State of Florida

Public Service Commission

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DATE: DECEMBER 5, 2002

TO: DIRECTOR, DIVISION OF THE COMMISSION CLERK & ADMINISTRATIVE SERVICES (BAYÓ)

FROM: DIVISION OF COMPETITIVE MARKETS & ENFORCEMENT (FISHER, HALLENSTEIN, HARVEY, KELLEY, SIMMONS, VINSON)
OFFICE OF GENERAL COUNSEL (BANKS)

RE: DOCKET NO. 000121B-TP - INVESTIGATION INTO THE ESTABLISHMENT OF OPERATIONS SUPPORT SYSTEMS PERMANENT PERFORMANCE MEASURES FOR INCUMBENT LOCAL EXCHANGE TELECOMMUNICATIONS COMPANIES. (SPRINT-FLORIDA TRACK)

AGENDA: 12/17/02 - REGULAR AGENDA - PROPOSED AGENCY ACTION - INTERESTED PERSONS MAY PARTICIPATE

CRITICAL DATES: NONE

SPECIAL INSTRUCTIONS: NONE

FILE NAME AND LOCATION: S:\PSC\CMP\WP\000121B.RCM

CASE BACKGROUND

The Commission opened Docket No. 000121-TP to develop permanent performance metrics for the ongoing evaluation of operations support systems (OSS) provided for alternative local exchange carriers' (ALECs) use by incumbent local exchange carriers (ILECs). Associated with the performance metrics is a monitoring and enforcement program that is to ensure that ALECs receive nondiscriminatory access to the ILEC's OSS. Performance monitoring is necessary to ensure that ILECs are meeting their obligation to provide unbundled access, interconnection and resale to ALECs in a nondiscriminatory manner. Additionally, it establishes a standard against which ALECs and this Commission can measure performance over time to detect and correct any degradation of service provided to ALECs.

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Docket No. 000121-TP consists of three phases. Phase I began with workshops conducted by staff with members of the ALEC and ILEC communities. These workshops were held on March 30, 2000, August 8, 2000, and December 13, 2000. The purpose of Phase I was to determine and resolve any policy and legal issues in this matter. Phase II involved establishing permanent metrics for BellSouth Telecommunications, Inc. (BellSouth), including a specific monitoring and enforcement program. By Order No. PSC-01-1819-FOF-TP (Final Order), issued September 10, 2001, the Commission established permanent performance measures and benchmarks as well as a voluntary self-executing enforcement mechanism (Performance Assessment Plan) for BellSouth. By Order No. PSC-02-0187-FOF-TP, issued February 12, 2002, as amended by Order No. PSC-01-0187A-FOF-TP, issued March 13, 2002, BellSouth's Performance Assessment Plan was approved.

With the completion of Phase II, the Commission is beginning Phase III of this docket, which entails the establishment of performance metrics and a performance monitoring and evaluation program for the other Florida ILECs. By Order No. PSC-02-0503-PCO-TP, issued April 11, 2002, Docket No. 000121-TP was divided into three subdockets: (1) 000121A-TP, in which filings directed toward the BellSouth track would be placed; (2) 000121B-TP, in which filings directed toward the Sprint track would be placed; and (3) 000121C-TP, in which filings directed toward the Verizon track would be placed.

This recommendation addresses the proposed establishment and implementation of operations support systems permanent performance measures for the Sprint Track, Docket Number 000121B-TP. On May 2, 2002, Sprint filed its initial response to staff's data request for proposed permanent performance measures in Florida. On June 30, 2002, initial comments on Sprint's proposal were filed by interested parties.

Taking into consideration the information provided by Sprint and the comments provided by interested parties, staff developed an independent proposal for Sprint OSS permanent performance measurements and submitted it for comment on November 1, 2002. Comments on staff's proposal were filed November 15, 2002, and supplemental comments were filed with the Commission on November 25, 2002.

JURISDICTION

The Commission is vested with jurisdiction over this matter pursuant to Sections 364.01(3) and (4)(g), Florida Statutes. Pursuant to Section 364.01 (3), Florida Statutes, the Florida legislature has found that regulatory oversight is necessary for the development of fair and effective competition in the telecommunications industry. To that end, Section 364.01 (4) (g), Florida Statutes, provides, in part, that the Commission shall exercise its exclusive jurisdiction in order to ensure that all providers of telecommunications service are treated fairly by preventing anticompetitive behavior. Furthermore, it is noted that the FCC has encouraged the states to implement performance metrics and oversight for purposes of evaluating the status of competition under the Telecommunications Act of 1996.

DISCUSSION OF ISSUES

ISSUE 1: Should the Commission adopt a Performance Measurement Plan (PMP) for Sprint Florida?

RECOMMENDATION: Yes. Staff believes the Commission should approve the Performance Measurement Plan for Sprint Florida as outlined in Staff's Proposal. (**FISHER**)

STAFF ANALYSIS:

I. OVERVIEW

A Performance Measurement Plan should include several key elements including service quality measures, business rules, reporting requirements, auditing and statistical methodology. On November 1, 2002, staff issued a proposal that addressed these elements for a Sprint PMP. Staff's proposal for Sprint's PMP is similar to the plan in place for BellSouth, except for the greater number of service quality measures required for BellSouth and the self-effectuating remedy mechanism in place for BellSouth.

On November 15, 2002, Sprint and the Joint ALECs filed their comments on staff's Sprint PMP proposal. On November 25, 2002, supplemental comments were also filed by the Joint ALECs.

Generally, commenters agreed with staff's proposal for Sprint's PMP. However, four areas of contention were identified as commenters recommended minor modifications to staff's proposal. Based on the analysis in Section II, staff revised the original proposal to reflect necessary changes, which are included within the revised proposal in Section III.

II. ARGUMENTS

A. Overall Comments

Sprint commented that staff's proposal to implement the existing scope and content of the August 2002 Sprint Nevada PMP ("Cookbook") and the associated parity methodology were cost-efficient and beneficial to both ALECs and the Commission. Sprint advocates a single universally implemented plan at the national level rather than state-specific performance measurement plans. Thus, Sprint believes staff's proposal accomplishes the dual goal of maximizing the value to ALECs and the Commission, while minimizing administrative costs to all parties.

The Joint ALECs agree with staff that the Nevada Sprint PMP would be readily and quickly transferred to Florida, as it already exists in other states including North Carolina. The Joint ALECs note that, although the Plan is not as comprehensive as the requirements for BellSouth, it is a substantive initial plan to provide useful data for the Commission and ALECs to monitor Sprint's performance. The Joint ALEC's endorsement of the plan is predicated on the implementation of six-month reviews, which will allow timely opportunity to make necessary plan improvements and ensure ALECs are correctly interpreting the plan.

The four areas of contention commenters identified include the PMP review process, the publishing of root-cause analysis reports, the frequency and cost of third-party auditing, and the PMP effective date. The position of each party and staff's analysis is discussed below:

B. Review Process

Staff's original proposal called for ongoing six-month reviews of performance measures and results for the first two years after the PMP is implemented.

