

F. Test Results: Statistical Evaluation of Transactions Test Metrics (PMR6)

1.0 Description

This objective of this test was to evaluate BellSouth's service performance for the KCI test CLEC using statistical methods to make comparisons to parity and benchmark standards. The test relied on standard statistical methods deemed to be appropriate by KCI. Comparisons were not conducted for performance measures for which a retail analog or benchmark is not established.

2.0 Methodology

This section summarizes the test methodology.

2.1 Business Process Description

On a monthly basis, BellSouth generates and reports performance measurement statistics called Service Quality Measurements (SQMs). The SQM documentation for Georgia, which is published by BellSouth and updated periodically, contains definitions of the SQMs along with business rules, exclusions, calculation descriptions, and levels of disaggregation. SQMs have been established for every service domain and are calculated for both CLECs and BellSouth. Many of the SQMs are calculated on a CLEC-specific basis, as well as for the aggregate of the CLECs and for BellSouth. Others, however, are calculated for the CLEC aggregate only, or for the CLEC aggregate and BellSouth combined. Each month, BellSouth extracts and assembles data from various databases in its Operational Support Systems (OSS) to calculate SQM values.

BellSouth has developed a tool called the Performance Measurement and Analysis Platform (PMAP) to calculate many of the SQM values automatically. For the remaining SQMs, referred to as "manual SQMs," BellSouth employs a variety of smaller, special-purpose tools, sometimes in conjunction with PMAP.

The SQM values are reported each month on BellSouth's PMAP Web site (<https://pmap.bellsouth.com>). BellSouth provides the capability for CLECs to download their own SQM values from the Web site. A CLEC can also download the raw data that BellSouth uses to calculate PMAP SQMs specific to the particular CLEC, and it can refer to the *PMAP Raw Data Users Manual* for detailed computation instructions. CLEC aggregate and BellSouth retail SQM values are also posted on the Web site.

2.2 Scenarios

Scenarios were not applicable to this test.

2.3 Test Targets & Measures

The test target for the Statistical Evaluation of Transactions Test Metrics was the set of values reported by BellSouth for various SQMs for which there were appropriate test CLEC data, and standards specified by the Georgia Public Service Commission (GPSC). Processes, sub-processes, and evaluation measures are summarized in the following table. The last column “Test Cross-Reference” indicates where the particular measures are addressed in section 3.1 “Results & Analysis.”

Table VIII-6.1: Test Target Cross-Reference

Process	Sub-Process	Evaluation Measure	Test Cross-Reference
Resale	Ordering	Calculate and compare test statistic to critical value, depending on metric.	PMR6-1-1
	Provisioning	Calculate and compare test statistic to critical value, depending on metric.	PMR6-1-2
	Maintenance & Repair	Calculate and compare test statistic to critical value, depending on metric.	PMR6-1-3
	Billing	Calculate and compare test statistic to critical value, depending on metric.	PMR6-1-4
UNE	Ordering	Calculate and compare test statistic to critical value, depending on metric.	PMR6-2-1
	Provisioning	Calculate and compare test statistic to critical value, depending on metric.	PMR6-2-2
	Maintenance & Repair	Calculate and compare test statistic to critical value, depending on metric.	PMR6-2-3

Process	Sub-Process	Evaluation Measure	Test Cross-Reference
	Billing	Calculate and compare test statistic to critical value, depending on metric.	PMR6-2-4
Other	Billing	Calculate and compare test statistic to critical value, depending on metric.	PMR6-3-1
	Flow-Through	Calculate and compare test statistic to critical value, depending on metric.	PMR6-3-2

2.4 Data Sources

The data collected for the test are summarized in the table below.

Table VIII-6.2: Data Sources for Statistical Evaluation of Transactions Test Metrics

Document	File Name	Location in Work Papers	Source
Ordering – Reject Interval CLEC aggregate December 1999 Raw Data – CLEC Proprietary	Reject1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Ordering – Reject Interval CLEC aggregate February 2000 Raw Data – CLEC Proprietary	Reject0200.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Ordering – Firm Order Confirmation Timeliness CLEC aggregate December 1999 Raw Data – CLEC Proprietary	FOC1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Ordering – Firm Order Confirmation Timeliness CLEC aggregate February 2000 Raw Data – CLEC Proprietary	FOC0200.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements

Document	File Name	Location in Work Papers	Source
Provisioning – Order Completion Interval CLEC aggregate December 1999 Raw Data – CLEC Proprietary	OCI1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Order Completion Interval CLEC aggregate January 2000 Raw Data – CLEC Proprietary	OCI0100.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Order Completion Interval CLEC aggregate February 2000 Raw Data – CLEC Proprietary	OCI0200.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Held Order Interval CLEC aggregate December 1999 Raw Data – CLEC Proprietary	HldOrd1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Average Jeopardy Notice Interval CLEC aggregate December 1999 Raw Data – CLEC Proprietary	Jeopardy1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Average Jeopardy Notice Interval CLEC aggregate January 2000 Raw Data – CLEC Proprietary	Jeopardy0100.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Average Jeopardy Notice Interval CLEC aggregate February 2000 Raw Data – CLEC Proprietary	Jeopardy0200.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Percent Jeopardies CLEC aggregate December 1999 Raw Data – CLEC Proprietary	Jeopardy1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements

