In addition, in its reply comments, BellSouth indicated that it supports "a reasoned process of collecting actual data on such functions and features for a period of time, and then using an industry forum to develop reasonable standards from that collected data."[36]

The LCUG supporters found this suggestion to be acceptable as well. Specifically, Ms. Dailey indicated:

> And from what the LCUG members have said in those workshops, I, I would think that a benchmark study would be acceptable as an alternative to doing a month by month parity. And if you guys differ here today... I think that would be acceptable to the LCUG members.[37]

No other party voiced opposition to this approach.

Staff recommends that these studies and their associated methodology be further refined over the next six months with the continuation of workshops on performance measures.

At this time, there is one benchmark or standard, where no retail analog exists, that Staff recommends as part of the BellSouth SQPM. Staff recommends that a standard cutover time of five minutes, not to exceed fifteen minutes, as the standard for BellSouth to perform a loop cutover, including number portability. This standard was proposed by e.spire and adopted by the Georgia Commission.[38] According to e.spire, loop cutover interval is crucial to the development of facilities-based competition in Louisiana because it is a direct measure of the customers' service disruption during the conversion to a CLEC. Staff agrees with e.spire that if the cutover interval is excessively

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36 See BellSouth Reply Comments p. 6.

37 See Transcript pp. 337-339.

38 *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Georgia Public Service Commission Order No. 7892-U, December 30, 1997.

long or unpredictable, customers will be reluctant to switch to CLECs[39]. BellSouth has already agreed to this standard in e.spire's Interconnection Agreement.[40] In addition, according to e.spire's Repiy to Staff's Initial Recommendation, BellSouth has indicated that it is currently meeting this performance standard. In its Brief in Support of its Second Application for Section 271 Authority, BellSouth stated that"[i]n a recently completed study, BellSouth determined that the average cutover time per loop was approximately four minutes, and the average time to port the number was 39 seconds." [41] Finally, BellSouth indicated at the technical conference, that it did not intend to appeal any aspect of the Georgia Commission's Order on performance measurements[42]. Consequently, Staff finds that the standard for loop cutovers should be five minutes, not to exceed fifteen minutes, including number portability.

With respect to establishing performance benchmarks where a retail analog exists, Staff does not believe that such benchmarks should be set at this time. If further analysis and across state and across company[43] comparisons indicate that BellSouth's Louisiana operations are performing at a substandard level, then the Commission should initiate an investigation into setting performance benchmarks even where a retail analog exists.

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39 e.spire original Comments p. 7.

40 Ibid., p. 6.

41 Second Application by BellSouth for Provision of In-Region, InterLATA Services in Louisiana, FCC-CC Docket No. 98-1231, at 57; e.spire Reply to Staff Initial Recommendation p. 2.

42 See Transcript, pp. 13-14, where Mr. Stacy said: "It has not been appealed by any party and, in fact, BellSouth has filed a specific separate notice, at their request, that we do not intend to appeal it. But it has not been appealed by any party.

43 Over the next six to 12 months many ILECs will be reporting performance measurements to their respective Commission's and CLECs. In addition, BellSouth will be reporting performance measurements in each of its nine states. By comparing the performance measurements of BellSouth's Louisiana operations to these other states and other ILECs the Commission will be able to determine if BellSouth's performance is subpar.

## V. STATISTICAL TESTS

The Parties generally agree that the application of a statistical analysis to performance measurement data is necessary and would be useful in determining whether BellSouth is meeting the statutory requirements with respect to its provision of unbundled network elements, resale, and interconnection to CLECs. Staff agrees and finds that statistical analysis can help reveal the likelihood that reported differences in an ILEC's performance toward its retail customers and CLECs are due to underlying differences in behavior rather than random chance. Staff believes that a uniform methodology which identifies those items which need to be measured, how they are to be measured, and how the results are to be reported is also desirable and would be beneficial to all parties.

Statistical tests are effective in identifying those measurements where differences in performance exist. The tests themselves cannot identify the cause of the apparent differences. The differences may be due to a variety of reasons, including; 1) when the ILEC and CLEC processes being measured are actually different and should not be expected to produce the same result, 2) when the ILEC is employing discriminatory practices, or 3) when assumptions necessary for the statistical test to be valid are not being met.