Sprint does not believe that recurring six-month reviews are necessary during the first two years. Rather than establishing ongoing six-month reviews, Sprint believes the schedule should be established during the first six month review. As support, Sprint notes that the Nevada PUC initially ordered annual reviews for the first three years and is moving to three-year review cycles in 2003. However, Sprint and Nevada ALECs may propose changes at any time if the Nevada PUC agrees requests are significant and warrant a review. Furthermore, Sprint believes less frequent reviews would encourage more consistent ALEC participation and require less ALEC time and expense.

Sprint also notes that it sponsors a quarterly forum to address ALEC concerns regarding service performance in Sprint's eastern region including Florida. Sprint plans to continue these meetings because it views them as having been very successful. Attendance has included 29 total ALECs, of which 13 operate in Florida. Sprint believes this forum will diminish the need for ongoing six-month reviews.

Sprint anticipates future PMP reviews in Florida and Nevada and requests that each state adopt the other state's changes. Sprint believes the automatic acceptance of changes ordered by other states would be the ideal model. It urges the Commission to stipulate to all measurement changes ordered by other states after a review and approval process. Sprint's intention is to ensure that approval from the Nevada and Florida Commissions would be received in the same time frame to enable simultaneous implementation of the changes. Sprint suggests either a 15 or 30-day time frame for Commission review and approval of other states changes, but will agree to any reasonable time frame to preserve the goal of a universally implemented plan.

The Joint ALEC's endorsement of the Sprint plan was predicated on the implementation of six-month reviews. The Joint ALECs comment that these reviews will provide a timely opportunity to make necessary plan improvements. The Joint ALECs also suggest that the Commission require Sprint to provide an educational workshop for ALECs. In supplemental comments, Joint ALECs agreed with Sprint that they too expect more substantive changes to be made at the first few six-month reviews and fewer changes at subsequent reviews. However, they contend that substantive disagreements over changes to measurements and associated enforcement will likely require Commission involvement for resolution.

Staff agrees with both Sprint and the Joint ALECs that the more substantive issues may be resolved in the first few six-month reviews. Staff also agrees with the Joint ALECs that any discussion regarding modified performance measures or enforcement mechanisms will likely require the involvement of the Commission for resolution. Staff is amenable to Sprint's request of establishing a six-month review process and determining, based on input from participants at each review, whether the interval for these reviews should be adjusted. Staff has added verbiage to its revised staff proposal to reflect this change.

C. Publishing of Root-Cause Analysis

Based on the Sprint August 2002 "Cookbook", staff's original proposal for root-cause analysis provided that within 90 days of monthly published measurements posting to the Sprint web site, an ALEC could request a root-cause analysis of any measurement not meeting parity or the benchmark level. Staff added that Sprint should also provide a root-cause analysis report to the Commission, in the event any level of disaggregation failed to meet performance standards for three consecutive months.

Sprint notes that it is willing to provide a root-cause analysis report to the Commission as recommended by staff, but it wishes to maximize value to the Commission and minimize the administrative burden on Sprint. Sprint advocates regular quarterly reporting of the three most recent months of analysis, and that it only provide a root-cause analysis for any disaggregation with three consecutive months of failures when compliance for a disaggregation is less than 90 percent.

Supplemental comments filed by the Joint ALECs describe staff's proposal for root-cause analysis as very reasonable. The Joint ALECs believe Sprint's alternative proposal to be unclear and lacking information. Therefore, the Joint ALECs recommend that Sprint's alternative be rejected. Alternatively, they support use of the methodology employed in Georgia for BellSouth. In Georgia, BellSouth is required to conduct a root-cause analysis for any measure that fails twice within any three consecutive months of a calendar year and to file a corrective action report with the Commission within 30 days.

Staff understands Sprint's effort to minimize reporting by only requiring reports for those disaggregations with three consecutive monthly failures and compliance less than 90 percent. However, staff agrees with the Joint ALECs that any disaggregation

failing for three consecutive months, regardless of compliance ranges, should be reported to the Commission on a monthly basis.

At this point, staff has not recommended the implementation of any penalty provisions and believes the establishment of a robust root-cause analysis reporting mechanism is essential. Staff believes Sprint's proposed quarterly reporting of root-cause data may delay analysis for up to five months after the noncompliant situation is identified. Such anticipated delays in reporting and root-cause resolution would not be acceptable.

Staff also agrees with the Joint ALECs that a corrective action plan should be developed for those measures with disaggregations experiencing three consecutive months of noncompliance. Therefore, staff has added verbiage to the original staff proposal, including a requirement for Sprint to provide a corrective action plan with the root-cause analysis.

D. Auditing

Sprint does not support staff's proposal of annual third-party audits for the first five years after implementation of the PMP. Sprint comments that it does not want to rely on third-party auditors as a long-term solution to auditing performance measures because they offer only a snapshot of data for a few months. Sprint believes it has, or will soon have, appropriate internal audit mechanisms in place and the financial burden of annual audits is not justified for Sprint. In Nevada, Sprint was required to conduct only one external audit at its expense. The Nevada Commission agreed that any subsequent audits would be requested by ALECs and the cost would be shared equally by the ALECs and Sprint.

Sprint comments that the scope of the audit should be jointly determined by Sprint and the ALEC community, auditing a jointly selected sample of 50 percent of the performance measurements. Sprint suggests this methodology because it believes that some measures are similar in business rules and calculation methodology, and that only one measure in each major category should be included in the audit.

The Joint ALECs believe Sprint's disagreement with staff's proposal, requiring a comprehensive audit every year for the first five years after implementation of the PMP, is inconsistent with the stated policy in Attachment A (August 2002 Cookbook, Pg. 75). The Joint ALECs comment that staff's proposal merely declares its desire for five annual audits, which the stated policy seems to

provide. The Joint ALECs support the staff proposal and note it is consistent with requirements placed on other ILECs.

The Joint ALECs also comment that Sprint could seek a waiver for any year that it could prove to the Commission and ALECs that an audit is not needed. Further, they believe the Commission should, as a user of the performance measurements, be involved in developing the audit scope. Joint ALECs also recommend that the details of the comprehensive audits be collaboratively developed with Sprint at a later time frame, with the Commission resolving any disputed issues.

Staff understands Sprint's desire to complete only the initial comprehensive third-party audit and use its own internal audit mechanism to complete additional necessary annual audits. Staff also understands Sprint's desire to reduce unnecessary costs for annual audits that may not reveal anything beyond what its own internal audit group could identify. However, staff believes Sprint's alternative defeats the purpose of having independent third-party audits and relies too heavily upon Sprint to impartially evaluate its own performance in the marketplace. The comprehensive independent audit allows all parties involved in the competitive process to receive an impartial view, even though it is a snapshot in time.

Staff agrees with the Joint ALECs that Sprint could seek a waiver for any year that it could prove to the Commission and ALECs that an independent third-party audit is not needed. However, staff does not agree with the joint ALECs that the Commission should become a participant in developing the audit scope. As we move toward a competitive market environment, staff believes the Commission's role in determining the scope of third-party audits and approving the third-party auditor is that of an arbiter to resolve impasses, rather than a direct participant. Therefore, staff has made no revision to the initial proposal regarding this issue.

