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April 26, 2011

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

FILED ELECTRONICALLY IN DOCKET OFFICE ON 04/26/11

Re: *AT&T Tennessee's SQM/SEEM Plan*
Docket 04-00150

Dear Chairman Freeman:

This is to notify the Authority of modifications to the AT&T Tennessee SQM and SEEM Plan. The changes, which are shown in redline on the attached Exhibit 1, remove Section 271-based unbundled network elements ("UNEs") from the SQM and SEEM Plan. These modifications, the basis for which is explained below, will become effective May 1, 2011.

The Authority ruled in 2008 that facilities and services that were no longer required to be provided by AT&T as UNEs, but that AT&T provided pursuant to Section 271, must be included in AT&T's wholesale performance plan. AT&T sought injunctive relief from this ruling in the United States District Court for the Middle District of Tennessee (the "Court").

On March 25, 2011, the Court entered an order enjoining the Authority from enforcing its 2008 rulings relating to Section 271 jurisdiction. The Court concluded that the FCC has exclusive jurisdiction over Section 271 and that the Authority lacks jurisdiction to enforce provisions of Section 271.[1]

Interested parties, including competitive local exchanges providers ("CLECs") have been advised of these changes through standard CLEC communications.

A copy of this letter has been provided to counsel of record.

Sincerely,

Guy M. Hicks

[1] *See BellSouth Telecommunications, Inc. dba AT&T Tennessee v. The Tennessee Regulatory Authority, et al.*, (USDC, MDTN No. 3:08-00059) Memorandum at 8-9, where the Court granted AT&T's request for relief as to both of the Section 271 issues raised by AT&T on appeal.

CERTIFICATE OF SERVICE

I hereby certify that on April 26, 2011, 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
[ ] Overnight
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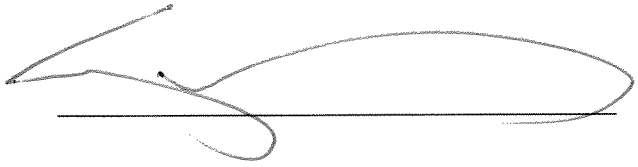

AT&T Service Quality Measurement Plan (SQM)

Tennessee Performance Metrics

Measurement Descriptions
Version 4.~~00~~01

Effective Date: ~~January~~ May 1, 2011

Introduction

AT&T Service Quality Measurement (SQM) Plan describes in detail the measurements produced to evaluate the quality of service delivered to 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 AT&T to provide non-discriminatory access to Competitive Local Exchange Carriers (CLEC)[1]. The reports produced by the SQM provide regulators, CLECs and 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 AT&T Notice of Settlement Agreement and Revisions to SQM and SEEM Plans Docket 04-00150 made October 1, 2010 with the Tennessee Regulatory Authority (the "Authority"). and as updated based on the United States District Court Middle District of Tennessee,Entry Of Judgment No. 3:08cv00059, filed February 25, 2011 for Order No. 3:08-00059 that Set Aside Tennessee Regulatory Authority (TRA) Order No. 04-00381 (TRA Nov. 28, 2007) to the extent that the Order implements provisions of 47 U.S.C. § 271.

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 AT&T performance measurements and the reports that flow from them.

Report Publication Dates

Each month, preliminary SQM reports will be posted to AT&T's performance measurement website (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.

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

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

Report Delivery Methods

CLEC SQM 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 6: Trunk Group Performance

Section 7: Collocation

Section 8: Change Management

Section 1: Operations Support Systems (OSS)

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

Definition

The response interval is the average 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 AT&T interface systems to obtain, from 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 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-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.

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

Report Structure

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

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark

Legacy System/Interface

- ..... Pre-Ordering/Ordering OSS Response Average Interval
  Regional Level ..... Parity + 2 seconds
- ..... Maintenance & Repair OSS Response Average Interval
  Regional Level, Per OSS Interface……....Parity +1 second

(See Appendix C: OSS Interface Tables)

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 AT~~the AT&T website: (http://wholesale.att.com/alerts_and_notifications/network/oss/index.html).

Exclusions

- ... CLEC-impacting troubles caused by factors outside of AT&T's purview, e.g., troubles in customer equipment, troubles in networks owned by telecommunications companies other than 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 / b) x 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 Analog/Benchmark
Regional Level, Per OSS Interface	>= 99.5%

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

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 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

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Loops	Benchmark: 95% <= 1 Minute

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

- 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, AT&T will not be able to determine which specific CLEC this message represented.

Calculation

Acknowledgement Completeness = (a / b) x 100

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

Report Structure

- CLEC Aggregate
- CLEC Specific
- Geographic Scope
  -Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Acknowledgments	Benchmark: 99.75%

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 LSC. When a CLEC submits an LSR, the source systems will determine if the LSR should be forwarded to LSC for manual handling.

*See LSR Flow-Through Matrix on AT&T's performance measurement website 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 LSC to determine if the error is caused by the CLEC, or is due to 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 AT&T's system functionality, the LSC representative will correct the error and the LSR will continue to be processed.

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

Calculation

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

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

- e = The number of LSRs that are returned to the CLEC from the LSC 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)] x 100

- a = The number of LSRs that flow through LESOG/LAUTO and reach a status for a FOC to be issued
- b = The number of LSRs passed from 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 LSC 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 Analog/Benchmark
Residence	Benchmark: 95%
Business	Benchmark: 90%
UNE-L (includes UNE-L with LNP)	Benchmark: 85%
~~UNE-P~~	~~Benchmark: 95%~~
LNP	Benchmark: 95%

Notes:

- The Flow-Through Error Analysis 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 reach a status for a FOC to be issued.
- The CLEC LSR information is available for any CLEC on the AT&T performance measurement website.

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"
- 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 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 AT&T website(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 LSC Service Representative clarifies the LSR back to the CLEC via ordering interface gateways.

Email: The elapsed time from receipt of a valid LSR not submitted via electronic ordering systems (date and time stamp of Email) until notice of the reject (clarification) is returned to the CLEC via 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).

Calculation

Reject Interval = (a - b)

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

Percent within Interval = (c / d) x 100

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

Report Structure

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

- Fully Mechanized
- Partially Mechanized
- Email
- Local Interconnection Trunks
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

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

O-8 [RI]: 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 Emailed LSRs and Non-Mechanized ASRs only
- LSRs identified as "Projects"
- 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 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 AT&T website.

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 an AT&T service representative and a Firm Order Confirmation is returned to the CLEC via ordering interface gateways.

Email: The elapsed time from receipt of a valid LSR not submitted via electronic systems (date and time stamp of Email) until a Firm Order Confirmation is sent to the CLEC via 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).

Calculation

Firm Order Confirmation Interval = (a - b)

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

Percent within Interval = (c / d) x 100

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

Report Structure

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

- Fully Mechanized

- Partially Mechanized
- Email
- Local Interconnection Trunks
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Resale – Residence (Non-Design)	Fully Mechanized: 95% <= 3 business hours
• Resale – Business (Non-Design)	Partially Mechanized: 95% <= 10 business hours
• Resale – Design (Special)	Email: 95% <= 17 business hours
• 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 Trunks	95% <= 5 business days

O-9 [FOCT]: Firm Order Confirmation Timeliness

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"
- 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 LSC personnel.

Email: The number of FOCs or Rejects sent to the CLECs via Email in response to Emailed LSRs (date and time stamp in 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).

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
  Email
  Local Interconnection Trunks
- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  -State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM/ Analog/Benchmark
Fully Mechanized	98% Returned
Partially Mechanized	95% Returned
Email	95% Returned
Local Interconnection Trunks	95% Returned

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

Definition

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

Exclusions

- ... Volume of abandoned calls

Business Rules

The duration starts when a CLEC representative or 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 an AT&T service representative answers the call. Abandoned calls are not included in the volume of calls handled but are included in total seconds.

