, links for SS7 signaling and database queries, SONET access including OC-192 based dedicated SONET ring access, and broadband services.

Exclusions: Transmission path requests pursuant to an Interconnection Agreement for Unbundled Network Elements (UNE) are excluded from these Performance Measures.

Reporting Period: The reporting period is the calendar month, unless otherwise noted, with all averages or percentages displayed to one decimal point.



ORDERING

Measurement: SA-1 FOC Receipt

Description

The Firm Order Confirmation (FOC) is the ~~BellSouth~~AT&T response to an Access Service Request (ASR), whether an initial or supplement ASR, that provides the CLEC or IXC Carrier with the specific Due Date on which the requested circuit or circuits will be installed. ~~BellSouth~~AT&T will conduct a minimum of an electronic facilities check to ensure due dates delivered in FOCs can be relied upon. The performance standard for FOCs received within the standard interval is expressed as a percentage of the total FOCs received during the reporting period. A diagnostic distribution is required along with a count of ASRs withdrawn at ~~BellSouth's~~AT&T's request due to a lack of ~~BellSouth~~AT&T facilities or otherwise.

Calculation Methodology

Percent Meeting Performance Standard:

- ~~Count~~ [Count FOCs received where (FOC Receipt Date – ASR Received Date) <= Performance Standard] / Total FOCs received during reporting period x 100

FOC Receipt - Distribution:

- ~~(FOC Receipt Date – ASR Received Date)~~, for each FOC received during reporting period, distributed by:
0 days, >0 - <=1day, >0 day - <=2 days, >0 day - <= 5 days, > 2 days - <= 10 days, > 10 days

ASRs Withdrawn at ~~BellSouth~~AT&T Request due to a lack of ~~BellSouth~~AT&T Facilities or Otherwise:

- ~~Count~~ Count of ASRs, which have not yet received a FOC, Withdrawn at ~~BellSouth's~~AT&T's Request, during the current reporting period, due to a lack of ~~BellSouth~~AT&T facilities or otherwise

Business Rules

1. Counts are based on each instance of a FOC received from ~~BellSouth~~AT&T. If one or more Supplement ASRs are issued to correct or change a request, each corresponding FOC, which is received during the reporting period, is counted and measured.
2. Days shown are business days, Monday to Friday, excluding National Holidays. Activity starting on a weekend, or holiday, will reflect a start date of the next business day, and activity ending on a weekend, or holiday, will be calculated with an end date of the last previous business day.
3. Projects are included.

Exclusions

- ~~Unsolicited FOCs~~
- ~~Disconnect ASRs~~
- ~~Cancelled ASRs~~
- Record ASRs

Levels of Disaggregation

- ~~DS0~~
- ~~DS1~~
- ~~DS3 (Non Optical)~~
- DS3 (Optical OCn)



Performance Standard

- Percent FOCs Received within Standard- DS0 >= 98.0% within 2 business days
- DS1 >= 98.0% within 2 business days
- DS3 >= 98.0% within 5 business days
- OCn - ICB (Individual Case Basis)
- FOC Receipt Distribution- Diagnostic
- ASRs Withdrawn at ~~BellSouth's~~ ~~AT&T's~~ Request Due to a Lack of
~~BellSouth~~ ~~AT&T~~ Facilities or Otherwise.....- Diagnostic



ORDERING

Measurement: SA-2 FOC Receipt Past Due

Description

The FOC Receipt Past Due measure tracks all ASR requests that have not received an FOC from ~~BellSouth~~AT&T within the expected FOC receipt interval, as of the last day of the reporting period and do not have an open, or outstanding, Query/Reject. This measure gauges the magnitude of late FOCs. A distribution of these late FOCs, along with a report of those late FOCs that do have an open Query/Reject, is required for diagnostic purposes.

Calculation Methodology

Percent FOC Receipt Past Due - Without Open Query/Reject:

- Sum of ASRs without a FOC Received, and a Query/Reject is not open, where $(\text{End of Reporting Period} - \text{ASR Received Date} > \text{Expected FOC Receipt Interval}) / \text{Total number of ASRs received during reporting period} \times 100$

FOC Receipt Past Due - Without Open Query/Reject - Distribution:

- $[(\text{End of Reporting Period} - \text{ASR Received date}) - (\text{Expected FOC Receipt Interval})]$ for ASRs without a FOC received and a Query/Reject is not open with the CLEC or IXC Carrier, distributed by:
0 days, >0 - <= 5 days, >5 days - <= 10 days, > 10 days - <= 20 days, > 20 days - <= 30 days, > 30 days - <= 40 days, > 40 days

Percent FOC Receipt Past Due - With Open Query/Reject:

- Sum of ASRs without a FOC Received, and a Query/Reject is open, where $(\text{End of Reporting Period} - \text{ASR Sent Date} > \text{Expected FOC Receipt Interval}) / \text{Total number of ASRs received during reporting period} \times 100$

Business Rules

- All counts are based on the latest ASR request sent to ~~BellSouth~~AT&T. Where one or more subsequent ASRs have been sent, only the latest ASR would be recorded as Past Due if no FOC had yet been returned.
- The Expected FOC Receipt Interval, used in the calculations, will be the interval identified in the Performance Standards for the FOC Receipt measure.
- Days shown are business days, Monday to Friday, excluding National Holidays. Activity starting on a weekend, or holiday, will reflect a start date of the next business day, and activity ending on a weekend, or holiday, will be calculated with an end date of the last previous business day.
- Projects are included.

Exclusions

- Unsolicited FOCs
- Disconnect ASRs
- Cancelled ASRs
- Record ASRs

Levels of Disaggregation

- DS0
- DS1
- DS3 (Non Optical)
- DS3 (Optical OCn)

Performance Standard

- Percent FOC Receipt Past Due - Without Open Query/Reject....< 2.0 % FOC Receipt Past Due
- FOC Receipt Past Due – Without Open Query/Reject – Distribution - Diagnostic



-
- Percent FOC Receipt Past Due - With Open Query/Reject.....- Diagnostic

ORDERING

Measurement: SA-3 Offered Versus Requested Due Date

Description

The Offered Versus Desired Due Date measure reflects the degree to which ~~BellSouth~~AT&T is committing to install service on the CLEC or IXC Carrier Desired Due Date (CDDD), when a Due Date desired is equal to or greater than the ~~BellSouth~~AT&T stated interval. A distribution of the delta, the difference between the CDDD and the Offered Date, for these FOCs is required for diagnostic purposes.

Calculation Methodology

Percent Offered with CLEC or IXC Carrier Requested Due Date:

• [Count of ASRs where (FOC Due Date = CDDD) / [Total number of ASRs where (CDDD – ASR Received Date) = > BellSouth AT&T Stated Interval] x 100

Offered versus Requested Interval Delta – Distribution:

• [(Offered Due Date – CDDD) where (CDDD – ASR Received Date) = > BellSouth AT&T Stated Interval] for each FOC received during the reporting period, distributed by:

0 days, >0 - <= 5 days, >5 days - <= 10 days, > 10 days - <= 20 days, > 20 days - <= 30 days, > 30 days - <= 40 days, > 40 days

Business Rules

1. Counts are based on each instance of a FOC received from ~~BellSouth~~ **AT&T**. If one or more Supplement ASRs are issued to correct or change a request, each corresponding FOC, which is received during the reporting period, is counted and measured.
2. Days shown are business days, Monday to Friday, excluding National Holidays. Activity starting on a weekend, or holiday, will reflect a start date of the next business day, and activity ending on a weekend, or holiday, will be calculated with an end date of the last previous business day.
3. Projects are included

Exclusions

- Unsolicited FOCs
- Disconnect ASRs
- Cancelled ASRs
- Record ASRs

Levels of Disaggregation

- DS0
- DS1
- DS3 (Non Optical)
- DS3 (Optical OCn)

Performance Standard

- Percent Offered with CDDD (where CDDD => BellSouthAT&T Stated Interval) = 100%
- Offered versus Requested Interval Delta – Distribution.....- Diagnostic
- BellSouthAT&T Stated Intervals: To be determined by BellSouthAT&T



PROVISIONING

Measurement: SA-4 On Time Performance To FOC Due Date

Description

On Time Performance To FOC Due Date measures the percentage of circuits that are completed on the FOC Due Date, as recorded from the FOC received in response to the last ASR received. Customer Not Ready (CNR) situations are defined as Customer Not Ready (SR), No Access (SA), Customer Requests a Later Date (SL), and Customer Other (SO) which may result in an installation delay. The On Time Performance To FOC Due Date is calculated both with CNR consideration, i.e. measuring the percentage of time the service is installed on the FOC due date while counting CNR coded orders as an appointment met, and without CNR consideration.

Calculation Methodology

Percent on Time Performance to FOC Due Date – With CNR Consideration:

- $\frac{[(\text{Count of Circuits Completed on or before BellSouth} \del{AT\&T} \text{ Committed Due Date} + \text{Count of Circuits Completed after FOC Due Date with a verifiable CNR code}) / (\text{Count of Circuits Completed in Reporting Period})] \times 100}{}$

Percent on Time Performance to FOC Due Date – Without CNR Consideration:

- $\frac{[(\text{Count of Circuits Completed on or before BellSouth} \del{AT\&T} \text{ Committed Due Date}) / (\text{Count of Circuits Completed in Reporting Period})] \times 100}{}$

Note: The denominator for both calculations is the total count of circuits completed during the reporting period, including all circuits, with and without a CNR code.

Business Rules

1. Measures are based on the last ASR received and the associated FOC Due Date received from BellSouth ~~AT&T~~.
2. Selection is based on circuits completed by BellSouth ~~AT&T~~ during the reporting period. An ASR may provision more than one circuit and BellSouth ~~AT&T~~ may break the ASR into separate internal orders, however, the service order is not considered completed for measurement purposes until all circuits are completed.
3. BellSouth ~~AT&T~~ Completion Date is the date upon which ~~AT&T~~ completes installation of the circuit, as noted on a completion notice to the CLEC or IXC Carrier.
4. Projects are included
5. BellSouth completes installation of the circuit, as noted on a completion notice to the CLEC or IXC Carrier.
4. Projects are included
5. A Customer Not Ready (CNR) is defined as a verifiable situation beyond the control of BellSouth ~~AT&T~~ that prevents BellSouth ~~AT&T~~ from completing an order, including the following: CLEC or IXC Carrier is not ready; end user is not ready; connecting company, or CPE (Customer Premises Equipment) supplier, is not ready. BellSouth ~~AT&T~~ must ensure that established procedures are followed to notify the CLEC or IXC Carrier of a CNR situation and allow a reasonable period of time for the CLEC or IXC Carrier to correct the situation.

Exclusions

- ~~Unsolicited FOCs~~
- ~~Disconnect ASRs~~
- ~~Cancelled ASRs~~
- ~~Record ASRs~~

Levels of Disaggregation

- ~~DS0~~
- ~~DS1~~
- DS3 (Non Optical)
- ~~DS3 (Optical OCn)~~

Performance Standard



-
- Percent On Time to FOC Due Date - With CNR Consideration = > 98.0 % On Time
 - Percent On Time to FOC Due Date - Without CNR Consideration - Diagnostic



PROVISIONING

Measurement: SA-5 Days Late

Description

Days Late captures the magnitude of the delay, both in average and distribution, for those circuits not completed on the FOC Due Date, and the delay was not a result of a verifiable CNR situation. A breakdown of delay days caused by a lack of ~~BellSouth AT&T~~ facilities is required for diagnostic purposes.

Calculation Methodology

Average Days Late:

- Σ [Circuit Completion Date – ~~BellSouth AT&T~~ Committed Due Date (for all Circuits Completed Beyond ~~BellSouth AT&T~~ Committed Due Date without a CNR code)] / (Count of Circuits Completed Beyond ~~BellSouth AT&T~~ Committed Due Date without a CNR code)

Days Late Distribution:

- Circuit Completion Date – ~~BellSouth AT&T~~ Committed Due Date (for all Circuits Completed Beyond ~~BellSouth AT&T~~ Committed Due Date without a CNR code) distributed by:
≤ 1 day, 0 - < 3 days, >1 - ≤ 5 days, >5 - ≤ 10 days, >10 - ≤ 20 days, >20 - ≤ 30 days, >30 - ≤ 40 days, >40 days

Average Days Late Due to a Lack of ~~BellSouth AT&T~~ Facilities:

- Σ [Circuit Completion Date – ~~BellSouth AT&T~~ Committed Due Date (for all Circuits Completed Beyond ~~BellSouth AT&T~~ Committed Due Date without a CNR code and due to a Lack of ~~BellSouth AT&T~~ Facilities)] / (Count of Circuits Completed Beyond ~~BellSouth AT&T~~ Committed Due Date without a CNR code and due to a Lack of ~~BellSouth AT&T~~ Facilities)

Business Rules

1. Measures are based on the latest valid ASR received and the associated FOC Due Date received from the ~~BellSouth AT&T~~.
2. Selection is based on circuits completed by ~~BellSouth AT&T~~ during the reporting period. An ASR may provision more than one circuit and ~~BellSouth AT&T~~ may break the ASR into separate internal orders, however, the service order is not considered completed for measurement purposes until all circuits are completed.
3. Days shown are business days, Monday to Friday, excluding National Holidays. Activity starting on a weekend, or holiday, will reflect a start date of the next business day, and activity ending on a weekend, or holiday, will be calculated with an end date of the last previous business day.
4. Projects are included
5. A Customer Not Ready (CNR) is defined as a verifiable situation beyond the control of ~~BellSouth AT&T~~ that prevents ~~BellSouth AT&T~~ from completing an order, including the following: CLEC or IXC Carrier is not ready; end user is not ready; connecting company, or CPE (Customer Premises Equipment) supplier, is not ready. ~~BellSouth AT&T~~ must ensure that established procedures are followed to notify the CLEC or IXC Carrier of a CNR situation and allow a reasonable period of time for the CLEC or IXC Carrier to correct the situation

Exclusions

- Unsolicited FOCs
- Disconnect ASRs
- Cancelled ASRs
- Record ASRs

Levels of Disaggregation

- DS0
- DS1
- DS3 (Non Optical)



-
- DS3 (Optical OCn)

Performance Standard

- Average Days Late.....< 3.0 Days
- Days Late Distribution..... - Diagnostic
- Average Days Late Due to a Lack of ~~BellSouth~~ ~~AT&T~~ Facilities - Diagnostic



PROVISIONING

Measurement: SA-6 Average Intervals - Requested/Offered/Installation

Description

This measure captures three important aspects of the provisioning process and displays them in relation to each other. The Average CLEC or IXC Carrier Requested Interval, the Average ~~BellSouth~~AT&T Offered Interval, and the Average Installation Interval, provide a comprehensive view of provisioning, with the ultimate goal of having these three intervals equivalent.

Calculation Methodology

Average CLEC or IXC Carrier Requested Interval:

- Sum (CDDD – ASR Received Date) / Total Circuits Completed during reporting period

Average ~~BellSouth~~AT&T Offered Interval:

- Sum (FOC Due Date – ASR Received Date) / Total Circuits Completed during reporting period

Average Installation Interval:

- Sum (~~BellSouth~~AT&T Completion Date – ASR Received Date) / Total Circuits Completed during reporting period

Business Rules

- Measures are based on the last ASR received and the associated FOC Due Date received from ~~BellSouth~~AT&T.
- Selection is based on circuits completed by ~~BellSouth~~AT&T during the reporting period. An ASR may provision more than one circuit and ~~BellSouth~~AT&T may break the ASR into separate internal orders, however, the ASR is not considered completed for measurement purposes until all circuits are completed.
- Days shown are business days, Monday to Friday, excluding National Holidays. Activity starting on a weekend, or holiday, will reflect a start date of the next business day, and activity ending on a weekend, or holiday, will be calculated with an end date of the last previous business day.
- Projects are included
- The Average Installation Interval includes all completions.

Exclusions

- Unsolicited FOCs
- Disconnect ASRs
- Cancelled ASRs
- Record ASRs

Levels of Disaggregation

- DS0
- DS1
- DS3 (Non Optical)
- DS3 (Optical OCn)

Performance Standard

- Average Requested Interval - Diagnostic
- Average Offered Interval - Diagnostic
- Average Installation Interval - Diagnostic

PROVISIONING

Measurement: SA-7 Past Due Circuits

Description

The Past Due Circuits measure provides a snapshot view of circuits not completed as of the end of the reporting period. The count is taken from those circuits that have received a FOC Due Date but the date has passed. Results are separated into those held for ~~BellSouth AT&T~~ reasons and those held for CLEC or IXC Carrier reasons (CNRs), with a breakdown, for diagnostic purposes, of Past Due Circuits due to a lack of ~~BellSouth AT&T~~ facilities. A diagnostic measure, Percent Cancellations After FOC Due Date, is included to show a percent of all cancellations processed during the reporting period where the cancellation took place after the FOC Due Date had passed

Calculation Methodology

Percent Past Due Circuits:

- $$\frac{[(\text{Count of all circuits not completed at the end of the reporting period} > 5 \text{ days beyond the FOC Due Date, grouped separately for Total } \del{BellSouth AT\&T} \text{ Reasons, Lack of } \del{BellSouth AT\&T} \text{ Facility Reasons, and Total CLEC/Carrier Reasons}) / (\text{Total uncompleted circuits past FOC Due Date, for all missed reasons, at the end of the reporting period})] \times 100}{1}$$

Past Due Circuits Distribution:

- Count of all circuits past the FOC Due Date that have not been reported as completed (Calculated as last day of reporting period - FOC Due Date) Distributed by:
$$< = 1 \text{ day}, >1 - < = 5 \text{ days}, 0 \text{ days} - < = 5 \text{ days}, >5 - < = 10 \text{ days}, >10 - < = 20 \text{ days}, >20 - < = 30 \text{ days}, >30 - < = 40 \text{ days}, >40 \text{ days}$$

Percent Cancellations after FOC Due Date:

- $$\frac{[\text{Count (All circuits cancelled during reporting period, that were Past Due at the end of the previous reporting period, where (Date Cancelled} > \text{FOC Due Date}) / (\text{Total circuits Past Due at the end of the previous reporting period})] \times 100}{1}$$

Business Rules

1. Calculation of Past Due Circuits is based on the most recent ASR and associated FOC Due Date.
2. An ASR may provision more than one circuit and ~~BellSouth AT&T~~ may break the ASR into separate internal orders, however, the service order is not considered completed for measurement purposes until all segments are completed.
3. Days shown are business days, Monday to Friday, excluding National Holidays. Activity starting on a weekend, or holiday, will reflect a start date of the next business day, and activity ending on a weekend, or holiday, will be calculated with an end date of the last previous business day.
4. Projects are included
5. A Customer Not Ready (CNR) is defined as a verifiable situation beyond the control of ~~BellSouth AT&T~~ that prevents ~~BellSouth AT&T~~ from completing an order, including the following: CLEC or IXC Carrier is not ready; end user is not ready; connecting company, or CPE (Customer Premises Equipment) supplier, is not ready. ~~BellSouth AT&T~~ must ensure that established procedures are followed to notify the CLEC or IXC Carrier of a CNR situation and allow a reasonable period of time for the CLEC or IXC Carrier to correct the situation

Exclusions

- Unsolicited FOCs
- Disconnect ASRs
- Record ASRs

Levels of Disaggregation

- DSO / DS1 / DS3 (Non Optical) / DS3 (Optical OCn)



Performance Standard

- Percent Past Due Circuits - Total BellSouth ~~AT&T~~ Reasons< 3.0 % > 5 days beyond FOC Due Date
- Percent Past Due Circuits - Due to Lack of BellSouth ~~AT&T~~ Facilities - Diagnostic
- Percent Past Due Circuits - Total CLEC Reasons.....- Diagnostic
- Past Due Circuits Distribution- Diagnostic
- Percent Cancellation After FOC Due Date- Diagnostic



PROVISIONING

Measurement: SA-8 New Installation Trouble Report Rate

Description

New Installation Trouble Report Rate measures the quality of the installation work by capturing the rate of trouble reports on new circuits within 30 calendar days of the installation.

Calculation Methodology

Trouble Report Rate ~~W~~within 30 Calendar Days of Installation:

$$\frac{\text{Count (trouble reports within 30 Calendar Days of Installation)}}{\text{(Total Number of Circuits Installed in the Report Period)}} \times 100$$

Business Rules

- ~~BellSouth~~AT&T Completion Date is the date upon which ~~BellSouth~~AT&T completes installation of the circuit, as noted on a completion advice to the CLEC or IXC Carrier.
- The calculation for the following 30 calendar days is based on the creation date of the trouble ticket.

Exclusions

- ~~•~~ Trouble tickets that are canceled at the CLEC's or IXC Carrier's request
- ~~•~~ CLEC, IXC Carrier, CPE (Customer Premises Equipment), or other customer caused troubles
- ~~•~~ ~~BellSouth~~AT&T trouble reports associated with administrative service
- ~~•~~ Tickets used to track referrals of misdirected calls
- ~~•~~ CLEC or IXC Carrier requests for informational tickets

Levels of Disaggregation

- ~~•~~ DS0
- ~~•~~ DS1
- ~~•~~ DS3 (Non Optical)
 - DS3 (Optical OCn)
 - Below DS3 (DS0 + DS1)
 - DS3 and Above (DS3 + OCn)

Performance Standard

- New Installation Trouble Report Rate <= 1.0 trouble reports per 100 circuits installed



MAINTENANCE & REPAIR

Measurement: SA-9 Failure Rate

Description

Failure Rate measures the overall quality of the circuits being provided by the ~~BellSouth~~AT&T and is calculated by dividing the number of troubles resolved during the reporting period by the total number of “in service” circuits, at the end of the reporting period, and is then annualized.

Calculation Methodology

Failure Rate – Annualized:

$$\text{Failure Rate} = (a / b) * 100$$

- a = Count of trouble reports resolved during a report period
- b = Number of circuits in service at the end of the report period

$$\text{Failure Rate Annualized} = (c / d) * 100$$

- c = Average count of trouble reports closed per month during the past 12 months
- d = Average number of circuits in service per month for the past 12 months

Business Rules

1. A trouble report/ticket is any record (whether paper or electronic) used by ~~BellSouth~~AT&T for the purposes of tracking related action and disposition of a service repair or maintenance situation.
2. A trouble is resolved when ~~BellSouth~~AT&T issues notice to the CLEC or IXC Carrier that the circuit has been restored to operating parameters.
3. Where more than one trouble is resolved on a specific circuit during the reporting period, each trouble is counted in the Trouble Report Rate.