E. Initial Effective Date

Staff's initial proposal calls for the PMP to become effective within 30 days of the Final Order issued by this Commission. Sprint, however, requests that the effective date for implementing the PMP be the first day of the month following 30 days after the Final Order is issued by the Commission to ensure a full reporting month. Staff has no difficulty making this change, and no comments were filed by interested parties rejecting this proposed change by

Sprint. Therefore, staff has included the change in the revised staff proposal below to accommodate the Sprint request.

III. STAFF'S REVISED PROPOSAL

A. Service Quality Measures and Business Rules

Staff believes the appropriate service quality measures to be reported by Sprint are those provided in the August 2002 "Cookbook" for the Public Utilities Commission of Nevada. Attachment A includes the 38 performance measures staff recommends for use in capturing Sprint's OSS performance for Florida. The Nevada Plan performance measurements have previously been approved by both the North Carolina and Indiana Utilities Commissions as Sprint's PMP within those states. At this time, staff believes these measures will also provide an acceptable level of performance reporting for Sprint in Florida.

Because the Sprint Nevada Plan is currently in operation in three states, staff believes the August 2002 "Cookbook" for the Nevada Plan is readily transferable to Florida operations. At this time, staff believes the business rules contained therein adequately measure whether Sprint is providing ALECs service at parity. Staff notes that portions of Collocation Measures 40 and 41 were modified and filed within Sprint's comments on staff's proposal on November 15, 2002. Sprint made these modifications to reflect Florida standards of compliance in the provision of collocation services as specified in Order No. PSC-00-0941-FOF-TP. These modifications are included within the proposed performance measures documented in Attachment A.

B. Performance Data Reporting

1. Due Date and Access

The August 2002 "Cookbook" provides for reporting of all performance measure results by the 15th calendar day of the month succeeding the reporting period. This timing conflicts with the reporting time frame documented in the 2002 Sprint PMP Compliance Methodology (Attachment B), which assumes the due dates for reports to be no later than the 20th calendar day of the month. Staff believes the 20th calendar day of the month is acceptable as the due date for reporting Sprint's performance measurement data to the web site.

Authorized users will have access to monthly results reports through Sprint's web site. Each authorized ALEC will have access

to its own raw data and monthly results, aggregate ALEC data, and analogous Sprint ILEC data. The Commission will have access to reports for all entities, including ILEC Affiliate data.

2. Remedy Provisions

Staff does not recommend penalty provisions at this time for noncompliant performance measures or for inaccurate, incomplete, or untimely reporting. Staff believes that at least six months of data should be analyzed before any penalty plan provisions are considered. The necessity for such plans can be evaluated during the six-month reviews conducted by staff and discussed below.

3. Six-Month Review Process

A six-month review process will be conducted by staff, at which time the necessity of any measurement adjustments and penalty provisions may be considered. These collaborative reviews will include interested ALECs, Sprint representatives and Commission staff as participants. The first review will begin six months after the initial PMP implementation date specified in the Commission's final order. Based on input from participants at each review and the need identified therein, staff will determine whether the interval for these reviews should be adjusted.

The 2002 Sprint PMP Compliance Methodology calls for all relevant changes to the Nevada Plan to automatically apply to Florida on a going forward basis. Staff believes that the changes approved in other states should not automatically be adopted in Florida without proper consideration by interested parties and the Commission. Staff believes that Sprint should notify the Commission of performance measurement changes approved by other states and file such changes in this docket. Such changes should be filed within 15 days of the order being issued in other states. Interested ALECs and Commission staff should be allowed an opportunity to review such changes before a recommendation is brought before the Commission.

4. Root-Cause Analysis

The August 2002 "Cookbook" provides that ALECs may request, within 90 days of the web site publication of monthly results, an analysis of the data and underlying causes contributing to any measure not meeting parity or the benchmark level. Additionally, staff believes that failure in three consecutive months to meet any performance for a given level of disaggregation should require a root cause analysis by Sprint, which would then be reported to the Commission on a monthly basis. Staff believes Sprint's root-cause

analysis should also include a plan for corrective action with key activities and critical completion dates for implementation.

The Sprint 2002 PMP Compliance Methodology (Attachment B) provides that Sprint may perform a limited root-cause analysis process within 45 days of the issuance of monthly performance reporting to provide a reasonable opportunity to explain exceptional conditions causing a submeasure to be reported improperly. Additionally, if reporting inaccuracies are discovered after the reporting due date, Sprint will repost results and publish a notification of the repost on the web site. Sprint will archive the repost notifications and make them available on the reporting web site for 12 calendar months.

5. Data Retention

Staff recommends that in accordance with the August 2002 "Cookbook," Sprint should retain performance measure results and raw data support for a period of 24 months. Data should be retained in sufficient detail to provide an adequate audit trail and to facilitate an ALEC's reconciliation of ILEC reported data with its own internal data. Furthermore, data that relates to the ILEC wholesale and retail performance should be retained at a level of disaggregation comparable to that reported for ALECs.

6. Affiliate Data

Staff recommends that Sprint be required to report data for any Sprint affiliate, as defined in the 1996 Telecommunication Act, functioning as an ALEC and making use as such of Sprint wholesale services and systems. Additionally, each affiliate ALEC's results should be available for purposes of monitoring by the Commission via access provided to Sprint's performance reporting system. Staff believes this reporting is appropriate and is consistent with the Commission's position on this issue in other ILEC performance measurement proceedings and decisions.

C. Statistical Methodology

1. Parity Testing

Staff believes the Commission should approve the statistical methodology presented in the 2002 Sprint PMP Compliance Methodology previously approved by the Nevada Commission. Attachment B provides Sprint's statistical methodology for compliance with parity and benchmark measurements.

The general statistical testing methodology for parity is to conduct a hypothesis test for two conditions: that ALEC performance is "better than or equal to" Sprint performance and that ALEC performance is "worse than" Sprint performance. Calculations are made under the assumption that larger performance measurement values indicate worse service. For measures where this assumption is not correct, the calculation of a test statistic will be reversed. In these cases, a difference between Sprint and ALEC service will always be a negative number when ALEC service is worse. A statistical test with a p-value will be converted to a z-score. A significance level, or Type I error rate, of ten percent is used for testing purposes.

A modified Z-score is used at the cell level in testing for the difference between two means. By converting the adjusted asymmetric t-test statistic via the respective probability density function, a modified score is calculated. Any Z-scores less than or equal to -1.2817 will result in a rejection of the hypothesis that ALEC performance is "better than or equal to" Sprint performance. All statistical testing is performed at the submeasure level per ALEC. Staff believes the 2002 Sprint PMP Compliance Methodology (Attachment B) should be adopted in conjunction with the Sprint August 2002 "Cookbook" (Attachment A) to measure Sprint's performance.