Document	File Name	Location in Work Papers	Source
Provisioning – Percent Jeopardies CLEC aggregate January 2000 Raw Data – CLEC Proprietary	Jeopardy0100.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Percent Jeopardies CLEC aggregate February 2000 Raw Data – CLEC Proprietary	Jeopardy0200.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Percent Missed Installation Appointments CLEC aggregate December 1999 Raw Data – CLEC Proprietary	PMI1299.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Percent Missed Installation Appointments CLEC aggregate January 2000 Raw Data – CLEC Proprietary	PMI0100.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Provisioning – Percent Missed Installation Appointments CLEC aggregate February 2000 Raw Data – CLEC Proprietary	PMI0200.txt.gz	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Missed Repair Appointments CLEC aggregate December 1999 Raw Data – CLEC Proprietary	MissedRepair1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Missed Repair Appointments CLEC aggregate January 2000 Raw Data – CLEC Proprietary	MissedRepair0100.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements

Document	File Name	Location in Work Papers	Source
Maintenance & Repair – Maintenance Average Duration CLEC aggregate December 1999 Raw Data – CLEC Proprietary	MaintAvgDur1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Maintenance Average Duration CLEC aggregate January 2000 Raw Data – CLEC Proprietary	MaintAvgDur0100.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Percent Troubles within 30 Days CLEC aggregate December 1999 Raw Data – CLEC Proprietary	RepeatTroubles301299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Percent Troubles within 30 Days CLEC aggregate January 2000 Raw Data – CLEC Proprietary	RepeatTroubles300100.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Line Count CLEC aggregate December 1999 Raw Data – CLEC Proprietary	LineCount1299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Line Count CLEC aggregate January 2000 Raw Data – CLEC Proprietary	LineCount0100.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Maintenance & Repair – Out of Service >24 Hours CLEC aggregate December 1999 Raw Data – CLEC Proprietary	OOS241299.txt.Z	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements

Document	File Name	Location in Work Papers	Source
Billing – Mean Time to Deliver Invoices CLEC aggregate December 1999 Raw Data – CLEC Proprietary	E&YDEC~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Mean Time to Deliver Invoices CLEC aggregate January 2000 Raw Data – CLEC Proprietary	E&Y01~~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Mean Time to Deliver Invoices CLEC aggregate February 2000 Raw Data – CLEC Proprietary	E&Y02~~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Usage Data Delivery Completeness CLEC aggregate December 1999 Raw Data – CLEC Proprietary	E&YDEC~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Usage Data Delivery Completeness CLEC aggregate January 2000 Raw Data – CLEC Proprietary	E&Y01~~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Usage Data Delivery Completeness CLEC aggregate February 2000 Raw Data – CLEC Proprietary	E&Y02~~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Usage Data Delivery Timeliness CLEC aggregate December 1999 Raw Data – CLEC Proprietary	E&YDEC~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements

Document	File Name	Location in Work Papers	Source
Billing – Usage Data Delivery Timeliness CLEC aggregate January 2000 Raw Data – CLEC Proprietary	E&Y01--1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Usage Data Delivery Timeliness CLEC aggregate February 2000 Raw Data – CLEC Proprietary	E&Y02--1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Mean Time to Deliver Usage CLEC aggregate December 1999 Raw Data – CLEC Proprietary	E&YDEC~1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Mean Time to Deliver Usage CLEC aggregate January 2000 Raw Data – CLEC Proprietary	E&Y01--1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
Billing – Mean Time to Deliver Usage CLEC aggregate February 2000 Raw Data – CLEC Proprietary	E&Y02--1.xls	PMR-6-A-4	BLS – Interconnection Operations – CLEC Performance Measurements
8354-U Order Adopting Standards and Benchmarks	No Electronic Copy	PMR-6-A-2	Georgia Public Service Commission
Product ID and Product Description Mapping Instructions	No Electronic Copy	PMR-6-A-3	BLS – Interconnection Operations – CLEC Performance Measurements
KCI – Statistical Evaluation of Transaction Test Metrics- Evaluation Criteria and Results Table – BLS Proprietary	PMR6-Table VIII-6.3.doc	PMR-6-A-1	KCI

Document	File Name	Location in Work Papers	Source
KCI – Statistical Evaluation of Transaction Test Metrics-Evaluation Criteria and Results Table –Sources – BLS Proprietary	PMR6-Table VIII-6.3.wp.doc	PMR-6-A-1	KCI

2.4.1 Data Generation/Volumes

The data for this test were the raw data used to calculate and validate SQM values reported by BellSouth for the KCI test CLEC and BellSouth retail operations.

2.5 Evaluation Methods

KCI conducted the Statistical Evaluation of Transaction Test in two steps. First, for the period under study (December 1999, January 2000 and February 2000), KCI calculated test CLEC SQMs (and BellSouth retail SQMs, if appropriate) using the raw data provided by BellSouth. Second, in accordance with the Standard and Benchmarks (the *Standards*) issued by the GPSC (Docket No. 8354-U, June 29, 2000), KCI calculated the appropriate test statistics.

Generally, the SQMs specify two types of standards. The first standard specifies that the test CLEC must be performing at least as well as Bell South retail for some analogous function. This standard is called a parity standard. The second standard specifies that the test CLEC must meet or exceed some fixed standard. This standard is called a benchmark standard.

2.6 Analysis Methods

The Statistical Evaluation of Transaction Test included a checklist of evaluation measures developed by KCI during the preparation of test activities for the BellSouth - Georgia OSS Evaluation. These evaluation measures provided the framework of norms, standards, and guidelines for the Statistical Evaluation of Transactions test.¹

In particular, the statistical tests performed depended on the size of the data sets and an evaluation of statistical assumptions. For all tests, the null hypothesis was that the metric-defined standard is met. The alternative was one-sided and the Type I error level (α level) was set at five percent. The statistical tests used for two types of metrics (metrics that test averages and metrics that test proportions) are given below. If the test CLEC average or percentage met or

¹See “Statistical Methodology for OSS Testing” and BellSouth - Georgia OSS Evaluation *Supplemental Test Plan* for details on specific statistical tests cited in this section.

exceeded the standard, there was no need for a statistical test, and thus the significance level, or p-value, was not reported.