In the instant proceeding the CLECs advocate the use of the LCUG proposed modified "z-test." In contrast BellSouth recommends use of statistical process control. The CLECs criticize the statistical methodology proposed by BellSouth because the method does not measure parity between BellSouth and CLECs. For instance, according to AT&T, statistical process control is not designed to detect difference in parity. Rather, it is used to detect departures from stable performance.[44]

BellSouth criticizes the LCUG proposed modified "z-test" indicating that it is flawed in at

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[44] See AT&T Post-Technical Conference Comments p. 4.

least three respects: 1) the major premise of the proposal is flawed in that it infers that the ILEC and CLEC samples came from the same population when, by definition the populations are mutually exclusive; 2) the test is significantly biased toward demonstrating that BellSouth is failing to provide parity service; and 3) with such a large number of "observations", the z-statistic is essentially meaningless.[45]

Staff agrees that statistical testing is important to the performance monitoring process and to detecting potential discrimination. Staff is concerned that the process is too new to set in stone a particular statistical methodology, particularly without further study. As BellSouth pointed out in its comments, the complexity and novelty of these issues suggests a need for a far more developed record before this Commission endorses any particular statistical method. At this point in time, little actual experience exists with BellSouth's service order, installation and maintenance procedures; and with the CLECs' and BellSouth's roles in this process. Since systems and procedures are relatively new, little is known about the statistical properties of the proposed measures.

Accordingly, Staff recommends that the Commission order BellSouth to perform the statistical testing that it proposes (statistical process control), the modified z-test endorsed by the CLECs, and the pooled variance test offered by the FCC in its Notice of Proposed Rulemaking, Appendix B so the competence of each test can be demonstrated over a reasonable period of time. This approach apparently is agreeable with BellSouth's position, as Mr. Stacy, the BellSouth expert indicated at the technical conference that: "The Georgia Commission passed on, without ruling on a specific method, and we'd ask you simply to take notice of that, and that we do not believe it is yet

[45] See BellSouth Post-Technical Conference Comments pp. 4-5.

time to establish a single method for analysis."[46] Staff recommends that these statistical tests be performed so that they can be evaluated at subsequent workshops to determine which method is best suited for measuring parity in Louisiana.

The development of performance measurements, the determination of retail analogs, the development of performance standards or benchmarks, and the complexities of statistical testing require that no one test be endorsed at this time. If, for example, BellSouth's criticisms of the modified z-test are correct, then BellSouth could be shown to be out of parity by virtue of the statistical testing methodology, when in fact, BellSouth's performance is in parity with the performance provided to the CLEC. Likewise, if the CLECs criticisms of BellSouth's proposed statistical test are accurate, then the BellSouth statistical methodology will always show BellSouth to be providing parity performance for CLECs, when in fact it may not be. Without testing and evaluating these statistical methods on real performance measurements, Staff does not believe that an informed and accurate decision can be made as to which statistical methodology is best for determining whether or not parity exists.

With respect to BellSouth capabilities, BellSouth's reply to Staff's Initial Recommendation claims that its systems are simply not capable of running the "z"-test at this time, and would require major renovation in order to permit them to do so. According to BellSouth, its systems are not designed to capture the raw data to compute standard deviations on those dimensions where an average is computed. Rather than requiring BellSouth to run the "z"-test on the entire universe of measurements, BellSouth requests that a sampling of measurements be run using the "z"-test. This suggestion is made in the alternative to not doing any statistical testing until a workshop is held on

[46] See Transcript p. 265.

statistical methodologies. Staff recognizes BellSouth's concerns. However, Staff is also concerned that continual delays in the process will not foster competition in Louisiana. BellSouth's claims are also disputed by MCI. According to MCI, "the z-test can be performed simply and efficiently on a regular personal computer."[47] Therefore, according to MCI any claims by BellSouth that conducting the "z"-test in addition to statistical process control would be burdensome or costly should be rejected.[48] Staff recommends that BellSouth perform its proposed statistical test, the modified z-test endorsed by LCUG, and the FCC's proposed pooled variance test, for those performance measurements where a retail analog exists, and where there is not an average computed.[49] Staff also recommends, that BellSouth collect the data necessary to run all three statistical tests for the following performance measurements which compute an average: Average OSS Response Interval-PreOrder and Ordering, Average Completion Interval-Provisioning, and Maintenance Average Duration.

Staff further recommends that the Commission continue holding workshops instructing both CLECs and BellSouth to work in a collaborative fashion to reach agreement on an appropriate statistical methodology. These workshops would be used not only to evaluate the theoretical differences between the three methods, but should encompass thorough examinations of these tests as applied to actual performance measurements In addition, root cause analyses should be performed, where the statistical measurement suggests a parity situation does not exist.

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[47] MCI Reply to Staff's Initial Recommendation, p. 9, footnote 3.

[48] Ibid.

[49] It appears to Staff that any undue burden placed on BellSouth only relates to measurements where an average is computed. Consequently, running a z-test and pooled variance test on these other measurements does appear to be a burdensome request.

