

Service Quality Measurements
Measurement Detail

01/27/98

BellSouth's Proposed Implementation of Georgia Docket No. 7892_U
Customer Trouble Report Rate

	ALL	Dispatch	No-Dispatch	Dispatch		No-Dispatch	
				Residence	Business	Residence	Business
Interconnection Trunks	X						
UNE		X	X				
Resale				X	X	X	X
Resale - Specials	X						

Note: Local Interconnection Trunks are reported only as total troubles. No meaningful count of lines in service exists.

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MAINTENANCE & REPAIR (MR)

Function:	Missed Repair Appointments
Measurement Overview:	When this measure is collected for BST and CLEC and then compared, it can be used to establish that CLECs are receiving equally reliable (as compared to BST operations) estimates of the time required to complete service repairs.
Measurement Methodology:	<p>2. Percentage of Missed Repair Appointments = (Count of Customer Troubles Not Resolved by the Quoted Resolution Time and Date) / (Count of Customer Trouble Tickets Closed) X 100.</p> <p>Percent of trouble reports not cleared by date and time committed. Appointment intervals vary with force availability in the POTS environment. Specials and Trunk intervals are standard interval appointments of no greater than 24 hours.</p> <p>Objective: This measurement is designed to show parity between CLECs and BST in the handling of repair appointments.</p> <p>Methodology: Mechanized metric from maintenance database(s).</p>

Reporting Dimensions:	Excluded Situations:
<ul style="list-style-type: none"> • See Appendix A, item 3 • See Appendix A, item 4 	<ul style="list-style-type: none"> • Trouble tickets canceled at the CLEC request • BST trouble reports associated with administrative service • Instances where the CLEC or BST customer requests a ticket be "held open" for monitoring
Data Retained Relating to CLEC Experience:	Data Retained Relating to BST Performance:
<ul style="list-style-type: none"> • Report Month • CLEC Ticket Number • Ticket Submission Date • Ticket Submission Time • Ticket Completion Time • Ticket Completion Date • Service Type • WTN or CKTID (a unique identifier for elements combined in a service configuration) • Disposition and Cause • Geographic Scope 	<ul style="list-style-type: none"> • Report Month • BST Ticket Number • Ticket Submission Date • Ticket Submission Time • Ticket Completion Time • Ticket Completion Date • Service Type • WTN or CKTID (a unique identifier for elements combined in a service configuration) • Disposition and Cause • Geographic Scope

Missed Repair Appointments

	ALL	Dispatch	No-Dispatch	Dispatch		No-Dispatch	
				Residence	Business	Residence	Business
Interconnection Trunks							
UNE		X	X				
Resale				X	X	X	X
Resale - Specials							

Note: There is no measurement for Interconnection Trunks or Specials. These are handled on a 1st come, 1st serve basis. The appropriate measurement for these is average duration.

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MAINTENANCE & REPAIR (MR)

Function:	Quality of Repair & Time to Restore
Measurement Overview:	This measure, when collected for both the CLEC and BST and compared, monitors that CLEC maintenance requests are cleared comparably to BST maintenance requests.
Measurement Methodology:	<p>3. Out of Service > 24 Hours = (Total Repeat Troubles > 24 Hours) / (Total Troubles) X 100</p> <p>4. Percent Repeat Troubles within 30 Days = (Total Repeated Trouble Reports within 30 Days) / (Total Troubles) X 100</p> <p>5. Maintenance Average Duration = (Total Duration Time) / (Total Troubles)</p> <p>For Out of Service Troubles (no dial tone, cannot be called or cannot call out): the percentage of troubles cleared in excess of 24 hours.</p> <p>For Percent Repeat Trouble Reports within 30 Days: Trouble reports on the same line/circuit as a previous trouble report within the last 30 calendar days as a percent of total troubles reported.</p> <p>For Average Duration: Average time from receipt of a trouble until trouble is status cleared</p> <p>Objective: These measurements are used to demonstrate quality of maintenance and repair.</p> <p>Methodology: Mechanized metric from maintenance database(s).</p>