Exclusions

- Trouble tickets that are canceled at the CLEC’s or IXC Carrier’s request
- CLEC, IXC Carrier, CPE (Customer Premises Equipment), or other customer caused troubles
- ~~BellSouth~~AT&T trouble reports associated with administrative service
- CLEC or IXC Carrier requests for informational tickets
- Tickets used to track referrals of misdirected calls

Levels of Disaggregation

- Below DS3 (DS0 + DS1)
- DS3 and Above (DS3 + OCn)
 - DS0
 - DS1
 - DS3 (Non Optical)
 - DS3 (Optical Ocn)

Performance Standard

- Failure Rate Annualized - Below DS3 <= 10.0%
- DS3 and Above <= 10.0%



MAINTENANCE & REPAIR

Measurement: SA-10 Mean Time to Restore

Description

The Mean Time To Restore interval measures the promptness in restoring circuits to operating levels when a problem or trouble is received by ~~BellSouth~~AT&T. Calculation is the elapsed time from the CLEC or IXC Carrier submission of a trouble report to ~~BellSouth~~AT&T to the time ~~BellSouth~~AT&T closes the trouble, less any Customer Hold Time or Delayed Maintenance Time due to valid customer, CLEC, or IXC Carrier caused delays. A breakdown of the percent of troubles outstanding greater than 24 hours, and the Mean Time to Restore of those troubles recorded as NTF / Test OK, is required for diagnostic purposes.

Calculation Methodology

Mean Time To Restore:

- $\Sigma [(Date\ and\ Time\ of\ Trouble\ Ticket\ Resolution\ Closed\ to\ the\ CLEC\ or\ IXC\ Carrier - Date\ and\ Time\ of\ Trouble\ Ticket\ Received\ by\ \del{BellSouth}AT\&T) - (Customer\ Hold\ Times)] / (Count\ of\ Trouble\ Tickets\ Resolved\ in\ Reporting\ Period)]$

% Out of Service Greater than 24 hrs:

- $[Count\ of\ Troubles\ where\ (Date\ and\ Time\ of\ Trouble\ Ticket\ Resolution\ Closed\ to\ the\ CLEC\ or\ IXC\ Carrier - Date\ and\ Time\ of\ Trouble\ Ticket\ Received\ by\ \del{BellSouth}AT\&T) - (Customer\ Hold\ Times)\ is\ >\ 24\ hrs / (Count\ of\ Trouble\ Tickets\ Resolved\ in\ Reporting\ Period)] \times 100$

Mean Time To Restore – NTF / Test OK:

- $\Sigma [(Date\ and\ Time\ of\ Trouble\ Ticket\ Resolution\ Closed\ to\ the\ CLEC\ or\ IXC\ Carrier\ as\ NTF\ /Test\ OK - Date\ and\ Time\ of\ Trouble\ Ticket\ Referred\ to\ \del{BellSouth}AT\&T) - (Customer\ Hold\ Times)] / (Count\ of\ Trouble\ Tickets\ Resolved\ in\ Reporting\ Period\ as\ NTF\ /Test\ OK)]$

Business Rules

1. A trouble report or trouble ticket is any record (whether paper or electronic) used by ~~BellSouth~~AT&T for the purposes of tracking related action and disposition of a service repair or maintenance situation.
2. Elapsed time is measured on a 24-hour, seven-day per-week basis, without consideration of weekends or holidays.
3. Multiple reports in a given period are included, unless the multiple reports for the same customer is categorized as “subsequent” (an additional report on an already open ticket).
4. “Restore” means to return to the expected operating parameters for the service regardless of whether or not the service, at the time of trouble ticket creation, was operating in a degraded mode or was completely unusable. A trouble is “resolved” when ~~BellSouth~~AT&T issues notice to the CLEC or IXC Carrier that the customer’s service is restored to operating parameters.
5. Customer Hold Time or Delayed Maintenance Time resulting from verifiable situations of no access to the end user’s premises, or other CLEC or IXC Carrier caused delays, such as holding the ticket open for monitoring, is deducted from the total resolution interval.