Calculation

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

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

Average Answer Time for 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
- ... Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
... CLEC Local Service Center	Average Answer Time <=30 seconds

Section 3: Provisioning

P-1 [HOI]: Held Order Interval

Definition

This report measures delays in completing CLEC orders due to 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 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 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
- ..... 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, UCL, and Line Splitting)	ADSL Provided to Retail
•..... UNE ISDN/UDC/IDSL	Retail ISDN – BRI
•..... ~~UNE Line Sharing~~	~~ADSL Provided to Retail~~
•..... UNE Other Design	Diagnostic
•..... UNE Other Non-Design	Diagnostic
•..... Local Interconnection Trunks	<= 2% held for 5 days or more due to lack of facilities

P-1 [HOI]: Held Order Interval

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

Definition

This report measures the percentage of jeopardy notices that 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 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 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/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
- 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 Line Splitting)	95% >= 48 hours
UNE ISDN/UDC/IDSL	95% >= 48 hours
~~UNE Line Sharing~~	~~95% >= 48 hours~~
UNE Other Design	95% >= 48 hours
UNE Other Non-Design	95% >= 48 hours
Local Interconnection Trunks	95% >= 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 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

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 with a due date in the reporting period

Report Structure

- CLEC Specific
- CLEC Aggregate
- 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, UCL, and Line Splitting)	ADSL Provided to Retail
UNE ISDN/UDC/IDSL	Retail ISDN - BRI
~~UNE Line Sharing~~	~~ADSL Provided to Retail~~
UNE Other Design	Diagnostic
UNE Other Non-Design	Diagnostic
Local Interconnection Trunks	Parity with Retail Trunks

P-3 [MIA]: Percent Missed Installation Appointments

Definition

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

Exclusions

- Orders canceled on or prior to the due date
- 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)
- Disconnect Orders
- Listing Orders

Business Rules

All Service orders are considered as met, unless the first missed appointment code is due to 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 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
- AT&T Aggregate
- Dispatch/Non-Dispatch (except Trunks)
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)
Resale Design	Retail Design
LNP (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, UCL and Line Splitting)	ADSL Provided to Retail
UNE ISDN/UDC/IDSL	Retail ISDN - BRI
~~UNE Line Sharing~~	~~ADSL Provided to Retail~~
UNE Other Design	Diagnostic
UNE Other Non-Design	Diagnostic
Local Interconnection Trunks	<= 5%

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

Definition

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

Exclusions

- Canceled Service Orders
- 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)
- 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 AT&T issues a FOC/SOCS date time-stamp indicating receipt of an order (application date) from the CLEC to 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 AT&T website: (http://wholesale.att.com/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
- 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 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 (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 Line Splitting)
  without conditioning.....<= 5 Business Days
  with conditioning.....<=11 Business Days
- UNE ISDN/UDC/IDSL.....Retail ISDN - BRI
- ~~UNE Line Sharing without Conditioning..... ADSL Provided to Retail with Conditioning.....<= 12 Days~~
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks.....Parity with Retail Trunks

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

P-5 [CNI]: Average Completion Notice Interval

Definition

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

Exclusions

- Canceled Service Orders
- 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)
- 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 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
- AT&T Aggregate
- Mechanized Orders
- Email Orders
- Reporting intervals in hours
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)

- Resale Design.....Retail Design
- LNP (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, UCL and Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL .....Retail ISDN - BRI
- ~~UNE Line Sharing .....ADSL Provided to Retail~~
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks .....Parity with Retail Trunks

P-5 [CNI]: Average Completion Notice Interval

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

Definition

This report measures the average time it takes AT&T to disconnect loops from the 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 AT&T to provide a coordinated conversion.

Exclusions

- Canceled Service Orders
- Delays caused by the CLEC
- Non-Coordinated Conversions
- 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)
- Listing Orders

Business Rules

Coordinated conversions are scheduled between the CLEC and 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 Analog/Benchmark
• Coordinated Customer Conversions (Loops)	95% <= 15 Minutes

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

Definition

This report measures the percentage of orders where 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 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, 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) x 100

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  -State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Product Reporting Level	
Non-IDLC	95% within + or – 15 minutes of scheduled start time
IDLC	95% within + or – 2 hours of scheduled start time

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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 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 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) x 100

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Non-Coordinated Conversions	95% Completed on Due Date with CLEC Notification

P-9 [PPT]: Provisioning Trouble Rate

Definition

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

Exclusions

- Canceled Service Orders
- 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)
- Disconnect Orders
- Trouble reports caused and closed out to Customer Provided Equipment (CPE) or CLEC Equipment
- Listing Orders
- 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

The first trouble report received after the completion of a service order is counted in this measure. The numerator 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 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 reporting period

Report Structure

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

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Resale Residence (Non-Design)	Retail Residence (Non-Design)
Resale Business (Non-Design)	Retail Business (Non-Design)
Resale Design	Retail Design
LNP (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, UCL and Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL.....Retail ISDN-BRI
- ~~UNE Line Sharing.....ADSL Provided to Retail~~
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks.....Parity with Retail Trunks

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 an AT&T service representative in the LSC are measured.

Exclusions

- Canceled Service Orders
- 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)
- Disconnect Orders
- CLEC LSRs submitted electronically that are not manually handled by 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 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.

AT&T will maintain a list of LSC-/System workarounds which will not be considered service affecting. This list will be identified in a document posted on the AT&T website: (http://wholesale.att.com/notifications/soams/index.html). CLECs may discuss any of the posted LSC /System workarounds during the regular 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

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 AT&T website. Any changes to the USOCs and FIDs required to continue checking the identical service will be updated on this website.

Calculation

Percent Service Order Accuracy = (a / b) x 100

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

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - Region

SQM Disaggregation – Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Service order accuracy	95% Accurate

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

Definition

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

Exclusions

- CLEC Caused Errors
- NPAC errors unless caused by AT&T
- Standalone LNP orders with more than 500 number activations
- 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)
- Listing Orders
- Scheduled OSS Maintenance

Business Rules

The interval starts when the broadcast message is sent to AT&T's gateway. The end time is the confirmation receipt time in the Local Service Management Systems (LSMS), which advises that 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 Analog/Benchmark
• LNP	>= 96.5%

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

Definition

This report measures the percentage of time 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 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) x 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 Analog/Benchmark
• LNP	>= 95%

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

Definition

This report measures the percentage of time translations are removed from 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 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 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 AT&T within 30 minutes after Activate Message

Business Rules

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

Calculation

Disconnect Timeliness = (a / b) x 100

- a = Number of non-triggerable orders with translations removed in less than 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	SQM Analog/Benchmark
LNP (Normal Working Hours and Approved After Hours)	95% <= 4 Hours
LNP (Unscheduled After Hours Ports)	95% <= 4 Hours (excluding non-business hours)

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~~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) x 100; (C / D) x 100; (E / F) x 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 though 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
% standalone LNP orders with10 digit trigger applied where required	Diagnostic
% SOCs issued on standalone LNP flow through orders	Diagnostic
% BCNs issued on standalone LNP flow through order requiring a SOC	Diagnostic

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 listings[1]

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 days[2] 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 translations[3]
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.
- End user readiness to port is 12:01 a.m. of the due date.

[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.

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 Time	Diagnostic
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
- AT&T trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- 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

The negotiated commitment date and time is established when the repair report is received. The cleared time is the date and time 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) x 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
- 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 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 Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL.....Retail ISDN – BRI
- ~~UNE Line Sharing.....ADSL Provided to Retail~~
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks.....Parity with Retail Trunks

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 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 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, 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 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 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 Line Splitting)	ADSL Provided to Retail
UNE ISDN/UDC/IDSL	Retail ISDN – BRI
~~UNE Line Sharing~~	~~ADSL Provided to Retail~~
UNE Other Design	Diagnostic
UNE Other Non-Design	Diagnostic
Local Interconnection Trunks	Parity with Retail Trunks

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

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 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 Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL .....Retail ISDN – BRI
- ~~UNE Line Sharing.....ADSL Provided to Retail~~
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks .....Parity 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
- AT&T trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- 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

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 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
- 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 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 Line Splitting).....ADSL Provided to Retail
- UNE ISDN/UDC/IDSL.....Retail ISDN – BRI
- ~~UNE Line Sharing.....ADSL Provided to Retail~~
- UNE Other Design.....Diagnostic
- UNE Other Non-Design.....Diagnostic
- Local Interconnection Trunks.....Parity with Retail Trunks

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
- AT&T trouble reports associated with internal or administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- 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 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 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
- 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 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 Line Splitting)	ADSL Provided to Retail
UNE ISDN/UDC/IDSL	Retail ISDN – BRI
~~UNE Line Sharing~~	~~ADSL Provided to Retail~~
UNE Other Design	Diagnostic
UNE Other Non-Design	Diagnostic
Local Interconnection Trunks	Parity with Retail Trunks

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 trouble reports associated with administrative service
- Customer Provided Equipment (CPE) or CLEC Equipment Troubles
- Informational Tickets
- 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 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 = (a / b) x 100

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

Report Structure

- Dispatch/Non-Dispatch (except trunks)
- CLEC Specific
- CLEC Aggregate
- 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 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 Line Splitting)	ADSL provided to Retail
• UNE ISDN/UDC/IDSL	Retail ISDN – BRI
~~• UNE Line Sharing~~	~~ADSL Provided to Retail~~
• UNE Other Design	Diagnostic
• UNE Other Non-Design	Diagnostic
• Local Interconnection Trunks	Parity with Retail Trunks

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

Definition

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

Exclusions

- Volume of abandoned calls

Business Rules

The duration starts when a CLEC representative or 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.