Reporting Dimensions:	Excluded Situations:
<ul style="list-style-type: none"> • See Appendix A, item 3. • See Appendix A, item 4. 	<ul style="list-style-type: none"> • Trouble tickets canceled at the CLEC request • BST trouble reports associated with administrative service • Instances where the CLEC or BST customer requests a ticket be "held open" for monitoring
Data Retained Relating to CLEC Experience:	Data Retained Relating to BST Performance:
<ul style="list-style-type: none"> • Report Month • Total Tickets • CLEC Ticket Number • Ticket Submission Date • Ticket Submission Time • Ticket Completion Time • Ticket Completion Date • Total Duration Time • Service Type • WTN or CKTID (a unique identifier for elements combined in a service configuration) • Disposition and Cause • Geographic Scope 	<ul style="list-style-type: none"> • Report Month • Total Troubles • Percentage of Customer Troubles Out of Service > 24 Hours • Total and Percent Repeat Trouble Reports with 30 Days • Total Duration Time • Service Type • Disposition and Cause • Geographic Scope

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Out of Service more than 24 Hours

	ALL	Dispatch	No-Dispatch	Dispatch		No-Dispatch	
				Residence	Business	Residence	Business
Interconnection Trunks							
UNE		X	X				
Resale				X	X	X	X
Resale - Specials							

Note: There is no measurement for Interconnection Trunks or Specials. These are handled on a 1st come, 1st serve basis. The appropriate measurement for these is average duration

Repeat Trouble Reports within 30 days of Installation (or New Service Failure Rate - see note below)

	ALL	Dispatch	No-Dispatch	Dispatch		No-Dispatch	
				Residence	Business	Residence	Business
Interconnection Trunks	X						
UNE		X	X				
Resale				X	X	X	X
Resale - Specials	X						

Note: The appropriate measurement for both interconnection trunking and Resale - Specials is the "New Service Failure Rate"

Maintenance Average Duration

	ALL	Dispatch	No-Dispatch	Dispatch		No-Dispatch	
				Residence	Business	Residence	Business
Interconnection Trunks	X						
UNE		X	X				
Resale				X	X	X	X
Resale - Specials	X						

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MAINTENANCE & REPAIR (MR)

Function:	Average Answer Time - Repair Centers
Measurement Overview:	<ul style="list-style-type: none"> This measure demonstrates an average response time for the CLEC agent attempting to contact their BST representative
Measurement Methodology:	<p>6. Average Answer Time for UNE Center, RRC & BRC = (Total time in seconds for UNE Center, RRC & BRC response) / (Total number of calls) by reporting period</p> <p>Objective: This measure supports monitoring that BSTs handling of support center calls from CLECs is at least in parity with support center calls by BST's retail customer.</p> <p>Methodology: Mechanized report from Repair Center Automatic Call Distributors.</p>

Average Answer Time for Repair Center

	Ave. Answer time (Sec.) / month	Ave. Answer time (Sec.) / year
UNE Center	X	X
RRC	X	X
BRC	X	X

MAINTENANCE & REPAIR (MR)

Function:	Legacy System Access Times
Measurement Overview:	<ul style="list-style-type: none"> This measure demonstrates an average response time from the BST Maintenance System (TAFI) to access BST's Legacy Repair OSS.
Measurement Methodology:	<p>1. Legacy System Access Times = Access Times in increments of ≤ 4 secs., > 4 & ≤ 6 secs., ≤ 10 secs., > 10 secs., and > 30 secs. for CLEC TAFI and BST TAFI</p> <p>Objective: This measure demonstrates parity between the CLECs and BST for OSS response times for Maintenance and Repair.</p> <p>Methodology: Mechanized report from OSSs</p>

Legacy System Access Times

Transaction Name	≤ 4 secs			> 4 & ≤ 6 secs			≤ 10 secs			> 10 secs			> 30 secs		
	CLEC	BST BUS	BST RES	CLEC	BST RES	BST BUS	CLEC	BST RES	BST BUS	CLEC	BST RES	BST BUS	CLEC	BST RES	BST BUS
CRIS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DLETH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DLR	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
JMOS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LMOS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LMOSupd	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MARCH	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Predictor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SOCS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LNP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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BILLING