Exclusions

- ~~Trouble tickets that are canceled at the CLEC’s or IXC Carrier’s request~~
- ~~CLEC, IXC Carrier, CPE (Customer Premises Equipment), or other customer caused troubles~~
- ~~~~BellSouth~~AT&T trouble reports associated with administrative service~~
- ~~CLEC or IXC Carrier requests for informational tickets~~
- ~~Trouble tickets created for tracking and/or monitoring circuits~~
- ~~Tickets used to track referrals of misdirected calls~~



Levels of Disaggregation

- ~~Below DS3 (DS0 + DS1)~~
- ~~DS3 and Above (DS3 + OCn)~~
 - DS0
 - DS1
 - DS3 (Non Optical)
 - DS3 (Optical OCn)

Performance Standard

- Mean Time to Restore.....
 - Below DS3 <= 2.0 Hours
 - DS3 and Above <= 1.0 Hour
- % Out of Service > 24 Hrs Diagnostic
- Mean Time to Restore –NTF/ Test OK..... Diagnostic



MAINTENANCE & REPAIR

Measurement: SA-11 Repeat Trouble Report Rate

Description

The Repeat Trouble Report Rate measures the percent of maintenance troubles resolved during the current reporting period that had at least one prior trouble ticket any time in the preceding 30 calendar days from the creation date of the current trouble report.

Calculation Methodology

Repeat Trouble Report Rate:

$$\frac{\text{[(Count of Current Trouble Reports with a previous trouble, reported on the same circuit, in the preceding 30 calendar days)]}}{\text{(Number of Reports in the Report Period)} \times 100}$$

Business Rules

1. A trouble report or trouble ticket is any record (whether paper or electronic) used by ~~BellSouth~~AT&T for the purposes of tracking related action and disposition of a service repair or maintenance situation.
2. A trouble is resolved when ~~BellSouth~~AT&T issues notice to the CLEC or IXC Carrier that the circuit has been restored to operating parameters.
3. If a trouble ticket was closed out previously with the disposition code classifying it as NTF/TOK, then the second trouble must be counted as a repeat trouble report if it is resolved to ~~BellSouth~~AT&T reasons.
4. The trouble resolution need not be identical between the repeated reports for the incident to be counted as a repeated trouble.

Exclusions

- ~~BellSouth~~AT&T Trouble tickets that are canceled at the CLEC's or IXC Carrier's request
- ~~BellSouth~~AT&T CLEC, IXC Carrier, CPE (Customer Premises Equipment), or other customer caused troubles
- ~~BellSouth~~AT&T trouble reports associated with administrative service
- ~~BellSouth~~AT&T Subsequent trouble reports – defined as those cases where a customer called to check on the status of an existing open trouble ticket

Levels of Disaggregation

- ~~BellSouth~~AT&T Below DS3 (DS0 + DS1)
 - DS3 and Above (DS3 + OCn)
 - DS0
 - DS1
 - DS3 (Non Optical)
 - DS3 (Optical OCn)

Performance Standards

- Repeat Trouble Report Rate..... - Below DS3 <= 6.0%
- DS3 and Above <= 3.0%



GLOSSARY

Term	Definition
Access Service Request (ASR)	A request to BellSouth AT&T to order new service, or request a change to existing service, which provides access to the local exchange company's network, under terms specified in the local exchange company's special or switched access tariffs.
Business Days	Monday through Friday excluding holidays
CDDD	Customer Desired Due Date
Customer Not Ready (CNR)	A verifiable situation beyond the normal control of BellSouth AT&T that prevents BellSouth AT&T from completing an order, including the following: CLEC or IXC Carrier is not ready; end user is not ready; connecting company, or CPE (Customer Premises Equipment) supplier, is not ready.
(SA)	No access to subscriber premises
(SR)	Customer Not Ready
(SL)	Customer Requests Later Date
(SO)	Customer Other
Facility Check	A pre-provisioning check performed by BellSouth AT&T, in response to an access service request, to determine the availability of facilities and assign the installation date.
Firm Order Confirmation (FOC)	The notice returned from BellSouth AT&T, in response to an Access Service Request from a CLEC or IXC Carrier that confirms receipt of the request, that a facility has been made, and that a service request has been created with an assigned due date.
NTF	No Trouble Found
Unsolicited FOC	An Unsolicited FOC is a supplemental FOC issued by BellSouth AT&T to change the due date or for other reasons, although no change to the ASR was requested by the CLEC or IXC Carrier.
Project	Service requests that exceed the line size and/or level of complexity that would allow the use of standard ordering and provisioning processes.
Query/Reject	BellSouth AT&T response to an ASR requesting clarification or correction to one or more fields on the ASR before an FOC can be issued.
Repeat Trouble	Trouble that reoccurs on the same telephone number/circuit ID within 30 calendar days
Supplement ASR	A revised ASR that is sent to change due dates or alter the original ASR request. A "Version" indicator related to the original ASR number tracks each Supplement ASR.
TOK	Test OK

Symbols Used In Calculations

Σ

A mathematical symbol representing the sum of a series of values following the symbol.

-

A mathematical operator representing subtraction.

+

A mathematical operator representing addition.

/

A mathematical operator representing division.

<

A mathematical symbol that indicates the metric on the left of the symbol is less than the metric on the right.

\leq

A mathematical symbol that indicates the metric on the left of the symbol is less than or equal to the metric on the right.

>

A mathematical symbol that indicates the metric on the left of the symbol is greater than the metric on the right.

\geq

A mathematical symbol that indicates the metric on the left of the symbol is greater than or equal to the metric on the right.

()

Parentheses, used to group mathematical operations which are completed before operations outside the parentheses.

Exhibit B



TENNESSEE SEEM ADMINISTRATIVE PLAN

Tennessee Plan
Version ~~3.06~~4.00

Effective Date: ~~July 3, 2010~~TBD

~~Note: This SEEM Administrative Plan version is issued to reflect the OSS architecture changes implemented on July 3, 2010.~~



Contents

Page

Administrative Plan.....

1

1 –

1

Scope.....

2 –

1

Reporting.....

3 – Review of Measurements and Enforcement

21

Mechanisms.....

4 – Enforcement

2

Mechanisms.....

4.1 - Definitions.....

2

4.2 - Application

43

4.3 - Methodology.....

43

4.4 - Payment of Tier-1 and Tier-2

86

Amounts.....

4.5 - Limitations of Liability.....

97

4.6 - Change of Law.....

110

~~4.7 - Affiliate Reporting.....~~

~~11~~

4.87 - Enforcement Mechanism

110

Cap.....

4.98 -

1210

Audits.....

4.109 - Dispute

1211

Resolution.....

4.1110 - Regional and State

1311

Coefficients.....

Appendix A: Fee

1412

Schedule.....

Table 1: Fee Schedule for Tier-1 Per Transaction Fee

1412

Determination.....

Table 2: Tier 2 Per Transaction Fee Determination.....

15

Appendix B: SEEM Submetrics.....

1613

B.1 - Tier-1 Submetrics.....	1613
B.2 - Tier 2 Submetrics.....	24
Appendix C: Statistical Properties and Definitions.....	2618
C.1 – Necessary Properties for a Test Methodology.....	2618
C.2 – Testing Methodology – The Truncated Z.....	2820
Appendix D: Statistical Formulas and Technical Descriptions.....	3124
D.1 – Notation and Exact Testing Distributions.....	3124
D.2 – Calculating the Truncated Z.....	3427
.....	
Appendix E: BSTAT&T SEEM Remedy Calculation Procedures.....	4538
E.1 – BST AT&T SEEM Remedy Procedure.....	4538
.....	
E.2 – Tier 2 Calculation for Retail Analogs.....	48
E.3 – Tier -1 Calculation For Benchmarks.....	5141
.....	
E.4 – Tier-1 Calculation For Benchmarks (In The Form Of A Target).....	5242
E.5 – Tier 2 Calculations For Benchmarks.....	53
E.6 – Regional and State Coefficients.....	5343
.....	
Appendix F: BellSouth'sAT&T's Policy on Reposting of Performance Data and Recalculation of SEEM Payments.....	5645
.....	

Administrative Plan

1 Scope

- 1.1 This Administrative Plan (Plan) includes Service Quality Measurements (SQM) with corresponding Self Effectuating Enforcement Mechanisms (SEEM) to be implemented by BellSouthAT&T pursuant to ~~the~~ Order No. TBD issued on TBD by the Tennessee Regulatory Authority (the "Authority") ~~on June 1, 2005~~ in Docket No. 04-00150.
- 1.2 Upon the Effective Date of this Plan, all appendices referred to in this Plan will be located on the BellSouth Performance Measurement ReportsAT&T performance measurement website at: <https://pmap.bellsouthwholesale.att.com>.

2 Reporting

- 2.1 In providing services pursuant to the Interconnection Agreements between BellSouthAT&T and each CLEC, BellSouthAT&T will report its performance to each CLEC in accordance with BellSouth's SQMsAT&T's SQM and pay remedies in accordance with the applicable SEEM, which are posted on the Performance Measurement ReportsAT&T performance measurement website.
- ~~2.2 BellSouth will make performance reports available to each CLEC on a monthly basis. The reports will contain information collected in each performance category and will be available to each CLEC via the Performance Measurements Reports website. BellSouth will also provide electronic access to the raw data underlying the SQMs.~~
- ~~2.3 Final validated SQM reports will be posted no later than the last day of the month following the data month in which the activity is incurred, or the first business day thereafter. Final validated SQM reports not posted by this time will be considered late.~~
- 2.4~~2~~ Final validated SEEM reports will be posted on the Performance Measurements ReportsAT&T performance measurement website on the 15th of the month, following the posting of final validated SQM reports for that data month or the first business day thereafter.
- ~~2.5 BellSouth shall pay penalties to the Authority, in the aggregate, for all late SQM and SEEM reports in the amount of \$2000 per day. Such payment shall be made to the Authority for deposit into the state General Revenue Fund within fifteen (15) calendar days of the end of the reporting month in which the late publication of the report occurs.~~
- ~~2.6 BellSouth shall pay penalties to the Authority, in the aggregate, for all reposted~~

~~SQM and SEEM reports in the amount of \$400 per day. The circumstances which may necessitate a reposting of SQM reports are detailed in Appendix F, Reposting of Performance Data and Recalculation of SEEM Payments. Such payments shall be made to the Authority for deposit into the state General Revenue Fund within fifteen (15) calendar days of the final publication date of the report or the report revision date.~~

- ~~2.7 Tier II SEEMS payments and Administrative fines and penalties for late and reposted reports will be sent to the Authority. Checks and the accompanying transmittal letter will be postmarked on or before the 15th of the month or the first business day thereafter, when the 15th falls on a non-business day.~~
- ~~2.83 BellSouthAT&T shall retain the performance measurement raw data files for a period of 18 months and further retain the monthly reports produced in PMAP for a period of three years.~~
- ~~2.94 BellSouthAT&T will provide documentation of late and reposted SQM and SEEM Reports during the reporting month that the data is posted to the website. These notations may be viewed on the Performance Measurements website from the PMAP home page on the Current Month Updates link.~~

3 Review of Measurements and Enforcement Mechanisms

- ~~3.1 BellSouth will participate in annual review cycles. A collaborative work group, which will include BellSouth, interested CLECs and the Authority will review the Performance Assessment Plan for additions, deletions or other modifications.~~ Review of Measurements

A workshop and/or conference shall be organized and held periodically or at the request of either party for the purpose of evaluating the existing remedies and determining whether any remedies should be deleted, modified or any new remedies added. Provided however, no new remedies shall be added which are already governed by existing remedies. A CLEC may actively participate in this periodic workshop with AT&T, other CLECs, and state regulatory authority representatives.

3.1.1 Administrative Changes

AT&T may make administrative changes that do not substantively change the SEEM Plan. Such changes are excluded from the periodic review process noted above. AT&T will provide written notice to the Authority regarding all administrative changes. An administrative change is one that corrects typographical, spelling, grammatical, or computational errors, updates website addresses and incorporates modifications to architecture implemented in an OSS release following the approved Change Management process. Administrative changes will not change the intent

or the plan language of the document.

- 3.2 In the event a dispute arises regarding the ordered modification or amendment to the SQMs or SEEMs, the parties will refer the dispute to the Tennessee Regulatory Authority.

4 Enforcement Mechanisms

4.1 Definitions

- 4.1.1 *Enforcement Measurement Elements* – performance measurements identified as SEEM measurements within the SEEM Plan.
- 4.1.2 *Enforcement Measurement Benchmark compliance* – level of performance established by the Authority used to evaluate the performance of ~~BellSouth~~AT&T for CLECs where no analogous retail process, product or service is feasible.
- 4.1.3 *Enforcement Measurement Retail Analog compliance* – comparing performance levels provided to ~~BellSouth~~AT&T retail customers with performance levels provided by ~~BellSouth~~AT&T to the CLEC customer for measures where retail analogs apply.
- 4.1.4 *Test Statistic and Balancing Critical Value* – means by which enforcement will be determined using ~~statistically valid equations~~statistical methods. The Test Statistic and Balancing Critical Value are set forth in Appendices C, D, and E of this Plan.
- 4.1.5 *Cell* – grouping of transactions at which like-to-like comparisons are made. For example, all ~~BellSouth~~AT&T retail ~~(POTS)~~ services, for residential customers, requiring a dispatch in a particular wire center, at a particular point in time will be compared directly to CLEC resold services for residential customers, requiring a dispatch, in the same wire center, at a similar point in time. When determining compliance, these cells can have a positive or negative Test Statistic. See Appendices C, D, and E of this Plan.
- 4.1.6 *Delta, ~~Psi and~~ Epsilon, and Lambda* – measures of the meaningful difference between ~~BellSouth~~AT&T performance and CLEC performance. For individual CLECs, the Delta (δ) value shall be 0.5 and for the CLEC aggregate the Delta value shall be 0.35. The value for Psi (ψ) shall be 3 for individual CLECs and 2 for the CLEC aggregate. The value for Epsilon (ϵ) will be 2.5 for both individual CLECs and the CLEC aggregate. The value of Lambda (λ) shall be 1 for both individual CLECs and the D: Statistical F

- 4.1.7 *Tier-1 Enforcement Mechanisms* – self-executing fees paid directly to each CLEC when ~~BellSouth~~AT&T delivers non-compliant performance of any one of the Tier-1 Enforcement Measurement Elements for any month as calculated by ~~BellSouth~~AT&T.
- 4.1.8 ~~*Tier-2 Enforcement Mechanisms*—fees paid directly to the Tennessee Regulatory Authority or its designee. Tier 2 Enforcement Mechanisms are triggered by three consecutive monthly failures at the submetric level in which BellSouth performance is out of compliance or does not meet the benchmarks for the aggregate of all CLEC data.~~
- 4.1.98 *Affiliate* – person that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with, another person. For purposes of this paragraph, the term “own” means to own an equity interest (or the equivalent thereof) of more than 10 Percent.
- 4.1.109 *Affected Volume* – that quantity of the total impacted CLEC volume or CLEC Aggregate volume for which remedies will be paid.
- 4.1.1410 *Cell Ranking* – placing cells in rank order from highest to lowest, where the cell with the most negative ~~z-score~~Z-Score is ranked highest and the cell with the least negative ~~z-score~~Z-Score is ranked lowest.
- 4.1.1211 *Cell Correction* – method for determining the quantity of transactions to be remedied, referred to as —“affected volume,” wherein the cell-level ~~modified z-score~~Z-Score for the highest ranked cell is first changed to zero (“corrected”) and then the next highest, progressively, until the overall level truncated ~~z~~Z-score is equal to the Balancing Critical Value or zero as required by the ~~Fee Schedule~~Remedy Calculation Procedures. Either all of the transactions in a corrected cells are remedied or a prorated share (determined through interpolation) ~~are~~is remedied.

4.2 Application

- 4.2.1 The application of the Tier-1~~and Tier-2~~ Enforcement Mechanisms does not foreclose other legal and regulatory claims and remedies available to each CLEC.
- 4.2.2 Payment of any Tier-1~~or Tier-2~~ Enforcement Mechanisms shall not be considered as an admission against interest or an admission of liability or culpability in any legal, regulatory or other proceeding relating to ~~BellSouth's~~AT&T's performance and the payment of any Tier-1 ~~or Tier-2~~ Enforcement Mechanisms shall not be used as evidence that ~~BellSouth~~AT&T has not complied with or has violated any state or federal law or regulation.

4.3 Methodology

4.3.1 Tier-1 Enforcement Mechanisms will be triggered by BellSouth's AT&T's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for each CLEC for the State of Tennessee for a given Enforcement Measurement Element in a given month. Enforcement Measurement Compliance is based upon a Test Statistic and Balancing Critical Value calculated by BellSouth AT&T utilizing BellSouth AT&T generated data. The method of calculation is set forth in Appendices C, D, and E of this Plan.

4.3.1.1 All OCNs and ACNAs for individual CLECs will be consolidated for purposes of calculating transaction-based failures.

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

4.3.1.3 Tier-1 Enforcement Mechanisms apply on a per transaction basis and will escalate based upon the number of consecutive months that fail for each Enforcement Mechanism Element for which BellSouth AT&T has reported non-compliance. Failures beyond Month 6 will be subject to Month 6 fees. All transactions for an individual CLEC will be consolidated for purposes of calculating Tier-1 Enforcement Mechanisms.

4.3.1.4 For submetrics that are assessed based on Enforcement Measurement Retail Analog compliance criteria, the fee paid for a particular submetric that failed at the Tier-1 level will be differentiated based on two criteria. First, the Tier-1 fee paid will be based on whether the same submetric that failed at the Tier-1 level (CLEC-specific) also failed at the CLEC aggregate level in the same month. Second, the Tier-1 fee paid will be based on whether the transactions in the cells to be remedied correct the overall truncated z-score Z-Score from the region below the Balancing Critical Value ("BCV") to the BCV or from the BCV to zero. Depending on which of these criteria apply, a different multiplier will be applied to the Fee Schedule (shown in Appendix A, Table 1: Fee Schedule for Tier-1 Per Transaction Fee Determination) to determine the amount of the Tier-1 payments. The chart below shows the applicable multipliers:

CLEC Aggregate Performance	Per Transaction Fee Below	Per Transaction Fee
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	BCV	Between BCV and 0
Passes	$(\text{Fee})^{*}(3/2)$	$(\text{Fee})^{*}(1/3)$
Fails	$(\text{Fee})^{*}(3)$	$(\text{Fee})^{*}(2/3)$

No multiplier applies for the Billing Invoice Accuracy measure.

- 4.3.1.5 For submetrics that are assessed based on— Enforcement Measurement Benchmark compliance criteria the fee paid for a particular submetric that failed at the Tier—1 level will be differentiated based on whether the same submetric that failed at the Tier—1 level (CLEC-specific) also failed at the CLEC aggregate level in the same month. A different multiplier will be applied to the Fee Schedule (shown in Appendix A, Table 1: Fee Schedule for Tier—1 Per Transaction Fee Determination) to determine the amount of the Tier—1 payments. The chart below shows the applicable multipliers:

CLEC Aggregate Performance	Per Transaction Fee
Passes	$(\text{Fee})^{*}(3/2)$
Fails	$(\text{Fee})^{*}(5/2)$ for Ordering and Flow Through $(\text{Fee})^{*}(3)$ for all other benchmark measures

- 4.3.2 ~~Tier-2 Enforcement Mechanisms will be triggered by BellSouth's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmarks for the State of Tennessee for given Enforcement Measurement Elements for three consecutive months. The method of calculation is set forth in Appendices C and D of this Plan.~~

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

- 4.3.2.2 ~~The fee paid for a particular submetric that failed at the Tier-2 level will be as shown in Appendix A, Table 2.~~

- 4.3.32 The Market Penetration Adjustments will be applied based on the following provisions to enhance competition for nascent products. In order to ensure parity and benchmark performance where CLECs order low volumes of advanced and nascent services, **BellSouthAT&T** will make

additional Tier-~~1~~-and-Tier-2 payments where performance standards for the following measures are not met, if the measurement applies to the nascent service.

- Percent Missed Installation Appointments
- Average Completion Interval
- Missed Repair Appointments
- Maintenance Average Duration
- Average Response Time for Loop Make-up-Response Time-Electronic Information

4.3.~~3~~2. These additional payments will only apply when there are more than 10 and less than 100 average units in service statewide for the preceding three-month period. The additional payments in the form of a market penetration adjustment will be made if BellSouthAT&T fails to provide parity for the above measurements as determined by the use of the Truncated Z-test and the balancing critical value or fails to meet the established benchmark.

4.3.~~3~~2. BellSouthAT&T shall calculate the new Tier-~~1~~-and-Tier-2 payments, which include the market penetration adjustment by applying the normal method of calculating affected volumes as ordered by the Authority and trebling the normal Tier-~~1~~-and-Tier-2-remedy-1remedy.

4.3.~~2~~3. If, for the three months of data, there were 100 observations or more on average for the sub-metricsubmetric, then no additional payments under this market penetration adjustment provision will be made. Further, market penetration adjustments shall no longer apply if 24 months have elapsed since the first unit of the nascent service was installed.

4.3.~~3~~2. CLECs may file a petition with the Authority in order to add a service to the list of services for which the market penetration adjustment may apply.

4.3.~~3~~2. Any payments made under this market penetration adjustment provision are subject to the Absolute Cap set by the Authority.

4.3.~~4~~3 For Tier-~~1~~-and-Tier-2 evaluations, the retail analog or benchmark areis the same as for the SQM. See the SQM for SEEM retail analogs and benchmarks.

4.4 Payment of Tier-1 ~~and Tier 2~~ Amounts

- 4.4.1 If ~~BellSouth~~AT&T performance triggers an obligation to pay Tier-1 Enforcement Mechanisms to a CLEC ~~or an obligation to remit Tier-2 Enforcement Mechanisms to the Authority or its designee, BellSouth,~~ AT&T shall make payment in the required amount on the day upon which the final validated SEEM reports are posted on the ~~Performance Measurements Reports~~AT&T website as set forth in Section 2.4 above.
- 4.4.2 For each day after the due date that ~~BellSouth fails to pay~~AT&T pays a CLEC ~~less than~~ the required ~~amount, BellSouth~~Tier-1 remedy, AT&T will pay the CLEC 6% simple interest per annum ~~on the difference between the required amount and the amount previously paid. The underpayment and interest will be paid to the CLEC in the next month's payment cycle.~~
- 4.4.3 ~~For each day after the due date that BellSouth fails to pay the Tier-2 Enforcement Mechanisms, BellSouth will pay the Authority an additional \$1,000 per day.~~
- 4.4.4~~3~~ If a CLEC disputes the amount paid ~~for~~ Tier-1 Enforcement Mechanisms, the CLEC shall submit a written claim to ~~BellSouth~~AT&T within sixty (60) days after the payment date. ~~BellSouth~~AT&T shall investigate all claims and provide the CLEC written findings within thirty (30) days after receipt of the claim. If ~~BellSouth~~AT&T determines the CLEC is owed additional amounts, ~~BellSouth~~AT&T shall pay the CLEC such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.
- 4.4.5 ~~For Tier-2 Enforcement Mechanisms, if the Authority requests clarification of an amount paid, a written claim shall be submitted to BellSouth within sixty (60) days after the payment date. BellSouth shall investigate all claims and provide the Authority written findings within thirty (30) days after receipt of the claim. If BellSouth determines the Authority is owed additional amounts, BellSouth shall pay such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.~~
- 4.4.6~~4~~ Any adjustments for underpayment or overpayment of calculated Tier-~~1 and Tier 2~~ remedies will be made consistent with the terms of ~~BellSouth's~~AT&T's Policy On Reposting Of Performance Data and Recalculation of SEEM Payments, as set forth in Appendix F of this document. If any circumstance necessitating remedy adjustments should occur that is not specifically addressed in the Reposting Policy, such adjustments will be made consistent with the terms defined in Paragraph 6 of the Reposting Policy (“SEEM payments will be subject to recalculations for a maximum of three months in arrears...”) ~~unless the~~

~~Tennessee Regulatory Authority orders otherwise.~~ 7 of the Reposting Policy.