## VI. REPORTING, AUDITING AND DATA DETAIL

All Parties generally support the proposal that reports on performance measurements should be provided monthly to the Commission and each requesting CLEC indicating BellSouth's own internal performance, its performance for any BellSouth affiliate, its performance for all CLECs in aggregate, and its performance for the individual CLEC requesting the report. Staff agrees. BellSouth should further be required to maintain all data and information used in the compilation of the performance measurements and develop any necessary tracking systems. While Staff does not believe that all of the data necessary to validate the calculation of the performance measurement needs to be provided with the monthly reports, the data should be available in some fashion, for example on the web. Furthermore, all data necessary to compute the performance measurements should be retained for three years.[50] This will allow the Commission and CLECs the opportunity to examine the data and validate the results to the extent desired.

Staff agrees with the CLECs and BellSouth that the Commission should grant CLECs, as a part of monitoring a nondiscriminatory service, reasonable auditing rights with regard to BellSouth. However, such auditing rights should not be overly burdensome on BellSouth. If a CLEC detects potential discrepancies between the CLEC's internally generated data and the data relied upon by BellSouth in the reporting process, the affected CLEC should be permitted to audit the data collection, computation and reporting processes of BellSouth within fifteen days of a written request. Staff recommends any costs associated with such an audit would be borne by the CLEC.

Staff also agrees with BellSouth's proposal for an annual comprehensive audit of its

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[50] BellSouth has agreed to a three year retention period in Georgia. *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Georgia Public Service Commission Order No. 7892-U, December 30, 1997.

performance measurements for both BellSouth and CLECs for each of the next five years. Staff further agrees that the audit should be conducted by an independent third party and that the results of the audit be made available to all parties. While BellSouth proposes to fund this audit, Staff recommends that the cost be borne 50% by BellSouth and 50% by the CLECs. This will ensure the independence of the audit and also does not place the entire cost burden on BellSouth. In addition, the selection of the independent third party auditor shall be done with input from both BellSouth and the CLECs. The scope of the audit shall also be jointly determined by BellSouth and the CLECs. Staff endorses a company-wide audit because small start-up CLECs may not have the resources to conduct audits, monitor performance, and detect discrimination. Additionally, the parties may find that one annual, company-wide audit is preferable and less costly than several, individual CLEC audits.

## VIII. ENFORCEMENT

To help ensure the success of the performance measurements and standards established in this docket, the Commission should adopt remedies for nonperformance. However, now is not the time to establish financial remedies. The entire process of developing performance measurements, developing performance benchmarks, developing statistical measurements for parity, developing new systems for use by CLECs, and CLECs developing their own systems for resale and providing UNEs, are simply too new and evolving. Staff can envision situations where BellSouth would be "penalized" for not being in "parity", when the real reason for the lack of "parity" is the failure of a statistical test to accurately assess parity for a particular measurement. It is for this reason, as well as the others raised in this recommendation, that Staff recommends that no financial enforcement mechanisms be set at this time. Staff is mindful of the concerns raised by CLECs that BellSouth has no economic

incentive to provide competing carriers with performance equal to what it provides to itself or its affiliates. Nevertheless, like the FCC, Staff believes it is premature to set enforcement mechanisms at this time. Staff recommends that the issue of enforcement be studied further through additional workshops over the next six months.

Staff makes one further observation. During the technical conference, e.spire's representative, Jim Falvey, noted that Ameritech and NYNEX had agreed to self-executing liquidated damages in their interconnection agreements.[51] While it is true that these companies agreed to a $75,000 penalty for breach of performance, the situation involving BellSouth performance measurements is different than the situation involving Ameritech and NYNEX interconnection agreements. First, the liquidated damages were agreed to by Ameritech and NYNEX. There is no agreement in the instant proceeding. Second, the liquidated damages applied to only a handful of performance benchmarks whereas in the LPSC proceeding, the "penalties" would apply to thousands of individual performance measurements. Third, the performance benchmarks agreed to by Ameritech and NYNEX were not based upon a "parity" analysis or untested statistical tests to prove or disprove parity. The differences between the interconnection agreements of Bell Atlantic and NYNEX and the instant docket require further scrutiny of self-enforcing penalties.

## IX. DISPUTE RESOLUTION

Staff agrees with BellSouth that an expedited dispute resolution is necessary. No other party offered a comprehensive dispute resolution process[52] because they endorsed self-executing penalties.

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[51] See Transcript p. 422.

[52] e.spire recommended an expedited dispute resolution procedure such as a staff mediator or ombudsman. e.spire original Comments, p. 10. Staff is not convinced that such a procedure would work or that it would involve less time than the procedure proposed by BellSouth.