Function:	Invoice Accuracy & Timeliness
Measurement Overview:	The accuracy of billing records (both usage and invoices) delivered by BST to the CLEC must provide CLECs with the opportunity to deliver bills at least as accurate as those delivered by BST. Producing and comparing this measurement result for both the CLEC and BST allows a determination as to whether or not parity exists.
Measurement Methodology:	<p>1. Invoice Accuracy = [(Number of Invoices Delivered in the Reporting Period that Have Complete Information, Reflect Accurate Calculations and are Properly Formatted) / (Total Number of Invoices Issued in the Reporting Period)] X 100</p> <p>2. Mean Time to Deliver Invoices = $\sum [(\text{Invoice Transmission Date}) - (\text{Date of Scheduled Bill Cycle Close})] / (\text{Count of Invoices Transmitted in Reporting Period})$</p> <p>Invoice Accuracy: The completeness of content, accuracy of information and conformance of formatting will be determined based upon the terms of the individual CLEC interconnection agreements with BST.</p> <p>Mean Time to Deliver Invoices: This measure captures the elapsed number of days between the scheduled close of a Bill Cycle and BST's successful transmission of the associated invoice to the CLEC. For each invoice, the calendar date of the scheduled close of Bill Cycle is compared to the calendar date that successful invoice transmission to the CLEC completes. The number of calendar days elapsed between scheduled Bill Cycle close and completion of invoice transmission will constitute the elapsed delivery time. The elapsed delivery time is accumulated for each invoice with the resulting total number of days accumulated being divided by the number of complete invoices sent in the reporting period.</p> <p>Objective: Measures the percentage and mean time of billing records delivered to CLEC in agreed upon format and with the complete agreed upon content (includes time and material and other non-recurring charges).</p> <p>Methodology: ?</p>

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Reporting Dimensions:	Excluded Situations:
<ul style="list-style-type: none"> • Wholesale Bill Invoices (TSR) • Unbundled Element Invoices (UNE) 	<ul style="list-style-type: none"> • Any invoices rejected due to formatting or content errors
Data Retained Relating to CLEC Experience:	Data Retained Relating to BST Performance:
<ul style="list-style-type: none"> • Report Month • Invoice Type • Mean Delivery Interval • Standard Error of Delivery Interval • Accuracy 	

Invoice Accuracy

	Total Invoices Delivered	Total Invoices Delivered per EMR	% Accuracy
CLEC	X	X	X

Mean Time to Deliver Invoices

To Be Determined

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OPERATOR SERVICES AND DIRECTORY ASSISTANCE (OS, DA)

Function:	Average Speed to Answer
Measurement Overview:	The speed of answer delivered to CLEC retail customers, when BST provides Operator Services or Directory Services on behalf of the CLEC, must be substantially the same as the speed of answer that BST delivers to its own retail customers for equivalent local services.
Measurement Methodology:	<p>1. Average Speed to Answer (DA) = $(\# \text{ of Calls Answered Within 12 Seconds}) / (\text{Total DA Calls}) \times 100$</p> <p>2. Mean Time to Answer</p> <p>3. Average Speed to Answer (OS) = $(\# \text{ of Calls Answered Within 2 and 10 Seconds}) / (\text{Total OS Calls}) \times 100$</p> <p>4. Mean Time to Answer</p> <p>Objective: Measures the percent and mean time a call is answered by an OS or DA operator in a predefined timeframe</p> <p>Methodology:</p> <ul style="list-style-type: none"> • Reported in the aggregate • Not Carrier Specific

Reporting Dimensions:	Excluded Situations:
<ul style="list-style-type: none"> • Operator Services in Aggregate • Directory Assistance in Aggregate • Processing Method (human versus machine processes) 	<ul style="list-style-type: none"> • Call abandoned by customers prior to answer by the BST OS or DA operator
Data Retained Relating to CLEC Experience:	Data Retained Relating to BST Performance:
<ul style="list-style-type: none"> • Month • Call Type (OS or DA) • Mean Speed of Answer • Standard Error for Mean Speed of Answer 	<ul style="list-style-type: none"> • Month • Call Type (OS or DA) • Mean Speed of Answer • Standard Error for Mean Speed of Answer

Average Speed to Answer

	Average Mean Time to Answer	% Calls Answered within 12 seconds	% Calls Answered within 10 seconds
Directory Assistance	X	X	
Operator Services	X		X