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

4.4.5.1 If a SEEM overpayment is made to a CLEC, and AT&T's SEEM liability calculated and payable to that CLEC in the next month's payment cycle is insufficient to offset the amount of overpayment, then within 30 days of AT&T's request, the CLEC shall repay the amount necessary to satisfy the remaining SEEM overpayment balance. If the CLEC is unable to repay the overpayment at that time, the CLEC may contact AT&T for payment arrangements.

- 4.4.86 Where there is a SEEM adjustment, in addition to the submetric, data month(s), and adjustment amount, ~~BellSouth~~AT&T will include an adjustment code on the CLEC specific Tier-~~1 or Tier 2~~ ~~PARIS~~ reports on the ~~PMAP~~AT&T performance measurement website. Then, on a separate document ~~under the Exhibits link on the BellSouth-PMAP~~AT&T performance measurement website, this code will be cross-referenced with a brief narrative description of the adjustment. These codes and descriptions will be applicable to all ~~S~~states where an adjustment was applied. If there are multiple adjustment codes, the code explanation document ~~under the Exhibits link~~can be accessed on the AT&T performance measurement website that will contain all of the codes and the narrative descriptions for each code. An explanation of the cause of the adjustment and the data months impacted by the adjustment will be included in the narrative.

4.5 Limitations of Liability

- 4.5.1 ~~BellSouth~~AT&T will not be obligated to pay Tier-1 ~~or Tier 2~~ Enforcement Mechanisms for non-compliance with a performance measure if such non-compliance results from a CLEC's acts or omissions that cause failed or missed performance measures. These acts or omissions include but are not limited to, accumulation and submission of orders at unreasonable quantities or times, failure to follow publicly available procedures, or failure to submit accurate orders or inquiries. ~~BellSouth~~AT&T shall provide

each CLEC and the Authority with reasonable notice of, and supporting documentation for, such acts or omissions. Each CLEC shall have 10 business days from the filing of such Notice to advise ~~BellSouth~~AT&T and the Authority in writing of its intent to challenge, through the dispute resolution provisions of this plan, the claims made by ~~BellSouth~~AT&T. AT&T shall not be obligated to pay any amounts subject to such disputes until the dispute is resolved.

4.5.2 ~~BellSouth~~AT&T shall not be obligated to pay Tier-1 ~~or Tier-2~~ Enforcement Mechanisms (SEEM payments) for non-compliance with a performance measurement if such non-compliance was the result of any ~~event~~Force Majeure Event that ~~performance under this SQM/SEEM Plan is~~ either directly or indirectly prevented, restricted, or interfered with performance as measured by the SQM/SEEM Plan. Such Force Majeure Events include non-compliance caused by reason of fire, flood, earthquake or like acts of God, wars, revolution, civil commotion, explosion, acts of public enemy, embargo, acts of the government in its sovereign capacity, labor difficulties, including without limitation, strikes, slowdowns, picketing, or boycotts, or any other circumstances beyond the reasonable control and without the fault or negligence of ~~BellSouth~~AT&T. AT&T, upon giving prompt notice to the Authority and CLECs as provided below, shall be excused from such performance on a day-to-day basis to the extent of such prevention, restriction, or interference; provided, however, that ~~BellSouth~~AT&T shall use diligent efforts to avoid or remove such causes of non-performance.

4.5.2.1 To invoke the application of Section 4.5.2 (Force Majeure Event), ~~BellSouth~~AT&T will provide written notice to the Authority and post notification of such filing on AT&T's website wherein ~~BellSouth~~AT&T will identify the Force Majeure Event, the affected measures, and, if applicable, the impacted ~~areas~~wire centers, including affected NPAs and NXXs.

4.5.2.2 No later than ten (10) business days after ~~BellSouth~~AT&T provides written notice in accordance with Section 4.5.2.1, affected ~~parties~~CLECs must file written comments with the Authority to the extent ~~they~~such CLECs have objections or concerns regarding the application of Section 4.5.2. CLECs will be required to show that the relief is not reasonable under the circumstances.

4.5.2.3 ~~BellSouth's~~AT&T's written notice of the applicability of Section 4.5.2 ~~would~~shall be presumptively valid and deemed approved by the Authority effective thirty (30) calendar days after ~~BellSouth~~AT&T provides notice in accordance with Section

4.5.2.1. The Authority may require ~~BellSouth~~AT&T to provide a true-up of SEEM fees to affected ~~carriers~~CLECs if a Force Majeure Event declaration (or some portion thereof) is found to be invalid by the Authority after it has taken effect.

4.5.2.4 ~~During the pendency of a Force Majeure Event, BellSouth shall provide the Authority with periodic updates of its restoration/recovery progress and efforts as agreed upon between the Authority Staff and BellSouth.~~During the pendency of a Force Majeure Event, AT&T shall file with the Authority periodic updates of its restoration/recovery progress and efforts as agreed upon between the Authority Staff and AT&T. The Authority Staff will consider reasonable requests from affected carriers on such updates, contents, and frequency, including the need for weekly progress update reports. Additionally, for Force Majeure events directly impacting a geographic area of the network infrastructure, AT&T will post to the AT&T website (<https://clec.att.com/clec/shell.cfm?section=2535>) periodic updates of its restoration/recovery progress and efforts. AT&T will post at a minimum for the area where Force Majeure has been declared where applicable; the identity of each wire center and associated NPA/NXXs and the wire centers' color coded Area Dispatch Status report; the total number of AT&T pending service orders; the total number of CLEC pending service orders; the total number of AT&T pending trouble reports; and the total number of CLEC pending trouble reports.

4.5.2.5 The Force Majeure claim will be presumptively valid for a period of sixty (60) calendar days. After sixty (60) calendar days have elapsed, AT&T shall resume compliance with the Enforcement Mechanisms or file for an extension of the relief period. To the extent CLECs have objections or concerns regarding the extension, CLECs must file written comments with the Authority within ten (10) business days from the request of the extension. CLECs will be required to show that the extended period was not reasonable under the circumstances. AT&T's request for extension shall be presumptively valid and deemed approved by the Authority effective thirty (30) calendar days after AT&T provides notice in accordance with Section 4.5.2.1. The Authority may require AT&T to provide a true-up of SEEM payments to affected CLECs if a Force Majeure Event (or some portion thereof) is found to be invalid by the Authority after it has taken effect.

- 4.5.3 In addition to these specific limitations of liability, ~~BellSouth~~AT&T may petition the Authority to consider ~~a waiver~~relief based upon other circumstances.

4.6 Change of Law

- 4.6.1 Upon a particular ~~Commission's~~Authority's issuance of an Order pertaining to Performance Measurements or Remedy Plans in a proceeding expressly applicable to all CLECs, ~~BellSouth~~AT&T shall implement such performance measures and remedy plans covering its performance for the CLECs, as well as any changes to those plans ordered by the Authority, on the date specified by the Authority. If a change of law occurs which may ~~relieve BellSouth's provisioning of a UNE or UNE combination, BellSouth shall Petition~~change AT&T's obligations, parties may petition the Authority within 30 days ~~if it seeks to cease reporting data or paying remedies~~seek changes to the SQM and SEEM plans in accordance with ~~the~~such change of law. Performance Measurements and remedy plans that have been ordered by the Authority can currently be accessed via the ~~Internet at~~http://pmap.bellsouth.com.AT&T performance measurement website. Should there be any difference between the performance measure and remedy plans on ~~BellSouth's~~AT&T's website and the plans the Authority has approved as filed in compliance with its orders, the Authority-approved compliance plan will supersede as of its effective date.

4.7 Affiliate Reporting

- 4.7.1 ~~BellSouth shall provide monthly results for each metric for each BellSouth CLEC affiliate. Upon request, the Tennessee Regulatory Authority shall be provided the number of transactions or observations for BellSouth CLEC affiliates. Further, BellSouth shall inform the Authority of any changes regarding non-CLEC affiliates' use of its OSS databases, systems, and interfaces.~~

4.87 Enforcement Mechanism Cap

- 4.87.1 ~~BellSouth's~~AT&T's total liability for the payment of Tier-1 ~~and Tier-2~~ Enforcement Mechanisms shall be collectively and absolutely capped at 36% of net revenues in Tennessee, based upon the most recently reported ARMIS data.
- 4.87.2 If projected payments exceed the state cap, a proportional payment will be made to the respective parties.

- 4.87.3 If ~~BellSouth's~~AT&T's payment of Tier-1~~—and—~~Tier-2 Enforcement Mechanisms would have exceeded the cap referenced in this plan, a CLEC may commence a proceeding with the Authority to demonstrate why ~~BellSouth~~AT&T should pay any amount in excess of the cap. The CLEC shall have the burden of proof to demonstrate why, under the circumstances, ~~BellSouth~~AT&T should have additional liability.

4.98 Audits

- 4.98.1 ~~BellSouth~~AT&T currently provides CLECs with certain audit rights as a part of their individual interconnection agreements. If ~~requested~~ordered by ~~the~~ Authority, ~~BellSouth~~AT&T will agree to undergo a SEEM audit. ~~The~~ Unless otherwise agreed between AT&T and the Authority, the audit should be conducted by an independent third party auditor. The results of audits will be made available to all the parties subject to proper safeguards to protect proprietary information. Audits will be conducted under the following specifications:

- 4.98.1.1 The cost of one audit per version of the SEEM plan shall be borne by ~~BellSouth~~AT&T.
- 4.98.1.2 Should an independent third party auditor be required, it shall be selected by ~~BellSouth~~AT&T and the ~~PSC~~Authority.
- 4.98.1.3 ~~BellSouth~~AT&T and the ~~PSC~~Authority shall jointly determine the scope of the audit.
- 4.98.1.4 The ~~PSC~~Authority may request input regarding selection of the auditor from interested parties.

- 4.98.2 These audits are intended to provide the basis for the PSCs and CLECs to determine that SEEM produces accurate data that reflects each State's Order for performance measurements.

4.10 Dispute Resolution

9

- 4.109.1 Notwithstanding any other provision of the Interconnection Agreement between ~~BellSouth~~AT&T and each CLEC, if a ~~any~~ dispute arises regarding ~~BellSouth's~~AT&T's performance or obligations pursuant to this Plan, ~~BellSouth~~AT&T and the CLEC shall negotiate in good faith for a period of thirty (30) days to resolve the dispute. If at the conclusion of the 30 day period, ~~BellSouth~~AT&T and the CLEC are unable to reach a resolution, then the dispute shall be resolved by the Authority.

4.14 ~~Regional and State~~ Coefficients

10

Some metrics are calculated for the entire ~~BellSouth~~AT&T Southeast region, rather than by state. Where these metrics are a Tier ~~1~~ SEEM submetric, a regional coefficient is calculated to determine the amount of the ~~penalty~~remedy for the CLEC in each state. For example, the Acknowledgement Completeness Measurement can be measured for an individual CLEC, but only at the regional level. In several states it is also a Tier ~~1~~ SEEM submetric. Thus, if there is a failure in this measurement for a CLEC, it is necessary to determine the amount of ~~penalty~~remedy for the CLEC in each state. A Regional Coefficient is used to do this. (Appendix E, Section E. ~~6~~4 describes the method of calculating the Regional Coefficients.) The amount of ~~Tier 1~~ ~~penalty~~remedy for the CLEC in a state is determined by multiplying the regional affected volume by the Coefficient for the state and by the state fee.

~~A state coefficient is calculated to split Tier 2 payments for regional metrics among states by submetric.~~



Appendix A: Fee Schedule

Table 1: Fee Schedule for Tier-1 Per Transaction Fee Determination

Performance Measure	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
OSS/Pre-Ordering	\$10.00	\$15.00	\$24.00 \$20.00	\$30.00 \$25.00	\$36.00 \$30.00	\$42.00 \$35.00
Service Order Accuracy	\$20.00	\$20.00	\$24.00 \$20.00	\$24.00 \$20.00	\$24.00 \$20.00	\$24.00 \$20.00
Flow Through - Business	\$40.00	\$45.00	\$60.00 \$50.00	\$66.00 \$55.00	\$72.00 \$60.00	\$78.00 \$65.00
Flow Through - LNP	<u>\$40.00</u>	<u>\$45.00</u>	<u>\$67.50</u>	<u>\$74.25</u>	<u>\$81.00</u>	<u>\$87.75</u>
Flow Through - Residence	<u>\$40.00</u>	<u>\$45.00</u>	<u>\$67.50</u>	<u>\$74.25</u>	<u>\$81.00</u>	<u>\$87.75</u>
Flow Through - UNE-L	<u>\$40.00</u>	<u>\$45.00</u>	<u>\$60.00</u>	<u>\$66.00</u>	<u>\$72.00</u>	<u>\$78.00</u>
FOCT - Fully Mechanized	<u>\$20.00</u>	<u>\$25.00</u>	<u>\$36.00</u>	<u>\$42.00</u>	<u>\$48.00</u>	<u>\$54.00</u>
FOCT - Partially Mechanized	<u>\$20.00</u>	<u>\$25.00</u>	<u>\$40.50</u>	<u>\$47.25</u>	<u>\$54.00</u>	<u>\$60.75</u>
FOCT - Email	<u>\$20.00</u>	<u>\$25.00</u>	<u>\$36.00</u>	<u>\$42.00</u>	<u>\$48.00</u>	<u>\$54.00</u>
FOCT - IC Trunks	<u>\$20.00</u>	<u>\$25.00</u>	<u>\$36.00</u>	<u>\$42.00</u>	<u>\$48.00</u>	<u>\$54.00</u>
Ordering - All Other Metrics	\$20.00	\$25.00	\$36.00 \$30.00	\$42.00 \$35.00	\$48.00 \$40.00	\$54.00 \$45.00
Provisioning - Resale	\$40.00	\$50.00	\$84.00 \$70.00	\$120.00 \$100.00	\$156.00 \$130.00	\$240.00 \$200.00
Provisioning - UNE	\$115.00	\$130.00	\$174.00 \$145.00	\$192.00 \$160.00	\$228.00 \$190.00	\$276.00 \$230.00
Provisioning - UNEP	\$55.00	\$60.00	\$70.00 \$84.00	\$75.00 \$90.00	\$90.00 \$108.00	\$110.00 \$132.00
Provisioning - IC Trunks	<u>\$25.00</u>	<u>\$30.00</u>	<u>\$60.75</u>	<u>\$87.75</u>	<u>\$108.00</u>	<u>\$168.75</u>
Provisioning - LNP	<u>\$115.00</u>	<u>\$190.00</u>	<u>\$462.00</u>	<u>\$552.00</u>	<u>\$642.00</u>	<u>\$738.00</u>
Maintenance and Repair - Resale	\$40.00	\$50.00	\$84.00 \$70.00	\$120.00 \$100.00	\$156.00 \$130.00	\$240.00 \$200.00
Maintenance and Repair - UNE	\$115.00	\$130.00	\$174.00 \$145.00	\$192.00 \$160.00	\$228.00 \$190.00	\$276.00 \$230.00
Maintenance and Repair - UNEP	\$55.00	\$60.00	\$70.00 \$84.00	\$75.00 \$90.00	\$90.00 \$108.00	\$110.00 \$132.00
Maintenance and Repair - IC Trunks	<u>\$25.00</u>	<u>\$30.00</u>	<u>\$54.00</u>	<u>\$78.00</u>	<u>\$96.00</u>	<u>\$150.00</u>
LNP	<u>\$115.00</u>	<u>\$190.00</u>	<u>\$385.00</u>	<u>\$460.00</u>	<u>\$535.00</u>	<u>\$615.00</u>
Billing - BIA (see Note 1)	2%	2%	2%	2%	2%	2%
Billing - BIT	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00	\$7.00
Billing - BUDT (see Note 2)	\$0.046	\$0.046	\$0.046	\$0.046	\$0.046	\$0.046
Billing - BEC (see Note 3)	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07	\$0.07
IC Trunks (Trunk Group Performance)	\$25.00	\$30.00	\$54.00 \$45.00	\$78.00 \$65.00	\$96.00 \$80.00	\$150.00 \$125.00
Collocation	\$3,165	\$3,165	\$3,165	\$3,165	\$3,165	\$3,165



Appendix A: Fee Schedule

Note 1: Reflects percent interest to be paid on adjusted amounts.

Note 2: Amount paid per 1000 usage records.

Note 3: Amount paid per dispute.

Table 2: Tier 2 Per Transaction Fee Determination

Measure	Retail Analogs		Benchmarks
	Between BCV and 0	Below BCV	
OSS/Pre Ordering (note 1)	\$6	-	\$30
Ordering	-	-	\$60
Service Order Accuracy	-	-	\$60
Flow Through	-	-	\$120
Provisioning—Resale	\$26	\$120	-
Provisioning—UNE	\$76	\$345	\$345
Provisioning—UNEP	\$36	\$165	-
Maintenance and Repair—Resale	\$26	\$120	-
Maintenance and Repair—UNE	\$76	\$345	-
Maintenance and Repair—UNEP	\$36	\$165	-
LNP	\$36	\$165	-
Billing—BIA (note 1)	1.3%	-	-
Billing—BIT (note 1)	\$4	-	-
Billing—BUDT (note 1)	\$.03	-	-
Billing—BEC (note 1)	\$0.04	-	-
Change Management	-	-	\$1,000
IC Trunks	\$16	\$75	\$75
Collocation	-	-	\$9,495



Appendix A: Fee Schedule

~~————— Note 1: The truncated Z does not apply to these measures.~~

Appendix B: SEEM Submetrics

B.1 Tier-1 Submetrics

Item No.	SQM Ref	Tier-1 Submetric
1	LMT	PO-2 Loop Makeup – Response Time – Electronic - Loop
2	AKC	O-2 Acknowledgement Message Completeness - Acknowledgments
3	FT	O-3 Percent Flow-Through Service Requests – Business
4	FT	O-3 Percent Flow-Through Service Requests – LNP
5	FT	O-3 Percent Flow-Through Service Requests – Residence
6	FT	O-3 Percent Flow-Through Service Requests – UNE-L (includes UNE-L with LNP)
7	FT	O-3 Percent Flow-Through Service Requests – UNE-P
8	RI	O-8 Reject Interval – Fully Mechanized
9	RI	O-8 Reject Interval – Partially Mechanized
10	RI	O-8 Reject Interval – Non-Mechanized Email
11	FOCT	O-9 Firm Order Confirmation Timeliness - Fully Mechanized
12	FOCT	O-9 Firm Order Confirmation Timeliness - Partially Mechanized
13	FOCT	O-9 Firm Order Confirmation Timeliness - Non-Mechanized Email
14	FOCT	O-9 Firm Order Confirmation Timeliness – Local Interconnection Trunks
15	FOCC	O-11 FOC & Reject Response Completeness – Fully Mechanized
16	FOCC	O-11 FOC & Reject Response Completeness – Partially Mechanized
17	FOCC	O-11 FOC & Reject Response Completeness – Non-Mechanized Email
18	MIA	P-3 Percent Missed Installation Appointments – Resale POTS
19	MIA	P-3 Percent Missed Installation Appointments – Resale Design
20	MIA	P-3 Percent Missed Installation Appointments – UNE Loop and Port Combinations
21	MIA	P-3 Percent Missed Installation Appointments – UNE Loops – Design

Item No.	SQM Ref	Tier-1 Submetric
22	MIA	P-3 Percent Missed Installation Appointments – UNE Loops – Non-Design <u>EELS</u>
23	MIA	P-3 Percent Missed Installation Appointments – UNE xDSL Loops – Non-Design
24	MIA	P-3 Percent Missed Installation Appointments – UNE xDSL and Line Splitting <u>Sharing</u>
25	MIA	P-3 Percent Missed Installation Appointments – LNP Standalone <u>UNE Line Sharing</u>
26	MIA	P-3 Percent Missed Installation Appointments – Local Interconnection Trunks <u>LNP Standalone</u>
27	OCI <u>MIA</u>	P-4 Order Completion Interval (OCI) – Resale POTS <u>P-3 Percent Missed Installation Appointments – Local Interconnection Trunks</u>
28	OCI	P-4 Order Completion Interval (OCI) – Resale Design <u>POTS</u>
29	OCI	P-4 Order Completion Interval (OCI) – UNE Loop and Port Combinations <u>Resale Design</u>
30	OCI	P-4 Order Completion Interval (OCI) – UNE Loop Design and Port Combinations
31	OCI	P-4 Order Completion Interval (OCI) – UNE Loop Non-Design
32	OCI	P-4 Order Completion Interval (OCI) – UNE xDSL – without conditioning <u>Loop Non-Design</u>
33	OCI	P-4 Order Completion Interval (OCI) – UNE xDSL – with and Line Splitting – without conditioning
34	OCI	P-4 Order Completion Interval (OCI) – UNE xDSL and Line Splitting <u>Sharing Dispatch – with conditioning</u>
35	OCI	P-4 Order Completion Interval (OCI) – UNE Line Splitting/ Sharing – Non-Dispatch
36	OCI	P-4 Order Completion Interval (OCI) – Local interconnection Trunks <u>UNE Line Sharing – Non-Dispatch</u>
37	OCI	P-4 Order Completion Interval (OCI) – UNE EELS <u>Local interconnection Trunks</u>
38	CCI <u>OCI</u>	P-7 Coordinated Customer Conversions – Hot Cut Durations <u>P-4 Order Completion Interval (OCI) – UNE EELS</u>
39	GCT <u>CCI</u>	P-7 <u>7</u> Coordinated Customer Conversions – Hot Cut Timeliness <u>Percent within Interval Durations</u>

Item No.	SQM Ref	Tier-1 Submetric
40	NCDD CCT	P- 7D Non-7A Coordinated Customer Conversions – <u>Hot Cut Timeliness</u> Percent Completed and Notified on Due Date <u>within Interval</u>
41	PPT NCDD	P-9 Percent Provisioning Troubles within X days of Service Order Completion—Resale POTS <u>P-7D Non-Coordinated Customer Conversions – Percent Completed and Notified on Due Date</u>
42	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion <u>Trouble Rate</u> – Resale Design <u>POTS</u>
43	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE Loop and Port Combinations <u>Trouble Rate – Resale Design</u>
44	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion <u>Trouble Rate</u> – UNE Loops—Design <u>Loop and Port Combinations</u>
45	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion <u>Trouble Rate</u> – UNE Loops —Non— <u>Design</u>
46	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion <u>Trouble Rate</u> – UNE xDSL <u>Loops – Non-Design</u>
47	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion <u>Trouble Rate</u> – UNE xDSL and <u>Line Splitting/</u> Sharing— <u>Dispatch</u>
48	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion <u>Trouble Rate</u> – UNE Line Splitting/ <u>Sharing – Non—</u> <u>Dispatch</u>
49	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—Local Interconnection Trunks <u>Trouble Rate – UNE Line Sharing – Non-Dispatch</u>
50	SOA-PPT	P-11 Service Order Accuracy—Resale <u>P-9 Provisioning Trouble Rate – Local Interconnection Trunks</u>
51	SOA	P-11 Service Order Accuracy —UNE
52	SOA-LOOS	P- 44 <u>13B</u> LNP – Percent Out of Service Order Accuracy—UNE-P < 60 Minutes - LNP
53	LOOSLAT	P- 43B <u>13C</u> LNP – Percent Out of Service < 60 Minutes—Time AT&T Applies the 10-Digit Trigger Prior to the LNP Order Due Date – LNP – (Standalone)
54	LATLDT	P-13C LNP Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date—LNP—(Standalone) <u>P-13D LNP – Disconnect Timeliness (Non-Trigger)</u>
55	LDTMRA	P-13D LNP – Disconnect Timeliness (Non-Trigger) <u>MR-1 Percent</u>

Item No.	SQM Ref	Tier-1 Submetric
		<u>Missed Repair Appointment – Resale POTS</u>
56	MRA	MR-1 Percent Missed Repair Appointment – Resale POTS Design
57	MRA	MR-1 Percent Missed Repair Appointment – Resale Design UNE Loop and Port Combinations
58	MRA	MR-1 Percent Missed Repair Appointment – UNE Loop and Port Combinations Loops Design
59	MRA	MR-1 Percent Missed Repair Appointment – UNE Loops Design EELS
60	MRA	MR-1 Percent Missed Repair Appointment – UNE Loops Non-Design
61	MRA	MR-1 Percent Missed Repair Appointment – UNE xDSL and Line Splitting
62	MRA	MR-1 Percent Missed Repair Appointment – UNE Line Splitting /Sharing
63	MRA	MR-1 Percent Missed Repair Appointment – Local Interconnection Trunks
64	CTRR- NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – Resale POTS
65	CTRR- NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – Resale Design
66	CTRR NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – UNE Loop and Port Combinations
67	CTRR- NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – UNE Loops Design
68	CTRR- NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – UNE Loops Non-Design
69	CTRR- NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – UNE xDSL and Line Splitting
70	CTRR NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – UNE Line Splitting /Sharing
71	CTRR- NPRR	MR-22A Customer Trouble Report Rate <u>Net of Provisioning Troubles and Repeat Reports</u> – Local Interconnection Trunks
72	MAD	MR-3 Maintenance Average Duration – Resale POTS
73	MAD	MR-3 Maintenance Average Duration – Resale Design
74	MAD	MR-3 Maintenance Average Duration – UNE Loop and Port Combinations

Item No.	SQM Ref	Tier-1 Submetric
75	MAD	MR-3 Maintenance Average Duration – UNE Loops Design
76	MAD	MR-3 Maintenance Average Duration – UNE EELS
76 77	MAD	MR-3 Maintenance Average Duration – UNE Loops Non-Design
77 78	MAD	MR-3 Maintenance Average Duration – UNE xDSL and Line Splitting
78 79	MAD	MR-3 Maintenance Average Duration – UNE Line Splitting /Sharing
79 80	MAD	MR-3 Maintenance Average Duration – Local Interconnection Trunks
80 81	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – Resale POTS
81 82	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – Resale Design
82 83	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Loop and Port Combinations
83 84	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Loops Design
84 85	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Loops Non-Design
85 86	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE xDSL and Line Splitting
86 87	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Line Splitting /Sharing
87 88	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – Local Interconnection Trunks
88 89	OOS	MR-5 Out of Service (OOS) > 24 hours – Resale POTS
89 90	OOS	MR-5 Out of Service (OOS) > 24 hours – Resale Design
90 91	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE Loop and Port Combinations
91 92	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE Loops Design
92 93	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE Loops Non-Design
93 94	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE xDSL and Line Splitting
94 95	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE Line Splitting /Sharing
95 96	OOS	MR-5 Out of Service (OOS) > 24 hours – Local Interconnection Trunks



Item No.	SQM Ref	Tier-1 Submetric
96 <u>97</u>	BIA	B-1 Invoice Accuracy
97 <u>98</u>	BIT	B-2 Mean Time to Deliver Invoices - CRIS
98 <u>99</u>	BIT	B-2 Mean Time to Deliver Invoices - CABS
99 <u>100</u>	BUDT	B-5 Usage Data Delivery Timeliness
100 <u>101</u>	BEC	B-10 Percent Billing Adjustment Requests (BAR) Responded to within 45 Business Days - State
101 <u>102</u>	TGP	TGP Trunk Group Performance
102 <u>103</u>	MDD	C-3 Collocation Percent of Due Dates Missed

B.2 Tier 2 Submetrics

Item No.	SQM Ref	Tier 2 Submetric
1	ARI	OSS-1 OSS Response Interval (Pre-Ordering/Ordering) — Enhanced Verigate
2	ARI	OSS-1 OSS Response Interval (Pre-Ordering/Ordering) — LEX
3	ARI	OSS-1 OSS Response Interval (Pre-Ordering/Ordering) — XML Gateway
4	ARI	OSS-1 OSS Response Interval (Maintenance & Repair)