Under the CLECs proposal, no dispute resolution would be necessary. Staff recommends that, with the modification proposed by e.spire in its Reply to Staff's Initial Recommendation[53], the Commission adopt the methodology proposed by BellSouth for dispute resolution as adopted by the Georgia Commission.[54]

The recommended procedure is as follows: When a performance dispute arises, the aggrieved party should send written notice of the problems with a request for resolution to Bell South. Service of the notice and request for resolution would trigger a fifteen day time period within which resolution of the problem should occur. BellSouth and the CLEC would assemble a Joint Investigative Team comprised of subject matter experts. The team should be co-chaired by a representative of BellSouth and the CLEC. A root-cause analysis should be conducted to determine the source of the problem. From this analysis a plan should be developed to remedy the problem.

Next, if the dispute cannot be resolved within 15 days, then either party may file a formal complaint with the Commission through the Division of Administrative Hearings. The ALJ assigned to the complaint should rule within 15 days of its filing. If either party disagrees with the ALJ ruling, the party may then appeal to the Commission. Staff recommends that further refinement of a dispute resolution process be developed through continuing workshops over the next six months.

## X. PROCEDURAL SCHEDULE

Parties were in general agreement with Staff's initial recommendation that the Commission continue to hold workshops to resolve, in a collaborative process, the complexities associated with the issues of levels of disaggregation, retail analogs, statistical testing, dispute resolution, and

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[53] e.spire Reply to Staff's Initial Recommendation p. 6.

[54] See BellSouth original Comments pp. 27-28.

penalties. Both e.spire and Cox suggested in their Reply to Staff's Initial Recommendation that Staff recommend a procedural schedule for the workshops. Staff agrees with these suggestions. Accordingly, Staff recommends that a detailed telephone Status Conference be held on September 15, 1998 to address scheduling of workshops, timing of studies that need to be undertaken, and further details of the issues that need to be addressed. Also, Staff recommends that a workshop schedule be established as follows:

- October - address issues of disaggregation and clarification of performance measurements;
- November - address statistical testing;
- December - address retail analogs;
- January - address enforcement and dispute resolution;
- February - address any remaining issues not resolved or completed in earlier workshops; and
- March - Staff will issue its Recommendation on issues agreed to by the Parties and any issues that require resolution by the Commission.

The dates for the above workshops should be decided at the Status Conference to be held on September 15, 1998.

## XI. CONCLUSION

Staff agrees with the Parties that development of performance standards for BellSouth is essential to the development of local competition in the State of Louisiana. Staff recommends that the Commission adopt the performance measurements and procedures for analyzing and monitoring these measurements as set forth herein and as attached in Exhibit A. In addition, as recommended by

BellSouth, where additional analyses, studies, and refinement is required to fine-tune the process. Staff recommends that the Commission order the parties to continue with additional workshops and to work towards a mutually agreeable solution to the outstanding issues. After six months and additional workshops, Staff proposes to issue a subsequent recommendation indicating the results of the workshops and, where disputes are still at issue, advise the Commission of its alternatives and recommend solutions for final resolution of the issues.

Staff Recommendation
Service Quality Measurements
Performance Reports
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Exhibit A

PRE-ORDERING AND ORDERING OSS

| Function: | Average Response Interval for Pre-Ordering and Ordering & OSS Interface Availability |
|---|---|
| Measurement Overview: | As an initial step of establishing service, the customer service agent must establish such basic facts as availability of desired features, likely service delivery intervals, the telephone number to be assigned, product and feature availability, and the validity of the street address. Typically, this type of information is gathered from the supporting OSS's while the customer (or potential customer) is on the telephone with the customer service agent. This information may be gathered via stand-alone pre-order inquiries or as part of the ordering function. Pre-ordering/ordering activities are the first contact that a customer may have with a CLEC. This measure is designed to monitor the time required for the CLEC interface systems to obtain from legacy systems the pre-ordering/ordering information necessary to establish and modify service. This measurement also captures the availability percentages for the BST systems that the CLEC uses during pre-ordering and ordering. Comparison to BST results allow conclusions as to whether an equal opportunity exists for the CLEC to deliver a comparable customer experience. |
| Measurement Methodology: | 1. Average OSS Response Interval = Sum [(Date & Time of Legacy Response) - (Date & Time of Legacy Request)]/(Number of Legacy Requests During the Reporting Period)<br><br>The response interval for retrieving pre-order/order information from a given legacy is determined by summing the response times for all requests (contracts) submitted to the legacy during the reporting period and then dividing by the total number of legacy requests for **the reporting period**. ~~For that day~~[1]. The response interval starts when the client application (LENS for CLECs; RNS for BST) submits a request to the legacy system and ends when the appropriate response is returned to the client application. The number of legacy accesses during the reporting period that take less than 2.3 seconds and the number that take more than 6 seconds are also captured.<br><br>Definition: Average response time for accessing legacy data associated with appointment scheduling, service & feature availability, address verification, request for Telephone Numbers (TNs), and Customer Service Records (CSRs).<br><br>2. OSS Interface Availability = (Actual Availability)/(Scheduled Availability) X 100<br><br>Definition: Percent of time OSS interface is actually available compared to scheduled availability. Availability percentages for CLEC interface systems and for all legacy systems accessed by them are captured. |