Calculation

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

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

Average Answer Time for 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
- AT&T Aggregate
- Geographic Scope
  - Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• CLEC Average Answer Time	AT&T Average Answer Time

Section 5: Billing

B-1 [BIA]: Invoice Accuracy

Definition

This measure reports the accuracy of billing invoices rendered by 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] x 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
- AT&T Aggregate
- Geographic Scope
  - State
- Number of Adjustments

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
CLEC Invoice Accuracy	
• Resale	Retail Invoice Accuracy
• UNE	Retail Invoice Accuracy
• Interconnection	Retail Invoice Accuracy

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 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
- AT&T Aggregate
- Geographic Scope
  -State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark

The average delivery intervals are compared as follows:

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

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 AT&T receives the records to the date 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 Analog/Benchmark
• Usage Data Delivery Timeliness	>= 95% in Six Calendar Days

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

Definition

This report measures timely responses to carrier bill adjustment requests.

Exclusions

- Adjustments initiated by 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 AT&T receives the CLEC Billing Adjustment Request (BAR) form and the clock stops when AT&T either makes an adjustment through BOCRIS or ACATS (generally next CLEC bill unless adjustment request after middle of the month) or AT&T denies the request in BDATS or ACATS and AT&T notifies the CLEC of the BAR resolution. AT&T will report separately those adjustment requests that are disputed by AT&~~T~~.T. (BAR form and instructions are found at http://wholesale.att.com/tools_forms_and_reports/forms/billing-collections.html).

Calculation

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

- a = Total number of BAR requests received in the data month that were responded to in 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 Analog/Benchmark
• Percent Billing Adjustment Requests responded to ……..	95% <= 40 business days

Section 6: Trunk Group Performance

TGP-1 [TGP]: Trunk Group Performance

Definition

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

- 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

Calculation

Percent Blocked Calls = $(\{a - b\} \div \{c - b\}) \times 100$

- a = count of blocked calls
- b = excluded blocked calls
- c = total calls offered

Report Structure

- CLEC Specific
- CLEC Aggregate
- Geographic Scope
  - State

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM 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%]

Section 7: Collocation

C-1 [ART]: Collocation Average Response Time

Definition

This report measures the time it takes AT&T to respond to the receipt of a complete and accurate collocation application. AT&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 AT&T receives a complete and accurate collocation application accompanied by the appropriate application fee if required. The interval stops on the date AT&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

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 AT&T receives a complete and accurate bona fide firm order accompanied by the appropriate fee, if required, and ends on the date that 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

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 AT&T is unable to complete by the 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 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

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 AT&T interface/system changes so CLEC interfaces are not impaired by change. The CCP is used by AT&T and the CLECs to manage requested changes to the AT&T local interfaces.

Exclusions

- Changes to release dates for reasons outside 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) x 100

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

Report Structure

- AT&T Aggregate
- Geographic Scope
  -Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Notices	98% on time

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 AT&T interface/system changes so CLEC interfaces are not impaired by change. The CCP is used by AT&T and the CLECs to manage requested changes to the 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 AT&T website (http://wholesale.att.com/reference_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

- AT&T Aggregate
- Geographic Scope
  -Region

SQM Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Documentation	98% on Time

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

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

Exclusions

None

Business Rules

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. AT&T can duplicate a CLEC reported system error.
2. 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. 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 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 CLECs .....97% <= 15 Minutes

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

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 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 (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 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 Analog/Benchmark
• Errors	95% within Interval

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 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 rejection per the Change Control Process, a copy of which can be found on the AT&T website. 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

- AT&T Aggregate
- Geographic Scope
  -Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
Reason – Cost	Diagnostic
Reason – Technical Feasibility	Diagnostic
Reason – Industry Direction	Diagnostic
Reason – Out of Scope (OOS)	Diagnostic

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 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 without a mechanized work around	0 Defects
Number of Type 6 Severity 3 Defects	0 Defects
Number of Type 6 Severity 4 Defects	0 Defects

CM-10 [SV]: Software Validation

Definition

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

Exclusions

None

Business Rules

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.

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, 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 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

- AT&T Aggregate
- Geographic Scope
  -Region

SQM Level of Disaggregation - Analog/Benchmark

SQM Level of Disaggregation	SQM Analog/Benchmark
• Failed Transactions	<= 5%

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

Definition

This report measures whether 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 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 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) x 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 AT&T Initiated Software Change Requests Implemented on Time = (c / d) x 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

- 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 Analog/Benchmark
Type 4 Requests Implemented	95% within Interval
Type 5 Requests Implemented	95% within Interval

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 – 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 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 AT&T Business Systems trouble receipt center which serves business and CLEC customers.

C

CABS
Carrier Access Billing System – The 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 AT&T and the CLECs to initiate OSS changes to 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 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 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 – 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 – 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 AT&T proprietary corporate database and billing system for non-access customers and/or services.

CRSG
Complex Resale Support Group - The group within AT&T which serves as the interface between the LSC 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 AT&T, Independent end offices, and the 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 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 AT&T service order entry system used by AT&T service representatives to input service orders in 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 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
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 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 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 request and associated service orders.

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

LSC
Local Service Center - The 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 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 - 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 - An AT&T operations system that stores the assignment and selected account information for use by downstream OSS and 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 AT&T to the Number Portability Administration Center (NPAC).

(2) Allowing for inter-company communications between 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 AT&T and the related service problems are resolved.

MARCH
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 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 legacy systems.

Ordering
The process and functions where resale services or unbundled network elements are ordered from AT&T, as well as the process by which an LSR or ASR is placed with 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 AT&T region. A "T" Order Type is always pared 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

PMQAP
Performance Measurement Quality Assurance Plan – AT&T Operational Guide which documents the systematic procedures used by 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
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 AT&T Consumer Services trouble receipt center which serves residential customers

RSAG
Regional Street Address Guide - The 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

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

SOCS
Service Order Control System – AT&T system which routes service order images among 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 AT&T Operations System that supports trouble receipt center personnel in taking and handling customer trouble reports.

Test Transactions/Records
Transactions created by AT&T, or in tests originated by CLECs, where the CLEC has coordinated the test with 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 AT&T, which fallout, requiring manual input into a service order generator.

U V

UCL

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

UNE
Unbundled Network Element – Those parts of 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: AT&T Audit and Dispute Resolution Policy

Audit

AT&T currently provides CLECs with certain audit rights as a part of their individual interconnection agreements. If ordered by the Public Service Commission, AT&T will agree to undergo an SQM audit. 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 SQM plan shall be borne by AT&T.
2. Should an independent third party auditor be required, it shall be selected by AT&T and the PSC.
3. 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 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

OSS-1 [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	AT&T & 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/AT&T	x
SONGS	CLEC/AT&T	x
ATLAS/COFFI	CLEC/AT&T	x
BOCRIS/CRIS	CLEC/AT&T	x
DSAP	CLEC/AT&T	x
RSAG	CLEC/AT&T	x
SOCS	CLEC/AT&T	x
LFACS	CLEC/AT&T	x
RNS	AT&T	x
ROS	AT&T	x

OSS Table 2: SQM Interface Availability for Maintenance & Repair

OSS Interface	% Availability
AT&T TAFI	x
CLEC TAFI	x
CLEC EBTA	x
AT&T & CLEC	
CRIS	x
LMOS HOST	x
LNP Gateway	x

Appendix D: AT&T's Policy on Reposting of Performance Data

AT&T will be required to repost performance data as reflected in the Service Quality Measurement (SQM) reports 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 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 >= 2% decline in 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 >= .5 in the Z-Score at the sub-metric level.

5. Any data recalculations that reflect an improvement in AT&T's performance will be reposted at AT&T's discretion.

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 the error is detected. As an example, an error is discovered during the analysis of the May data month peformance that triggers a reposting, 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 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.

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 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 or 4 have been met at the CLEC-specific level.

Determination of when Reposting Policy Applies

As part of the Change Notification Process, AT&T performs an analysis of impacts that are proposed to be made to the AT&T performance measurement reporting process code. These impacts are used to identify changes to its reported SQM results.

To determine this impact, 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 were erroneously being included in a 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 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 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

AT&T Service Quality Measurement Plan (SQM) 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 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 AT&T performance measurement website each month. For the measures calculated in 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 the AT&T performance measurement report process. Some reports are calculated outside of 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 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

- 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 >= 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-7D [NCDD]: Non-Coordinated Customer Conversions – Percent Completed and Notified on Due Date
- P-9 [PPT]: Provisioning 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 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
- 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 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 40 Business Days

The Billing Supporting Data File used to create performance measurements for billing is provided for CLECs on the 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 the AT&T performance measurement website in the Documentation/Exhibits folder.

Appendix F: AT&T Data Notification Process

1. On the first business day of the month preceding the data month for which AT&T proposes to make any change to the method by which its performance data is calculated, AT&T will provide notice of any change to the method by which its performance data is calculated. These changes (hereinafter referred to as "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.