5	IA	OSS-2 OSS Interface Availability — (Pre-Ordering/Ordering) — Regional per OSS Interface
6	IA	OSS-2 OSS Interface Availability — (Maintenance & Repair) — Regional per OSS Interface
7	LMT	PO-2 Loop Makeup — Response Time — Electronic — Loop
8	AKG	O-2 Acknowledgement Message Completeness — Acknowledgments
9	FT	O-3 Percent Flow Through Service Requests — Business
10	FT	O-3 Percent Flow Through Service Requests — LNP
11	FT	O-3 Percent Flow Through Service Requests — Residence
12	FT	O-3 Percent Flow Through Service Requests — UNE-L (includes UNE-L with LNP)
13	FT	O-3 Percent Flow Through Service Requests — UNE-P
14	RI	O-8 Reject Interval — Fully Mechanized
15	RI	O-8 Reject Interval — Partially Mechanized
16	RI	O-8 Reject Interval — Non-Mechanized
17	FOCT	O-9 Firm Order Confirmation Timeliness — Fully Mechanized
18	FOCT	O-9 Firm Order Confirmation Timeliness — Partially Mechanized
19	FOCT	O-9 Firm Order Confirmation Timeliness — Non-Mechanized
20	FOCT	O-9 Firm Order Confirmation Timeliness — Local Interconnection Trunks
21	FOCC	O-11 FOC & Reject Response Completeness — Fully Mechanized
22	FOCC	O-11 FOC & Reject Response Completeness — Partially Mechanized
23	FOCC	O-11 FOC & Reject Response Completeness — Non-Mechanized

Item No.	SQM Ref	Tier 2 Submetric
24	OAAT	O-12 Average Answer Time—Ordering Centers—CLEC Local Carrier Service Center
25	MIA	P-3 Percent Missed Installation Appointments—Resale POTS
26	MIA	P-3 Percent Missed Installation Appointments—Resale Design
27	MIA	P-3 Percent Missed Installation Appointments—UNE Loop and Port Combinations
28	MIA	P-3 Percent Missed Installation Appointments—UNE Loops—Design
29	MIA	P-3 Percent Missed Installation Appointments—UNE Loops—Non-Design
30	MIA	P-3 Percent Missed Installation Appointments—UNE xDSL
31	MIA	P-3 Percent Missed Installation Appointments—UNE Line Splitting/Sharing
32	MIA	P-3 Percent Missed Installation Appointments—LNP Standalone
33	MIA	P-3 Percent Missed Installation Appointments—Local Interconnection Trunks
34	OCI	P-4 Order Completion Interval (OCI)—Resale POTS
35	OCI	P-4 Order Completion Interval (OCI)—Resale Design
36	OCI	P-4 Order Completion Interval (OCI)—UNE Loop and Port Combinations
37	OCI	P-4 Order Completion Interval (OCI)—UNE Loop Design
38	OCI	P-4 Order Completion Interval (OCI)—UNE Loop Non-Design
39	OCI	P-4 Order Completion Interval (OCI)—UNE xDSL—without conditioning
40	OCI	P-4 Order Completion Interval (OCI)—UNE xDSL—with conditioning
41	OCI	P-4 Order Completion Interval (OCI)—UNE Line Splitting/Sharing Dispatch
42	OCI	P-4 Order Completion Interval (OCI)—UNE Line Splitting/Sharing—Non-Dispatch
43	OCI	P-4 Order Completion Interval (OCI)—Local interconnection Trunks
44	OCI	P-4 Order Completion Interval (OCI)—UNE EELS
45	CCI	P-7 Coordinated Customer Conversions—Hot Cut Durations
46	CCT	P-7A Coordinated Customer Conversions—Hot Cut Timeliness Percent within Interval
47	NCDD	P-7D Non-Coordinated Customer Conversions—Percent Completed and Notified on Due Date

Item No.	SQM Ref	Tier 2 Submetric
48	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—Resale POTS
49	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—Resale Design
50	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE Loop and Port Combinations
51	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE Loops—Design
52	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE Loops—Non-Design
53	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE xDSL
54	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE Line Splitting/Sharing—Dispatch
55	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—UNE Line Splitting/Sharing—Non-Dispatch
56	PPT	P-9 Percent Provisioning Troubles within X days of Service Order Completion—Local Interconnection Trunks
57	SOA	P-11 Service Order Accuracy—Resale
58	SOA	P-11 Service Order Accuracy—UNE
59	SOA	P-11 Service Order Accuracy—UNE-P
60	LOOS	P-13B LNP—Percent Out of Service < 60 Minutes—LNP
61	LAT	P-13C LNP Percent of Time BellSouth Applies the 10-Digit Trigger Prior to the LNP Order Due Date—LNP—(Standalone)
62	LDT	P-13D LNP—Disconnect Timeliness (Non-Trigger)
63	MRA	MR-1 Percent Missed Repair Appointment—Resale POTS
64	MRA	MR-1 Percent Missed Repair Appointment—Resale Design
65	MRA	MR-1 Percent Missed Repair Appointment—UNE Loop and Port Combinations
66	MRA	MR-1 Percent Missed Repair Appointment—UNE Loops Design
67	MRA	MR-1 Percent Missed Repair Appointment—UNE Loops Non-Design
68	MRA	MR-1 Percent Missed Repair Appointment—UNE xDSL

Item No.	SQM Ref	Tier 2 Submetric
69	MRA	MR-1 Percent Missed Repair Appointment — UNE Line Splitting/Sharing
70	MRA	MR-1 Percent Missed Repair Appointment — Local Interconnection Trunks
71	CTRR	MR-2 Customer Trouble Report Rate — Resale POTS
72	CTRR	MR-2 Customer Trouble Report Rate — Resale Design
73	CTRR	MR-2 Customer Trouble Report Rate — UNE Loop and Port Combinations
74	CTRR	MR-2 Customer Trouble Report Rate — UNE Loops Design
75	CTRR	MR-2 Customer Trouble Report Rate — UNE Loops Non-Design
76	CTRR	MR-2 Customer Trouble Report Rate — UNE xDSL
77	CTRR	MR-2 Customer Trouble Report Rate — UNE Line Splitting/Sharing
78	CTRR	MR-2 Customer Trouble Report Rate — Local Interconnection Trunks
79	MAD	MR-3 Maintenance Average Duration — Resale POTS
80	MAD	MR-3 Maintenance Average Duration — Resale Design
81	MAD	MR-3 Maintenance Average Duration — UNE Loop and Port Combinations
82	MAD	MR-3 Maintenance Average Duration — UNE Loops Design
83	MAD	MR-3 Maintenance Average Duration — UNE Loops Non-Design
84	MAD	MR-3 Maintenance Average Duration — UNE xDSL
85	MAD	MR-3 Maintenance Average Duration — UNE Line Splitting/Sharing
86	MAD	MR-3 Maintenance Average Duration — Local Interconnection Trunks
87	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — Resale POTS
88	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — Resale Design
89	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — UNE Loop and Port Combinations
90	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — UNE Loops Design
91	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — UNE Loops Non-Design
92	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — UNE xDSL
93	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days — UNE Line Splitting/Sharing



Item No.	SQM Ref	Tier 2 Submetric
94	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days—Local Interconnection Trunks
95	OOS	MR-5 Out of Service (OOS) > 24 hours—Resale POTS
96	OOS	MR-5 Out of Service (OOS) > 24 hours—Resale Design
97	OOS	MR-5 Out of Service (OOS) > 24 hours—UNE Loop and Port Combinations
98	OOS	MR-5 Out of Service (OOS) > 24 hours—UNE Loops Design
99	OOS	MR-5 Out of Service (OOS) > 24 hours—UNE Loops Non-Design
100	OOS	MR-5 Out of Service (OOS) > 24 hours—UNE xDSL
101	OOS	MR-5 Out of Service (OOS) > 24 hours—UNE Line Splitting/Sharing
102	OOS	MR-5 Out of Service (OOS) > 24 hours—Local Interconnection Trunks
103	BIA	B-1 Invoice Accuracy
104	BIT	B-2 Mean Time to Deliver Invoices—CRIS
105	BIT	B-2 Mean Time to Deliver Invoices—CABS
106	BUDT	B-5 Usage Data Delivery Timeliness
107	BEC	B-10 Percent Billing Adjustment Requests (BAR) Responded to within 45 Business Days—State
108	TGP	TGP Trunk Group Performance
109	MDD	C-3 Collocation Percent of Due Dates Missed
110	NT	CM-1 Timelines of Change Management Notices—Region
111	DT	CM-3 Timeliness of Documentation Associated with Change—Region
112	SEC	CM-6 Percentage of Software Errors Corrected in “X” Business Days—Region
113	CRA	CM-7 Percentage of Change Requests Accepted or Rejected Within 10 Days—Region
114	SCRI	CM-11 Percentage of Software Change Requests Implemented Within 60 Weeks of Prioritization—Region

Appendix C: Statistical Properties and Definitions

The statistical process for testing whether ~~BellSouth's (BST)~~ AT&T's wholesale customers (~~alternative local exchange carriers~~ Competitive Local Exchange Carriers or CLECs) are being treated equally with ~~BST's~~ AT&T's retail customers involves more than a simple mathematical formula. Three key elements need to be considered before an appropriate decision process can be developed. These are the type of:

- ~~d~~Data
- ~~e~~Comparison
- ~~p~~Performance

This section describes the properties of a test methodology and the truncated Z statistic for three types of measures that compare CLEC's performance to AT&T's retail analog.

C.1 Necessary Properties for a Test Methodology

Once the key elements are determined, a test methodology should be developed that complies with the following properties:

- Like-to-Like Comparisons
- Overall Level Test Statistic
- Production Mode Process
- Balancing

C.1.1 Like-to-Like Comparisons

When possible, data should be compared at appropriate levels, e.g. wire center, time of month, dispatched residential, new orders. The testing process should:

- Identify variables that may affect the performance measure
- Record these important confounding covariates
- Adjust for the observed covariates in order to remove potential biases and to make the CLEC and the ILEC units as comparable as possible

C.1.2 Overall Level Test Statistic

Each performance measure of interest should be summarized by one overall test statistic giving the decision maker a rule that determines whether a statistically significant difference exists. The test statistic should have the following properties:

- The method should provide a single overall index on a standard scale.
- If entries in comparison cells are exactly proportional over a covariate, the aggregated index should be very nearly the same as if comparisons on the covariate had not been done.
- The contribution of each comparison cell should depend on the number of observations in the cell.
- Cancellation between comparison cells should be limited.
- The index should be a continuous function of the observations.

C.1.3 Production Mode Process

The decision system must be developed so that it does not require intermediate manual intervention, i.e., the process must be mechanized to the extent possible.

- Calculations are well defined for possible eventualities.
- The decision process is an algorithm that needs no manual intervention.
- Results should be arrived at in a timely manner.
- The system must recognize that resources are needed for other performance measure-related processes that also must be run in a timely manner.
- The system should be auditable, and adjustable over time.

C.1.4 Balancing

The testing methodology should balance Type I and Type II Error probabilities.

- $P(\text{Type I Error}) = P(\text{Type II Error})$ for well-defined null and alternative hypotheses.
- The formula for a test's balancing critical value should be simple enough to calculate using standard mathematical functions, i.e., one should avoid methods that require computationally intensive techniques.
- Little to no information beyond the null hypothesis, the alternative hypothesis, and the number of observations should be required for calculating the balancing critical value.

C.1.5 Measurement Types

The performance measurements that will undergo testing are of three types: mean, proportion, and rate. All three have similar characteristics. Different types of data are used to calculate them. Table C-1 shows the type of data that is used to derive each measurement type.

Table C-1: Measurement Types and Data

Measurement Type	Data Used to Derive Measure
Mean	Interval Measurements
Proportion	Counts
Rate	

C.2 Testing Methodology – The Truncated Z

In summary, many covariates are chosen in order to provide meaningful comparison levels below the submetric level chosen for the parity comparison. This includes such factors as wire center and time of month, as well as order type for provisioning measures. In each comparison cell, a Z statistic is calculated. The form of the Z statistic may vary depending on the performance measure, but it should be distributed approximately as a standard normal, with mean zero and variance equal to one. Assuming that the test statistic is derived so that it is negative when the performance for the CLEC is worse than for the ILEC, a positive truncation is done – i.e. if the result is negative it is left alone, if the result is positive it is changed to zero. A weighted average of the truncated statistics is calculated where a cell's weight depends on the volume of ~~BS~~~~AT&T~~ and CLEC orders in the cell. The weighted average is standardized by subtracting the weighted theoretical mean of the truncated distribution, and this is divided by the standard error of the weighted average. Summaries based on measurement type are given for the calculation of the cell Z statistic.

Additionally, there are measures that are compared to a retail analog at least in part where cell definitions do not exist that permit assignment of data for these measures to cells so the truncated Z statistic cannot be calculated. These measures are:

- Average ~~Response Interval~~Answer Time (M&R)
- Billing Invoice Accuracy
- ~~Billing Invoice Timeliness~~
- ~~Speed of Answer in the Ordering Center~~
- Mean Time to Deliver Invoices

In addition, there ~~are two measurements~~is one measurement that uses retail results 'plus' (2 seconds for OSS Response Time; ~~0.5% for Trunk Blocking~~); resulting in a benchmark standard. ~~These measurements are:~~This measurement is OSS ~~Average Response Time &~~ Response Interval (Pre-Ordering) ~~and Trunk Group Performance/~~Ordering/Maintenance & Repair.

As an example of one approach taken for a parity measure that does not use the truncated Z methodology, consider the measure Billing Invoice Accuracy.



Appendix C: Statistical Properties and Definitions

In Tennessee, ~~BellSouth~~ AT&T calculates results for this measure by subtracting the Absolute Value of Total ~~Related~~ Adjustments during the current month from the Absolute Value of Total Billed Revenues during the current month then dividing these results by the Absolute Value of Total Billed Revenues during the current month and multiplying these results by 100. The formula is as follows:

$$\text{Invoice Accuracy} = [(a - b)/a] \times 100$$

a = Absolute Value of Total Billed Revenues during current month

b = Absolute Value of Total Billing Related Adjustments during current month

A numerical example of the ~~penalty~~ remedy calculation is given below:

Example:

CLEC DATA

Bill Adjustments	\$14,660.00
Total Billed Revenue	\$336,529.00

~~BellSouth~~ AT&T DATA

Bill Adjustments	\$6,018,969.26
Total Billed Revenue	\$484,691,922.40

$$\text{CLEC Invoice Accuracy Ratio} = [(\del{366}336,529.00 - 14,660.00)/\del{366}336,529.00] \times 100 = \del{96.00}95.64$$

$$\del{BST}AT\&T \text{ Invoice Accuracy Ratio} = [(484,691,922.40 - 6,018,969.26)/484,691,922.40] \times 100 = 98.75$$

Thus, the calculated values are:

CLEC Result = 96%

~~BellSouth~~ AT&T Result = 98.75%

In Tennessee once it is determined that the ~~BST~~ AT&T percent is higher, ~~BellSouth~~ AT&T pays the CLEC according to the Tennessee Fee Schedule.

The calculation would be ~~2% of the adjustment = \$14,660 x .02 = \$293.20. the difference in the CLEC Invoice Accuracy Ratio and the AT&T Invoice Accuracy~~

Ratio multiplied by the total CLEC Bill Adjustments. Then multiply the result by 2% (Appendix A: Fee Schedule)

- $98.75\% - 95.64\% = 3.11\%$
- $3.11\% \times \$14,660 = \455.92
- $\$455.92 \times 2\% = \9.12

C.2.1 Mean Measures

For mean measures, an adjusted, asymmetricmodified t statistic is calculated for each like-to-like cell that has at least seven BSTAT&T and seven CLEC transactions. A permutation test is used when one or both of the BSTAT&T and CLEC sample sizes is less than seven. The adjusted, asymmetricmodified t statistic and the permutation calculation are described in Appendix D, Statistical Formulas and Technical Description.

C.2.2 Proportion Measures

For performance measures that are calculated as a proportion, in each adjustment cell, the cell Z and the moments for the truncated cell Z can be calculated in a direct manner. In adjustment cells where proportions are not closeequal to zero or one, and where the sample sizes are reasonably large ($n_{ij}p_{ij}(1-p_{ij}) > 9$), a normal approximation can be used. In this case, the moments for the truncated Z come directly from properties of the standard normal distribution. If the normal approximation is not appropriate, then the Z statistic is calculated from the hypergeometric distribution. In this case, the moments of the truncated Z are calculated exactly using the hypergeometric probabilities.

C.2.3 Rate Measures

The truncated Z methodology for rate measures has the same general structure for calculating the Z in each cell as proportion measures. For the rate measure customer-trouble-report-rateCustomer Trouble Report Rate there areis a fixed number of access lines in service for the CLEC, b_{2j} , and a fixed number for BSTAT&T, b_{1j} . The modeling assumption is that the occurrence of a trouble is independent between access lines, and the number of troubles in b access lines follows a Poisson distribution with mean λ_b where λ is the probability of a trouble per 1 access line and $b (= b_{1j} + b_{2j})$ is the total number of access lines in service. The exact permutation distribution for this situation is approximated by the binomial distribution (the limit for the hypergeometric distribution) that is based on the total number of BSTAT&T and CLEC troubles, n, and the proportion of BSTAT&T access lines in service, $q_j = b_{1j}/b$.



In an adjustment cell, if the number of CLEC troubles is greater than 15 and the number of ~~BS~~AT&T troubles is greater than 15, and $n_{ij}q_{ij}(1-q_{ij}) > 9$, then a normal approximation can be used. In this case, the moments of the truncated Z come directly from properties of the standard normal distribution. Otherwise, if there are very few troubles, the number of CLEC troubles can be modeled using a binomial distribution with n equal to the total number of troubles (CLEC plus ~~BS~~AT&T troubles). In this case, the moments for the truncated Z are calculated explicitly using the binomial distribution.



Appendix D: Statistical Formulas and Technical Descriptions

We start by assuming that the data are disaggregated so that comparisons of CLEC's performance to AT&T's retail analog are made within appropriate classes or adjustment cells that define "like" observations.

D.1 Notation and Exact Testing Distributions

Below, we have detailed the basic notation for the construction of the truncated Z statistic. In what follows the word "cell" should be taken to mean a like-to-like comparison cell that has both at least one ~~(or more)~~ ILEC observation and at least one ~~(or more)~~ CLEC observation.

$L =$	the total number of occupied cells
$j =$	$1, \dots, L$; an index for the cells
$n_{1j} =$	the number of ILEC transactions in cell j
$n_{2j} =$	the number of CLEC transactions in cell j
$n_j =$	the total number transactions in cell j ; $n_{1j} + n_{2j}$
$X_{1jk} =$	Individual ILEC transactions in cell j ; $k = 1, \dots, n_{1j}$
$X_{2jk} =$	Individual CLEC transactions in cell j ; $k = 1, \dots, n_{2j}$
$Y_{jk} =$	individual transaction (both ILEC and CLEC) in cell j $= \begin{cases} X_{1jk} & k = 1, \dots, n_{1j} \\ X_{2jk} & k = n_{1j} + 1, \dots, n_j \end{cases}$
$\Phi^{-1}() =$	the inverse of the cumulative standard normal distribution function

For Mean Performance Measures the following additional notation is needed.

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

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

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

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

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

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

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

The exact parity test is the permutation test based on the “modified Z” statistic. For large samples, we one can avoid permutation calculations since this statistic will be normal (or Student's t) to a good approximation. For small samples, where we one cannot avoid permutation calculations, we have found it has been determined that the difference between “modified Z” and the textbook “pooled Z” is negligible. ~~We therefore propose to use~~ Therefore, the permutation test based on pooled Z for small samples. will be used. This decision speeds up the permutation computations considerably, because for each permutation we need only compute the sum of the CLEC sample values, and not the pooled statistic itself.

A permutation probability mass function distribution for cell j, based on the “pooled Z” can be written as

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

and the corresponding cumulative permutation distribution is

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

For Proportion Performance Measures the following notation is defined:

- a_{1j} = The number of ILEC cases possessing an attribute of interest in cell j
- a_{2j} = The number of CLEC cases possessing an attribute of interest in cell j
- a_j = The number of cases possessing an attribute of interest in cell j;
 $a_{1j} + a_{2j}$

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

$$\text{HG}(h) = P(H = h) = \begin{cases} \frac{\binom{n_{1j}}{h} \binom{n_{2j}}{a_j - h}}{\binom{n_j}{a_j}}, & \max(0, a_j - n_{2j}) \leq h \leq \min(a_j, n_{1j}) \\ 0 & \text{otherwise} \end{cases}$$

and the cumulative hypergeometric distribution is

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

For Rate Performance Measures, the notation needed is defined as:

- b_{1j} = the number of ILEC base elements in cell j
- b_{2j} = the number of CLEC base elements in cell j
- b_j = the total number of base elements in cell j; $b_{1j} + b_{2j}$
- r_{1j} = the ILEC sample rate of cell j; n_{1j} / b_{1j}
- r_{2j} = the ILEC sample rate of cell j; n_{2j} / b_{2j}

q_j = the relative proportion of ILEC elements for cell j ; b_{1j} / b_j

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

$$BN(k) = P(B = k) = \begin{cases} \binom{n_j}{k} q_j^k (1 - q_j)^{n_j - k}, & 0 \leq k \leq n_j \\ 0 & \text{otherwise} \end{cases}$$

and the cumulative binomial distribution is

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

D.2 Calculating the Truncated Z

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

D.2.1 Calculate Cell Weights (W_j)

A weight based on the number of transactions is used so that a cell, which has a larger number of transactions, has a larger weight. The actual weight formula will depend on the type of measure.

Mean Measure

$$W_j = \sqrt{\frac{n_{1j} \cdot n_{2j}}{n_j}}$$

Proportion Measure

$$W_j = \sqrt{\frac{n_{2j} \cdot n_{1j}}{n_j} \cdot \frac{a_j}{n_j} \cdot \left(1 - \frac{a_j}{n_j}\right)}$$

Rate Measures

$$W_j = \sqrt{\frac{b_{1j}b_{2j}}{b_j} \cdot \frac{n_j}{b_j}}$$

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

A Z statistic with mean 0 and variance 1 is needed for each cell.

- If $W_j = 0$, set $Z_j = 0$.
- Otherwise, the actual Z statistic calculation depends on the type of performance measure.

Mean Measure

$$Z_j = \Phi^{-1}(\alpha)$$

where α is determined by the following algorithm.

If the two means are equal and the two variances are zero, set the cell Z-score to zero.

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

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

that is, α is the probability that a Student's t random variable with $n_{1j} - 1$ degrees of freedom, is less than

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

where

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

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

and g is the median value of all values of

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

over all cells within the submeasure being tested such that all three conditions stated below are true. ~~If no submeasure cells exist that satisfy these conditions, then $g = 0$.~~

$$\gamma_{1j} > 0$$

$$n_{1j} > 6$$

$n_{1j} \geq n_{3q}$ for all values of j . where n_{3q} is the 3rd quartile of all values of n_{1j} in cells where the first two conditions are true. If no submeasure cells exist that satisfy these conditions, then $g = 0$.

Note, that t_j is the “modified Z” statistic. The statistic T_j is a “modified Z” ~~corrected~~adjusted for the skewness of the ILEC data.

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

- $M_j \leq 1,000$ (the total number of distinct pairs of samples of size n_{1j} and n_{2j} is 1,000 or less)
 - Calculate the sample sum for all possible samples of size n_{2j} .
 - Rank the sample sums from smallest to largest. Ties are dealt by using average ranks.
 - Let R_0 be the rank of the observed sample sum with respect to all the sample sums.

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

- $M_j > 1,000$
 - Draw a random sample of 1,000 sample sums from the permutation distribution.
 - Add the observed sample sum to the list. There are a total of 1001 sample sums. Rank the sample sums from smallest to largest. Ties are dealt by using average ranks.
 - Let R_0 be the rank of the observed sample sum with respect all the sample sums.

$$\alpha = 1 - \frac{R_0 - 0.5}{1001}$$

Proportion Measure

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

Rate Measure

$$Z_j = \frac{n_{1j} - n_j q_j}{\sqrt{n_j q_j (1 - q_j)}}$$

D.2.3 Obtain a Truncated Z-Value-Score for each Cell (Z_j^*)

To limit the amount of cancellation that takes place between cell results during aggregation, cells whose results suggest possible favoritism are left alone. Otherwise the cell statistic is set to zero. This means that positive equivalent Z-values-Scores are set to 0, and negative values are left alone. Mathematically, this is written as

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

D.2.4 Calculate the Theoretical Mean and Variance