[1] Change reflects a clarification. The metric is measured for the reporting period, however, the discussion indicated the number of requests for a day.

PRE-ORDERING AND ORDERING OSS

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • Not CLEC specific.<br>• Not product/service specific.<br>• Regional Level | • None |
| **Data Retained Relating to CLEC Experience:** | **Data Retained Relating to BST Performance:** |
| • Report Month<br>• Legacy contract type (per reporting dimension)<br>• Response interval<br>• Regional Scope | • Report Month<br>• Legacy contract type (per reporting dimension)<br>• Response interval<br>• Regional Scope |

LEGACY SYSTEM ACCESS TIMES FOR RNS

| System | Contract | Data | < 2.3 sec | > 6 sec | Avg. Sec | # of Calls |
|---|---|---|---|---|---|---|
| RSAG | RSAGTEN | Address | x | x | x | x |
| RSAG | RSAGADDR | Address | x | x | x | x |
| ATLAS | ATLASTN | TN | x | x | x | x |
| DSAP | DSAPDDI | Schedule | x | x | x | x |
| CRIS | CRSACCTS | CSR | x | x | x | x |
| OASIS | OASISNET | Feature/Svc | x | x | x | x |
| OASIS | OASISBSN | Feature/Svc | x | x | x | x |
| OASIS | OASISCAR | Feature/Svc | x | x | x | x |
| OASIS | OASISLPC | Feature/Svc | x | x | x | x |
| OASIS | OASISMTN | Feature/Svc | x | x | x | x |
| OASIS | OASISOCP | Feature/Svc | x | x | x | x |

LEGACY SYSTEM ACCESS TIMES FOR LENS

| System | Contract | Data | < 2.3 sec | > 6 sec | Avg. Sec | # of Calls |
|---|---|---|---|---|---|---|
| RSAG | RSAGTEN | Address | x | x | x | x |
| RSAG | RSAGADDR | Address | x | x | x | x |
| ATLAS | ATLASTN | TN | x | x | x | x |
| DSAP | DSAPDDI | Schedule | x | x | x | x |
| HAL | HALCRIS | CSR | x | x | x | x |
| COFFI | COFIUSOC | Feature/Svc | x | x | x | x |
| P/SIMS | PSIMSORB | Feature/Svc | x | x | x | x |

PRE-ORDERING AND ORDERING OSS

OSS Interface Availability

| OSS Interface | % Availability |
|---|---|
| LENS | x |
| LEO Mainframe | x |
| LEO UNIX | x |
| LESOG | x |
| EDI | x |
| HAL | x |
| BOCRIS | x |
| ATLAS/COFFI | x |
| RSAG/DSAP | x |
| SOCS | x |

ORDERING

| Function: | Ordering |
|---|---|
| Measurement Overview: | When a customer calls their service provider, they expect to get information promptly regarding the progress on their order(s). Likewise, when changes must be made, such as to the expected delivery date, customers expect that they will be immediately notified so that they may modify their own plans. The order status measurements monitor, when compared to applicable BST results, that the CLEC has timely access to order progress information so that the customer may be updated or notified when changes and rescheduling are necessary. |
| Measurement Methodology: | 1. Percent Flow-through Service Requests = Σ (Total Number of valid[2] Service Requests that flow-through to the BST OSS) / (Total Number of valid Service Requests delivered to BST OSS) X 100.<br><br>Definition: Percent Flow-through Service Requests measures the percentage of orders submitted electronically that utilize BSTs' OSS without manual (human) intervention.<br><br>Methodology:<br>• Mechanized tracking for flow-through service requests and manual SOER error audit reports (3/31/98). Mechanized tracking for SOER errors and flow-through (4/30/98).<br>• BST mechanized order tracking.<br><br>2. Percent Rejected Service Requests = Σ (Total Number of Rejected Service Requests) / (Total Number of Service Requests Received) X 100.<br><br>Definition: Percent Rejected Service Requests is the percent of total orders received rejected due to error or omissions.<br><br>Methodology:<br>• Manual tracking for non flow-through service requests<br>• Mechanized tracking for flow-through service requests<br>• BST retail report not applicable.<br><br>3. Reject Interval = Σ [ (Date and Time of Service Request Rejection) - (Date and Time of Service Request Receipt) ] / (Number of Service Requests Rejected in Reporting Period). Requests are provided based on four (4) hour increments within a 24 hour period, along with the percent greater than 24 hours.<br><br>Definition: Reject Interval is the average reject time from receipt of service order request to distribution of rejection.<br><br>Methodology:<br>• Non-Mechanized Results are based on actual data from all orders.<br>• Mechanized Results are based on actual data for all orders from the OSS.<br>• BST retail report not applicable. |