2.6.1 Tests on Averages

A two-sample separate variance t-test was used to evaluate the data when the standard was parity and the test CLEC and BellSouth Retail count were at least 100 each.

KCI performed a permutation test for parity if either of the samples had fewer than 100 observations.

2.6.2 Tests on Proportions

Binomial tests were used to evaluate benchmark comparisons. Binomial tests calculate exact statistical significance levels (p-values) for the comparisons of a proportion to an absolute standard.

For parity comparisons involving two proportions, a hypergeometric test was used when both samples had fewer than 10,000 observations. As with the binomial tests, hypergeometric tests compute the exact p-value when comparing two proportions. As the sample size increases, Binomial tests approximate the hypergeometric tests. Therefore, when either one of the samples had 10,000 or more observations, KCI treated the proportion of the larger sample as fixed, and used a binomial test to compare the proportion of the smaller sample to the proportion of the larger sample.

3.0 Results Summary

This section identifies the discrete evaluation criteria and test results.

3.1 Results & Analysis

There are seven situations in which no statistical evaluations were performed. This section describes these conditions and the treatments of the metrics that fall under these categories:

1. No statistical tests were performed for SQMs with fewer than 11 observations in the smaller sample.
2. The *Standards* issued by the GPSC set forth the guidelines for the statistical tests. On the occasions for which the Standards prescribed *diagnostic* as a test standard, no corresponding statistical tests were available, and, hence, no evaluation was performed.
3. The *Standards* also specify the levels of disaggregation at which statistical evaluations were performed. However, not all prescribed levels of disaggregation were populated with transactions. For those levels of

disaggregation without any transactions, no statistical evaluations were performed.²

4. For some SQMs, the prescribed product categories in the standards did not uniquely match product categories in the BellSouth databases. BellSouth provided supplementary information in an attempt to identify some of these product categories. No statistical evaluation was performed on those levels of disaggregation involving product categories that were not adequately identified by the supplementary information.
5. The data in some SQMs were provided only as aggregated summary statistics. Statistical tests could not be performed without transaction level data.
6. As part of its functional testing, KCI purposely instituted troubles and repeat troubles to test BellSouth's response. Therefore, it is inappropriate to use test CLEC data for benchmark or parity evaluations for SQMs that evaluate the frequency of customer troubles. These SQMs include Percent Provisioning Troubles within 30 days, Customer Trouble Report Rate and Percent Repeat Troubles within 30 days, and include both Resale and UNE product measures.
7. In support of KCI's testing, BellSouth invoices KCI in a similar way to that in which it invoices other CLECs. However, KCI does not pay these invoices, as other CLECs do. Instead, BellSouth reduces the KCI invoices by an equivalent dollar amount (in the form of "Billing Adjustments"). Therefore, it is inappropriate to use test CLEC data for benchmark or parity evaluations for the Billing Invoice Accuracy SQM, since it evaluates Billing Adjustments in relation to Billing Revenues.

The results of this test are presented in the table below. Definitions of evaluation criteria, possible results, and exceptions are provided in Section II.

² The Standards were issued after test execution had commenced.

Table VIII-6.3: Evaluation Criteria and Results

Test Cross-Reference	Evaluation Criteria	Result	Comments
PMR6-1-1	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for resale ordering.	Satisfied	The test CLEC performance met or exceeded the standards for at least 90% of the disaggregation levels tested. For this SQM, 4 out of 4 (100%) of the statistical tests met the standards set forth in the June Standards.
PMR6-1-2	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for resale provisioning.	Not Satisfied	The test CLEC performance did not meet or exceed the standards for at least 90% of the disaggregation levels tested. For this SQM, 14 out of 28 (50%) of the statistical tests met the standards set forth in the June Standards.
PMR6-1-3	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for resale maintenance and repair.	Satisfied	The test CLEC performance met or exceeded the standards for at least 90% of the disaggregation levels tested. For this SQM, 8 out of 8 (100%) of the statistical tests met the standards set forth in the June Standards.
PMR6-1-4	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for resale billing.	Satisfied	The test CLEC performance met or exceeded the standards for at least 90% of the disaggregation levels tested. For this SQM, 3 out of 3 (100%) of the statistical tests met the standards set forth in the June Standards.
PMR6-2-1	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for UNE ordering.	Not Satisfied	The test CLEC performance did not meet or exceed the standards for at least 90% of the disaggregation levels tested. For this SQM, 11 out of 21 (52%) of the statistical tests met the standards set forth in the June Standards.
PMR6-2-2	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the	Not Satisfied	The test CLEC performance did not meet or exceed the standards for at least 90% of the disaggregation levels

Test Cross-Reference	Evaluation Criteria	Result	Comments
	levels of disaggregation tested for UNE provisioning.		tested . For this SQM, 16 out of 40 (40%) of the statistical tests met the standard set forth in the June Standards.
PMR6-2-3	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for UNE maintenance and repair.	Satisfied	The test CLEC performance met or exceeded the standards for at least 90% of the disaggregation levels tested. For this SQM, 6 out of 6 (100%) of the statistical tests met the standards set forth in the June Standards.
PMR6-2-4	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for UNE billing.	Satisfied	The test CLEC performance met or exceeded the standards for at least 90% of the disaggregation levels tested. For this SQM, 3 out of 3 (100%) of the statistical tests met the standards set forth in the June Standards.
PMR6-3-1	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for “Other” billing.	Not Satisfied	The test CLEC performance did not meet or exceed the standards for at least 90% of the disaggregation levels tested. For this SQM, 3 out of 9 (33%) of the statistical tests met the standards set forth in the June Standards.
PMR6-3-2	The test CLEC performance met or exceeded the parity level or benchmark standard (or was statistically equivalent) for the levels of disaggregation tested for flow through.	Not Complete	KCI is awaiting the appropriate data sets from BLS to complete evaluation of this criterion.