2. Benchmark Testing

Benchmark measurements compare Sprint's performance results for each ALEC against the defined benchmark, without the use of statistical testing for significance. If performance results indicate that Sprint does not meet the benchmark, it is considered to be noncompliant. For noncompliant benchmark measures, a degree of severity will be calculated. Minor, moderate and severe levels of severity are assigned to show the level of noncompliant performance.

D. Auditing

The August 2002 "Cookbook" provides that a comprehensive audit of the ILEC's reporting procedures and reportable data would be supported if the FPSC or greater than 50 percent of the ALECs agree that an audit is desired. Staff believes, however, that at least one annual independent third-party comprehensive audit should be performed one year after the implementation date specified in the Commission's final order. Based on the results of the initial independent comprehensive audit and interim six-month reviews,

staff will determine whether the interval for additional comprehensive third-party audits should be modified during the first five years after the PMP is implemented. After the first five years, a comprehensive third-party audit should only be performed when sufficient evidence has been provided to the Commission to order such an audit.

The August 2002 "Cookbook" calls for Sprint to share the cost of an audit with ALECs. However, staff believes all costs for a comprehensive annual audit should be borne by Sprint if one is required in the first five years after implementation of the Plan. This approach is consistent with past Commission decisions in similar proceedings. Otherwise, staff believes the audit provisions of the August 2002 "Cookbook" are appropriate.

The "Cookbook" also provides for ALEC mini-audits of individual performance during the year when there is cause to believe the data collected for a measure is flawed or the required measure is not being adhered to. The Plan specifies that the ALEC requesting the audit will pay for the mini-audit and Sprint's reasonable costs and expenses unless Sprint is found to be misreporting or misrepresenting data or to have noncompliant procedures. In that event, Sprint will pay the costs of the mini-audit and the ALEC's reasonable associated costs and expenses. Additionally, if more than 50 percent of the measures in a major service category have flawed data or reporting problems, the entire category will be re-audited at Sprint's expense.

The "Cookbook" audit provisions do not provide specific direction as to who should select the independent third-party auditor. Staff believes the independent auditor and audit scope should be jointly selected by Sprint and the ALEC community prior to initiating any third-party audit. If the parties cannot agree on the independent auditor and audit scope, staff believes the Commission should have final approval.

E. Effective Date

Staff believes the effective date for implementing the PMP should be the first day of the month following 30 days after the Final Order is issued by the Commission to ensure a full reporting month.

IV. CONCLUSION: Staff recommends that the Commission approve a Performance Measurement Plan for Sprint Florida as outlined in staff's proposal. Staff's proposal includes the administrative provisions as well as the adoption of the Sprint August 2002 "Cookbook" and the Sprint Performance Plan Compliance Methodology.

ISSUE 2: Should this docket be closed?

RECOMMENDATION: No. If no person whose substantial interests are affected files a protest within 21 days of the issuance date of the Order, the Order will become final upon the issuance of a Consummating Order. Staff recommends that if a protest is filed, then resolution of the protest should be addressed during the six-month review process. Thereafter, this docket should remain open pending until: 1) completion of the development of a Sprint Florida Performance Measurements plan; 2) full implementation of the Sprint OSS Performance Measurements; 3) Sprint measurement reporting systems for ALECs are completely and accurately operational; 4) six-month reviews of performance measurements have begun; and 5) the completion of the initial third-party audit. (**BANKS**)

STAFF ANALYSIS: If no person whose substantial interests are affected files a protest within 21 days of the issuance date of the Order, the Order will become final upon the issuance of a Consummating Order. Staff recommends that if a protest is filed, then resolution of the protest should be addressed during the six-month review process. Thereafter, this docket should remain open pending until: 1) completion of the development of a Sprint Florida Performance Measurements plan; 2) full implementation of the Sprint OSS Performance Measurements; 3) Sprint measurement reporting systems for ALECs are completely and accurately operational; 4) six-month reviews of performance measurements have begun; and 5) the completion of the initial third-party audit.

Sprint's "Cookbook"

August 6, 2002

Sprint Performance Measurements

Public Utilities Commission of Nevada

INTRODUCTION

The stipulation agreement filed on February 11, 1999, and approved by the Commission on February 25, 1999, was the work product of the participating Incumbent Local Exchange Carriers (ILECs), Competitive Local Exchange Carriers (CLECs), the Attorney General's Bureau of Consumer Protection, and the Public Utilities Commission of Nevada Staff (collectively, "parties") in Nevada. As a result of discussions on performance measurements conducted during the arbitration of the AT&T/Nevada Bell Interconnection Agreement, the Nevada Commission opened an investigative proceeding into performance measurements on September 24, 1997. The Commission subsequently requested comments from the parties. In order to facilitate discussion by the parties, the Commission sponsored workshops in late May 1998. After the May workshops, the parties continued to identify open issues and clarify some of the consensus that had been tentatively reached. Over the next several months, the parties continued to meet informally and in additional Commission sponsored workshops to discuss and resolve open issues. As a result, the parties have been successful in resolving most of the open issues with respect to performance measurements.

In addition to the collaborative work regarding performance measures, the parties have reached agreement on many of the issues regarding auditing and reporting. Parties have also resolved the appropriate analogs for service group types.

As work on performance incentives is on a separate track, incentives are not included in this filing.

This Revised Performance Measures package addresses the following:

- the performance measurements
- the formulas for the same
- the levels of disaggregation
- the analogs for the service group types (a level of disaggregation)
- other analogs and the benchmarks, to the degree there is agreement
- auditing and reporting
- review procedures

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EXECUTIVE SUMMARY

Performance Measures Development Process

The Telecommunications Act of 1996 and the FCC's implementing rules require ILECs to provide CLECs with nondiscriminatory access to OSS. In the August 1996 Local Competition First Report and Order, the FCC commented, generally, that ILECs must provide CLECs with access to the pre-ordering, ordering, provisioning, billing, repair, and maintenance OSS sub-functions pursuant to the Act, such that CLECs are able to perform such OSS sub-functions in "substantially the same time and manner" as the ILECs can for themselves.[1] In August of 1997, the FCC's *Ameritech Opinion* analyzed the nondiscriminatory access requirements of §251(c) to a Bell Operating Company's (BOC's) §271 application, and clarified that for those OSS subfunctions with retail analogs, a BOC "must provide access to competing carriers that is equal to the level of access that the BOC provides to itself, its customers or its affiliates, in terms of quality, accuracy and timeliness."[2] The FCC further clarified in the *Ameritech Opinion* that for those OSS functions with no retail analog, a BOC must offer access sufficient to allow an efficient competitor "a meaningful opportunity to compete."[3]

In mid -1997, the Public Utilities Commission of Nevada (NEVADA PUC or Commission) initiated Docket 97-9022 to address monitoring the performance of Operations Support Systems (OSS). The stated goal of the Commission's proceeding is to investigate procedures and methods necessary to determine whether interconnection, unbundled access and resale services provided by incumbent local exchange carriers are at least equal in quality to that provided by the local exchange carrier to itself or to any subsidiary, affiliate, or any other party.