2. No later than fifteen (15) business days after Data Notification Changes are published by AT&T, affected parties must file comments with AT&T to the extent they have objections or concerns about the 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. The Data Notification Changes set forth in the written notice referenced above would be presumptively valid and deemed approved effective thirty (30) calendar days after that notice 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 AT&T Single Report Structure (SRS). The statistical comparison of 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:

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

RATE:

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

n_{BST} = number of observations for AT&T in current time period
n_{CLEC} = number of observations for CLECs in current time period
$StDev_{BST}$ = estimated standard deviation of AT&T performance calculated using current time period's data.
$\hat{p}_{BST}$ = estimated AT&T performance proportion calculated using current time period's data.
$\hat{r}_{BST}$ = estimated 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:

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

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

*CLEC** = estimated CLEC mean ($\overline{X}_{CLEC}$), 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 <= 1.645	Z >= -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.

	Better Performance ↑	Better Performance ↓
YES	CLEC Measure >= AT&T Measure	CLEC Measure <= AT&T Measure
NO	CLEC Measure < AT&T Measure	CLEC Measure > AT&T Measure

Appendix H: Special Access Measurements

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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 AT&T

Comparison reports are required for:

- CLEC/ IXC Carrier Aggregate
- AT&T Long Distance 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 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 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. 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 AT&T's request due to a lack of AT&T facilities or otherwise.

Calculation Methodology

Percent Meeting Performance Standard:

- [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 AT&T Request due to a lack of AT&T Facilities or Otherwise:

- Count of ASRs, which have not yet received a FOC, Withdrawn at AT&T's Request, during the current reporting period, due to a lack of AT&T facilities or otherwise

Business Rules

1. Counts are based on each instance of a FOC received from 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 AT&T's Request Due to a Lack of 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 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 (End of Reporting Period – ASR Received Date >Expected FOC Receipt Interval) / Total number of ASRs received during reporting period x 100

FOC Receipt Past Due - Without Open Query/Reject - Distribution:

- [(End of Reporting Period – ASR Received date) – (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 (End of Reporting Period – ASR Sent Date > Expected FOC Receipt Interval) / Total number of ASRs received during reporting period x 100

Business Rules

1. All counts are based on the latest ASR request sent to 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.
2. The Expected FOC Receipt Interval, used in the calculations, will be the interval identified in the Performance Standards for the FOC Receipt measure.
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.

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 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-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) = >AT&T Stated Interval] x 100

Offered versus Requested Interval Delta – Distribution:

- [(Offered Due Date – CDDD) where (CDDD – ASR Received Date) = > 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 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 => AT&T Stated Interval) = 100%
- Offered versus Requested Interval Delta – Distribution……- Diagnostic
- AT&T Stated Intervals: To be determined by AT&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:

- [(Count of Circuits Completed on or before AT&T Committed Due Date + Count of Circuits Completed after FOC Due Date with a verifiable CNR code) / (Count of Circuits Completed in Reporting Period)] x 100

Percent on Time Performance to FOC Due Date – Without CNR Consideration:

- [(Count of Circuits Completed on or before AT&T Committed Due Date) / (Count of Circuits Completed in Reporting Period)] x 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 AT&T.
2. Selection is based on circuits completed by AT&T during the reporting period. An ASR may provision more than one circuit and 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. 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. A Customer Not Ready (CNR) is defined as a verifiable situation beyond the control of AT&T that prevents 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. 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 AT&T facilities is required for diagnostic purposes.

Calculation Methodology

Average Days Late:

- Σ [Circuit Completion Date–AT&T Committed Due Date (for all Circuits Completed Beyond AT&T Committed Due Date without a CNR code)] / (Count of Circuits Completed Beyond AT&T Committed Due Date without a CNR code)

Days Late Distribution:

- Circuit Completion Date –AT&T Committed Due Date (for all Circuits Completed Beyond 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 AT&T Facilities:

- Σ [Circuit Completion Date –AT&T Committed Due Date (for all Circuits Completed Beyond AT&T Committed Due Date without a CNR code and due to a Lack of AT&T Facilities] / (Count of Circuits Completed Beyond AT&T Committed Due Date without a CNR code and due to a Lack of AT&T Facilities)

Business Rules

1. Measures are based on the latest valid ASR received and the associated FOC Due Date received from the AT&T.
2. Selection is based on circuits completed by AT&T during the reporting period. An ASR may provision more than one circuit and 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 AT&T that prevents 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. 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 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 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 AT&T Offered Interval:

- Sum (FOC Due Date – ASR Received Date) / Total Circuits Completed during reporting period

Average Installation Interval:

- Sum (AT&T Completion Date – ASR Received Date) / Total Circuits Completed during reporting period

Business Rules

1. Measures are based on the last ASR received and the associated FOC Due Date received from AT&T.
2. Selection is based on circuits completed by AT&T during the reporting period. An ASR may provision more than one circuit and 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.
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. 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 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 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:

- [(Count of all circuits not completed at the end of the reporting period > 5 days beyond the FOC Due Date, grouped separately for Total AT&T Reasons, Lack of AT&T Facility Reasons, and Total CLEC/Carrier Reasons) / (Total uncompleted circuits past FOC Due Date, for all missed reasons, at the end of the reporting period)] x 100

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 day, >1 - < =5 days, 0 days - < = 5 days, >5 - < =10 days, >10 - < =20 days, >20 - < =30 days, >30 - <=40 days, >40 days

Percent Cancellations after FOC Due Date:

- [Count (All circuits cancelled during reporting period, that were Past Due at the end of the previous reporting period, where (Date Cancelled > FOC Due Date) / (Total circuits Past Due at the end of the previous reporting period)] x 100

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 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 AT&T that prevents 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. 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 AT&T Reasons .....< 3.0 % > 5 days beyond FOC Due Date
- Percent Past Due Circuits - Due to Lack of 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 within 30 Calendar Days of Installation:

- [Count (trouble reports within 30 Calendar Days of Installation) / (Total Number of Circuits Installed in the Report Period)] x 100

Business Rules

1. AT&T Completion Date is the date upon which AT&T completes installation of the circuit, as noted on a completion advice to the CLEC or IXC Carrier.
2. 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
- 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 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:

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

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 AT&T for the purposes of tracking related action and disposition of a service repair or maintenance situation.
2. A trouble is resolved when 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
- 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 AT&T. Calculation is the elapsed time from the CLEC or IXC Carrier submission of a trouble report to AT&T to the time 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:

- Σ [(Date and Time of Trouble Ticket Resolution Closed to the CLEC or IXC Carrier – Date and Time of Trouble Ticket Received by 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 AT&T) – (Customer Hold Times) is > 24 hrs / (Count of Trouble Tickets Resolved in Reporting Period)] x 100

Mean Time To Restore – NTF / Test OK:

- Σ [(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 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 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 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
- 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:

- [(Count of Current Trouble Reports with a previous trouble, reported on the same circuit, in the preceding 30 calendar days)] / (Number of Reports in the Report Period) x 100

Business Rules

1. A trouble report or trouble ticket is any record (whether paper or electronic) used by AT&T for the purposes of tracking related action and disposition of a service repair or maintenance situation.
2. A trouble is resolved when 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 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

- 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
- AT&T trouble reports associated with administrative service
- 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

- 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 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 AT&T that prevents 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 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 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 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	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.

<=
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.

TENNESSEE SEEM ADMINISTRATIVE PLAN

Tennessee Plan
Version 4.~~00~~01

Effective Date: ~~January~~ May 1, 2011

Contents

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 AT&T pursuant to the AT&T Notice of Settlement Agreement and Revisions to SQM and SEEM Plans in Docket 04-00150 made October 1, 2010 with the Tennessee Regulatory Authority (the "Authority") - and as updated based on the United States District Court Middle District of Tennessee,Entry Of Judgment No. 3:08cv00059, filed February 25, 2011 for Order No. 3:08-00059 that Set Aside Tennessee Regulatory Authority (TRA) Order No. 04-00381 (TRA Nov. 28, 2007) to the extent that the Order implements provisions of 47 U.S.C. § 271.

1.2 Upon the Effective Date of this Plan, all appendices referred to in this Plan will be located on the AT&T performance measurement website at: http://pmap.wholesale.att.com.

2 Reporting

2.1 In providing services pursuant to the Interconnection Agreements between AT&T and each CLEC, AT&T will report its performance to each CLEC in accordance with AT&T's SQM and pay remedies in accordance with the applicable SEEM, which are posted on the AT&T performance measurement website.

2.2 Final validated SEEM reports will be posted on the AT&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.

2.3 AT&T shall retain the performance measurement raw data files for a period of 18 months and further retain the monthly reports for a period of three years.

2.4 AT&T will provide documentation of late and reposted SQM and SEEM reports during the reporting month that the data is posted to the website.

3 Review of Measurements and Enforcement Mechanisms

3.1 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 SQM or SEEM, 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 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 AT&T retail customers with performance levels provided by 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 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 AT&T retail 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, Epsilon, and Lambda* – measures of the meaningful difference between 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 CLEC aggregate.