The tables below provide KCI’s findings in greater detail. As described above, KCI did not conduct statistical tests for every level of disaggregation prescribed by the GPSC. No statistical evaluation was performed when:

- There were fewer than 11 observations in the smaller sample;
- The Standards prescribed “Diagnostic” rather than a benchmark or parity as the standard;
- Prescribed product categories were not identifiable in the data provided;

- Data were reported on a CLEC aggregate level, but not on a transactional level;
- KCI's functional testing required BellSouth to take actions that would negate the value of comparing the test values to a standard (e.g., purposely instituting troubles).

Table VIII-6.4 below displays the detailed results of the statistical analysis for the Resale levels of disaggregation.

Table VIII-6.4: Detail of Results (Resale)

	Domain³	SQM³	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Benchmark⁴	CLEC Outcome⁵	CLEC Count⁵	BLS Outcome⁵	BLS Count⁵	p-value⁶	Finding⁷
1.	Ordering	FOC	Business	Mechanized	Feb-00	N/A	N/A	95%	100%	22	N/A	N/A		At Standard
2.	Ordering	FOC	Business	Mechanized	Dec-99	N/A	N/A	95%	100%	18	N/A	N/A		At Standard
3.	Ordering	FOC	Residence	Mechanized	Feb-00	N/A	N/A	95%	100%	15	N/A	N/A		At Standard
4.	Ordering	FOC	Residence	Mechanized	Dec-99	N/A	N/A	95%	100%	32	N/A	N/A		At Standard
5.	Provisioning	Order Completion Interval	Business	N/A	Jan-00	Less than 10	Dispatch	N/A	5.75	110	11.82	12,284		At Standard
6.	Provisioning	Order Completion Interval	Business	N/A	Jan-00	Less than 10	Non-Dispatch	N/A	0.44	16	1.72	30,412		At Standard

³ Domain and SQM identify the category and the metric, respectively. Levels of disaggregation include: Product Description, Mechanization, Month, Circuit Interval and Dispatch Identity. Since not all levels of disaggregation were applicable for each metric, N/A indicates inapplicability.

⁴ Benchmark is the threshold of acceptance set forth in the Standards. Since a benchmark is not applicable for parity comparisons, an N/A was recorded in those cases.

⁵ CLEC Counts and BLS Counts identify the number of transactions at the prescribed level of disaggregation for CLEC and BellSouth, respectively. For benchmark standards, CLEC Outcome and BLS Outcome respectively identify the percentage of CLEC and BellSouth transactions satisfying the criterion at the level of disaggregation. For interval tests, CLEC and BLS Outcomes are the mean values of the variable of interest for CLEC and BellSouth, respectively. To differentiate the two interpretations, rates are expressed in percentages, and mean values are expressed in decimals.

⁶ The p-value is the standard statistical p value. In other words, it is the probability of observing an outcome at least as extreme as the CLEC outcome, given the null hypothesis that the standard is met. Depending on the metric, the p-value can either be the cumulative probability up to and including the test CLEC performance, or the cumulative probability that includes and exceeds the test CLEC performance. Standard is met when the CLEC data exceeded the benchmarks or out-performed the corresponding BellSouth transactions. No test was necessary in these cases, thus the p-value was left blank.

⁷ Finding takes one of the possible two values: “At standard” or “Below Standard.” When the test CLEC exceeded the benchmark or out-performed BellSouth, an “At Standard” was recorded. Metrics that required statistical tests and showed p-values less than five percent were given a Finding of “Below Standard”. Metrics with p-values higher than five percent were given a Finding of “At Standard.”



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	Domain ³	SQM ³	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench-mark ⁴	CLEC Out-come ⁵	CLEC Count ⁵	BLS Out-come ⁵	BLS Count ⁵	p-value ⁶	Finding ⁷
7.	Provisioning	Order Completion Interval	Business	N/A	Feb-00	Less than 10	Non-Dispatch	N/A	2.23	40	1.92	36,655	0.2160	At Standard
8.	Provisioning	Order Completion Interval	Business	N/A	Dec-99	Less than 10	Dispatch	N/A	9.05	76	11.69	10,574		At Standard
9.	Provisioning	Order Completion Interval	Residence	N/A	Jan-00	Less than 10	Dispatch	N/A	9.57	95	8.78	32,711	0.1511	At Standard
10.	Provisioning	Order Completion Interval	Residence	N/A	Jan-00	Less than 10	Non-Dispatch	N/A	2.91	11	1.23	462,863	0.0245	Below Standard
11.	Provisioning	Order Completion Interval	Residence	N/A	Feb-00	Less than 10	Non-Dispatch	N/A	3.83	30	0.70	467,543	0.0003	Below Standard
12.	Provisioning	Order Completion Interval	Residence	N/A	Dec-99	Less than 10	Dispatch	N/A	4.36	188	8.93	29,792		At Standard
13.	Provisioning	Order Completion Interval	Residence	N/A	Dec-99	Less than 10	Non-Dispatch	N/A	0.89	104	0.74	387,563	0.0271	Below Standard
14.	Provisioning	Held Orders	Residence	N/A	Dec-99	Equal to or more than 10	N/A	N/A	20.08	12	37.98	1984		At Standard
15.	Provisioning	Average Jeopardy Notice Interval	Business	N/A	Jan-00	N/A	N/A	95%	0%	178	N/A	N/A	0.0000	Below Standard
16.	Provisioning	Average Jeopardy Notice Interval	Business	N/A	Feb-00	N/A	N/A	95%	0%	117	N/A	N/A	0.0000	Below Standard