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E911

Function:	Timeliness and Accuracy
Business Implications:	<ul style="list-style-type: none"> In the interest of public safety, it is BellSouth's goal to maintain 100% accuracy in the E911 database for both CLEC's customers and BST's retail customers and to have zero errors in processing orders for E911 database updates. CLECs that purchase UNEs or provide local service as a facility-based provider are responsible for the accuracy of their data that is input in the E911 database. As part of BST's effort to maintain 100% accuracy of the E911 database, data verification parameters and requirements for all companies that submit E911 inputs will be reviewed and modified accordingly to ensure the highest integrity. These measurements were developed to ensure parity between the processing and accuracy of E911 database orders for both the CLEC's customers and BST's retail customers.
Measurement Methodology:	<p>1. E911 Timeliness = $\sum (\text{Number of Orders missed in Reporting Period}) / (\text{Number of Orders Confirmed in Reporting Period}) \times 100$</p> <p>Objective: Measures the percentage of missed due dates of 911 database updates</p> <p>Methodology: Mechanized metric from ordering system</p> <p>2. E911 Accuracy = $\sum \text{Total number of SOIRs with errors generated from Daily TN activity (based on the E911 Local Exchange Carrier Guide for Facility-Based Providers)} / (\text{Total number of SOIR orders for E911 updates}) \times 100$</p> <p>Objective: Measures the percentage of accurate 911 database updates</p> <p>Methodology: Mechanized metric from ordering system</p>

Reporting Dimensions:	Excluded Situations:
<ul style="list-style-type: none"> CLECs in Aggregate BST in Aggregate See Appendix A, item 4 	<ul style="list-style-type: none"> Any order canceled by the CLEC will be excluded from this measurement. Order Activities of BST associated with internal or administrative use of local services
Data Retained Relating to CLEC Experience:	Data Retained Relating to BST Performance:
<ul style="list-style-type: none"> Report Month CLEC Order Number Order Submission Date Order Submission Time Error Type Error Notice Date Error Notice Time Standard Order Activity Geographic Scope 	<ul style="list-style-type: none"> Report Month Error Type Average number of error Standard Order Activity Geographic Scope

E911 Timeliness and Accuracy

	CLEC	BST
% E911 Orders Missed	X	X
% E911 Accurate Orders	X	X

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Trunking (T)

Function:	Interconnection Trunking Performance
Measurement Overview:	In order to insure quality service to the CLECs as well as protecting the integrity of the BST network, BST collects traffic performance data on the trunk groups interconnected with the CLECs as well as all other trunk groups in the BST network.
Measurement Methodology:	<p>1. CLEC Trunk Group Service Report - Contains the service performance results of final trunk groups between the CLEC switch and a BST tandem or end office.</p> <p>2. BellSouth CTTG Blocking Report - Contains the trunk blocking results of final trunk groups between the BST end office and BST access tandem.</p> <p>3. Local Network Trunk Group Service Report - Contains the service performance results of final trunk groups in the BST local service tier of the network.</p> <p>4. BellSouth Local Network Blocking Report - Contains the trunk blocking results of final trunk groups in the BST local service tier of the network.</p> <p>Methodology: The data are processed weekly through a mechanized system which calculates the percentage blocking during the time-consistant busy hour (TCBH). The TCBH is defined as the identical hour each day during which, over a number of days, the highest average traffic is measured.</p>

Reporting Dimensions:	Excluded Situations:
<ul style="list-style-type: none"> BST trunk groups CLEC trunk groups 	<ul style="list-style-type: none"> N/A
Data Retained Relating to CLEC Experience:	Data Retained Relating to BST Performance:
<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> N/A