4.1.7 *Tier-1 Enforcement Mechanisms* – self-executing fees paid directly to each CLEC when AT&T delivers non-compliant performance of any one of the Tier-1 Enforcement Measurement Elements for any month as calculated by AT&T.

4.1.8 *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.

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

4.1.10 *Cell Ranking* – placing cells in rank order from highest to lowest, where the cell with the most negative Z-Score is ranked highest and the cell with the least negative Z-Score is ranked lowest.

4.1.11 *Cell Correction* – method for determining the quantity of transactions to be remedied, referred to as "affected volume," wherein the cell-level 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-score is equal to the Balancing Critical Value or zero as required by the Remedy Calculation Procedures. Either all of the transactions in a corrected cell are remedied or a prorated share (determined through interpolation) is remedied.

4.2 Application

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

4.2.2 Payment of any Tier-1 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 AT&T's

performance and the payment of any Tier-1 Enforcement Mechanisms shall not be used as evidence that 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 AT&T's failure to achieve applicable Enforcement Measurement Compliance or Enforcement Measurement Benchmark 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 AT&T utilizing 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 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 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 BCV	Per Transaction Fee Between BCV and 0
Passes	(Fee)*(3/2)	(Fee)*(1/3)
Fails	(Fee)*(3)	(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	(Fee)*(3/2)
Fails	(Fee)*(5/2) for Ordering and Flow Through (Fee)*(3) for all other benchmark measures

4.3.2 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, AT&T will make additional Tier-1 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

4.3.2.1 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 AT&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.

4.3.2.2 AT&T shall calculate the new Tier-1 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-1remedy.

4.3.2.3 If, for the three months of data, there were 100 observations or more on average for the submetric, 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.

4.3.2.4 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.

4.3.2.5 Any payments made under this market penetration adjustment provision are subject to the Absolute Cap set by the Authority.

4.3.3 For Tier-1 evaluations, the retail analog or benchmark is the same as for the SQM. See the SQM for SEEM retail analogs and benchmarks.

4.4 Payment of Tier-1 Amounts

4.4.1 If AT&T performance triggers an obligation to pay Tier-1 Enforcement Mechanisms to a CLEC, AT&T shall make payment in the required amount on the day upon which the final validated SEEM reports are posted on the AT&T website as set forth in Section 2.2 above.

4.4.2 For each day after the due date that AT&T pays a CLEC less than the required 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 If a CLEC disputes the amount paid for Tier-1 Enforcement Mechanisms, the CLEC shall submit a written claim to AT&T within sixty (60) days after the payment date. AT&T shall investigate all claims and provide the CLEC written findings within thirty (30) days after receipt of the claim. If AT&T determines the CLEC is owed additional amounts, AT&T shall pay the CLEC such additional amounts within thirty (30) days after its findings along with 6% simple interest per annum.

4.4.4 Any adjustments for underpayment or overpayment of calculated Tier-1 remedies will be made consistent with the terms of 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 7 of the Reposting Policy.

4.4.5 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 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.

4.4.6 Where there is a SEEM adjustment, in addition to the submetric, data month(s), and adjustment amount, AT&T will include an adjustment code on the CLEC specific Tier-1 reports on the AT&T performance measurement website. Then, on a separate document on the 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 states where an adjustment was applied. If there are multiple adjustment codes, the code explanation document 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 AT&T will not be obligated to pay Tier-1 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. 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 AT&T and the Authority in writing of its intent to challenge, through the dispute resolution provisions of this plan, the claims made by AT&T. AT&T shall not be obligated to pay any amounts subject to such disputes until the dispute is resolved.

4.5.2 AT&T shall not be obligated to pay Tier-1 Enforcement Mechanisms (SEEM payments) for non-compliance with a performance measurement if such non-compliance was the result of any Force Majeure Event that 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 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 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), AT&T will provide written notice to the Authority and post notification of such filing on AT&T's website wherein AT&T will identify the Force Majeure Event, the affected measures, and, if applicable, the impacted wire centers, including affected NPAs and NXXs.

4.5.2.2 No later than ten (10) business days after AT&T provides written notice in accordance with Section 4.5.2.1, affected CLECs must file written comments with the Authority to the extent 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 AT&T's written notice of the applicability of Section 4.5.2 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 fees to affected 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, 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, AT&T may petition the Authority to consider relief based upon other circumstances.

4.6 Change of Law

4.6.1 Upon a particular Authority's issuance of an Order pertaining to Performance Measurements or Remedy Plans in a proceeding expressly applicable to all CLECs, 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 change AT&T's obligations, parties may petition the Authority within 30 days to seek changes to the SQM and SEEM plans in accordance with such change of law. Performance Measurements and remedy plans that have been ordered by the Authority can currently be accessed via the AT&T performance measurement website . Should there be any difference between the performance measure and remedy plans on 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 Enforcement Mechanism Cap

4.7.1 AT&T's total liability for the payment of Tier-1 Enforcement Mechanisms shall be collectively and absolutely capped at 36% of net revenues in Tennessee, based upon the most recently reported ARMIS data.

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

4.7.3 If AT&T's payment of Tier-1 Enforcement Mechanisms would have exceeded the cap referenced in this plan, a CLEC may commence a proceeding with the Authority to demonstrate why 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, AT&T should have additional liability.

4.8 Audits

4.8.1 AT&T currently provides CLECs with certain audit rights as a part of their individual interconnection agreements. If ordered by the Authority, AT&T will agree to undergo a SEEM audit. 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:

4.8.1.1 The cost of one audit per version of the SEEM plan shall be borne by AT&T.

4.8.1.2 Should an independent third party auditor be required, it shall be selected by AT&T and the Authority.

4.8.1.3 AT&T and the Authority shall jointly determine the scope of the audit.

4.8.1.4 The Authority may request input regarding selection of the auditor from interested parties.

4.8.2 These audits are intended to provide the basis for the PSCs and CLECs to determine that SEEM produces accurate data that reflect each State's Order for performance measurements.

4.9 Dispute Resolution

4.9.1 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 Authority.

4.10 Regional Coefficients

Some metrics are calculated for the entire 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 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 remedy for the CLEC in each state. A Regional Coefficient is used to do this. (Appendix E, Section E.4 describes the method of calculating the Regional Coefficients.) The amount of 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.

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	$30.00	$36.00	$42.00
Service Order Accuracy	$20.00	$20.00	$24.00	$24.00	$24.00	$24.00
Flow Through - Business	$40.00	$45.00	$60.00	$66.00	$72.00	$78.00
Flow Through - LNP	$40.00	$45.00	$67.50	$74.25	$81.00	$87.75
Flow Through - Residence	$40.00	$45.00	$67.50	$74.25	$81.00	$87.75
Flow Through – UNE-L	$40.00	$45.00	$60.00	$66.00	$72.00	$78.00
FOCT – Fully Mechanized	$20.00	$25.00	$36.00	$42.00	$48.00	$54.00
FOCT – Partially Mechanized	$20.00	$25.00	$40.50	$47.25	$54.00	$60.75
FOCT - Email	$20.00	$25.00	$36.00	$42.00	$48.00	$54.00
FOCT – IC Trunks	$20.00	$25.00	$36.00	$42.00	$48.00	$54.00
Ordering – All Other Metrics	$20.00	$25.00	$36.00	$42.00	$48.00	$54.00
Provisioning – Resale	$40.00	$50.00	$84.00	$120.00	$156.00	$240.00
Provisioning – UNE	$115.00	$130.00	$174.00	$192.00	$228.00	$276.00
~~Provisioning – UNEP~~	~~$55.00~~	~~$60.00~~	~~$84.00~~	~~$90.00~~	~~$108.00~~	~~$132.00~~
Provisioning – IC Trunks	$25.00	$30.00	$60.75	$87.75	$108.00	$168.75
Provisioning - LNP	$115.00	$190.00	$462.00	$552.00	$642.00	$738.00
Maintenance and Repair – Resale	$40.00	$50.00	$84.00	$120.00	$156.00	$240.00
Maintenance and Repair – UNE	$115.00	$130.00	$174.00	$192.00	$228.00	$276.00
~~Maintenance and Repair - UNEP~~	~~$55.00~~	~~$60.00~~	~~$84.00~~	~~$90.00~~	~~$108.00~~	~~$132.00~~
Maintenance and Repair – IC Trunks	$25.00	$30.00	$54.00	$78.00	$96.00	$150.00
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
Trunk Group Performance	$25.00	$30.00	$54.00	$78.00	$96.00	$150.00
Collocation	$3,165	$3,165	$3,165	$3,165	$3,165	$3,165

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.