The scope of the proceeding included measures, reporting, comparative analogs, benchmarks, statistical tests, audits and incentives. Throughout this past year, the Nevada PUC initiated a series of workshops to address many of these issues. The participating parties have worked in a collaborative fashion to resolve as many issues as possible. This report is not intended to address statistical tests and incentives.

[1] See, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket No. 96-98, First Report and Order, 11 FCC Rcd 15499, 15763-64 [¶518] (1996) ("Local Competition First Report and Order"), aff'd in part and vacated in part sub nom. Competitive Telecommunications Ass'n v. FCC, 117 F.3d 1068 (8th Cir. 1997) and Iowa Utilities Bd. v. FCC, 120 F.3d 753 (8th Cir. 1997), modified on reh'g, No. 96-3321 (Oct. 14, 1997) (Rehearing Order), petition for cert. granted, 118 S. Ct. 879 (1998).

[2] See, In the Matter of Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services In Michigan, Memorandum Opinion and Order, 12 FCC Rcd 20543, 20618-19 [¶139] (1997) (Ameritech Michigan Order), writ of mandamus issued sub nom. Iowa Utils. Bd. v. FCC, No. 96-3321 (8th Cir. Jan. 22, 1998). ("Ameritech Opinion"); see also, In the Matter of Application of Bellsouth Corporation, et al., for Provision of In-Region, InterLATA services in Louisiana ("BellSouth (Louisiana II) Opinion") CC Docket No. 98-121, FCC 98-271 (10-13-98), paragraph 87 (citing, Ameritech Opinion at 12 FCC Rcd 20618-19). See also, Ameritech Opinion at ¶131, wherein the FCC makes the following statement regarding application of the §251(c) requirements to a BOC's §271 application:
"Because the duty to provide access to network elements under section 251(c)(3) and the duty to provide resale services under section 251(c)(4) include the duty to provide nondiscriminatory access to OSS functions, an examination of a BOC's OSS performance is necessary to evaluate compliance with section 271(c)(2)(B)(ii) and (xiv)."[3] See, Ameritech Opinion at 12 FCC Rcd at 20619 [¶141]; See also, BellSouth (Louisiana II) Opinion at ¶87 (citing Ameritech Opinion at 12 FCC Rcd at 20619).

Notes:
These performance measures are not intended to create, modify, or otherwise affect parties' rights and obligations. The existence of any particular performance measure, or the language describing that measure, is not evidence that the CLECs are entitled to any particular manner of access, that these measures relate solely to access to OSS, nor is it evidence that the ILEC's obligations to such access are defined elsewhere, including the relevant laws, FCC, and Nevada PUC decisions/regulations, tariffs, and interconnection agreements.

Major Categories

Measurements developed to help assess the provision of non-discriminatory access to OSS and other services, elements or functions were combined into the following broad categories:

- **Pre-Ordering**

Pre-ordering activities relate to the exchange of information between the ILEC and the CLEC regarding current or proposed customer products and services, or any other information required to initiate ordering of service. Pre-ordering encompasses the critical information needed to submit a provisioning order from the CLEC to the ILEC. The pre-order measurement reports the timeliness with which pre-order inquiries are returned to CLECs by the ILEC. Pre-ordering query types include:

Address Verification/Dispatch Required
Request for Telephone Number
Request for Customer Service Record
Service Appointment Scheduling (due date)
Rejected/Failed Queries
Facility Availability
Loop Pre-Qualification

Note: Service Availability information, as required in NAC 704.680305(1)(d), is available in Address Verification/Dispatch Required and Customer Service Record queries.

- **Ordering**

Ordering activities include the exchange of information between the ILEC and the CLEC regarding requests for service. Ordering includes: (1) the submittal of the service request from the CLEC, (2) rejection of any service request with errors and (3) confirmation that a valid service request has been received and a due date for the request assigned. Ordering performance measurements report on the timeliness with which these various activities are completed by the ILEC. Also captured within this category is reporting on the number of CLEC service requests that automatically generate a service order in the ILECs' service order creation system.

- **Provisioning**

Provisioning is the set of activities required to install, change or disconnect a customer 's service. It includes the functions to establish or condition physical facilities as well as the completion of any required software translations to define the feature functionality of the service. Provisioning also involves communication between the CLEC and the ILEC on the status of a service order, including any delay in meeting the commitment date and the time at which actual completion of service installation has occurred. Measurements in this category evaluate the quality of service installations, the efficiency of the installation process and the timeliness of notifications to the CLEC that installation is completed or has been delayed.

- **Maintenance**

Maintenance involves the repair and restoral of customer service. Maintenance functions include the exchange of information between the ILEC and CLEC related to service repair requests, the processing of trouble ticket requests by the ILEC, actual service restoral and tracking of maintenance history. Maintenance measures track the timeliness with which trouble requests are handled by the ILEC and the effectiveness and quality of the service restoral process.

- **Network Performance**

Network performance involves the level at which the ILEC provides services and facilitates call processing within its network. The ILEC also has the responsibility to complete network upgrades efficiently. Network performance is evaluated on the quality of interconnection and the timeliness of network upgrades (code openings) the ILEC completes on behalf of the CLEC.

- **Billing**

Billing involves the exchange of information necessary for CLECs to bill their customers, to process the end user's claims and adjustments, to verify the ILEC's bill for services provided to the CLEC and to allow CLECs to bill for access. Billing measures have been designed to gauge the quality, timeliness and overall effectiveness of the ILEC billing processes associated with CLEC customers.

Data Base Updates

Database updates for directory assistance/listings and E911 include the processes by which these systems are updated with customer information that has changed due to the service provisioning activity. Measurements in this category are designed to evaluate the timeliness and accuracy with which changes to customer information, as submitted to these databases, are completed by the ILEC.

- **Collocation**

ILECs are required to provide to CLECs available space as required by law to allow the installation of CLEC equipment. Performance measures in this category assess the timeliness with which the ILEC handles the CLEC's request for collocation as well as how timely the collocation arrangement is provided.

- **Interfaces**

ILECs provide the CLECs with choices for access to OSS pre-ordering, ordering, maintenance and repair systems. Availability of the interfaces is fundamental to the CLEC being able to effectively do business with the ILEC. Additionally, in many instances, CLEC personnel must work with the service personnel of the ILEC. Measurements in this category assess the availability to the CLECs of systems and personnel at the ILEC work centers.

Auditing and Review Procedures

The parties have agreed to most procedures for auditing and review. Descriptions of these procedures can be found in Sections IV and V.

Note: This Executive Summary is intended to provide a general background regarding parties' negotiations of the OSS performance measures. The statements contained in the Executive Summary are not intended to be binding on the parties and shall not be used for such purposes.

Reservation of Rights

These reservations of rights do not negate the parties' agreement regarding performance measures and standards as reflected in this settlement agreement.

Incorporating the performance measures into the interconnection agreements raises several complex issues that require further consideration by the parties. This remains an open issue.

ILECs

By agreeing to the performance measures contained in the Stipulation Agreement, ILECs:

- do not make any admission regarding the propriety or reasonableness of establishing performance penalties;
- reserve the right to contest the level of disaggregation for purpose of assessing penalties;
- do not admit that an apparent less-than-parity condition reflects discriminatory treatment without further factual analysis.