[2] Change reflects a clarification. The metric did not include the word "valid" in the numerator; however, "valid" was included in the denominator. Likewise, Staff added "total" in the numerator to be consistent with the denominator.

ORDERING

| | |
|---|---|
| Measurement Methodology: | 4. Firm Order Confirmation Timeliness = Σ [ (Date and Time of Firm Order Confirmation) - (Date and Time of Service Request Receipt) ] / (Number of Service Requests Confirmed in Reporting Period)<br><br>Definition: Interval for Return of a Firm Order Confirmation (FOC Interval) is the average response time from receipt of valid service order request to distribution of order confirmation. Results are provided based on four (4) hour increments within a 24 hour period, along with the percent greater than 24 hours.<br><br>Methodology:<br>• Non-Mechanized Results are based on actual data from all orders.<br>• Mechanized Results are based on actual data for all orders from the OSS.<br>• BST retail report not applicable.<br><br>5. Speed of Answer in Ordering Center = Σ (Total time in seconds to reach LCSC) / (Total # of Calls) in Reporting Period.<br><br>Definition: Measures the average time to reach a BST representative. This can be an important measure of adequacy in a manual environment or even in a mechanized environment where CLEC service representatives have a need to speak with their BST peers.<br><br>Methodology:<br>• Mechanized tracking through LCSC Automatic Call Distributor.<br>• Mechanized tracking through BST retail center support systems. |

ORDERING

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • CLEC Specific<br>• CLEC Aggregate<br>• BST Aggregate (Where Applicable)<br>• State and Regional Level<br>• ≤ 10 and ≥ 10 Circuit Categories not available in a pre completion order mode.<br>• Resale Res and Bus reporting categories require adherence to OBF standards.<br>• "Other" category reflects service requests which do not have service class code populated.<br>• Dispatch, No Dispatch ≤ 10 and ≥ 10 Circuit Categories not available in a pre completion order mode. | • Firm Order Confirmation Interval: Invalid Service Requests, and orders received outside of normal business hours<br>• Percent Flow-through Service Requests: Rejected Service Requests<br>• % Rejected Service Requests: Service Requests canceled by the CLEC<br>• Supplements on Manual Orders |
| **Data Retained Relating to CLEC Experience:** | **Data Retained Relating to BST Performance:** |
| • Report Month<br>• Interval for FOC<br>• Reject Interval<br>• Total number of LSRs<br>• Total number of Errors<br>• Adjusted Error Volume<br>• Total number of flow through service requests<br>• Adjusted number of flow through service requests<br>• State and Region | • Report Month<br>• Interval for FOC<br>• Reject Interval<br>• Total number of LSRs<br>• Total number of Errors<br>• Adjusted Error Volume<br>• Total number of flow through service requests<br>• Adjusted number of flow through service requests<br>• State and Region |

**Percent Flow-Through Service Requests**

| | Mechanized LSRs | | BST Flow-Through | |
|---|---|---|---|---|
| Local Interconnection Trunks | X | | Residence | X |
| UNE | X | | Business | X |
| Resale - Residence | X | | | |
| Resale - Business | X | | | |
| Resale - Special | X | | | |
| UNE - Loops w/LNP | X | | | |
| Other | X | | | |

## ORDERING

### Percent Rejected Service Requests

| | Mechanized LSRs | Non-Mechanized LSRs |
|---|---|---|
| Local Interconnection Trunks | X | X |
| UNE | X | X |
| Resale - Residence | X | X |
| Resale - Business | X | X |
| Resale - Special | X | X |
| UNE - Loops w/LNP | X | X |
| Other | X | X |