Calculate the theoretical mean and variance of the truncated statistic under the null hypothesis of parity, $E(Z_j^* | H_0)$ and $\text{Var}(Z_j^* | H_0)$. To compensate for the truncation in step 3, an overall, weighted sum of the Z_j^* will need to be centered and scaled properly so that the final overall statistic follows a standard normal distribution.

- If $W_j = 0$, then no evidence of favoritism is contained in the cell. The formulaes for calculating $E(Z_j^* | H_0)$ and $\text{Var}(Z_j^* | H_0)$ cannot be used. Set both equal to 0.
- If $\min(n_{1j}, n_{2j}) > 6$ for a mean measure, or $\min\left\{a_{1j}\left(1 - \frac{a_{1j}}{n_{1j}}\right), a_{2j}\left(1 - \frac{a_{2j}}{n_{2j}}\right)\right\} > 9$ for a proportion measure, ~~$\min(n_{1j}, n_{2j}) > 15$ and $n_j q_j (1 - q_j) > 9$~~ or $\min(n_{1j}, n_{2j}) > 15$ and $n_j q_j (1 - q_j) > 9$ for a rate measure, then

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

and

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

- Otherwise, determine the total number of values for Z_j^* . Let z_{ji} and θ_{ji} , denote the values of Z_j^* and the probabilities of observing each value, respectively.

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

and

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

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

Mean Measure

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

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

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

Proportion Measure

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

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

Rate Measure

$$z_{ji} = \min \left\{ 0, \frac{i - n_j q_j}{\sqrt{n_j q_j (1 - q_j)}} \right\}, \quad i = 0, \dots, n_j$$

$$\theta_{ji} = \text{BN}(i)$$

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

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

The Balancing Critical Value

There are four key elements of the statistical testing process:

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

The decision rule¹ is

- If $Z^T < c$ then accept H_a .
- If $Z^T \geq c$ then accept H_0 .

There are two types of errors possible when using such a decision rule:

- **Type I Error:** (α) Deciding favoritism exists when there is, in fact, no favoritism.
- **Type II Error:** (β) Deciding parity exists when there is, in fact, favoritism.

The probabilities of each type of error are:

- **Type I Error:** $\alpha = P(Z^T < c | H_0)$
- **Type II Error:** $\beta = P(Z^T \geq c | H_a)$

We want a balancing critical value, c_B , so that $\alpha = \beta$.

It can be shown that.

$$c_B = \frac{\sum_j W_j M(m_j, se_j) - \sum_j W_j \frac{-1}{\sqrt{2\pi}}}{\sqrt{\sum_j W_j^2 V(m_j, se_j)} + \sqrt{\sum_j W_j^2 \left(\frac{1}{2} - \frac{1}{2\pi} \right)}}$$

where

¹ This decision rule assumes that a negative test statistic indicates poor service for the CLEC customer. If the opposite is true, then reverse the decision rule.

$$M(\mu, \sigma) = \mu \Phi\left(\frac{-\mu}{\sigma}\right) - \sigma \phi\left(\frac{-\mu}{\sigma}\right)$$

$$V(\mu, \sigma) = (\mu^2 + \sigma^2) \Phi\left(\frac{-\mu}{\sigma}\right) - \mu \sigma \phi\left(\frac{-\mu}{\sigma}\right) - M(\mu, \sigma)^2$$

$\Phi(\cdot)$ is the cumulative standard normal distribution function, and $\phi(\cdot)$ is the standard normal density function, and μ and σ are the formal arguments of functions $M(\cdot, \cdot)$ and $V(\cdot, \cdot)$.

This formula assumes that Z_j is approximately normally distributed within cell j . When the cell sample sizes, n_{1j} and n_{2j} , are small this may not be true. It is possible to determine the cell mean and variance under the null hypothesis when the cell sample sizes are small. It is much more difficult to determine these values under the alternative hypothesis. Since the cell weight, W_j will also be small (see calculate weights section above) for a cell with small volume, the cell mean and variance will not contribute much to the weighted sum. Therefore, the above formula provides a reasonable approximation to the balancing critical value.

The values of m_j and se_j will depend on the type of performance measure.

Mean Measure

For mean measures, one is concerned with two parameters in each cell, namely, the mean and variance. A possible lack of parity may be due to a difference in cell means, and/or a difference in cell variances. One possible set of hypotheses that capture this notion, and take into account the assumption that transaction are identically distributed within cells is:

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

$$H_a: \mu_{2j} = \mu_{1j} + \delta_j, \sigma_{2j}^2 = \lambda_j \sigma_{1j}^2 \text{ where } \delta_j > 0, \lambda_j \geq 1 \text{ and } j = 1, \dots, L. \text{ (where } \delta_j \text{ corresponds to the delta values defined in section 4.1.6 of the Administrative Plan)}$$

Where $\delta_j > 0, \lambda_j \geq 1, j = 1, \dots, L$, and parameters δ_j and λ_j correspond to the Delta and Lambda values defined in section 4.1.6 of the Administrative Plan)

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

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

and

$$se_j = \sqrt{\frac{\lambda_j n_{1j} + n_{2j}}{n_{1j} + n_{2j}}}$$

Proportion Measure

For a proportion measure there is only one parameter of interest in each cell, the proportion of transaction possessing an attribute of interest. A possible lack of parity may be due to a difference in cell proportions. A set of hypotheses that take into account the assumption that transactions are identically distributed within cells while allowing for an analytically tractable solution is:

$$\begin{aligned} H_0: & \quad \frac{p_{2j}(1-p_{1j})}{(1-p_{2j})p_{1j}} = 1 \\ H_a: & \quad \frac{p_{2j}(1-p_{1j})}{(1-p_{2j})p_{1j}} = \psi_j \quad \psi_j > 1 \text{ and } j = 1, \dots, L. \end{aligned}$$

(where ψ_j corresponds to the ψ_j values defined in section 4.1.6 of the Administrative Plan)

These hypotheses are based on the “odds ratio.” If the transaction attribute of interest is a missed trouble repair, then an interpretation of the alternative hypothesis is that a CLEC trouble repair appointment is ψ_j times more likely to be missed than an ILEC trouble.

Under this form of alternative hypothesis, the within cell asymptotic mean and variance of a_{1j} are given by¹

$$\begin{aligned} E(a_{1j}) &= n_j \pi_j^{(1)} \\ \text{var}(a_{1j}) &= \frac{n_j}{\frac{1}{\pi_j^{(1)}} + \frac{1}{\pi_j^{(2)}} + \frac{1}{\pi_j^{(3)}} + \frac{1}{\pi_j^{(4)}}} \end{aligned}$$

where

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

$$\begin{aligned}\pi_j^{(1)} &= f_j^{(1)} \left(n_j^2 + f_j^{(2)} + f_j^{(3)} - f_j^{(4)} \right) \\ \pi_j^{(2)} &= f_j^{(1)} \left(-n_j^2 - f_j^{(2)} + f_j^{(3)} + f_j^{(4)} \right) \\ \pi_j^{(3)} &= f_j^{(1)} \left(-n_j^2 + f_j^{(2)} - f_j^{(3)} + f_j^{(4)} \right) \\ \pi_j^{(4)} &= f_j^{(1)} \left(n_j^2 \left(\frac{2}{\psi_j} - 1 \right) - f_j^{(2)} - f_j^{(3)} - f_j^{(4)} \right) \\ f_j^{(1)} &= \frac{1}{2n_j^2 \left(\frac{1}{\psi_j} - 1 \right)} \\ f_j^{(2)} &= n_j n_{1j} \left(\frac{1}{\psi_j} - 1 \right) \\ f_j^{(3)} &= n_j a_j \left(\frac{1}{\psi_j} - 1 \right) \\ f_j^{(4)} &= \sqrt{n_j^2 \left[4n_{1j} (n_j - a_j) \left(\frac{1}{\psi_j} - 1 \right) + \left(n_j + (a_j - n_{1j}) \left(\frac{1}{\psi_j} - 1 \right) \right)^2 \right]}\end{aligned}$$

Recall that the cell test statistic is given by

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

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

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

and

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

Rate Measure

A rate measure also has only one parameter of interest in each cell, the rate at which a phenomenon is observed relative to a base unit, e.g. the number of troubles per available line. A possible lack of parity may be due to a

difference in cell rates. A set of hypotheses that take into account the assumption that transactions are identically distributed within cells is:

$$H_0: r_{1j} = r_{2j}$$

$$H_a: r_{2j} = \epsilon_j r_{1j} \quad \epsilon_j > 1 \text{ and } j = 1, \dots, L.$$

(where ϵ_j corresponds to the Epsilon values defined in section 4.1.6 of the Administrative Plan)

Given the total number of ILEC and CLEC transactions in a cell, n_j , and the number of base elements, b_{1j} and b_{2j} , the number of ILEC transaction, n_{1j} , has a binomial distribution from n_j trials and a probability of

$$q_j^* = \frac{r_{1j} b_{1j}}{r_{1j} b_{1j} + r_{2j} b_{2j}}$$

Therefore, the mean and variance of n_{1j} , are given by

$$E(n_{1j}) = n_j q_j^*$$

$$\text{var}(n_{1j}) = n_j q_j^* (1 - q_j^*)$$

Under the null hypothesis

$$q_j^* = q_j = \frac{b_{1j}}{b_j}$$

but under the alternative hypothesis

$$q_j^* = q_j^a = \frac{b_{1j}}{b_{1j} + \epsilon_j b_{2j}}$$

Recall that the cell test statistic is given by

$$Z_j = \frac{n_{1j} - n_j q_j}{\sqrt{n_j q_j (1 - q_j)}}$$

Using the relationships above, we see it can be shown that Z_j has mean and standard error given by

$$m_j = \frac{n_j (q_j^a - q_j)}{\sqrt{n_j q_j (1 - q_j)}} = (1 - \epsilon_j) \frac{\sqrt{n_j b_{1j} b_{2j}}}{b_{1j} + \epsilon_j b_{2j}}$$

and

$$se_j = \sqrt{\frac{q_j^a(1-q_j^a)}{q_j(1-q_j)}} = \sqrt{\epsilon_j} \frac{b_j}{b_{1j} + \epsilon_j b_{2j}}$$

D.2.6 Determining the Parameters of the Alternative Hypothesis

In this section we have indexed the alternative hypothesis of mean measures by two sets of parameters, λ_j and δ_j (where δ_j corresponds and δ_j correspond to the delta Lambda and Delta values defined in section 4.1.6 of the Administrative Plan section). Proportion measures are indexed by parameter ψ_j and rate measures by ϵ_j (these parameters correspond to the Psi and Epsilon of section 4.1.6). A major difficulty with this approach is that more than one alternative will be of interest; for example we may consider one alternative in which all the δ_j are set to a common non-zero value, and another set of alternatives in each of which just one δ_j is non-zero, while all the rest are zero. There are very many other possibilities. Each possibility leads to a single value for the balancing critical value; and each possible critical value corresponds to many sets of alternative hypotheses, for each of which it constitutes the correct balancing value.

The formulas we have presented can be used to evaluate the impact of different choices of the overall critical value. For each putative choice, we can evaluate the set of alternatives for which this is the correct balancing value. While statistical science can be used to evaluate the impact of different choices of these parameters, there is not much that an appeal to statistical principles can offer in directing specific choices. Specific choices are best left to telephony experts. Still, it is possible to comment on some aspects of these choices:

Parameter Choices for λ_j – The set of parameters λ_j index alternatives to the null hypothesis that arise because there might be greater unpredictability or variability in the delivery of service to a CLEC customer over that which would be achieved for an otherwise comparable ILEC customer. While concerns about differences in the variability of service are important, it turns out that the truncated Z testing which is being recommended here is relatively insensitive to all but very large values of the λ_j . Put another way, reasonable differences in the values chosen here could make very little difference in the balancing points chosen. Therefore, λ_j parameters have been set to 1.

Parameter Choices for δ_j – The set of parameters δ_j are much more important in the choice of the balancing point than was true for the λ_j . The reason for this is that they directly index differences in average service. The truncated Z test is very sensitive to any such differences; hence, even small disagreements among experts in the choice of the δ_j could be very important. Sample size matters here too. For example, setting all the δ_j to a single

value $-\delta_j = \delta$ might be fine for tests across individual CLECs where the CLEC customer bases are not too different. Using the same value of δ for the overall state testing does not seem sensible. At the state level we are aggregating over CLECs, so using the same δ as for an individual CLEC would be saying that a “meaningful” degree of disparity is one where the violation is the same (δ) for each CLEC. But the detection of disparity for any component CLEC is important, so the relevant “overall” δ should be smaller.

Parameter Choices for ψ_j or ε_j – The set of parameters ψ_j or ε_j are also important in the choice of the balancing point for tests of their respective measures. The reason for this is that they directly index increases in the proportion of service performance. The truncated Z test is sensitive to such increases; but not as sensitive as the case of δ for mean measures. Sample size matters here too. As with mean measures, using the same value of ψ or ε for the overall state testing does not seem sensible.

The bottom line here is that beyond a few general considerations, like those given above, a principled approach to the choice of the alternative hypotheses to guard against must come from elsewhere.

D.2.7 Decision Process

Once Z^T has been calculated, it is compared to the balancing critical value to determine if the ILEC is favoring its own customers over a CLEC’s customers.

Appendix E: ~~BST~~ AT&T SEEM Remedy Calculation Procedures

E.1 ~~BST~~AT&T SEEM Remedy Procedure

E.1.1 Tier-1 Calculation For Retail Analogs

DETERMINE IF AN INDIVIDUAL CLEC FAILS A TIER-1 SUBMETRIC

1. Tier-1 is triggered by a monthly failure of any Tier-1 Remedy Plan submetric.
2. Calculate the overall test statistic for a CLEC (CLEC1); Example, z_{CLEC1}^T (~~Perper~~ Statistical Methodology).
3. Calculate the balancing critical value (Example, ${}^cB_{CLEC1}$) that is associated with the alternative hypothesis (for fixed parameters ~~$\delta, \Psi, \lambda, \delta, \psi$~~ , or ϵ) for that CLEC.
4. If the overall test statistic is equal to or above the balancing critical value, stop here. That is, if ${}^cB_{CLEC1} \leq z_{CLEC1}^T$, stop here. Otherwise, go to step 5.

CALCULATE REMEDY PAYMENT FOR CORRECTION OF TEST STATISTIC TO THE BCV~~BALANCING CRITICAL VALUE~~

5. Select the cell with the most negative ~~z-value~~Z-Score (let $i=1, \dots, I$ with $i=1$ having the most negative ~~z-value~~Z-Score, $i=2$ having next most negative ~~z-value~~Z-Score, etc. and with $i=I$ when the criterion in step 7 is fulfilled.) and set its ~~z-value~~Z-Score to zero ($z_{CLEC1,i} = 0$).
6. Recalculate the overall test statistic for that CLEC with the adjusted data; Example, z_{CLEC1}^{T*} (~~Perper~~ Statistical Methodology).
7. If the new overall test statistic is equal to or above the balancing critical value, that is, if ${}^cB_{CLEC1} \leq z_{CLEC1}^{T*}$, go to step 8. Otherwise, repeat steps 5 – 6 letting $i = i + 1$.
8. Calculate the Total Affected Volume (TAV) by summing the Total Impacted Volumes (TIV) of each cell whose ~~z-value~~Z-Score was reset to zero except the last cell changed. The ~~imp~~affected volume for the last cell changed should be interpolated by

$$TIV_{CLEC1,I,INT} = ({}^cB_{CLEC1} - z_{CLEC1,I-1}^{T*}) / (z_{CLEC1,I}^{T*} - z_{CLEC1,I-1}^{T*}) * \del{x}TIV_{CLEC1,I}$$

The result should be rounded up to the next positive integer and added to TAV_{CLEC1} . That is, $TAV_{CLEC1} = TIV_{CLEC1,1} + TIV_{CLEC1,2} + \dots + TIV_{CLEC1,I-1} + TIV_{CLEC1,I,INT}$. Note that if $TIV_{CLEC1,I} = 1$ then $TIV_{CLEC1,I,INT} = 1$ and the interpolation step can be omitted. Any transactions that cause the overall test statistic to be between the BCV and zero will be included in the TIV for transactions between the BCV and zero.
9. Calculate the below BCV portion of the payment to CLEC1 by multiplying the result of step 8 (TAV_{CLEC1}) by the appropriate dollar amount from the fee

BST: AT&T SEEM Remedy Calculation Procedures

schedule. Thus, $CLEC1_{BCV}$ payment = $TAV_{CLEC1} \times$ \$\$from Fee Schedule. Here the fee should be derived from Table 1: Fee Schedule for Tier-1 Per Transaction Fee Determination (Appendix A) multiplied by the appropriate factor from section 4.3.1.4. This factor is 3/2 if the CLEC aggregate performance passes and 3 if the CLEC aggregate performance fails.

CALCULATE REMEDY PAYMENT FOR CORRECTION OF TEST STATISTIC TO ZERO

10. If the current overall adjusted test statistic (calculated in step 6) is equal to or above zero, that is, if $0 \leq z_{CLEC1}^T$ for $i = I$, then go to step 14. Otherwise, go to step 11.
11. Select the cell with the most negative remaining z-value (let $i=I+1, \dots, J$ with $i=I+1$ having the most negative z-value, $i=I+2$ having next most negative z-value, etc. and with $i=J$ when the criterion in step 13 is fulfilled.) and set its z-value to zero ($z_{CLEC1,i} = 0$).
12. Recalculate the overall test statistic for that CLEC with the adjusted data; Example, z_{CLEC1}^T (Per Statistical Methodology).
13. If the new overall test statistic is equal to or above zero, that is, if $z_{CLEC1}^T \leq 0$, go to step 14. Otherwise, repeat steps 11 – 12 letting $i = i+1$.
14. Calculate the Total Affected Volume (TAV_0) by summing the Total Impacted Volumes (TIV_0) of each cell whose z-value was reset to zero except the last cell changed. The affected volume for the last cell changed should be interpolated by $TIV_{CLEC1,J,INT} = (0 - z_{CLEC1,J-1}^T) / (z_{CLEC1,J}^T - z_{CLEC1,J-1}^T) * TIV_{CLEC1,J} - TIV_{CLEC1,I,INT}$. The result should be rounded up to the next positive integer and added to TAV_{CLEC1} . That is, $TAV_{CLEC1} = (TIV_{CLEC1,I} - TIV_{CLEC1,I,INT}) + TIV_{CLEC1,I+1} + TIV_{CLEC1,I+2} + \dots + TIV_{CLEC1,J-1} + TIV_{CLEC1,J,INT}$. Note that if $TIV_{CLEC1,J} = 1$ then $TIV_{CLEC1,J,INT} = 1$ and the interpolation step can be omitted. Also, $TIV_{CLEC1,I} - TIV_{CLEC1,I,INT}$ is the remaining transactions from $TIV_{CLEC1,I}$ that were not used in step 8 and if $TIV_{CLEC1,I} = TIV_{CLEC1,I,INT}$ then $TAV_{CLEC1} = 0$.
15. Calculate the 0 to BCV portion of the payment to CLEC1 by multiplying the result of step 14 (TAV_{CLEC1}) by the appropriate dollar amount from the fee schedule. Thus, $CLEC1_0$ payment = $TAV_{CLEC1} \times$ \$\$from Fee Schedule. Here the fee should be derived from Table 1: Fee Schedule for Tier-1 Per Transaction Fee Determination (Appendix A) multiplied by the appropriate factor from section 4.3.1.4. This factor is 1/3 if the CLEC aggregate performance passes and 2/3 if the CLEC aggregate performance fails.

CALCULATE TOTAL REMEDY PAYMENT FOR CLEC1

16. The total remedy payment for CLEC1 is found by adding the results from step 9 to the results from step 15. That is $CLEC1_{TOTAL}$ payment = $CLEC1_{BCV}$ payment + $CLEC1_0$ payment.

E.1.2 Example: CLEC1 Percent Repeat Customer Troubles Within 30 Days

(PRT) for Resale (DSGN).

Submeasure Category = Provisioning - Resale

Failure Month = Month 1

CLEC Aggregate Result = Failed

	n_i	n_c	l_c	z_{CLEC1}^T	$c_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (< BCV)	TAV0 (0 to BCV)
State	312	27	18	-4.10	-1.22				
Cell				$z_{CLEC1,i}$	RANK	z_{CLEC1}^{T*}			
1		1	0	0.75					
2		4	2	-0.69	8				
3		3	3	-1.76	3	-0.65 ^Δ	3	2 [°]	1
4		1	0	0.67					
5		4	3	-1.45	5	0.80 ^{ΔΔ}	5		1 ^{°°}
6		3	3	-3.45	1	-2.46	1	3	
7		2	2	-1.81	2	-1.60	2	2	
8		3	2	-1.09	6				
9		1	1	-1.65	4	-0.13	4		1
10		2	1	-0.84	7				
11		1	0	0.62					
12		2	1	-0.40	9				
Total			18					7	3

^ΔNote that after making $z_{CLEC1,i} = 0$, the overall $z_{CLEC1}^{T*} = -0.65$ is greater than the balancing critical value $c_{B_{CLEC1}} = -1.22$.

^{ΔΔ}Note that after making $z_{CLEC1,j} = 0$, the overall $z_{CLEC1}^{T*} = 0.80$ is greater than zero.

[°]For cell#3 the TAV would be calculated with $((-1.22) - (-1.60))/((-0.65) - (-1.60)) \times 3 = 1.2$ which is rounded up to 2 transactions.

^{°°}For cell#5 the TAV0 would be calculated with $((0) - (-0.13))/((0.80) - (-0.13)) \times 4 = 0.56$ which is rounded up to 1 transaction.

Remedy payment for CLEC1_{BCV} payment is (7 units) * (\$40/unit) * (3 factor) = **\$840** when the CLEC aggregate performance fails. Remedy payment for CLEC1₀ payment is (3 units) * (\$40/unit) * (2/3 factor) = **\$80** when the CLEC



Appendix E

BST: AT&T SEEM Remedy Calculation Procedures

aggregate performance fails. The total remedy payment is $CLEC_{TOTAL}$
 payment = \$840 + \$80 = **\$920**.

E.2 Tier-2 Calculation For Retail Analogs

1. Tier 2 is triggered by three consecutive monthly failures of any Tier 2 Remedy Plan sub-metric. Determine failure by performing steps 2–4 in section E.1.1 for each of the three consecutive months for the aggregate of all CLEC data. If any month passes, no remedies are required.
2. If remedies are required, calculate monthly statistical results and affected volumes for the CLEC aggregate performance for each of the three consecutive months as outlined in steps 5–8 and 10–14 of section E.1.1. Determine average monthly affected volumes for the rolling 3-month period for both the TAV (remedies required for correcting the test statistic back to the BGV) and the TAV0 (remedies required for correcting the test statistic back to zero).
3. Calculate the payment to State Designated Agency by multiplying average monthly volumes by the appropriate dollar amount from the Tier 2 fee schedule (Appendix A, Table 2: Tier 2 Per Transaction Fee Determination).
4. Therefore, State Designated Agency payment = (average monthly volume TAV * \$\$ from Fee Schedule) + (average monthly volume TAV0 * \$\$ from Fee Schedule).

E.2.1 Example: STATE-A Percent Provisioning Troubles within X Days - UNE Loops Design

Submeasure Category = Provisioning – UNE

Failure Month = Month 1

CLEC Aggregate Result = Failed all three months

Month 1	n_i	n_C	l_c	z^T_{CLEC1}	$C_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (\leftarrow BGV)	TAV0 (0–BGV)
State	155	37	8	-5.11	-0.35				
Cell				$z_{CLEC1,i}$	RANK	$z^T_{CLEC1}^*$			
1		3	4	-1.53	5	0.91 ^{AA}	5		4 ⁰⁰
2		4	0	0.34					
3		2	4	-2.18	3	-1.24	3	4	
4		4	4	-4.52	2	-2.39	2	4	

BST: AT&T SEEM Remedy Calculation Procedures

Month 1	n_i	n_c	l_c	z_{CLEC1}^T	$c_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (\leftarrow BCV)	TAV0 (0-BCV)
5		4	0	0.28					
6		18	4	-0.24	8				
7		5	4	-0.45	7				
8		4	4	-5.39	4	-3.74	4	4	
9		4	4	-0.50	6				
10		4	4	-2.14	4	-0.04 ^Δ	4	4 ⁰	0
Total			8					4	4

^ΔNote that after making $z_{CLEC1,i} = 0$, the overall $z_{CLEC1}^* = -0.04$ is greater than the balancing critical value $c_{B_{CLEC1}} = -0.35$.

^{ΔΔ}Note that after making $z_{CLEC1,j} = 0$, the overall $z_{CLEC1}^* = 0.80$ is greater than zero.

⁰For cell#10 the TAV₄ would not be interpolated given that the impacted volume for that cell is only 1.

⁰⁰For cell#1 the TAV₅ would not be interpolated given that the impacted volume for that cell is only 1.

TAV for month 1 is 4 units, TAV0 for month 1 is 1 unit.

~~Submeasure Category = Provisioning - UNE~~

~~Failure Month = Month 2~~

~~CLEC Aggregate Result = Failed all three months~~

Month 2	n_i	n_c	l_c	z_{CLEC1}^T	$c_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (\leftarrow BCV)	TAV0 (0-BCV)
State	175	13	3	-0.94	-0.39				
Cell				$z_{CLEC1,i}^T$	RANK	z_{CLEC1}^*			
1		2	4	-1.58	2				
2		4	0	1.00					
3		4	0	0.25					
4		4	0	0.26					
5		2	0	0.46					
6		4	0	0.20					

BST: AT&T SEEM Remedy Calculation Procedures

Month 2	n_i	n_c	l_c	$z_{CLEC1,i}^T$	$c_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (\leq BCV)	TAV0 (0-BCV)
7		2	4	-0.74	3				
8		4	4	-4.12	4	0.28 ^A	4	4 ^e	
9		4	0	0.35					
10		4	0	0.50					
Total			3					4	0

^ANote that after making $z_{CLEC1,i}^T = 0$, the overall $z_{CLEC1}^* = 0.28$ is greater than the balancing critical value $c_{B_{CLEC1}} = -0.39$. Note that it is also greater than zero. Therefore the total affected volume has been identified.

^eFor cell#8 the TAV₁ would not be interpolated given that the impacted volume for that cell is only 1.

TAV for month 2 is 1 unit, TAV0 for month 2 is 0 units.

~~Submeasure Category = Provisioning - UNE~~

~~Failure Month = Month 3~~

~~CLEC Aggregate Result = Failed all three months~~

Month 3	n_i	n_c	l_c	$z_{CLEC1,i}^T$	$c_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (\leq BCV)	TAV0 (0-BCV)
State	196	33	8	-4.76	-0.49				
Cell				$z_{CLEC1,i}^T$	RANK	z_{CLEC1}^*			
1		2	0	0.48					
2		4	4	-2.55	6				
3		2	0	0.57					
4		4	4	-3.00	4	-0.84	4	4	
5		4	4	-3.16	2	-2.78	2	4	
6		4	0	0.20					
7		4	4	-3.32	4	-3.76	4	4	
8		2	4	-3.00	3	-1.78	3	4	
9		4	4	-2.92	5	0.18 ^A	5	4 ^e	
10		6	4	-0.41	7				
11		10	4	-0.32	8				

BST: AT&T SEEM Remedy Calculation Procedures

Month 3	n_i	n_c	l_c	z_{CLEC1}^T	$c_{B_{CLEC1}}$		Order Zeroed Out (I/J)	TAV (\leftarrow BCV)	TAV0 (0-BCV)
12		4	0	0.24					
13		4	0	0.28					
Total			8					5	0

^ANote that after making $z_{CLEC1,I} = 0$, the overall $z_{CLEC1}^* = 0.18$ is greater than the balancing critical value $c_{B_{CLEC1}} = -0.49$. Note that it is also greater than zero. Therefore the total affected volume has been identified.

oFor cell#9 the TAV₅ would not be interpolated given that the impacted volume for that cell is only 1.

TAV for month 3 is 5 units, TAV0 for month 3 is 0 units.

If the above examples represent performance for each of months 1 through 3, then

E.2.2 Example: STATE-A Percent Provisioning Troubles within 30 Days - UNE Loops Design

State	TAV	TAV0
Month 1	4	4
Month 2	4	0
Month 3	5	0
Average TAV(0) for rolling 3-month period	3.33	0.33
Remedy amount per unit (Appendix A Table 2	\$345	\$76
Remedy Dollars	\$1148.85	\$25.08

The total remedy paid for this Tier 2 submetric is $\$1148.85 + \$25.08 = \$1,173.93$ which rounds up to **\$1174**.

E.3E.2 Tier-1 Calculation For Benchmarks

- For each CLEC with five or more observations, calculate monthly performance results for the State.