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~~7	RI	O-8 Reject Interval – Fully Mechanized
~~9~~8	RI	O-8 Reject Interval – Partially Mechanized
~~10~~9	RI	O-8 Reject Interval – Email
~~11~~10	FOCT	O-9 Firm Order Confirmation Timeliness - Fully Mechanized
~~12~~11	FOCT	O-9 Firm Order Confirmation Timeliness - Partially Mechanized
~~13~~12	FOCT	O-9 Firm Order Confirmation Timeliness - Email
~~14~~13	FOCT	O-9 Firm Order Confirmation Timeliness – Local Interconnection Trunks
~~15~~14	FOCC	O-11 FOC & Reject Response Completeness – Fully Mechanized
~~16~~15	FOCC	O-11 FOC & Reject Response Completeness – Partially Mechanized
~~17~~16	FOCC	O-11 FOC & Reject Response Completeness – Email
~~18~~17	MIA	P-3 Percent Missed Installation Appointments – Resale POTS
~~19~~18	MIA	P-3 Percent Missed Installation Appointments – Resale Design
~~20~~	~~MIA~~	~~P-3 Percent Missed Installation Appointments – UNE Loop and Port Combinations~~
~~21~~19	MIA	P-3 Percent Missed Installation Appointments – UNE Loops – Design

Item No.	SQM Ref	Tier-1 Submetric
~~22~~20	MIA	P-3 Percent Missed Installation Appointments – UNE EELS
~~23~~21	MIA	P-3 Percent Missed Installation Appointments – UNE Loops – Non-Design
~~24~~22	MIA	P-3 Percent Missed Installation Appointments – UNE xDSL and Line Splitting
~~25~~	~~MIA~~	~~P-3 Percent Missed Installation Appointments – UNE Line Sharing~~
~~26~~23	MIA	P-3 Percent Missed Installation Appointments – LNP Standalone
~~27~~24	MIA	P-3 Percent Missed Installation Appointments – Local Interconnection Trunks
~~28~~25	OCI	P-4 Order Completion Interval (OCI) – Resale POTS
~~29~~26	OCI	P-4 Order Completion Interval (OCI) – Resale Design
~~30~~	~~OCI~~	~~P-4 Order Completion Interval (OCI) – UNE Loop and Port Combinations~~
~~31~~27	OCI	P-4 Order Completion Interval (OCI) – UNE Loop Design
~~32~~28	OCI	P-4 Order Completion Interval (OCI) – UNE Loop Non-Design
~~33~~29	OCI	P-4 Order Completion Interval (OCI) – UNE xDSL and Line Splitting – without conditioning
~~34~~30	OCI	P-4 Order Completion Interval (OCI) – UNE xDSL and Line Splitting– with conditioning
~~35~~	~~OCI~~	~~P-4 Order Completion Interval (OCI) – UNE Line Sharing Dispatch~~
~~36~~	~~OCI~~	~~P-4 Order Completion Interval (OCI) – UNE Line Sharing – Non-Dispatch~~
~~37~~31	OCI	P-4 Order Completion Interval (OCI) – Local interconnection Trunks
~~38~~32	OCI	P-4 Order Completion Interval (OCI) – UNE EELS
~~39~~33	CCI	P-7 Coordinated Customer Conversions – Hot Cut Durations
~~40~~34	CCT	P-7A Coordinated Customer Conversions – Hot Cut Timeliness Percent within Interval
~~41~~35	NCDD	P-7D Non-Coordinated Customer Conversions – Percent Completed and Notified on Due Date
~~42~~36	PPT	P-9 Provisioning Trouble Rate – Resale POTS
~~43~~37	PPT	P-9 Provisioning Trouble Rate – Resale Design

Item No.	SQM Ref	Tier-1 Submetric
~~44~~	~~PPT~~	~~P-9 Provisioning Trouble Rate – UNE Loop and Port Combinations~~
~~45~~38	PPT	P-9 Provisioning Trouble Rate – UNE Loops - Design
~~46~~39	PPT	P-9 Provisioning Trouble Rate – UNE Loops – Non-Design
~~47~~40	PPT	P-9 Provisioning Trouble Rate – UNE xDSL and Line Splitting
~~48~~	~~PPT~~	~~P-9 Provisioning Trouble Rate – UNE Line Sharing - Dispatch~~
~~49~~	~~PPT~~	~~P-9 Provisioning Trouble Rate – UNE Line Sharing – Non-Dispatch~~
~~50~~41	PPT	P-9 Provisioning Trouble Rate – Local Interconnection Trunks
~~51~~42	SOA	P-11 Service Order Accuracy
~~52~~43	LOOS	P-13B LNP – Percent Out of Service < 60 Minutes - LNP
~~53~~44	LAT	P-13C LNP Percent of Time AT&T Applies the 10-Digit Trigger Prior to the LNP Order Due Date – LNP – (Standalone)
~~54~~45	LDT	P-13D LNP – Disconnect Timeliness (Non-Trigger)
~~55~~46	MRA	MR-1 Percent Missed Repair Appointment – Resale POTS
~~56~~47	MRA	MR-1 Percent Missed Repair Appointment – Resale Design
~~57~~	~~MRA~~	~~MR-1 Percent Missed Repair Appointment – UNE Loop and Port Combinations~~
~~58~~48	MRA	MR-1 Percent Missed Repair Appointment – UNE Loops Design
~~59~~49	MRA	MR-1 Percent Missed Repair Appointment – UNE EELS
~~60~~50	MRA	MR-1 Percent Missed Repair Appointment – UNE Loops Non-Design
~~61~~51	MRA	MR-1 Percent Missed Repair Appointment – UNE xDSL and Line Splitting
~~62~~	~~MRA~~	~~MR-1 Percent Missed Repair Appointment – UNE Line Sharing~~
~~63~~52	MRA	MR-1 Percent Missed Repair Appointment – Local Interconnection Trunks
~~64~~53	CTRR-NPRR	MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports – Resale POTS
~~65~~54	CTRR-NPRR	MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports – Resale Design
~~66~~	~~CTRR NPRR~~	~~MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports – UNE Loop and Port Combinations~~

Item No.	SQM Ref	Tier-1 Submetric
~~67~~55	CTRR-NPRR	MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports– UNE Loops Design
~~68~~56	CTRR-NPRR	MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports – UNE Loops Non-Design
~~69~~57	CTRR-NPRR	MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports – UNE xDSL and Line Splitting
~~70~~	~~CTRR NPRR~~	~~MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports – UNE Line Sharing~~
~~71~~58	CTRR-NPRR	MR-2A Customer Trouble Report Rate Net of Provisioning Troubles and Repeat Reports– Local Interconnection Trunks
~~72~~59	MAD	MR-3 Maintenance Average Duration – Resale POTS
~~73~~60	MAD	MR-3 Maintenance Average Duration – Resale Design
~~74~~	~~MAD~~	~~MR-3 Maintenance Average Duration – UNE Loop and Port Combinations~~
~~75~~61	MAD	MR-3 Maintenance Average Duration – UNE Loops Design
~~76~~62	MAD	MR-3 Maintenance Average Duration – UNE EELS
~~77~~63	MAD	MR-3 Maintenance Average Duration – UNE Loops Non-Design
~~78~~64	MAD	MR-3 Maintenance Average Duration – UNE xDSL and Line Splitting
~~79~~	~~MAD~~	~~MR-3 Maintenance Average Duration – UNE Line Sharing~~
~~80~~65	MAD	MR-3 Maintenance Average Duration – Local Interconnection Trunks
~~81~~66	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – Resale POTS
~~82~~67	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – Resale Design
~~83~~	~~PRT~~	~~MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Loop and Port Combinations~~
~~84~~68	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Loops Design
~~85~~69	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Loops Non-Design
~~86~~70	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – UNE xDSL and Line Splitting

Item No.	SQM Ref	Tier-1 Submetric
~~87~~	~~PRT~~	~~MR-4 Percent Repeat Customer Troubles within 30 Days – UNE Line Sharing~~
~~88~~71	PRT	MR-4 Percent Repeat Customer Troubles within 30 Days – Local Interconnection Trunks
~~89~~72	OOS	MR-5 Out of Service (OOS) > 24 hours – Resale POTS
~~90~~73	OOS	MR-5 Out of Service (OOS) > 24 hours – Resale Design
~~91~~	~~OOS~~	~~MR-5 Out of Service (OOS) > 24 hours – UNE Loop and Port Combinations~~
~~92~~74	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE Loops Design
~~93~~75	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE Loops Non-Design
~~94~~76	OOS	MR-5 Out of Service (OOS) > 24 hours – UNE xDSL and Line Splitting
~~95~~	~~OOS~~	~~MR-5 Out of Service (OOS) > 24 hours – UNE Line Sharing~~
~~96~~77	OOS	MR-5 Out of Service (OOS) > 24 hours – Local Interconnection Trunks
~~97~~78	BIA	B-1 Invoice Accuracy
~~98~~79	BIT	B-2 Mean Time to Deliver Invoices - CRIS
~~99~~80	BIT	B-2 Mean Time to Deliver Invoices - CABS
~~100~~81	BUDT	B-5 Usage Data Delivery Timeliness
~~101~~82	BEC	B-10 Percent Billing Adjustment Requests (BAR) Responded to within 45 Business Days - State
~~102~~83	TGP	TGP Trunk Group Performance
~~103~~84	MDD	C-3 Collocation Percent of Due Dates Missed

Appendix C: Statistical Properties and Definitions

The statistical process for testing whether AT&T's wholesale customers (Competitive Local Exchange Carriers or CLECs) are being treated equally with 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:

- Data
- Comparison
- 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 (Type I Error) = P (Type II Error) for well-defined null and alternative hypotheses.
- The formula for a test's balancing critical value should be simple enough to calculate using standard mathematical functions, i.e., one should avoid methods that require computationally intensive techniques.
- Little to no information beyond the null hypothesis, the alternative hypothesis, and the number of observations should be required for calculating the balancing critical value.