CLECs

- By executing this Agreement, CLECs do not agree with, endorse, or otherwise concur in the terms of ILECs' reservation of rights.
- CLECs reserve the right to contend that ILEC compliance with the performance measures and standards in the Agreement does not conclusively demonstrate ILEC compliance with the Telecommunications Act of 1996.
- CLECs reserve the right to contend that ILEC compliance with the performance measures and standards does not conclusively demonstrate the existence of an open competitive local market.

Nevada Performance Measurements

Measurement #	Measurement Title
Pre-Ordering	
01	Average Response Time to Pre Order Queries
Ordering	
02	Average FOC Notice Interval
03	Average Reject Notice Interval
04	Percent of Flow-Through Orders
Provisioning	
05	Percentage of Orders Jeopardized
06	Average Jeopardy Notice Interval
07	Average Completed Interval
08	Percent Completed Within Standard Interval
09	Coordinated Customer Conversion as a Percentage On-Time
11	Percent of Due Dates Missed
12	Percent Due Dates Missed Due to Lack of Facilities
13	Delay Order Interval to Completion Date (For Lack of Facilities)
14	Held Order Interval
15	Provisioning Trouble Reports Prior to Service Order Completion
17A	Percentage Troubles in 5 Days for New Orders
18	Average Completion Notice Interval
Maintenance	
19	Customer Trouble Report Rate
20	Percentage of Customer Trouble Not Resolved Within Estimated Time
21	Average Time to Restore
22	POTS Out of Service Less Than 24 Hours
23	Frequency of Repeat Troubles in 30-Day Period
Network Performance	
24	Percent Blocking on Common Trunks
25	Percent Blocking on Interconnection Trunks
26	NXX Loaded by LERG Effective Date
Billing	
28	Usage Timeliness
29	Accuracy of Usage Feed (Not reported by Sprint)
30	Wholesale Bill Timeliness
31	Usage Completeness
32	Recurring Charge Completeness
33	Non-Recurring Charge Completeness
34	Bill Accuracy
36	Accuracy of Mechanized Bill Feed (Not reported by Sprint)
Database	

Updates	
37	Database Update Timeliness
38	Percent Database Accuracy
39	E911MS Database Update Interval
Collocation	
40	Time to Respond to a Collocation Request
41	Time to Provide a Collocation Arrangement
Interface	
42	Percentage of Time Interface is Available
43	Average Notification of Interface Outages (Not applicable in Nevada)
44	Center Responsiveness

Pre-Ordering — Measure 1

Title: Average Response Time to Pre-Order Queries

Area	*Requirement Description*
Description	The response interval for each pre-ordering query is determined by computing the elapsed time from the ILEC receipt of the query from the CLEC, whether or not syntactically correct, to the time the ILEC returns the requested data to the CLEC. • Address Verification/Dispatch Required • Request for Telephone Number (TN) • Request for Customer Service Record - Simple - Complex • Service Appointment Scheduling (due date) • Rejected/Failed Queries • Facility Availability • Loop Pre-qualification
Method of Calculation	**All Electronic:** Sum ((Query Response Date and Time) – (Query Submission Date and Time)) / (Number of Queries Submitted in Reporting Period) **All Manual: Loop Pre-qualification and Facility Availability** Sum [((Fax Date and Time Returned) - (Business Date and Time of receipt of valid fax service request)) / (Number of Faxes Submitted in Reporting Period)] X 100
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate, and ILEC affiliate.
Reported By	By query type and by interface type, including fax
Geographic Level	Statewide
Measurable Standards	

Disaggregation Level	**CLEC**	**Competitive Comparison**	
		Parity	**Benchmark**
All Electronic:			
Address Verification/Dispatch Required	Request for Address Verification		6seconds
Request for Telephone Number	Request for Telephone Number		3 seconds
Request for Customer Service Record - Simple	Request for Simple CSR		10 seconds
Request for Customer Service Record – Complex	Request for Complex CSR		15 seconds
Service Appointment Scheduling	Request for Due Date		TBD
Rejected / Failed Queries	Rejected/Failed Queries		Diagnostic Only
All Manual:			

	Facility Availability	Request for Facility Availability		95% within 3 business days – Diagnostic Only
	Loop Pre-Qualification	Request for Loop Pre-Qualification		95% within 3 business days
Business Rules	• Elapsed time is measured in seconds for electronic pre-order requests. • Results for CLECs with 5 or fewer transactions will be compared with a benchmark of twice the applicable electronic submeasure to determine compliance. • Elapsed time for fully electronic submeasures will be tracked during scheduled interface availability hours. • Exclude transactions that occur during OSS outages.			
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint defines Simple CSR queries as a query on an account that has 4 or less lines. • Implementation of systems to comply with Federal National Portability requirements will prevent the capability to query by NPA/NNX in 2002 to obtain Service Availability information as an independent query. Service Availability information is available in Address Verification/Dispatch Required and Customer Service Record queries. • Sprint will provide an analysis of the data for CLECs with 5 or fewer transactions in the 2003 filing. The analysis will include root cause of long response times, as near as can be determined. • Submeasure Facility Availability provides switch verification information and Loop Pre-Qualification provides outside plant loop facility information.			

Ordering — Measure 2

Title: Average FOC Notice Interval

Area	*Requirement Description*
Description	Measures the average time from receipt of a valid service request to returning a Firm Order Confirmation (FOC).
Method of Calculation	**All Electronic:** Sum ((Date and Time of FOC) - (Business Date and Time of Receipt of Valid Service Request)) / (Number of FOCs Sent in Reporting Period) **Electronic/Manual Mix:** Sum ((FOC Date and Time) – (Receipt Date and Time of receipt of error free order)) / (Number of FOCs sent.)
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate, by ILEC (if analog applies) and ILEC affiliates.
Reported By	• Electronically received/electronically handled • Electronically received and manually handled • By Service Group Type
Geographic Level	Statewide
Measurable Standards	See nested table below

Disaggregation Level **RESALE**	CLEC	**Competitive Comparison** **Parity**	**Benchmark**
Blind FOC			
Res POTS All Electronic Electronic/Manual Mix	Res POTS		TBD 4 hrs
Bus POTS All Electronic Electronic/Manual Mix	Bus POTS		TBD 6 hrs
ISDN BRI All Electronic Electronic/Manual Mix	ISDN BRI		TBD 6 hrs
CENTREX All Electronic Electronic/Manual Mix	CENTREX		TBD 13 hrs.
PBX All Electronic Electronic/Manual Mix	PBX		TBD 13 hrs.
Intelligent FOC			
DDS All Electronic Electronic/Manual Mix	DDS		TBD 36 business hrs
DS1/ISDN PRI All Electronic Electronic/Manual Mix	DS1/ISDN PRI		TBD 36 business hrs
DS3 All Electronic Electronic/Manual Mix	DS3		TBD 36 business hrs
VGPL/DS0 All Electronic Electronic/Manual Mix	VGPL/DS0		TBD 36 business hrs
UNBUNDLED NETWORK ELEMENTS			
Blind FOC			
UNE Loops Non-Designed	UNE Loops		