- CLECs having observations (sample sizes) between 5 and the large sample threshold L will use benchmark adjustment calculations described below~~30 will use Table I below~~. The only exception will be for Collocation Percent Missed Due Dates.

BST: AT&T SEEM Remedy Calculation Procedures

- a. Large sample threshold is defined as $L = 5/(B \times (1-B))$, rounded to the closest larger integer, where B is the benchmark. Large sample thresholds for some values of benchmarks are shown in the table below.

<u>Benchmark B</u>	<u>Large Sample Threshold L</u>
<u>90%</u>	<u>56</u>
<u>95%</u>	<u>106</u>
<u>96.5%</u>	<u>149</u>

- b. The Equivalent Minimal Benchmark for sample size $n=5$, EB(5) is based on the smallest number of failures $k \leq n$, for which the cumulative binomial distribution $CBN(k,n,B)$ exceeds 5%. The failure allowance is at least 1 for small samples.

<u>Nominal Benchmark</u>	<u>Equivalent Minimal Benchmark: EB(5)</u>
<u>90%</u>	<u>60%</u>
<u>95%</u>	<u>80%</u>
<u>96.5%</u>	<u>80%</u>

- c. For any CLEC sample size n between 5 and L , the Equivalent Benchmark EB(n) is calculated so that the adjustment percent decreases linearly from EB(5) for $n=5$ to 0 for $n=L$, resulting in the following formula:

$$EB(n) = B - (B - EB(5)) \times (L - n) / (L - 5).$$

- d. Effective Benchmark is equal to the nominal Benchmark for large samples and to the Equivalent Benchmark for small samples.

Small Sample Size Table (95% Confidence)

Sample Size	Equivalent 90% Benchmark	Equivalent 95% Benchmark	Sample Size	Equivalent 90% Benchmark	Equivalent 95% Benchmark
5	60.00%	80.00%	18	77.78%	83.33%
6	66.67%	83.33%	19	78.95%	84.21%
7	71.43%	85.71%	20	80.00%	85.00%
8	75.00%	75.00%	21	76.19%	85.71%
9	66.67%	77.78%	22	77.27%	86.36%



Appendix E

BST: AT&T SEEM Remedy Calculation Procedures

Sample Size	Equivalent 90% Benchmark	Equivalent 95% Benchmark	Sample Size	Equivalent 90% Benchmark	Equivalent 95% Benchmark
10	70.00%	80.00%	23	78.26%	86.96%
11	72.73%	81.82%	24	79.17%	87.50%
12	75.00%	83.33%	25	80.00%	88.00%
13	76.92%	84.62%	26	80.77%	88.46%
14	78.57%	85.71%	27	81.48%	88.89%
15	73.33%	86.67%	28	78.57%	89.29%
16	75.00%	87.50%	29	79.31%	86.21%
17	76.47%	82.35%	30	80.00%	86.67%

3. If the percentage (or equivalent percentage for small samples) meets the benchmark standard, no remedies are required. Otherwise, go to step 4.
4. Determine the Volume Proportion by taking the difference between the benchmark and the actual performance result.
5. Calculate the **CLEC's** Total Affected Volume (TAV) by multiplying the Volume Proportion from step 4 by the Total Impacted CLEC Volume.
6. Calculate the payment to CLEC by multiplying the result of step 5 by the appropriate dollar amount from the fee schedule (Appendix A, Table 1) times the appropriate multiplier (section 4.3.1.5). That is, **CLEC-CLEC's** payment = (**CLEC's Total** Affected Volume **CLEC** * **x** \$ from Fee Schedule * multiplier). For the example that follows, fee amounts are based on an aggregate failure.

E.3.2.1 Example: CLEC Percent Missed Due Dates for Collocations

Submeasure Category = Collocation

Failure Month = Month 1

CLEC Aggregate Result = Failed

	n _c	Benchmark	PMDD _c	Volume Proportion	Affected Volume	Fee Schedule	Fee Multiplier	Payout
State	600	≥ 95% On Time	92%	.03	18			

Payout for CLEC is (18 units) * (\$3165/unit) * (3 factor) = \$170,910.

E.43 Tier-1 Calculation For Benchmarks (In The Form Of A Target)

1. For each CLEC with five or more observations calculate monthly performance results for the State.
2. CLECs having observations (sample sizes) between 5 and ~~30~~large sample threshold L will use small sample ~~size-table~~adjustments as described above.
3. Calculate the interval distribution based on the same data set used in step 1.
4. If the 'percent within' (or equivalent percentage for small samples) meets the benchmark standard, no remedies are required. Otherwise, go to step 5.
5. Determine the Volume Proportion by taking the difference between benchmark and the actual performance result.
6. Calculate the Total Affected Volume by multiplying the Volume Proportion from step 5 by the Total CLEC~~+~~ Volume.
7. Calculate the payment to CLEC~~+~~ by multiplying the result of step 6 by the appropriate dollar amount from the fee schedule. ~~CLEC+~~That is, CLEC's payment = CLEC's Total Affected ~~Volume~~CLEC * Volume x \$\$ from Fee Schedule * ~~x~~ multiplier. For the example that follows assume CLEC aggregate failure.

E.43.1 Example: CLEC~~+~~ Reject Interval – Fully Mechanized

Submeasure Category = Ordering
Failure Month = Month 1
CLEC Aggregate Result = Failed

	n _c	Benchmark	Reject Interval	Volume Proportion	Affected Volume	<u>Fee Schedule</u>	<u>Fee Multiplier</u>	<u>Payout</u>
State	600	97% <= 1 hour	95% <= 1 hour	.02	12			

Payout for CLEC~~+~~ is (12 units) * (\$20/unit) * (2.5 factor) = \$600

E.5 ~~Tier 2 Calculations For Benchmarks~~

~~Tier 2 calculations for benchmark measures are the same as the Tier 1 benchmark calculations, except they are based on the CLEC aggregate performance and the CLEC aggregate data will have failed for three (3) consecutive months.~~

E.64 Regional and State Coefficients

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

E.64.1 [AKC]

- Acknowledgement Completeness (AKC_XML Gateway)
- Regional Coefficient Formula (Tier-1)
- Coefficient = (A+B) / (C+D) where:
 - A = number of valid FOC transactions of the CLEC in the state (fully & partially mechanized)
 - B = number of valid RI transactions of the CLEC in the state (fully & partially mechanized)
 - C = total valid FOC transactions of the CLEC in the region (fully & partially mechanized)
 - D = total valid RI transactions of the CLEC in the region (fully & partially mechanized)

State Coefficient Formula (Tier-2)

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

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

E.64.2 [PFT]

- Percent Flow Through CLEC Aggregate - Residence (PFT-RES)
- Percent Flow Through CLEC Aggregate - Business (PFT- BUS)
- Percent Flow Through CLEC Aggregate – UNE-L (includes UNE-L with LNP)
- Percent Flow Through CLEC Aggregate – UNE Other (PFT-UOTH)
- Percent Flow Through CLEC Aggregate – UNE Loop & Port Combo (PFT-UNEPC)
- Percent Flow Through CLEC Aggregate - LNP (PFT-LNP)
- Regional Coefficient Formula (Tier-1)
- Coefficient = A / B where:
 - A = number of valid FOC transactions of the CLEC in the state (fully mechanized)
 - B = total valid FOC transactions of the CLEC in the region (fully mechanized)

Regional Coefficient Formula (Tier 1)

Coefficient = A / B where:

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

State Coefficient Formula (Tier 2)

State Coefficient = A / B where:

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

E.6.3 CMN, PSEC, PCRAR, PCRIP

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

State Coefficient Formula (Tier 2)

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

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

E.6.4 IA

- Interface Availability (IA)

State Coefficient Formula (Tier 2)

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

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



E.4.3 [SOA]

- Service Order Accuracy [SOA]
- Regional Coefficient Formula (Tier-1)
- Coefficient = A / B where:
- A = number of valid SOA orders of the CLEC in the state;
- B = total valid SOA orders of the CLEC in the region.



Appendix F: ~~BellSouth's~~ AT&T's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

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

- 1.— Those SQM measures included in a state's specific SQM plan with corresponding sub-metrics are subject to reposting. A notice will be placed on the ~~PMA~~AT&T performance measurement website advising CLECs when reposted data is available.
2. ~~-~~SQM Performance sub-metric calculations that result in a shift in the statewide aggregate performance from an "in parity" condition to an "out of parity" condition will be available for reposting.
3. SQM Performance sub-metric calculations with benchmarks where statewide aggregate performance is in an "out of parity" condition will be available for reposting whenever there is a $\geq 2\%$ decline in ~~BellSouth's~~AT&T's performance at the sub-metric level.
4. SQM Performance sub-metric calculations with retail analogues that are in an "out of parity" condition will be available for reposting whenever there is a degradation in performance as shown by an adverse change of ≤ -0.5 in the ~~z-score~~Z-Score at the sub-metric level.
5. Any data recalculations that reflect an improvement in ~~BellSouth's~~AT&T's performance will be reposted at ~~BellSouth's~~AT&T's discretion. ~~However, statewide performance must improve by at least 2% for benchmark measures and the z-score must improve by at least 0.5 for retail analogs at the sub-metric level to qualify for reposting.~~
6. SQM Performance data will be reposted for a maximum of three months in arrears from implementation of the change of programming request requirement (RQ) which corrects a detected error. RQs shall not be unreasonably delayed after the date of detection. the error is detected. As an example, ~~should~~be an error ~~be~~is discovered during the analysis of the May data month, ~~and this error~~ performance that triggers a reposting, ~~BellSouth~~but the



Appendix F: AT&T's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

RQ correcting the error is implemented in the calendar month of July with the June data month performance reports, AT&T will correct the data beginning with the month of ~~detection (May) and the~~ the RQ implementation (July), which would be for the June data month performance reports, and will repost the data month performance reports for the three months preceding ~~data month performance reports - May, April, and March and February.~~

7. When updated SQM performance data has been reposted or when a payment error ~~in PARIS~~ has been discovered, ~~BellSouth~~AT&T will recalculate applicable SEEM payments where technically feasible, for a maximum of three months in arrears from date of detection. Recalculated SEEM payments due to reposted SQM data will be made for the same months that the applicable data was reposted. The three month period for recalculating SEEM payments due to an error ~~in PARIS~~ will be determined in the same manner previously described for the SQM. For example, should an error ~~in PARIS~~ be discovered for the data month of ~~May, BellSouth~~June, AT&T will correct data for ~~May and~~ the three preceding months – May, April, and March~~and February.~~
8. Any adjustments for underpayment of Tier-~~1 and Tier 2~~ calculated remedies resulting from the application of this policy will be made consistent with the terms of the state-specific SEEM plan, including the payment of interest. Any adjustments for overpayment of Tier-~~1 and Tier 2~~ remedies will be made at ~~BellSouth's~~AT&T's discretion.
9. Any adjustments for underpayments resulting from application of this policy will be made in the next month's payment cycle after the recalculation is made. The final current month-~~PARIS~~ reports will reflect the transmitted dollars, including adjustments for prior months where applicable. Questions regarding the adjustments should be made in accordance with the normal process used to address CLEC questions related to SEEM payments.

When a CLEC believes that an error in its specific data requires reposting where the above statewide thresholds have not been met, the CLEC is responsible for identifying such issues and requesting ~~BellSouth~~AT&T to repost the data. Any failure to repost inaccurate data should be brought to the attention of the Authority for resolution if it is estimated that the thresholds described in items 3, ~~4~~, or ~~5~~4 have been met at the CLEC-specific level.

Determination of when Reposting Policy Applies

As part of the Change Notification Process, ~~BellSouth~~AT&T performs an analysis of impacts that are proposed to be made to ~~Performance Measurement~~



Appendix F: AT&T's Policy on Reposting of Performance Data and Recalculation of SEEM Payments

~~Application Platform (PMAP)~~ performance measurement code. These impacts are used to identify changes to its reported SQM results.

To determine this impact, ~~BellSouth~~ AT&T performs a query of the data warehouse to identify those records that would be impacted by the proposed change. Once the number of records ~~are~~ is identified, the measurement is recalculated to determine the impact. This is the general framework for analysis - the specific steps used to evaluate the impact will vary with the issue being analyzed. However, the following example may assist in understanding:

Assume that service orders ~~with an activity code of T~~ were erroneously being included in a ~~UNE-P~~ particular product disaggregation for Percent Missed Installation Appointments. They should have been in another product disaggregation. Further, assume that the number of records erroneously included ~~as UNEP~~ is 110 records out of a total of 86,000. In this example, the numerator and denominator would both be reduced by 110 records and the ~~z-score~~ Z-Score would be recalculated. If the amount of the change was sufficient to meet criteria 2, 4, or 5 above, the Reposting policy will be invoked.

Exhibit C

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Investigation into the establishment of
operations support systems permanent
performance measures for incumbent local
exchange telecommunications companies.
(AT&T FLORIDA TRACK)

DOCKET NO. 000121A-TP
ORDER NO. PSC-10-0545-PAA-TP
ISSUED: August 25, 2010

The following Commissioners participated in the disposition of this matter:

NANCY ARGENZIANO, Chairman
LISA POLAK EDGAR
NATHAN A. SKOP
ART GRAHAM
RONALD A. BRISÉ

NOTICE OF PROPOSED AGENCY ACTION
ORDER APPROVING SETTLEMENT AGREEMENT

BY THE COMMISSION:

NOTICE is hereby given by the Florida Public Service Commission that the action discussed herein is preliminary in nature and will become final unless a person whose interests are substantially affected files a petition for a formal proceeding, pursuant to Rule 25-22.029, Florida Administrative Code.

BACKGROUND

Settlement Agreement

We adopted a wholesale Performance Assessment Plan (Plan) for the purpose of monitoring performance levels of Operations Support Systems (OSS) provided to Competitive Local Exchange Companies (CLECs) by Order No. PSC-01-1819-FOF-TP, issued September 10, 2001, in Docket No. 000121A-TP. The Order also recognized our vested authority, per Section 364.01(3), Florida Statutes, to provide regulatory oversight necessary to ensure effective competition in the telecommunications industry. This docket has remained open since that time to address issues and concerns arising from the OSS performance.

AT&T's wholesale Performance Assessment Plan provides a standard against which performance can be measured over time to detect and correct any degradation of service provided to CLECs. The Performance Assessment Plan is comprised of a Service Quality Measurement (SQM) Plan and a Self-Effectuating Enforcement Mechanism (SEEM) remedy Plan. The SQM Plan includes a comprehensive and detailed description of AT&T's performance

measurements, while the SEEM remedy Plan details the methodology for payments to CLECs (Tier 1 payments) and to the State of Florida (Tier 2 payments) when AT&T's performance fails to meet performance standards. The SQM Plan currently consists of 50 measurements with 35 measures applicable to SEEM payments if AT&T fails to meet the approved performance standards as agreed by the parties.

AT&T is required to participate in review cycles to evaluate AT&T's Performance Assessment Plan, pursuant to Order No. PSC-01-1819-FOF-TP. The purposes of the reviews are to gauge the effectiveness of AT&T's performance measures and to determine whether the current remedy structure is effective in driving AT&T's performance toward the required standards. On May 15, 2009, pursuant to an issued Notice in the docket file, we initiated a fourth review of the Performance Assessment Plan. The Notice requested that interested parties to the docket file proposed redline changes (additions and deletions) to the Performance Assessment Plan (SQM and SEEM Plans). On July 10, 2009, AT&T and the Competitive Carriers of the South (CompSouth) each filed redline changes.

On August 5, 2009, AT&T initiated collaborative conference calls between AT&T and CLECs to review the proposed changes submitted to our staff.¹ The initial AT&T conference call commenced on August 17, 2009, with subsequent weekly calls through the month of September.

On October 1, 2009, a conference call was conducted with AT&T and interested parties to determine the progress made through the collaborative effort. On the call, the parties requested that informal workshops be initiated to discuss in detail the areas of agreement and disagreement. Workshops and collaboration are the process followed in each of the three previous reviews with successful results. The first workshop for the current review was conducted on November 9 and 10, 2009, with a subsequent workshop conducted on December 16 and 17, 2009. Approximately 15 parties are participating in the review, including representatives from CompSouth, Saturn Telecommunications Services (STS), and Florida Cable Telecommunications Association (FCTA).²

On March 22, 2010, AT&T and CompSouth filed a Settlement Agreement and revised SQM and SEEM Plans. Both AT&T and CompSouth stated that their settlement embodied all of the agreements made by all parties through the workshop process. However, on a March 24, 2010, conference call, FCTA and STS opposed the agreement and requested additional time to assess the agreement in its entirety.

On July 9, 2010, AT&T and CompSouth filed First Revised SQM and SEEM Plans replacing the attachments filed with the original Settlement Agreement filed on March 22, 2010. The revised SQM and SEEM Plans reflect the agreement reached with STS. The First Revised

¹ Notification was provided via AT&T Accessible Letter number CLECSE09-134, dated August 5, 2009, re: (BUSINESS PROCESSES) (Call) Collaborative to Discuss Proposed Changes to Service Quality Measures (SQMs) and Self Effectuating Enforcement Mechanisms (SEEM).

² FCTA represents cable telephony providers throughout the state of Florida. FCTA's five largest members include Atlantic Broadband, Bright House Networks, Comcast, Cox, and Mediacom.

SQM and SEEM Plans are incorporated into the Settlement Agreement between AT&T and CompSouth.

On July 19, 2010, FCTA filed a letter identifying issues still in dispute. On July 19, 2010, a meeting was held to discuss these issues. During the meeting, the parties agreed to further negotiations. On August 2, 2010, FCTA and AT&T filed a Second Revised SQM and SEEM Plan. The Second Revised SQM and SEEM Plans replace the previously filed versions and will be incorporated into the Settlement Agreement filed on March 22, 2010, by CompSouth. The Settlement Agreement and the Second Revised SQM and SEEM Plans reflect the agreements reached between AT&T, CompSouth, STS, and FCTA.

JURISDICTION

We are vested with jurisdiction over this matter pursuant to Section 364.01(3) and (4)(g), Florida Statutes. Pursuant to Section 364.01(3), Florida Statutes, the Florida Legislature has found that regulatory oversight is necessary for the development of fair and effective competition in the telecommunications industry. To that end, Section 364.01(4)(g), Florida Statutes, provides, in part, that we shall exercise our exclusive jurisdiction in order to ensure that all providers of telecommunications service are treated fairly by preventing anticompetitive behavior. Furthermore, the FCC has encouraged the states to implement performance metrics and oversight for purposes of evaluating the status of competition under the Telecommunications Act of 1996.

DISCUSSION

Settlement Agreement

The Settlement Agreement filed on March 22, 2010, by CompSouth is incorporated by reference and was filed as Document No. 02046-10. The Settlement Agreement was entered into by the parties because of AT&T's desire to abolish Tier 2 and non-service impacting penalties associated with the SEEM Plan in each of the nine states formerly comprising the BellSouth states. CompSouth, FCTA, and other parties sought assurances that AT&T wholesale service quality would not degrade if we decided to abolish Tier 2 penalties. Additionally, the parties desired to create certainty for a specific period of time, as it relates to the SQM and SEEM Plans, in each of the nine former BellSouth states.

A summary of the provisions of the settlement, which includes seven specific terms, is provided below:

1. Subject to approval of the state regulatory authority, the terms of the settlement apply to each of the nine former BellSouth states.
2. Subject to approval of the state regulatory authority, the parties have agreed to modifications of the SQM and SEEM Plans, which are attached to the Settlement Agreement with changes noted.

3. AT&T will be responsible for seeking approval from other state Commissions for the revised SQM and SEEM Plans and the Settlement Agreement. Parties will not oppose the obtaining of approvals.
4. The Settlement Agreement will not preclude a party from participating in state public utility commission investigations involving SQM or SEEM Plan for the term of the settlement.
5. The term of the settlement is for a period of four (4) years from the date of our approval. During this term, parties will not seek any non-administrative changes in the revised SQM and SEEM Plans. Additionally, the parties will not seek any changes or challenges to state regulatory authority to the extent the state regulatory authority has such jurisdiction to adopt or enforce the revised SQM and SEEM Plans.
6. The Settlement Agreement and revised SQM and SEEM Plans are not effective until approved by state regulatory authority in a final non-appealable order without any modification. Until the Settlement Agreement becomes effective, the parties agree to abide by existing approved SQM and SEEM Plans. Commencing with the first full data month after the revised SQM and SEEM Plans become effective in a state, the failure month count for the Tier 1 Fee schedule will be reset to month 1 for all remedied metrics.
7. Parties agree not to initiate an audit of the revised SQM or SEEM Plan for eighteen months after the start of the settlement term. This paragraph shall not affect the ability of a state regulatory authority to audit, as it deems necessary.

Second Revised SQM and SEEM Plans

The Second Revised SQM and SEEM Plans filed on August 2, 2010, replaced the previously filed Plans³ in their entirety and are incorporated into the Settlement Agreement filed on March 22, 2010. A copy of the Second Revised SQM and SEEM Plans are incorporated into this Order by reference, as filed in this docket as Document No. 06283-10.

The SQM Plan has been streamlined to eliminate four performance measures, which the parties believe are no longer relevant. Additionally, one new performance measure was added. Some changes were also made to either the calculation or benchmarks for several other measures in the SQM Plan. In addition to changes to the performance measures, the SQM Plan incorporates some changes to the Audit and Dispute Resolution Policy section. The main change limits AT&T's responsibility to pay for only one audit per version of the SQM Plan. Changes have also been made to streamline the AT&T Policy on Reposting Performance Data and the AT&T Data Notification Process.

The SEEM Plan contains the major changes occurring during this review cycle. SEEM Plan revisions include the elimination of Tier 2 remedies, and in return, an increase to Tier 1 remedies. Parties have agreed to increase Tier 1 remedies for specific performance

³ On March 22, 2010, CompSouth and AT&T filed a Settlement Agreement, which included Revised SQM and SEEM Plans as attachments. The July 9 filing by AT&T replaced these attachments with the First Revised SQM and SEEM Plans. The August 2, 2010, filing replaced these attachments with the Second Revised SQM and SEEM Plans.

measurements by 20 to 35 percent, over current Tier 1 levels, when AT&T fails to meet the performance measurement standards for three consecutive months. The 20 to 35 percent increase is triggered commencing with the third month of failure and continuing with each consecutive month of failure through month six. This revision is similar in structure to the methodology employed by Tier 2 remedies in that AT&T is subject to increased remedies when AT&T fails to meet performance measurement standards for three consecutive months or more.

The parties also eliminated several provisions in the SEEM Plan that impose penalties on AT&T for performance activities that do not have direct impact on the level of service provided to the CLEC. Examples of these non-service impacting penalties include fines for remitting remedy payments after the due date and fines for reposting or late posting performance measurement results to AT&T's performance measurement website.

The SQM and SEEM Plans were also revised to reflect administrative and technological changes which have occurred since the approval of the Plan in July 2007. These changes include replacing references to BellSouth with AT&T and replacing references to outdated system interfaces.

AT&T's Motion to Approve Lifeline Funding and for Modification of SEEM Payments