C.1.5 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 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 Answer Time (M&R)
- Billing Invoice Accuracy
- Mean Time to Deliver Invoices

In addition, there is one measurement that uses retail results 'plus' (2 seconds for OSS Response Time); resulting in a benchmark standard. This measurement is OSS Response Interval (Pre-Ordering/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. In Tennessee AT&T calculates results for this measure by subtracting the Absolute Value of Total 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:

*Invoice Accuracy = [(**a – b**)/**a**] x 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 remedy calculation is given below:

Example:

CLEC DATA

Bill Adjustments	$14,660.00
Total Billed Revenue	$336,529.00

AT&T DATA

Bill Adjustments	$6,018,969.26
Total Billed Revenue	$484,691,922.40

CLEC Invoice Accuracy Ratio = [(336,529.00-14,660.00)/336,529.00] x 100 = 95.64

AT&T Invoice Accuracy Ratio = [(484,691,922.40-6,018,969.26)/ 484,691,922.40] x 100 = 98.75

Thus, the calculated values are:

CLEC Result = 96%

AT&T Result = 98.75%

In Tennessee once it is determined that the AT&T percent is higher, AT&T pays the CLEC according to the Tennessee Fee Schedule.

The calculation would be 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% x $14,660= $455.92
- $455.92 x 2%= $9.12

C.2.1 Mean Measures

For mean measures, an adjusted, modified t statistic is calculated for each like-to-like cell that has at least seven AT&T and seven CLEC transactions. A permutation test is used when one or both of the AT&T and CLEC sample sizes is less than seven. The adjusted, modified 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 equal 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 Rate there is a fixed number of access lines in service for the CLEC, b_{2j}, and a fixed number for AT&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 AT&T and CLEC troubles, n, and the proportion of AT&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 AT&T troubles is greater than 15, and $n_jq_j(1-q_j) > 9$, 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 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 ILEC observation and at least one CLEC observation.

L = the total number of occupied cells

j = $1,\ldots,L$; 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; $k = 1,\ldots, n_{1j}$

X_{2jk} = Individual CLEC transactions in cell j; $k = 1,\ldots, n_{2j}$

Y_{jk} = individual transaction (both ILEC and CLEC) in cell j

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

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

For Mean Performance Measures the following additional notation is needed.

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

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

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

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

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

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, one can avoid permutation calculations since this statistic will be normal (or Student's t) to a good approximation. For small samples, where one cannot avoid permutation calculations, it has been determined that the difference between "modified Z" and the textbook "pooled Z" is negligible. 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

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

and the corresponding cumulative permutation distribution is

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

For Proportion Performance Measures the following notation is defined:

a_{1j} = The number of ILEC cases possessing an attribute of interest in cell j

a_{2j} = The number of CLEC cases possessing an attribute of interest in cell j

a_j = The number of cases possessing an attribute of interest in cell j; $a_{1j} + a_{2j}$

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

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

and the cumulative hypergeometric distribution is

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

For Rate 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:

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

and the cumulative binomial distribution is

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

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

$$W_j = \sqrt{\frac{n_{1j} n_{2j}}{n_j}}$$

Proportion Measure

$$W_j = \sqrt{\frac{n_{2j} n_{1j}}{n_j} \cdot \frac{a_j}{n_j} \cdot \left(1 - \frac{a_j}{n_j}\right)}$$

Rate Measures

$$W_j = \sqrt{\frac{b_{1j} b_{2j}}{b_j} \cdot \frac{n_j}{b_j}}$$

D.2.2 Calculate a Z-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

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

that is, α is the probability that a Student's t random variable with $n_{1j} - 1$ degrees of freedom, is less than

$$T_j = \begin{cases} t_j + \frac{g}{6}\left(\frac{n_{1j}+2n_{2j}}{\sqrt{n_{1j}\,n_{2j}(n_{1j}+n_{2j})}}\right)\left(t_j^2 + \frac{n_{2j}-n_{1j}}{n_{1j}+2n_{2j}}\right) & t_j \ge t_{\min j} \\ t_j + \frac{g}{6}\left(\frac{n_{1j}+2n_{2j}}{\sqrt{n_{1j}\,n_{2j}(n_{1j}+n_{2j})}}\right)\left(t_{\min j}^2 + \frac{n_{2j}-n_{1j}}{n_{1j}+2n_{2j}}\right) & \text{otherwise} \end{cases}$$

where

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

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

and g is the median value of all values of

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

over all cells within the submeasure being tested such that all three conditions stated below are true.

$\gamma_{1j} > 0$

$n_{1j} > 6$

$n_{1j} \geq n_{3q}$ 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" 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-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-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 $Var(Z^*_j|H_0)$. 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 formulas for calculating $E(Z^*_j \mid H_0)$ and $Var(Z^*_j \mid H_0)$ 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, or $\min\left(n_{1j}, n_{2j}\right) > 15$ and $n_j q_j (1-q_j) > 9$ for a rate measure, then

  $$E(Z^*_j \mid H_0) = -\frac{1}{\sqrt{2\pi}}$$

  and

  $$Var(Z^*_j \mid H_0) = \frac{1}{2} - \frac{1}{2\pi}$$

- Otherwise, determine the total number of values for Z^*_j. Let z_{ji} and θ_{ji}, denote the values of Z^*_j and the probabilities of observing each value, respectively.

  $$E(Z^*_j \mid H_0) = \sum_i \theta_{ji} z_{ji}$$

and

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

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

Mean Measure

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

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

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

Proportion Measure

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

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

Rate Measure

$$z_{ji} = \min\left\{0, \frac{i - n_j\, q_j}{\sqrt{n_j\, q_j (1 - q_j)}}\right\}, \quad i = 0, \ldots, n_j$$

$$\theta_{ji} = \mathrm{BN}(i)$$

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

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

The Balancing Critical Value

There are four key elements of the statistical testing process:

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

The decision rule[1] is

- If $Z^T < c$ then accept H_a.
- If $Z^T \geq c$ 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**: $\alpha = P(Z^T < c \mid H_0)$
- **Type II Error**: $\beta = P(Z^T \geq c \mid H_a)$

We want a balancing critical value, c_B, so that $\alpha = \beta$.

It can be shown that.

$$c_B = \frac{\sum_j W_j M(m_j, se_j) - \sum_j W_j \frac{-1}{\sqrt{2\pi}}}{\sqrt{\sum_j W_j^2 V(m_j, se_j)} + \sqrt{\sum_j W_j^2 \left(\frac{1}{2} - \frac{1}{2\pi}\right)}}$$

where

$$M(\mu, \sigma) = \mu \Phi(\tfrac{-\mu}{\sigma}) - \sigma \phi(\tfrac{-\mu}{\sigma})$$

$$V(\mu, \sigma) = (\mu^2 + \sigma^2)\Phi(\tfrac{-\mu}{\sigma}) - \mu\sigma\phi(\tfrac{-\mu}{\sigma}) - M(\mu, \sigma)^2$$

Φ (·) is the cumulative standard normal distribution function, Φ (·) is the standard normal density function, and μ and σ are the formal arguments of functions M(·,·) and V(·,·).

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

[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.

when the cell sample sizes are small. It is much more difficult to determine these values under the alternative hypothesis. Since the cell weight, W_j will also be small (see calculate weights section above) for a cell with small volume, the cell mean and variance will not contribute much to the weighted sum. Therefore, the above formula provides a reasonable approximation to the balancing critical value.

The values of m_j and se_j will depend on the type of performance measure.

Mean Measure

For mean measures, one is concerned with two parameters in each cell, namely, the mean and variance. A possible lack of parity may be due to a difference in cell means, and/or a difference in cell variances. One possible set of hypotheses that capture this notion, and take into account the assumption that transaction are identically distributed within cells is:

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

H_a: $\mu_{2j} = \mu_{1j} + \delta_j \sigma_{1j}$, $\sigma_{2j}^2 = \lambda_j \sigma_{1j}^2$.