	Domain ³	SQM ³	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench-mark ⁴	CLEC Out-come ⁵	CLEC Count ⁵	BLS Out-come ⁵	BLS Count ⁵	p-value ⁶	Finding ⁷
17.	Provisioning	Average Jeopardy Notice Interval	Business	N/A	Dec-99	N/A	N/A	95%	0%	137	N/A	N/A	0.0000	Below Standard
18.	Provisioning	Average Jeopardy Notice Interval	Residence	N/A	Jan-00	N/A	N/A	95%	0%	182	N/A	N/A	0.0000	Below Standard
19.	Provisioning	Average Jeopardy Notice Interval	Residence	N/A	Feb-00	N/A	N/A	95%	0%	75	N/A	N/A	0.0000	Below Standard
20.	Provisioning	Average Jeopardy Notice Interval	Residence	N/A	Dec-99	N/A	N/A	95%	0%	396	N/A	N/A	0.0000	Below Standard
21.	Provisioning	Percent Jeopardies	Business	N/A	Jan-00	N/A	N/A	N/A	7%	178	7%	61,467	0.5053	At Standard
22.	Provisioning	Percent Jeopardies	Business	N/A	Feb-00	N/A	N/A	N/A	1%	117	6%	68,499	0.0000	At Standard
23.	Provisioning	Percent Jeopardies	Business	N/A	Dec-99	N/A	N/A	N/A	6%	137	7%	55,483	0.7671	At Standard
24.	Provisioning	Percent Jeopardies	Residence	N/A	Jan-00	N/A	N/A	N/A	13%	182	2%	616,131	0.0000	Below Standard
25.	Provisioning	Percent Jeopardies	Residence	N/A	Feb-00	N/A	N/A	N/A	8%	75	2%	611,370	0.0038	Below Standard
26.	Provisioning	Percent Jeopardies	Residence	N/A	Dec-99	N/A	N/A	N/A	8%	396	2%	538,025	0.0000	Below Standard
27.	Provisioning	Percent Missed Installation Appointments	Business	N/A	Jan-00	Less than 10	Dispatch	N/A	12%	113	25%	12,345	0.8848	At Standard
28.	Provisioning	Percent Missed Installation Appointments	Business	N/A	Dec-99	Less than 10	Dispatch	N/A	5%	76	27%	10,609	0.9000	At Standard

	Domain ³	SQM ³	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Benchmark ⁴	CLEC Outcome ⁵	CLEC Count ⁵	BLS Outcome ⁵	BLS Count ⁵	p-value ⁶	Finding ⁷
29.	Provisioning	Percent Missed Installation Appointments	Residence	N/A	Jan-00	Less than 10	Dispatch	N/A	35%	96	20%	37,935	0.0004	Below Standard
30.	Provisioning	Percent Missed Installation Appointments	Residence	N/A	Jan-00	Less than 10	Non-Dispatch	N/A	7%	14	0%	477,458	0.0426	Below Standard
31.	Provisioning	Percent Missed Installation Appointments	Residence	N/A	Dec-99	Less than 10	Dispatch	N/A	5%	188	24%	36,141	1.0000	At Standard
32.	Provisioning	Percent Missed Installation Appointments	Residence	N/A	Dec-99	Less than 10	Non-Dispatch	N/A	1%	105	0%	403,918	0.3334	At Standard
33.	Maintenance & Repair	Missed Repair Appointments	Business	N/A	Jan-00	N/A	Non-Dispatch	N/A	0%	130	12%	11,730	1.0000	At Standard
34.	Maintenance & Repair	Missed Repair Appointments	Business	N/A	Dec-99	N/A	Non-Dispatch	N/A	3%	150	17%	10,090	1.0000	At Standard
35.	Maintenance & Repair	Missed Repair Appointments	Residence	N/A	Jan-00	N/A	Non-Dispatch	N/A	0%	101	7%	75,759	1.0000	At Standard
36.	Maintenance & Repair	Missed Repair Appointments	Residence	N/A	Dec-99	N/A	Non-Dispatch	N/A	0%	115	7%	52,434	1.0000	At Standard
37.	Maintenance & Repair	Maintenance Average Duration	Business	N/A	Jan-00	N/A	Non-Dispatch	N/A	1.00	130	10.60	11,704		At Standard
38.	Maintenance & Repair	Maintenance Average Duration	Business	N/A	Dec-99	N/A	Non-Dispatch	N/A	2.10	150	8.98	10,055		At Standard
39.	Maintenance & Repair	Maintenance Average Duration	Residence	N/A	Jan-00	N/A	Non-Dispatch	N/A	1.00	101	19.71	75,570		At Standard

	Domain ³	SQM ³	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench-mark ⁴	CLEC Out-come ⁵	CLEC Count ⁵	BLS Out-come ⁵	BLS Count ⁵	p-value ⁶	Finding ⁷
40.	Maintenance & Repair	Maintenance Average Duration	Residence	N/A	Dec-99	N/A	Non-Dispatch	N/A	0.59	115	15.76	52,102		At Standard
41.	Billing ⁸	Mean Time to Deliver Invoices CRIS	N/A	N/A	Dec-99	N/A	N/A	N/A	3.33	24	3.52	1		At Standard
42.	Billing ⁸	Mean Time to Deliver Invoices CRIS	N/A	N/A	Jan-00	N/A	N/A	N/A	3.82	22	3.78	1	0.4178	At Standard
43.	Billing ⁸	Mean Time to Deliver Invoices CRIS	N/A	N/A	Feb-00	N/A	N/A	N/A	3.33	24	3.31	1	0.4207	At Standard