On October 16, 2009, AT&T filed a Motion for expedited approval of Lifeline Outreach Funding and modification of SEEM penalty payments. In its Motion, AT&T requested that Tier 2 remedy payments be eliminated because they are unfairly discriminatory, unreasonably punitive, and are no longer appropriate based on market conditions. AT&T argued that competition is firmly entrenched, and, as a result, Tier 2 payments no longer serve their intended purpose and should be eliminated.

As a compromise to the elimination of Tier 2 payments proposed in its October 16, 2010 Motion, AT&T proposed a one-time voluntary contribution of \$250,000 to be deposited in the AT&T Florida Community Service Fund. The purpose of the Community Service Fund is to promote the awareness of the Lifeline Assistance and Link-up programs. According to AT&T, the Community Service Fund is now depleted and is in need of additional funding in order for Lifeline outreach efforts to continue.

Pursuant to Order No. PSC-10-0016-PCO-TP issued on January 5, 2010, we ordered that any ruling on AT&T's Motion be deferred until the review of AT&T's wholesale Performance Assessment Plan is completed, and all proposed changes to the Plan can be brought back, as a whole for decision. We determined that AT&T's Motion was premature and it would be inappropriate to make a decision on one part of the Performance Assessment Plan without thoughtful consideration as to how other parts are affected.

Although we deferred a ruling on AT&T's Motion, we did order that AT&T shall hold, as a corporate undertaking, any Tier 2 payments that became due and payable under the current SEEM Plan pending final resolution. A review of the transcript from the December 15, 2009,

Agenda Conference indicates that we discussed the corporate undertaking as a “safeguard” for all parties involved.⁴

In the March 22, 2010, Settlement Agreement and the Second Revised SQM and SEEM Plans, parties agreed to eliminate Tier 2 and increase Tier 1 penalties. We believe the increase in Tier 1 remedies is an appropriate financial incentive to warrant AT&T’s request to eliminate Tier 2 remedies. As a result, our approval of the Settlement Agreement and the Second Revised SQM and SEEM Plans renders AT&T’s October 16, 2009 Motion moot.

Consequently, AT&T shall retain the Tier 2 payments that have accrued during the pendency of this matter. In the alternative, AT&T has confirmed its commitment to make a one-time voluntary contribution of \$250,000 to be deposited in the AT&T Florida Community Service Fund.

CONCLUSION

We find that the Settlement Agreement filed on March 22, 2010, the Second Revised SQM and SEEM Plans filed on August 2, 2010, and the removal of Tier 2 remedies acceptable given that Tier 1 remedies were increased to maintain an appropriate financial incentive to ensure AT&T’s level of service to CLECs is not diminished.

Under the current SQM and SEEM Plans there are 27 measures subject to both Tier 1 and Tier 2 remedies and an additional eight measures that are Tier 2 only. These eight measurements are unique wherein they measure either system or process performance as a whole and failures cannot be attributed to an individual CLEC. Several of the Tier 2 only measures include the Change Management measures, which have been the subject of many discussions by the parties over the past several years. We will monitor the data for these performance measurements.

The Settlement Agreement also precludes parties from seeking any non-administrative changes to the SQM and SEEM Plans for a four-year period from the date of approval. However, nothing precludes us from seeking such changes should the need arise. Additionally, oversight must be maintained though the data reporting and audit provisions in the SQM and SEEM Plans.

Additionally, AT&T’s Motion for Expedited Approval of Lifeline Outreach Funding and Elimination of Tier 2 Remedies is moot, and AT&T shall retain the Tier 2 payments that have accrued since January 2010 and voluntarily deposit a one-time contribution of \$250,000 in the AT&T Florida Community Service Fund.

CLOSURE OF THE DOCKET

This Order shall become final upon issuance of a Consummating Order, if no person whose substantial interests are affected timely files a protest within 21 days of the issuance of the Order. The revisions to the SQM and SEEM Plans shall be implemented within 60 days from

⁴ Transcript at pages 66 and 69.

the date of the Consummating Order. This docket shall remain open pending the implementation of our decision and for purposes of future performance measure monitoring.

RULING

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the Settlement Agreement filed on March 22, 2010, incorporating the Second Revised SQM and SEEM Plans filed on August 2, 2010, as it relates to Florida only, is approved. It is further

ORDERED that AT&T's Motion to Approve Lifeline Funding and for Modification of SEEM Payments is moot. It is further

ORDERED that AT&T shall retain the Tier 2 payments that have accrued since January 2010 and voluntarily deposit a one-time contribution of \$250,000 into the AT&T Florida Community Service Fund. It is further

ORDERED that the revisions to the SQM and SEEM Plans shall be implemented within 60 days from the date of the Consummating Order. It is further

ORDERED that the docket shall remain open pending the implementation of our decision and for purposes of future performance measure monitoring. It is further

ORDERED that this Order shall become final upon issuance of a Consummating Order, if no person whose substantial interests are affected timely files a protest within 21 days of the issuance of the Order.

By ORDER of the Florida Public Service Commission this 25th day of August, 2010.

/s/ Ann Cole

ANN COLE

Commission Clerk

This is an electronic transmission. A copy of the original signature is available from the Commission's website, www.floridapsc.com, or by faxing a request to the Office of Commission Clerk at 1-850-413-7118.

(S E A L)

AJT/PERE

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing that is available under Section 120.57, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The action proposed herein is preliminary in nature. Any person whose substantial interests are affected by the action proposed by this Order may file a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on September 15, 2010.

In the absence of such a petition, this Order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this/these docket(s) before the issuance date of this Order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

Exhibit D



Dallas
Denver
Fort Lauderdale
Jacksonville
Los Angeles
Madison
Miami
New York
Orlando
Tallahassee
Tampa
Tysons Corner
Washington, DC
West Palm Beach

Suite 1200
106 East College Avenue
Tallahassee, FL 32301
www.akerman.com
850 224 9634 *tel* 850 222 0103 *fax*

March 22, 2010

Ms. Ann Cole
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399

Re: Docket 000121A -- Investigation into the establishment of operations support systems permanent performance measures for incumbent local exchange telecommunications companies. (AT&T FLORIDA TRACK)

Dear Ms. Cole:

Please find attached for filing the Settlement Agreement, including the Revised SQM and SEEM Plans attached thereto (the "Settlement"), between the Competitive Carriers of the South, Inc., ("CompSouth"), the identified CompSouth member carriers and BellSouth Telecommunications, Inc. d/b/a AT&T Florida ("AT&T").

The parties to the Settlement maintain that the Settlement reflects a reasonable compromise of all issues currently pending in this docket. Further, the Settlement honors every agreement reached during the course of the staff-held workshops to date; none of those agreements have been altered or undone by the Settlement.

The parties to the Settlement respectfully request that the Commission approve the Settlement as a reasonable resolution to this matter. We look forward to the input of the staff and other interested carriers.

Ms. Ann Cole
March 22, 2009
Page 2

Your assistance is greatly appreciated. Should you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read "Matthew Feil". The signature is stylized with a large, looping "M" and a cursive "Feil".

Matthew Feil

Attachments

SETTLEMENT AGREEMENT

This Settlement Agreement ("Settlement Agreement") is made and entered by and between BellSouth Telecommunications, Inc.¹ ("AT&T"), and Competitive Carriers of the South, Inc. ("CompSouth"), and the Individual Members² identified in this Settlement Agreement. AT&T, CompSouth, and the Individual Members are referred to herein collectively as "Parties" and individually as a "Party."

WHEREAS, the Parties are currently in the review process of AT&T's Service Quality Measurement ("SQM") and Self Effectuating Enforcement Mechanism ("SEEM") plans pursuant to Florida Public Service Commission Docket Number 000121A-TP; and

WHEREAS, the Parties have made significant progress in negotiating mutually beneficial modifications to the SQM and SEEM plans that the Parties would like to extend to each of the nine states formerly comprising the BellSouth states; and

WHEREAS, AT&T desires the abolishment of both Tier II and non-service impacting penalties³ associated with the SEEM plan in each of the nine states formerly comprising the BellSouth states; and

WHEREAS, CompSouth seeks assurances that AT&T's wholesale service quality in a state will not degrade if the state regulatory authority decides to abolish Tier II penalties associated with the SEEM plan; and

WHEREAS, the Parties desire to create certainty for a specific period of time as it relates to the SQM and SEEM plans in each of the nine states formerly comprising the BellSouth states;

NOW, THEREFORE, in consideration of the mutual promises, agreements, and covenants contained herein, the sufficiency of which is acknowledged by the Parties, AT&T and CompSouth agree as follows:

¹ For purposes of the Settlement Agreement, BellSouth Telecommunications, Inc. means the following entities: BellSouth Telecommunications, Inc. d/b/a AT&T Alabama; BellSouth Telecommunications, Inc. d/b/a AT&T Florida; BellSouth Telecommunications, Inc. d/b/a AT&T Georgia; BellSouth Telecommunications, Inc. d/b/a AT&T Kentucky; BellSouth Telecommunications, Inc. d/b/a AT&T Louisiana; BellSouth Telecommunications, Inc. d/b/a AT&T Mississippi; BellSouth Telecommunications, Inc. d/b/a AT&T North Carolina; BellSouth Telecommunications, Inc. d/b/a AT&T South Carolina; BellSouth Telecommunications, Inc. d/b/a AT&T Tennessee.

² For purposes of this Settlement Agreement, Individual Members are: Access Point, Inc.; Birch Communications; Cavalier Telephone; Covad Communications Company; DeltaCom; NuVox Communications, Inc.;tw telecom, Inc. and XO Communications, Inc.

³ Non-service impacting penalties specifically refer to the following: (a) the automatic penalty of \$2,000-per-day for the late posting of SQM reports (SEEM Section 2.5); (b) the \$400-per-day penalty for reposting SQM reports (SEEM Section 2.6); and, (c) the \$1,000-per-day penalty for each day after the due date for payments made to the Commission (SEEM Section 4.4.3).

I. Specific Terms

- (A) Subject to approval of the state regulatory authority for each state as provided in paragraph (F) below, the terms of the Settlement Agreement apply to each of the nine states formerly comprising the BellSouth states, to wit: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee.
- (B) Subject to approval of the state regulatory authority for each state as provided in paragraph (F) below, the Parties have agreed to certain modifications of the SQM and SEEM plans. The SQM and SEEM plans, as modified, are attached hereto as Attachments "A" and "B" respectively (hereinafter "Revised SQM and SEEM Plans"). The Revised SQM and SEEM Plans are incorporated herein by reference and are integral parts of this Settlement Agreement. The Parties will seek approval of the Revised SQM and SEEM Plans and this Settlement Agreement in each of the nine states formerly comprising the BellSouth states. The first request for approval will be made by AT&T at the Florida Public Service Commission. Once approval is received in Florida, AT&T will file the Revised SQM and SEEM Plans and this Settlement Agreement in the remaining eight (8) states in a sequence the Parties will discuss and agree to in advance. Oversight of and enforcement authority for the Revised SQM and SEEM Plans will remain with the state regulatory authority in each state.
- (C) AT&T has the burden of obtaining approvals (consistent with paragraph (F) below) for the Revised SQM and SEEM Plans and this Settlement Agreement from the impacted state public utility commissions. CompSouth has no obligation to support approvals, but will not oppose the obtaining of the approvals. In the event AT&T is not successful in obtaining an approval in a specific state, then this Settlement Agreement and attached Revised SQM and SEEM Plans become unilaterally voidable by a Party for that specific state, provided written notice of exercise of that right is given to the other Parties within thirty (30) days of issuance of a final, non-appealable order denying the approval. If any Party exercises its unilateral option to void this Settlement Agreement and attached Revised SQM and SEEM Plans for a state pursuant to this paragraph, then a Party may seek a review of the existing SQM and SEEM plan for that specific state.
- (D) The Settlement Agreement, whether approved or pending approval, will not preclude a Party from participating in state public utility commission investigations involving SQM and/or SEEM plans during the Settlement Term in paragraph (E) below. Each Party may provide information on its positions on the issues presented in such proceedings. However, as participants in such proceedings, if the Settlement Agreement has been approved or is pending in the investigating state, the Parties will refer to the Settlement Agreement as a reasonable resolution of any investigated issues within the scope the Settlement Agreement. In the event a state public utilities commission attempts, during the term of this Settlement Agreement, to make non-administrative modifications to

the terms of the attached Revised SQM and SEEM Plans, or attempts to reinstate Tier II penalties associated with the Revised SEEM Plan, then a Party can raise any legal or equitable defenses to such an action.

- (E) The term of this Settlement Agreement is for a period of four (4) years from the date of Commission approval (as described in subparagraph (F) below). During the term of the Settlement Agreement ("Settlement Term"), the Parties will not seek any non-administrative changes in the attached Revised SQM and SEEM Plans and will not seek any changes to or challenge the state regulatory authority's jurisdiction, to the extent the state regulatory authority has such jurisdiction, to adopt or to enforce the Revised SQM and SEEM Plans. The restrictions of this paragraph prohibit any such change or challenge sought by either Party before any agency, court or legislature of any of the states referenced in paragraph (A) above and any agency, court or Congress of the United States. At the conclusion of the Settlement Term, the Parties may seek whatever changes to the SQM and SEEM Plans as they deem appropriate.
- (F) The Settlement Agreement and attached Revised SQM and SEEM Plans are not effective in a specific state, and no Party has any obligation thereunder, until approved by the applicable state regulatory authority in a final, non-appealable order without any modification to terms objectionable to a Party, in the Party's sole discretion; provided, however, that a Party may not declare as objectionable modification of a state's decision to retain or change all or some of the non-service impacting penalties (as defined in footnote 3 above) or to make changes which are administrative or clarifying in nature. Until the Settlement Agreement and attached Revised SQM and SEEM Plans become effective as provided in this paragraph, the Parties agree to abide by existing commission-approved SQM and SEEM plans. Commencing with the first full data month after the Revised SQM and SEEM plans become effective in a state, the failure month count for the Tier-1 Fee Schedule will be reset to month one (1) for all remedied metrics.
- (G) Except upon a CompSouth or Individual Member showing of material error in implementation of the Revised SQM or SEEM Plans in a state, CompSouth and each Individual Member agrees not to initiate a formal audit of the Revised SQM or SEEM Plans for eighteen (18) months after the start of the Settlement Term. This paragraph shall not affect the ability of a state regulatory authority to audit as it deems necessary and justified.

II. No Admission of Liability

It is understood and agreed between the Parties that this Settlement Agreement is a compromise of disputed matters of fact and law, and any recital, payment, credit or refund is not to be construed as an admission of liability on the part of either of the Parties, by whom any alleged liability is expressly denied.

III. Attorney's Fees and Costs

The Parties agree to bear their own attorney's fees and costs.

IV. Warrant of Capacity to Execute Agreement

The Parties represent and warrant that each has the sole right and exclusive authority to execute this Settlement Agreement, to agree to the terms and condition set forth herein and that neither of the Parties has disposed of any of the claims, demands, obligations or causes of action described in this Settlement Agreement. The Parties also warrant that each has acquired the necessary authorizations to execute and be bound by this Settlement Agreement.

V. Governing Law

The Settlement Agreement including all matters of construction, validity and performance shall be governed by, and construed in accordance with, the laws of the state wherein the Settlement Agreement and Revised SQM and SEEM Plans were approved by the state public utilities commission.

VI. Additional Documents

The Parties agree to cooperate fully and execute any and all supplementary documents and to take all additional actions that may be necessary or appropriate to give full force and effect to the terms and intent of this Settlement Agreement.

VII. Counterparts

This Settlement Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

VIII. Advice of Counsel and Reading of Agreement

The Parties acknowledge, represent and warrant that each has been fully advised by its attorney(s) concerning the execution of this Settlement Agreement, that each has fully read and understands the terms of this Settlement Agreement, and that each has freely and voluntarily executed this Settlement Agreement. The Parties acknowledge, represent and warrant that each relies wholly upon its understanding of this Settlement Agreement, that each has been represented by counsel in connection herewith, and that it enters into this Settlement Agreement of its own free will without reliance upon any statement, inducement, promise or representation of the other Party or anyone else not fully expressed herein.

IX. Entire Agreement

This Settlement Agreement reflects the entire agreement and understanding between the Parties with respect to the settlement contemplated herein, supersedes all prior

X. Binding on Successors/Assigns.

Upon the date of execution hereof, this Settlement Agreement shall be binding on both Parties, and their respective successors and assigns.

XI. Headings.

The Preamble and Section headings contained in this Settlement Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Settlement Agreement. However, the contents of the Preamble are considered part of the binding obligations of the Parties, to the extent applicable.

XII. Enforcement and Venue.

The Parties recognize that the power of state regulatory authority to award certain remedies to cure or to prevent breach of this Settlement Agreement, which the state regulatory authority has jurisdiction to approve, may be limited by the constitution or laws of the state. Accordingly, in the event of a breach or threatened breach, a Party may petition for simultaneous enforcement of this Settlement Agreement both at the state regulatory authority and in a state or federal court with jurisdiction over the Parties and territorial jurisdiction over the county where the state regulatory authority has its headquarters, provided, however, that a Party is not entitled to duplicative remedies. Disputes within the scope of the dispute resolution procedures of the Revised SQM and SEEM Plans shall be governed by the dispute resolution procedures in the Revised SQM and SEEM Plans.

IN WITNESS WHEREOF, the Parties have fully executed this Settlement Agreement as of the date of the last signature below.

BellSouth Telecommunications, Inc.	Competitive Carriers of the South, Inc.
	
(Signature)	(Signature)
Ronald M. Pate	
(Print Name)	(Print Name)
Director	
(Title)	(Title)
March 12, 2010	
(Date)	(Date)

agreements, arrangements, understandings, communications, representations or warranties, both oral and written, related to the Settlement Agreement and attached Revised SQM and SEEM Plans.

X. Binding on Successors/Assigns.

Upon the date of execution hereof, this Settlement Agreement shall be binding on both Parties, and their respective successors and assigns.

XI. Headings.


The Preamble and Section headings contained in this Settlement Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Settlement Agreement. However, the contents of the Preamble are considered part of the binding obligations of the Parties, to the extent applicable.

XII. Enforcement and Venue.

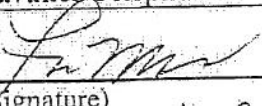
The Parties recognize that the power of state regulatory authority to award certain remedies to cure or to prevent breach of this Settlement Agreement, which the state regulatory authority has jurisdiction to approve, may be limited by the constitution or laws of the state. Accordingly, in the event of a breach or threatened breach, a Party may petition for simultaneous enforcement of this Settlement Agreement both at the state regulatory authority and in a state or federal court with jurisdiction over the Parties and territorial jurisdiction over the county where the state regulatory authority has its headquarters, provided, however, that a Party is not entitled to duplicative remedies. Disputes within the scope of the dispute resolution procedures of the Revised SQM and SEEM Plans shall be governed by the dispute resolution procedures in the Revised SQM and SEEM Plans.

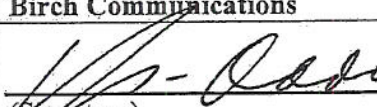
IN WITNESS WHEREOF, the Parties have fully executed this Settlement Agreement as of the date of the last signature below.

BellSouth Telecommunications, Inc.	Competitive Carriers of the South, Inc.
<hr/>	<hr/>
(Signature)	(Signature) <i>Susan J. Berlin</i>
(Print Name)	(Print Name) Susan J. Berlin
(Title)	(Title) President
(Date)	(Date) 3-12-2010

Access Point, Inc.	Birch Communications
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
Cavalier Telephone	Covad Communications Company
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
DeltaCom, Inc. (for itself and its affiliate Business Telecom, Inc.)	
	
(Signature)	(Signature)
D. Anthony Mastanko	(Print Name)
(Print Name)	(Print Name)
VP - Reg Affairs / Senior Reg Att'y	(Title)
(Title)	(Title)
3/21/10	(Date)
(Date)	(Date)

Access Point, Inc.	Birch Communications
<i>Richard E. Brown</i>	
(Signature)	(Signature)
RICHARD E. BROWN	
(Print Name)	(Print Name)
CEO	
(Title)	(Title)
3/12/10	
(Date)	(Date)
Cavalier Telephone	Covad Communications Company
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
DeltaCom	
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)

Access Point, Inc.	Birch Communications
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
Cavalier Telephone	Covad Communications Company
 (Signature)	(Signature)
Francie McComb (Print Name)	(Print Name)
General Counsel EVP Law & Public Policy (Title)	(Title)
3/12/10 (Date)	(Date)
DeltaCom	
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)

Access Point, Inc.	Birch Communications
(Signature)	 (Signature)
(Print Name)	Vincent M. Oddo (Print Name)
(Title)	President / CEO (Title)
(Date)	3/18/2010 (Date)
Cavalier Telephone	Covad Communications Company
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
DeltaCom	
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)

Access Point, Inc.	Birch Communications
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
Cavalier Telephone	Covad Communications Company
(Signature)	<i>Katherine K Mudge</i> (Signature)
(Print Name)	<i>Katherine K. Mudge</i> (Print Name)
(Title)	<i>Director, State Affairs & ILEC Relations</i> (Title)
(Date)	<i>3/15/2010</i> (Date)
DeltaCom	
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)

NuVox Communications, Inc.	
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
tw telecom, Inc.	XO Communications, Inc.
<i>Carolyn Ridley</i> (Signature)	(Signature)
CAROLYN RIDLEY (Print Name)	(Print Name)
VICE PRESIDENT, REGULATORY (Title)	(Title)
3/12/10 (Date)	(Date)

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NuVox Communications, Inc.	
<i>Susan J. Berlin</i>	
(Signature)	(Signature)
<i>Susan J. Berlin</i>	
(Print Name)	(Print Name)
<i>VP, Senior Regulatory Counsel</i>	
(Title)	(Title)
<i>3-12-2010</i>	
(Date)	(Date)
tw telecom, Inc.	XO Communications, Inc.
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)

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NuVox Communications, Inc.	
(Signature)	(Signature)
(Print Name)	(Print Name)
(Title)	(Title)
(Date)	(Date)
tw telecom, Inc.	XO Communications, Inc.
(Signature)	<i>John Ivanuska</i> (Signature)
(Print Name)	John IVANUSKA (Print Name)
(Title)	Director-State Reg. Policy (Title)
(Date)	3/15/10 (Date)

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