Where $\delta_j > 0$, $\lambda_j \geq 1$, $j = 1,\ldots L$, 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:

H_0: $$\frac{p_{2j}(1-p_{1j})}{(1-p_{2j})p_{1j}} = 1$$

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

(Where parameters ψ_j corresponds to the Psi 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 by[1]

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

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

where

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

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

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

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

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

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

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

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

Recall that the cell test statistic is given by

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

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

Using the equations above, 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: $r_{2j} = \varepsilon_j r_{1j}$ $\quad \varepsilon_j > 1$ and $j = 1,\ldots,L$.

(Where parameters 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

$$q_j^* = q_j^a = \frac{b_{1j}}{b_{1j} + \varepsilon_j b_{2j}}$$

Recall that the cell test statistic is given by

$$Z_j = \frac{n_{1j} - n_j q_j}{\sqrt{n_j q_j (1 - q_j)}}$$

Using the relationships above, it can be shown that Z_j has mean and standard error given by

$$m_j = \frac{n_j \left(q_j^a - q_j\right)}{\sqrt{n_j q_j (1 - q_j)}} = (1 - \varepsilon_j) \frac{\sqrt{n_j b_{1j} b_{2j}}}{b_{1j} + \varepsilon_j b_{2j}}$$

and

$$se_j = \sqrt{\frac{q_j^a (1 - q_j^a)}{q_j (1 - q_j)}} = \sqrt{\varepsilon_j} \frac{b_j}{b_{1j} + \varepsilon_j b_{2j}}$$

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 λ_j and δ_j correspond to the 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: AT&T SEEM Remedy Calculation Procedures

E.1 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^{T}_{CLEC1} (per Statistical Methodology).
3. Calculate the balancing critical value (Example, ${}^{c}B_{CLEC1}$) that is associated with the alternative hypothesis (for fixed parameters λ,δ, ψ, 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 ${}^{c}B_{CLEC1} \leq z^{T}_{CLEC1,}$ stop here. Otherwise, go to step 5.

CALCULATE REMEDY PAYMENT FOR CORRECTION OF TEST STATISTIC TO THE BALANCING CRITICAL VALUE

5. Select the cell with the most negative Z-Score (let i=1,…,I with i=1 having the most negative Z-Score, i=2 having next most negative Z-Score, etc. and with i=I when the criterion in step 7 is fulfilled.) and set its Z-Score to zero ($z_{CLEC1,i} = 0$).
6. Recalculate the overall test statistic for that CLEC with the adjusted data; Example, $z^{T}_{CLEC1}{}^{*}$ (per Statistical Methodology).
7. If the new overall test statistic is equal to or above the balancing critical value, that is, if ${}^{c}B_{CLEC1} \leq z^{T}_{CLEC1}{}^{*}$, 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-Score was reset to zero except the last cell changed. The impacted volume for the last cell changed should be interpolated by $TIV_{CLEC1,I,INT} = ({}^{c}B_{CLEC1} - z^{T}_{CLEC1,I-1}{}^{*}) / (z^{T}_{CLEC1,I}{}^{*} - z^{T}_{CLEC1,I-1}{}^{*}) \times TIV_{CLEC1,I}$. The result should be rounded up to the next positive integer and added to $TAV_{CLEC1.}$ That is, $TAV_{CLEC1} = TIV_{CLEC1,1} + TIV_{CLEC1,2} + \ldots + TIV_{CLEC1,I-1} + TIV_{CLEC1,I,INT}$. 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 schedule. Thus, $CLEC1_{BCV}$ payment = TAV_{CLEC1} × $$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 $0 <= z^{T}_{CLEC1}{}^{*}$ 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,…, J with i=1+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, $z^{T}_{CLEC1}{}^{*}$ (Per Statistical Methodology).
13. If the new overall test statistic is equal to or above zero, that is, if ${}^{c}B_{CLEC1} <= z^{T}_{CLEC1}{}^{*}$, go to step 14. Otherwise, repeat steps 11 – 12 letting i= i+1.
14. Calculate the Total Affected Volume (TAV0) by summing the Total Impacted Volumes (TIV0) 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 $TIV0_{CLEC1,J,INT} = (0 – z^{T}_{CLEC1,J-1}{}^{*}) / (z^{T}_{CLEC1,J}{}^{*} – z^{T}_{CLEC1,J-1}{}^{*}) * TIV0_{CLEC1,J} – TIV_{CLEC1,I,INT}$. The result should be rounded up to the next positive integer and added to $TAV0_{CLEC1}$. That is, $TAV0_{CLEC1} = (TIV_{CLEC1,I} – TIV_{CLEC1,I,INT}) + TIV0_{CLEC1,I+1} + TIV0_{CLEC1,I+2} + … + TIV0_{CLEC1,J-1} + TIV0_{CLEC1,J,INT})$. Note that if $TIV0_{CLEC1,J} = 1$ 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 $TAV0_{CLEC1} = 0$.
15. Calculate the 0 to BCV portion of the payment to CLEC1 by multiplying the result of step 14 ($TAV0_{CLEC1}$) by the appropriate dollar amount from the fee schedule. Thus, $CLEC1_0$ payment = $TAV0_{CLEC1}$ * $$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^T_{CLEC1}	$^cB_{CLEC1}$		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^{T*}_{CLEC1}			
1		1	0	0.75					
2		4	2	-0.69	8				
3		3	3	-1.76	3	-0.65$^{\Delta}$	3	2^{o}	1
4		1	0	0.67					
5		4	3	-1.45	5	0.80$^{\Delta\Delta}$	5		1^{oo}
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**

$^{\Delta}$Note that after making $z_{CLEC1,I} = 0$, the overall $z^T_{CLEC1}* = -0.65$ is greater than the balancing critical value $^cB_{CLEC1} = -1.22$.

$^{\Delta\Delta}$Note that after making $z_{CLEC1,J} = 0$, the overall $z^T_{CLEC1}* = 0.80$ is greater than zero.

^{o}For cell#3 the TAV would be calculated with ((-1.22) - (-1.60))/((-0.65) - (-1.60)) × 3 = 1.2 which is rounded up to 2 transactions.

^{oo}For cell#5 the TAV0 would be calculated with ((0) - (-0.13))/((0.80) - (-0.13)) × 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

$CLEC1_0$ payment is (3 units) * ($40/unit) * (2/3 factor) = **$80** when the CLEC aggregate performance fails. The total remedy payment is $CLEC_{TOTAL}$ payment = $840 + $80 = **$920**.

E.2 Tier-1 Calculation For Benchmarks

1. For each CLEC with five or more observations, calculate monthly performance results for the State.
2. CLECs having observations (sample sizes) between 5 and the large sample threshold L will use benchmark adjustment calculations described below. The only exception will be for Collocation Percent Missed Due Dates.
   a. Large sample threshold is defined as L = 5/(B×(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.

Benchmark B	Large Sample Threshold L
90%	56
95%	106
96.5%	149

   b. The Equivalent Minimal Benchmark for sample size n=5, EB(5) is based on the smallest number of failures k ≤ n, for which the cumulative binomial distribution CBN(k,n,B) exceeds 5%. The failure allowance is at least 1 for small samples.

Nominal Benchmark	Equivalent Minimal Benchmark: EB(5)
90%	60%
95%	80%
96.5%	80%

   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.

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's payment = (CLEC's Total Affected Volume x $$ from Fee Schedule * multiplier). For the example that follows, fee amounts are based on an aggregate failure.

E.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.3 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. CLEC having observations (sample sizes) between 5 and large sample threshold L will use small sample 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. That is, CLEC's payment = CLEC's Total Affected Volume x $$ from Fee Schedule x multiplier. For the

example that follows assume CLEC aggregate failure.

E.3.1 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	Fee Schedule	Fee Multiplier	Payout
State	600	97% <= 1 hour	95% <= 1 hour	.02	12			

Payout for CLEC is (12 units) * ($20/unit) * (2.5 factor) = $600

E.4 Regional Coefficients

This section describes the method of calculating regional coefficients.

E.4.1 [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)

E.4.2 [FT]

- 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 - 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)

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

AT&T will be required to repost performance data as reflected in the Service Quality Measurement (SQM) reports and recalculate Self-Effectuating Enforcement Mechanism (SEEM) payments 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 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 >= 2% decline in 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 >=.5 in the Z-Score at the sub-metric level.

5. Any data recalculations that reflect an improvement in AT&T's performance will be reposted at AT&T's discretion.

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 the error is detected. As an example, an error is discovered during the analysis of the May data month peformance that triggers a reposting, 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 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.

7. When updated SQM performance data has been reposted or when a payment error has been discovered, 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 will be determined in the same manner previously described for the SQM. For example, should an error be discovered for the data month of June, AT&T will correct data for the three preceding months – May, April, and March.

8. Any adjustments for underpayment of Tier-1 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 remedies will be made at 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 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 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 or 4 have been met at the CLEC-specific level.

Determination of when Reposting Policy Applies

As part of the Change Notification Process, AT&T performs an analysis of impacts that are proposed to be made to performance measurement code. These impacts are used to identify changes to its reported SQM results.

To determine this impact, 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 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 were erroneously being included in a 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 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 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**.**