⁸Given the sample sizes, the test plans specify permutation tests in this domain. However, these tests require transaction level data for both the test CLEC and BLS; for BLS only summary data were available. Therefore, to perform parity comparisons, KCI modified the interval tests for this SQM. As with any interval test, if the test CLEC sample mean is better than or equal to the BLS mean, no further test is necessary. If the CLEC mean is greater than the BLS mean, KCI conducted one sample t-tests for the null hypothesis that the test CLEC mean is less than or equal to the BLS mean.



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Table VIII-6.5 below displays the detailed results of the statistical analysis for the UNE levels of disaggregation.

Table VIII-6.5: Detail Of Results (UNE)

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
1	Ordering	Reject Interval	2-W Analog Loop Design	Mechanized	Feb-00	N/A	N/A	97%	100%	57	N/A	N/A		At Standard
2	Ordering	Reject Interval	2-W Analog Loop Design	Partially Mechanized	Feb-00	N/A	N/A	85%	37%	68	N/A	N/A	0.0000	Below Standard
3	Ordering	Reject Interval	2-W Analog Loop Non-Design	Mechanized	Feb-00	N/A	N/A	97%	100%	57	N/A	N/A		At Standard
4	Ordering	Reject Interval	2-W Analog Loop Non-Design	Partially Mechanized	Feb-00	N/A	N/A	85%	37%	68	N/A	N/A	0.0000	Below Standard
5	Ordering	Reject Interval	Loop+Port Combination	Mechanized	Feb-00	N/A	N/A	97%	100%	15	N/A	N/A		At Standard
6	Ordering	Reject Interval	Loop+Port Combination	Partially Mechanized	Feb-00	N/A	N/A	85%	31%	36	N/A	N/A	0.0000	Below Standard
7	Ordering	Reject Interval	Switch Ports	Partially Mechanized	Feb-00	N/A	N/A	85%	33%	15	N/A	N/A	0.0000	Below Standard
8	Ordering	Reject Interval	2-W Analog Loop W/INP Design	Partially Mechanized	Feb-00	N/A	N/A	85%	55%	11	N/A	N/A	0.0159	Below Standard
9	Ordering	Reject Interval	2-W Analog Loop W/INP Non Design	Partially Mechanized	Feb-00	N/A	N/A	85%	55%	11	N/A	N/A	0.0159	Below Standard
10	Ordering	Reject Interval	2-W Analog Loop Design	Mechanized	Dec-99	N/A	N/A	97%	100%	21	N/A	N/A		At Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
11	Ordering	Reject Interval	2-W Analog Loop Non-Design	Mechanized	Dec-99	N/A	N/A	97%	100%	21	N/A	N/A		At Standard
12	Ordering	FOC	2-W Analog Loop Design	Manual	Feb-00	N/A	N/A	85%	79%	19	N/A	N/A	0.3159	At Standard
13	Ordering	FOC	2-W Analog Loop Non-Design	Manual	Feb-00	N/A	N/A	85%	79%	19	N/A	N/A	0.3159	At Standard
14	Ordering	FOC	Loop+Port Combination	Manual	Feb-00	N/A	N/A	85%	79%	24	N/A	N/A	0.2866	At Standard
15	Ordering	FOC	Switch Ports	Manual	Feb-00	N/A	N/A	85%	72%	18	N/A	N/A	0.1206	At Standard
16	Ordering	FOC	2-W Analog Loop Design	Partially Mechanized	Feb-00	N/A	N/A	85%	61%	23	N/A	N/A	0.0042	Below Standard
17	Ordering	FOC	2-W Analog Loop Non-Design	Partially Mechanized	Feb-00	N/A	N/A	85%	61%	23	N/A	N/A	0.0042	Below Standard
18	Ordering	FOC	Loop+Port Combination	Mechanized	Feb-00	N/A	N/A	95%	100%	41	N/A	N/A		At Standard
19	Ordering	FOC	Loop+Port Combination	Partially Mechanized	Feb-00	N/A	N/A	85%	59%	27	N/A	N/A	0.0011	Below Standard
20	Ordering	FOC	Switch Ports	Mechanized	Feb-00	N/A	N/A	95%	92%	13	N/A	N/A	0.4867	At Standard
21	Ordering	FOC	Switch Ports	Partially Mechanized	Feb-00	N/A	N/A	85%	48%	25	N/A	N/A	0.0000	Below Standard
22	Provisioning	Order Completion Interval	Loop+Port Combination	N/A	Jan-00	Less than 10	Non-Dispatch	N/A	2.59	19	1.45	493,275	0.0336	Below Standard
23	Provisioning	Order Completion Interval	Loop+Port Combination	N/A	Feb-00	Less than 10	Non-Dispatch	N/A	6.31	13	0.97	504,198	0.0040	Below Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
24	Provisioning	Order Completion Interval	Loop+Port Combination	N/A	Dec-99	Less than 10	Dispatch	N/A	5.22	188	9.66	40,366		At Standard
25	Provisioning	Order Completion Interval	Loop+Port Combination	N/A	Dec-99	Less than 10	Non-Dispatch	N/A	1.85	78	1.00	414,861	0.0066	Below Standard
26	Provisioning	Order Completion Interval	Switch Ports	N/A	Dec-99	Less than 10	Non-Dispatch	N/A	6.90	14	1.00	414,861	0.0007	Below Standard
27	Provisioning	Order Completion Interval	UNE Other Non-Design	N/A	Feb-00	Less than 10	Dispatch	N/A	5.42	12	8.28	49,344		At Standard
28	Provisioning	Order Completion Interval	2-W Analog Loop Design	N/A	Dec-99	Less than 10	Dispatch	N/A	6.4	30	9.6565	40,356		At Standard
29	Provisioning	Percent Jeopardies	Loop+Port Combination	N/A	Jan-00	N/A	N/A	N/A	0%	34	1%	604,795	1.0000	At Standard
30	Provisioning	Percent Jeopardies	Loop+Port Combination	N/A	Feb-00	N/A	N/A	N/A	5%	56	2%	611,324	0.0604	At Standard
31	Provisioning	Percent Jeopardies	Loop+Port Combination	N/A	Dec-99	N/A	N/A	N/A	4%	328	2%	509,359	0.0040	Below Standard
32	Provisioning	Percent Jeopardies	Switch Ports	N/A	Jan-00	N/A	N/A	N/A	0%	38	1%	604,795	1.0000	At Standard
33	Provisioning	Percent Jeopardies	Switch Ports	N/A	Feb-00	N/A	N/A	N/A	0%	38	2%	611,324	1.0000	At Standard
34	Provisioning	Percent Jeopardies	Switch Ports	N/A	Dec-99	N/A	N/A	N/A	0%	36	2%	509,359	1.0000	At Standard