CLEC Trunk Group Service Report

CLEC TRUNK GROUP SERVICE REPORT													
MONTHLY SUMMARY													
BST ORDERED	AL	GA	KY	LA	MS	NC	NF	SC	SF	TN	TOTAL	TOTAL w/o GA	
Total Trunk Groups:	x	x	x	x	x	x	x	x	x	x	x	x	x
Trk Grps Mess/Proc:	x	x	x	x	x	x	x	x	x	x	x	x	x
Tot Grps > 3% NC this report	x	x	x	x	x	x	x	x	x	x	x	x	x
PCT1	x	x	x	x	x	x	x	x	x	x	x	x	x
CLEC ORDERED	AL	GA	KY	LA	MS	NC	NF	SC	SF	TN	TOTAL	TOTAL w/o GA	
Total Trunk Groups:	x	x	x	x	x	x	x	x	x	x	x	x	x
Trk Grps Mess/Proc:	x	x	x	x	x	x	x	x	x	x	x	x	x
Tot Grps > 3% NC this report	x	x	x	x	x	x	x	x	x	x	x	x	x
PCT1	x	x	x	x	x	x	x	x	x	x	x	x	x
TOTAL	AL	GA	KY	LA	MS	NC	NF	SC	SF	TN	TOTAL	TOTAL w/o GA	
Total Trunk Groups:	x	x	x	x	x	x	x	x	x	x	x	x	x
Trk Grps Mess/Proc:	x	x	x	x	x	x	x	x	x	x	x	x	x
Tot Grps > 3% NC this report	x	x	x	x	x	x	x	x	x	x	x	x	x
PCT1	x	x	x	x	x	x	x	x	x	x	x	x	x

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BellSouth CTTG Blocking Report

BELLSOUTH CTTG BLOCKING REPORT - SUMMARY										
GROUPS EXCEEDING MBT										
PROCESS DATE										
TGSN	TANDEM	END OFFICE	DESCRPT	STUDY PERIOD	OBSVD BLKG	HR	TKS	VAL DAYS	NBR RPTS	RMKS
X	X	X	X	X	X	X	X	X	X	X

Local Network Trunk Group Service Report

LOCAL NETWORK TRUNK GROUP SERVICE REPORT													
MONTHLY SUMMARY													
	AL	GA	KY	LA	MS	NC	NF	SC	SF	TN	TOTAL	TOTAL w/o GA	
Total Trunk Groups:	x	x	x	x	x	x	x	x	x	x	x	x	x
Trk Grps Mess/Proc:	x	x	x	x	x	x	x	x	x	x	x	x	x
Tot Grps > 3% NC this report	x	x	x	x	x	x	x	x	x	x	x	x	x
PCT1	x	x	x	x	x	x	x	x	x	x	x	x	x

BellSouth Local Network Blocking Report

BELLSOUTH LOCAL NETWORK BLOCKING REPORT - SUMMARY										
GROUPS EXCEEDING MBT										
PROCESS DATE										
A-END	Z-END	DESCRPT	TGSN	STUDY PERIOD	OBSVD BLKG	HR	TKS	VAL DAYS	NBR RPTS	RMKS
X	X	X	X	X	X	X	X	X	X	X

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APPENDIX A

ITEM #	DESCRIPTION
1. Carrier Specific - Reported on a per order basis	<ul style="list-style-type: none"> • Interconnection Trunks - average response time, percent less than 10 days. • UNE - less than 10 lines / circuits and 10 lines / circuits of more, mechanized orders and non-mechanized orders. • UNE (Specials) - less than 10 lines / circuits and 10 lines / circuits of more, mechanized orders and non-mechanized orders. • Resale Residential & Business - less than 10 lines / circuits and 10 lines / circuits of more, mechanized orders and non-mechanized orders. • Resale (Specials) - less than 10 lines / circuits and 10 lines / circuits of more, mechanized orders and non-mechanized orders. • UNE (Unbundled Loops w/ interim telephone number portability) - less than 5 and 5 or more, mechanized orders and non-mechanized orders.
2. Reported by Carrier on a per order basis	<p>UNE: by groups of lines on single order. Separately tracked for dispatch and non-dispatch as follows:</p> <ul style="list-style-type: none"> • Local Interconnection Trunks • Resale (Residence): by groups of lines on single order similar to UNE (POTS) • Resale (Business) - by groups of lines on single order similar to UNE (POTS) • Resale (Specials) - by groups of lines on single order similar to UNE (POTS) • UNE (Unbundled Loops w/ interim telephone number portability)
3. Carrier Specific - Reported on a per order basis	<ul style="list-style-type: none"> • UNE - Dispatched, Not Dispatched, and misses where the competing carrier or end user causes the missed appointment. • Resale Residence & Business Dispatched, Not Dispatched - All misses, denoting misses, where the competing carrier or end user caused the missed appointment. • Interconnection Trunks • Resale Specials
4. Geographic Scope	<ul style="list-style-type: none"> • State and Regional level unless otherwise specified