	All Electronic Electronic/Manual Mix	Non-Designed		TBD 6 hrs
	UNE Loops xDSL Provisioned All Electronic Electronic/Manual Mix	UNE Loops xDSL Provisioned		TBD 6 hrs
	UNE Subloops – Voice Grade All Electronic Electronic/Manual Mix	UNE Subloops – Voice Grade		TBD 6 hrs
	UNE Subloops – Data All Electronic Electronic/Manual Mix	UNE Subloops – Data		TBD 13 hrs
	Line Sharing All Electronic Electronic/Manual Mix	Line Sharing		TBD 6 hrs
	LNP All Electronic Electronic/Manual Mix	LNP		TBD 6 hrs
	Intelligent FOC			
	UNE Loops Designed All Electronic Electronic/Manual Mix	UNE Loops Designed		TBD 36 business hrs
	UNE Ports All Electronic Electonic/Manual Mix	UNE Ports		TBD 36 business hrs
	Dark Fiber All Electronic Electronic/Manual Mix	Dark Fiber		TBD 36 business hrs
	EELS All Electronic Electronic/Manual Mix	EELS		TBD 36 business hrs
	UNE Dedicated Transport All Electronic Electronic/Manual Mix	UNE Dedicated Transport		TBD 36 business hrs
	UNE Platform All Electronic Electronic/Manual Mix	UNE Platform		TBD 36 business hrs
	Interconnection Trunks All Electronic Electronic/Manual Mix	Interconnection Trunks		TBD 7 business days
	PROJECTS:			
	Projects All Electronic Electronic/Manual Mix	Projects		TBD Diagnostic Only
Business Rules	• Elapsed time calculated in business hours and excludes non-business days and ILEC published holidays. • The start time of requests received after the end of the business day will be the beginning of the next business day. Business day is defined as published hours of operation for the ILEC ordering center. • Excludes Loop Pre-Qualification queries that are processed as LSRs. • Manually received and handled FOCs not included. • Denominator includes all FOCs sent regardless of receipt and response time. • CLEC to CLEC conversions are not included in the elapsed time of FOC response for LNP Service Group Type.			
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information			

	provisions. • Sprint has implemented an Intelligent Firm Order Confirmation process for all the Service Group Types listed with 36 business hours as the measurable standard. Sprint will review data for these submeasures to determine applicability as parity submeasures for the 2003 PMP filing. • Project is a planned event where terms and conditions in which work is performed is agreed to by both the CLEC, Sprint and any other party engaged in the provisioning process. To allow for successful turn-up of facilities or conversion of facilities, each party must negotiate, in good faith, the timelines that allow required activities to be met, equipment ordered, placed and tested to meet the overall objectives of the project. The timeline must meet the rule of reasonable and prudent business practices. If the activity is not agreed to be a project, the transaction will be reported in the appropriate service group type.

Ordering — Measure 3

Title: Average Reject Notice Interval

Area	*Requirement Description*
Description	Reject interval is the elapsed time between the ILEC receipt of an order from the CLEC to the ILEC return of a notice of a rejection to the CLEC.
Method of Calculation	**All Electronic** ((Business Date and Time of ILEC Transmission of Order Rejection) - (Business Date and Time of Order Receipt)) / (# of Mechanized Orders Rejected) **Electronic/Manual Mix** ((Business Date and Time of ILEC transmission of Order Rejection) – (Business Date and Time of Order Receipt)) / (# of Electronic/Manual Orders Rejected).
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, and ILEC Affiliates

Reported By	• Electronically received, electronically handled
	  • All interfaces
	  • Syntax (edit engine) and content errors (other edits)
	  • Resale orders and Facility based UNE orders
	• Electronically received, manually handled
	  • All interfaces
	  • Syntax (edit engine) and content errors (other edits)
	  • Resale orders and Facility based UNE orders

Geographic Level	Statewide
Measurable Standards	

Disaggregation Level	CLEC	Competitive Comparison	
		Parity	Benchmark
All Electronic	Reject Notice		TBD
Electronic/Manual Mix	Reject Notice		6 hrs

Business Rules	• Elapsed time calculated in business hours. Excludes non-business days and ILEC published holidays. • Calculation of requests received after the end of the business day starts at the beginning of the next business day. Business day is defined as published hours of operation for the ILEC ordering center • Exclude rejects when the PON is received after business hours and processed prior to the beginning of the next business day. • Exclude Loop Pre-Qualification queries created as service orders.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Ordering — Measure 4

Title: Percent of Flow-Through Orders

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the percentage of mechanized service orders processed on a flow through basis. The definition of Flow-through for the intent of this measure is to reflect those orders that are able to get to the Firm Order Confirmation status without manual intervention.</td></tr>
<tr><td>Method of Calculation</td><td>[(Number of valid electronically received orders that flow-through without manual intervention) / (Total valid electronically received service orders)] x 100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLECs, CLECs in the aggregate, and ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>• Orders that flow through as a percentage of
1) All electronically received orders programmed to flow-through
2) All electronically received orders
• By Service Group Types</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>The process to evaluate performance on this measure is under development. Issues, if any, are not yet finally defined. Final resolution depends on completed development of an agreed to Flow-Through Plan.
<table>
<tr><th>Disaggregation Level

Resale</th><th>CLEC</th><th colspan="2">Competitive Comparison

Parity / Benchmark</th></tr>
<tr><td>Res POTS</td><td>Res POTS</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>Bus POTS</td><td>Bus POTS</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>ISDN BRI</td><td>ISDN BRI</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>CENTREX</td><td>CENTREX</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>PBX</td><td>PBX</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>DDS</td><td>DDS</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>DS1/ISDN PRI</td><td>DS1/ISDN PRI</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>DS3</td><td>DS3</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>VGPL/DS0</td><td>VGPL/DS0</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNBUNDLED NETWORK ELEMENTS</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops Non-Designed</td><td>UNE Loops - Non-Designed</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Loops Designed</td><td>UNE Loops Designed</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Loops xDSL Provisioned</td><td>UNE Loops xDSL Provisioned</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>Line Sharing</td><td>Line Sharing</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Subloops – Voice Grade</td><td>UNE Subloops – Voice Grade</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Subloops – Data</td><td>UNE Subloops – Data</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>Dark Fiber</td><td>Dark Fiber</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Ports</td><td>UNE Ports</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>EELS</td><td>EELS</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Dedicated Transport</td><td>UNE Dedicated Transport</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>UNE Platform</td><td>UNE Platform</td><td></td><td>Diagnostic Only</td></tr>
<tr><td>LNP</td><td>LNP</td><td></td><td>Diagnostic Only</td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>Excludes Loop Pre-Qualification queries.</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of</td></tr>
</table>

	Consumer Protection and the CLECs under proprietary information provisions.