35	Provisioning	Percent Jeopardies	UNE Other Non-Design	N/A	Jan-00	N/A	N/A	N/A	0%	12	1%	604,795	1.0000	At Standard
36	Provisioning	Percent Jeopardies	UNE Other Non-Design	N/A	Feb-00	N/A	N/A	N/A	0%	30	2%	611,324	1.0000	At Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
37	Provisioning	Percent Jeopardies	2-W Analog Loop Design	N/A	Feb-00	N/A	N/A	N/A	12%	17	15%	65,263	0.7445	At Standard
38	Provisioning	Percent Jeopardies	2-W Analog Loop Design	N/A	Dec-99	N/A	N/A	N/A	0%	34	15%	55,875	1.0000	At Standard
39	Provisioning	Percent Jeopardies	2-W Analog Loop Non Design	N/A	Jan-00	N/A	N/A	N/A	17%	24	14%	59,112	0.4345	At Standard
40	Provisioning	Percent Jeopardies	2-W Analog Loop Non Design	N/A	Dec-99	N/A	N/A	N/A	63%	19	15%	55,875	0.0000	Below Standard
41	Provisioning	Average Jeopardy Notice Interval	Loop+Port Combination	N/A	Jan-00	N/A	N/A	95%	0%	34	N/A	N/A	0.0000	Below Standard
42	Provisioning	Average Jeopardy Notice Interval	Loop+Port Combination	N/A	Feb-00	N/A	N/A	95%	0%	56	N/A	N/A	0.0000	Below Standard
43	Provisioning	Average Jeopardy Notice Interval	Loop+Port Combination	N/A	Dec-99	N/A	N/A	95%	0%	328	N/A	N/A	0.0000	Below Standard
44	Provisioning	Average Jeopardy Notice Interval	Switch Ports	N/A	Jan-00	N/A	N/A	95%	0%	38	N/A	N/A	0.0000	Below Standard
45	Provisioning	Average Jeopardy Notice Interval	Switch Ports	N/A	Feb-00	N/A	N/A	95%	0%	38	N/A	N/A	0.0000	Below Standard
46	Provisioning	Average Jeopardy Notice Interval	Switch Ports	N/A	Dec-99	N/A	N/A	95%	0%	36	N/A	N/A	0.0000	Below Standard
47	Provisioning	Average Jeopardy Notice Interval	UNE Other Non-Design	N/A	Jan-00	N/A	N/A	95%	0%	12	N/A	N/A	0.0000	Below Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
48	Provisioning	Average Jeopardy Notice Interval	UNE Other Non-Design	N/A	Feb-00	N/A	N/A	95%	0%	30	N/A	N/A	0.0000	Below Standard
49	Provisioning	Average Jeopardy Notice Interval	2-W Analog Loop Design	N/A	Feb-00	N/A	N/A	95%	0%	17	N/A	N/A	0.0000	Below Standard
50	Provisioning	Average Jeopardy Notice Interval	2-W Analog Loop Design	N/A	Dec-99	N/A	N/A	95%	0%	34	N/A	N/A	0.0000	Below Standard
51	Provisioning	Average Jeopardy Notice Interval	2-W Analog Loop Non Design	N/A	Jan-00	N/A	N/A	95%	0%	24	N/A	N/A	0.0000	Below Standard
52	Provisioning	Average Jeopardy Notice Interval	2-W Analog Loop Non Design	N/A	Dec-99	N/A	N/A	95%	0%	19	N/A	N/A	0.0000	Below Standard
53	Provisioning	Percent Missed Installation Appointments	Loop+Port Combination	N/A	Jan-00	Less than 10	Non-Dispatch	N/A	16%	19	0%	508,523	0.0000	Below Standard
54	Provisioning	Percent Missed Installation Appointments	Switch Ports	N/A	Jan-00	Less than 10	Non-Dispatch	N/A	14%	21	0%	508,523	0.0001	Below Standard
55	Provisioning	Percent Missed Installation Appointments	2-W Analog Loop Non Design	N/A	Jan-00	Less than 10	Dispatch	N/A	32%	22	20%	50,298	0.1450	At Standard
56	Provisioning	Percent Missed Installation Appointments	Loop+Port Combination	N/A	Feb-00	Less than 10	Non-Dispatch	N/A	9%	32	0%	520,067	0.0003	Below Standard
57	Provisioning	Percent Missed Installation Appointments	Switch Ports	N/A	Feb-00	Less than 10	Non-Dispatch	N/A	8%	24	0%	520,067	0.0046	Below Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
58	Provisioning	Percent Missed Installation Appointments	Loop+Port Combination	N/A	Dec-99	Less than 10	Dispatch	N/A	15%	208	24%	46,763	0.6000	At Standard
59	Provisioning	Percent Missed Installation Appointments	Loop+Port Combination	N/A	Dec-99	Less than 10	Non-Dispatch	N/A	3%	88	0%	431,637	0.0075	Below Standard
60	Provisioning	Percent Missed Installation Appointments	Switch Ports	N/A	Dec-99	Less than 10	Non-Dispatch	N/A	33%	27	0%	431,637	0.0000	Below Standard
61	Provisioning	Percent Missed Installation Appointments	2-W Analog Loop Design	N/A	Dec-99	Less than 10	Dispatch	N/A	17%	30	24%	46,753	0.8851	At Standard
62	Maintenance & Repair	Missed Repair Appointments	2-W Analog Loop Design	N/A	Dec-99	N/A	Dispatch	N/A	33%	21	22%	52,179	0.1711	At Standard
63	Maintenance & Repair	Missed Repair Appointments	Loop+Port Combination	N/A	Jan-00	N/A	Non-Dispatch	N/A	2%	521	8%	87,489	1.0000	At Standard
64	Maintenance & Repair	Missed Repair Appointments	Loop+Port Combination	N/A	Dec-99	N/A	Non-Dispatch	N/A	0%	700	8%	62,524	1.0000	At Standard
65	Maintenance & Repair	Maintenance Average Duration	2-W Analog Loop Design	N/A	Dec-99	N/A	Dispatch	N/A	20.91	21	36.95	51,994		At Standard
66	Maintenance & Repair	Maintenance Average Duration	Loop+Port Combination	N/A	Dec-99	N/A	Non-Dispatch	N/A	0.96	700	14.66	62,157		At Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
67	Maintenance & Repair	Out of Service more than 24 hours	2-W Analog Loop Design	N/A	Dec-99	N/A	Dispatch	N/A	33%	21	45%	30,329	0.9098	At Standard
68	Billing ⁹	Mean Time to Deliver Invoices CRIS	N/A	N/A	Dec-99	N/A	N/A	N/A	3.35	85	3.52	1		At Standard
69	Billing ⁸	Mean Time to Deliver Invoices CRIS	N/A	N/A	Jan-00	N/A	N/A	N/A	3.90	80	3.78	1	0.1014	At Standard
70	Billing ⁸	Mean Time to Deliver Invoices CRIS	N/A	N/A	Feb-00	N/A	N/A	N/A	3.12	85	3.31	1		At Standard