### Reject Distribution Interval and Average Interval

| | Mechanized LSRs | Non-Mechanized LSRs |
|---|---|---|
| Local Interconnection Trunks | | |
| UNE | X | X |
| Resale - Residence | X | X |
| Resale - Business | X | X |
| Resale - Special | X | X |
| UNE - Loops w/LNP | X | X |
| Other | X | X |

### Firm Order Confirmation Distribution Interval and Average Interval

| | Mechanized LSRs | Non-Mechanized LSRs |
|---|---|---|
| Local Interconnection Trunks | X | X |
| UNE | X | X |
| Resale - Residence | X | X |
| Resale - Business | X | X |
| Resale - Special | X | X |
| UNE - Loops w/LNP | X | X |
| Other | X | X |

### Speed of Answer in Ordering Center

| | Ave. Answer time (Sec.) / month |
|---|---|
| LCSC | X |
| Residence Service Center | X |
| Business Service Center | X |

PROVISIONING

| Function: | **Average Completion Interval and Order Completion Interval Distribution** |
|---|---|
| Measurement Overview: | The "average completion interval" measure monitors the time required by BST to deliver integrated and operable service components requested by the CLEC, regardless of whether resale services or unbundled network elements are employed. When the service delivery interval of BST is measured for comparable services, then conclusions can be drawn regarding whether or not CLECs have a reasonable opportunity to compete for customers. The "order completion interval distribution" measure monitors the reliability of BST commitments with respect to committed due dates to assure that CLECs can reliably quote expected due dates to their retail customer. In addition, when monitored over time, the "average completion interval" and "percent completed on time" may prove useful in detecting developing capacity issues. |
| Measurement Methodology: | 1. Average Completion Interval = Σ [ (Completion Date & Time) - (Order Issue Date & Time) ] / (Count of Orders Completed in Reporting Period)<br><br>2. Order Completion Interval Distribution = Σ (Service Orders Completed in "X" days) / (Total Service Orders Completed in Reporting Period) X 100<br><br>The actual completion interval is determined for each order processed during the reporting period. The completion interval is the elapsed time from BST receipt of a syntactically correct order from the CLEC to BST's actual order completion date. Elapsed time for each order is accumulated for each reporting dimension. The accumulated time for each reporting dimension is then divided by the associated total number of orders completed within the reporting period.<br><br>The distribution of completed orders is determined by first counting, for each specified reporting dimension, the total numbers of orders completed within the reporting interval and the interval between the issue date of each order and the completion date. *D&F orders where the CLEC serves as the agent for the end-user are included in this measurement.* For each reporting dimension, the resulting count of orders completed for each specified time period following the issue date is divided by the total number of orders completed with the resulting fraction expressed as a percentage.<br><br>Definition: Average time from issue date of service order to actual order completion date.<br><br>Methodology:<br>• Mechanized metric from ordering system |

PROVISIONING

| Reporting Dimensions: | Excluded Situations: |
|---|---|
| • CLEC Specific<br>• CLEC Aggregate<br>• BST Aggregate<br>• State, Regional, and MSA[3] Level<br>• ISDN Orders included in Non Design - GA Only<br>• Dispatch/No Dispatch categories are not applicable to trunks. | • Canceled Service Orders<br>• Initial Order when supplemented by CLEC<br>• 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:** |
| • Report Month<br>• CLEC Order Number<br>• Order Submission Date<br>• Order Submission Time<br>• Order Completion Date<br>• Order Completion Time<br>• Service Type<br>• Activity Type<br>• State, Region and MSA[4] | • Report Month<br>• Average Order Completion Interval<br>• Order Completion by Interval<br>• Service Type<br>• Activity Type<br>• State, Region, and MSA[5] |

**Order Completion Interval Distribution and Average Completion Interval**

| RESALE RESIDENCE | Same Day | 1 | 2 | 3 | 4 | 5 | >5 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| Dispatch | | | | | | | | |
| CLEC orders | | | | | | | | |
| < 10 circuits | x | x | x | x | x | x | x | x |
| >= 10 circuits | x | x | x | x | x | x | x | x |
| BST orders | | | | | | | | |
| < 10 circuits | x | x | x | x | x | x | x | x |
| >= 10 circuits | x | x | x | x | x | x | x | x |
| No Dispatch | | | | | | | | |
| CLEC orders | | | | | | | | |
| < 10 circuits | x | x | x | x | x | x | x | x |
| >= 10 circuits | x | x | x | x | x | x | x | x |
| BST orders | | | | | | | | |
| < 10 circuits | x | x | x | x | x | x | x | x |
| >= 10 circuits | x | x | x | x | x | x | x | x |

[3] MSA was added to reflect Staff's recommendation that geographic disaggregation reflect Metropolitan Statistical Areas.
[4] Ibid.
[5] Ibid.