⁹Given the sample sizes, the test plans specify permutation tests in this domain. However, these tests require transaction level data for both the test CLEC and BLS, and only summary data was available for BLS. Therefore, to perform parity comparisons, KCI modified the interval tests for this SQM. As with any interval test, if the test CLEC sample mean is better than or equal to the BLS mean, no further test is necessary. If the CLEC mean is greater than the BLS mean, KCI conducted one sample t-tests for the null hypothesis that the test CLEC mean is less than or equal to the BLS mean.



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Table VIII-6.6 below displays the detailed results of the statistical analysis for the “Other” levels of disaggregation (levels that were neither Resale nor UNE).

Table VIII-6.6: Detail Of Results (Other)

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
1	Billing	Usage Data Delivery Completeness	N/A	N/A	Jan-00	N/A	N/A	N/A	99%	1,110	100%	5,420	0.0000	Below Standard
2	Billing	Usage Data Delivery Completeness	N/A	N/A	Feb-00	N/A	N/A	N/A	99%	713	100%	3,505	0.0726	At Standard
3	Billing	Usage Data Delivery Completeness	N/A	N/A	Dec-99	N/A	N/A	N/A	96%	559	95%	5,060	0.9540	At Standard
4	Billing	Usage Data Delivery Timeliness	N/A	N/A	Jan-00	N/A	N/A	N/A	78%	1,110	98%	5,420	0.0000	Below Standard
5	Billing	Usage Data Delivery Timeliness	N/A	N/A	Feb-00	N/A	N/A	N/A	79%	713	98%	3,505	0.0000	Below Standard
6	Billing	Usage Data Delivery Timeliness	N/A	N/A	Dec-99	N/A	N/A	N/A	72%	559	90%	5,060	0.0000	Below Standard
7	Billing	Mean Time to Deliver Usage	N/A	N/A	Jan-00	N/A	N/A	N/A	4.01	1,110	2.15	5,420	0.0000	Below Standard

	Domain	SQM	Product Description	Mechanization	Month	Circuit Interval	Dispatch Identity	Bench mark	CLEC Outcome	CLEC Count	BLS Outcome	BLS Count	p-value	Finding
8	Billing	Mean Time to Deliver Usage	N/A	N/A	Feb-00	N/A	N/A	N/A	3.79	713	2.36	3,505	0.0000	Below Standard
9	Billing	Mean Time to Deliver Usage	N/A	N/A	Dec-99	N/A	N/A	N/A	4.77	559	4.52	5,060	0.1690	At Standard