PROVISIONING

| RESALE BUSINESS | Same Day | 1 | 2 | 3 | 4 | 5 | >5 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| Dispatch | | | | | | | | |
| CLEC orders | | | | | | | | |
| < 10 circuits | X | X | X | X | X | X | X | X |
| >= 10 circuits | X | X | X | X | X | X | X | X |
| BST orders | | | | | | | | |
| < 10 circuits | X | X | X | X | X | X | X | X |
| >= 10 circuits | X | X | X | X | X | X | X | X |
| No Dispatch | | | | | | | | |
| CLEC orders | | | | | | | | |
| < 10 circuits | X | X | X | X | X | X | X | X |
| >= 10 circuits | | | | | | | | |
| BST orders | | | | | | | | |
| < 10 circuits | X | X | X | X | X | X | X | X |
| >= 10 circuits | | | | | | | | |

**Order Completion Interval Distribution and Average Completion Interval**

| UNE NON DESIGN | 0 - 5 | 6 - 10 | 11 - 15 | 16 - 20 | 21 -25 | 26 - 30 | > 30 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| Dispatch | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |
| No Dispatch | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |

| UNE DESIGN | 0 - 5 | 6 - 10 | 11 - 15 | 16 - 20 | 21 - 25 | 26 - 30 | > 30 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| Dispatch | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |
| No Dispatch | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |

| UNE LOOPS w/LNP | Same Day | 1 | 2 | 3 | 4 | 5 | >5 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| Dispatch | | | | | | | | |
| < 5 Circuits | X | X | X | X | X | X | X | X |
| >= 5 Circuits | X | X | X | X | X | X | X | X |
| No Dispatch | | | | | | | | |
| < 5 Circuits | X | X | X | X | X | X | X | X |
| >= 5 Circuits | X | X | X | X | X | X | X | X |

| | 0 - 5 | 6 - 10 | 11 - 15 | 16 - 20 | 21 - 25 | 26 - 30 | >30 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| LOCAL INTERCONNECTION TRUNKS | X | X | X | X | X | X | X | X |

PROVISIONING

| RESALE DESIGN | 0 - 5 | 6 - 10 | 11 - 15 | 16 - 20 | 21 - 25 | 26 - 30 | >30 | Average Completion Interval |
|---|---|---|---|---|---|---|---|---|
| Dispatch | | | | | | | | |
| CLEC orders | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |
| | | | | | | | | |
| BST orders | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |
| No Dispatch | | | | | | | | |
| CLEC orders | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | | | | | | | | |
| | | | | | | | | |
| BST orders | | | | | | | | |
| < 10 Circuits | X | X | X | X | X | X | X | X |
| >= 10 Circuits | X | X | X | X | X | X | X | X |

PROVISIONING

| Function: | **Held Order Interval Distribution and Mean Interval** |
|---|---|
| Measurement Overview: | When delays occur in completing CLEC orders, the average period that CLEC orders are held for BST reasons, pending a delayed completion, should be no worse for the CLEC when compared to BST delayed orders. |
| Measurement Methodology: | 1. Mean Held Order Interval = Σ (Reporting Period Close Date - Committed Order Due Date) / (Number of Orders Pending and Past The Committed Due Date) for all orders pending and past the committed due date.<br><br>This metric is computed at the close of each report 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" via a valid completion notice and have passed the currently "committed completion date" for the order. *Held orders due to end-user reasons are included and identified in this report.* For each such order the number of calendar days between the committed completion date and the close of the reporting period is established and represents the held order interval for that particular order. The held order interval is accumulated by the standard groupings, unless otherwise noted, and the reason for the order being held, if identified. The total number of days accumulated in a category is then divided by the number of held orders within the same category to produce the mean held order interval.<br><br>2. Held Order Distribution Intervals<br><br>(# of Orders Held for ≥ 90 days) / (Total # of Orders Pending But Not Completed) X 100.<br><br>(# of Orders Held for ≥ 15 days) / (Total # of Orders Pending But Not Completed) X 100.<br><br>This "percentage orders held" measure is complementary to the held order interval but is designed to reflect orders continuing in a "non-completed" state for an extended period of time. Computation of this metric utilizes a subset of the data accumulated for the "held order interval" measure. All orders, for which the "held order interval" equals or exceeds 90 or 15 days are counted, unless otherwise noted as an exclusion. The total number of pending and past due orders are counted (as was done for the held order interval) and divided into the count of orders held past 90 or 15 days.<br><br>Definition: Average time orders continue in a "non-complete" state for an extended period of time.<br><br>Methodology:<br>• Mechanized metric from ordering system. |