Provisioning — Measure 5

Title: Percentage of Orders Jeopardized

Area	*Requirement Description*
Description	Percentage of total orders processed for which the ILEC notifies the CLEC that the work will not be completed by the due date committed on the FOC.
Method of Calculation	(Number of Orders Jeopardized) / (Number of Orders Completed) x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, ILEC and ILEC Affiliates
Reported By	By service group type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level	**CLEC**	**Competitive Comparison**	
Resale		**Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS, VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops – xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops - Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	D3	
UNE Port	UNE Port	DS1/ISDN PRI	
EELS	EELS	DS3, DS1/ISDN PRI, VGPL/ DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	

Business Rules	• Excludes delays for customer reasons. • Excludes Loop Pre-Qualification queries.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of

	Consumer Protection and the CLECs under proprietary information provisions.

Provisioning — Measure 6

Title: Average Jeopardy Notice Interval

Area	*Requirement Description*
Description	Measures the remaining time between the pre-existing committed order completion date and time (communicated via the FOC) and the date and time the ILEC issues a notice to the CLEC indicating an order is in jeopardy of missing the due date (or the due date/time has been missed).
Method of Calculation	Assignment: Jeopardies identified during assignment ((Date and Time of Committed Due Date for the Order) - (Date and Time of Jeopardy Notice) / (Number of Order Jeopardized)) Installation: Jeopardies identified during installation prior to due time ((Date & Time of Committed Due Date for the Order) - (Date & Time of Jeopardy Notice) / (Number of Installation Jeopardy Notices) Notification of Missed Commitments: (Due Date and Time of Missed CommitNotice - Due Date and Time of Order) / (Number of Missed Commit Notices)
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate, and ILEC Affiliates
Reported By	• By service group type • By jeopardy type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level	**CLEC**	**Competitive Comparison**	
Resale		**Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS, VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	

	UNE Subloops - Data	UNE Subloops – Data	Retail xDSL	
	Dark Fiber	Dark Fiber	D3	
	UNE Ports	UNE Ports	DS1/ISDN PRI	
	EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
	UNE Dedicated Transport	UNE Dedicated Transport	DS1/IDSN PRI, DS3	
	UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Business Rules	• Excludes delays for customer reasons. • Excludes Loop Pre-Qualification queries.			
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • If the ILEC policy changes regarding jeopardy notices to their Retail customers, this measure should be evaluated for analog. • Interval is reported in business days.			

Provisioning **Measure 7**

Title: Average Completed Interval

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Average business days from receipt of valid, error-free service request to completion date in service order system for new, move, and change orders.</td></tr>
<tr><td>Method of Calculation</td><td>(Total business days from receipt of valid, error-free service request to completion date in service order system for new, move and change orders) / (Total new, move and change orders)</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC, CLECs in the aggregate, by ILEC, and ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>By service group type and field work/no field work where applicable.</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for this measurement.
<table>
<tr><th>Disaggregation Level

Resale</th><th>CLEC</th><th>Competitive Comparison

Parity</th><th>Benchmark</th></tr>
<tr><td>Res POTS</td><td>Res POTS</td><td>Res POTS</td><td></td></tr>
<tr><td>Bus POTS</td><td>Bus POTS</td><td>Bus POTS</td><td></td></tr>
<tr><td>ISDN BRI</td><td>ISDN BRI</td><td>ISDN BRI</td><td></td></tr>
<tr><td>CENTREX</td><td>CENTREX</td><td>CENTREX</td><td></td></tr>
<tr><td>PBX</td><td>PBX</td><td>PBX</td><td></td></tr>
<tr><td>DDS</td><td>DDS</td><td>DDS</td><td></td></tr>
<tr><td>DS1/ISDN PRI</td><td>DS1/ISDN PRI</td><td>DS1/ISDN PRI</td><td></td></tr>
<tr><td>DS3</td><td>DS3</td><td>DS3</td><td></td></tr>
<tr><td>VGPL/DS0</td><td>VGPL/DS0</td><td>VGPL/DS0</td><td></td></tr>
<tr><td>UNBUNDLED NETWORK ELEMENTS</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops Non-Designed</td><td>UNE Loops Non-Designed</td><td>Bus. POTS Dispatched</td><td></td></tr>
<tr><td>UNE Loops Designed</td><td>UNE Loops Designed</td><td>DDS,VGPL/DS0</td><td></td></tr>
<tr><td>UNE Loops - xDSL Provisioned</td><td>UNE Loops – xDSL Provisioned</td><td>Retail xDSL</td><td></td></tr>
<tr><td>Line Sharing</td><td>Line Sharing</td><td>Retail xDSL</td><td></td></tr>
<tr><td>UNE Subloops – Voice Grade</td><td>UNE Subloops – Voice Grade</td><td>Bus. POTS Dispatched</td><td></td></tr>
<tr><td>UNE Subloops - Data</td><td>UNE Subloops – Data</td><td>Retail xDSL</td><td></td></tr>
<tr><td>Dark Fiber</td><td>Dark Fiber</td><td>DS3</td><td></td></tr>
<tr><td>UNE Ports</td><td>UNE Ports</td><td>DS1/ISDN PRI</td><td></td></tr>
<tr><td>EELS</td><td>EELS</td><td>DS1/ISDN PRI, DS3, VGPL/DS0</td><td></td></tr>
<tr><td>UNE Dedicated Transport</td><td>UNE Dedicated Transport</td><td>DS1/ISDN PRI, DS3</td><td></td></tr>
<tr><td>UNE Platform</td><td>UNE Platform</td><td>Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX</td><td></td></tr>
<tr><td>Interconnection Trunks</td><td>Interconnection Trunks</td><td>ILEC Dedicated Trunks</td><td></td></tr>
<tr><td>Projects</td><td>Projects Diagnostic Only</td><td>Projects Diagnostic Only</td><td></td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>• Excludes customer requested due dates beyond interval offered, and</td></tr>
</table>

	orders delayed for customer reasons. • For UNE Loop services, feature only orders are excluded from the retail analog. • Excludes Loop Pre-Qualification queries • Project is a planned event where terms and conditions in which work is performed is agreed to by both the CLEC, Sprint and any other party engaged in the provisioning process. To allow for successful turn-up of facilities or conversion of facilities, each party must negotiate, in good faith, the timelines that allow required activities to be met, equipment ordered, placed and tested to meet the overall objectives of the project. The timeline must meet the rule of reasonable and prudent business practices. If the activity is not agreed to be a project, the transaction will be reported in the appropriate service group type.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Provisioning — Measure 8

Title: Percent Completed Within Standard Interval

Area	*Requirement Description*
Description	Measures orders completed within the standard interval of receipt of valid, error-free service request.
Method of Calculation	[(Total New, Move and Change Orders Completed Within the Standard interval of Receipt of Valid, Error-free Service Request) / (Total New, Move and Change Orders)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC, and ILEC Affiliates
Reported By	By service group type excluding services with flexible due dates.
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	0 DDS and VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops – xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	
Projects	Projects Diagnostic Only	Projects Diagnostic Only	

Business Rules	• Excludes customer requested due dates greater than the standard interval, and orders delayed for customer reasons. • Excludes services with flexible due dates. • For UNE Loop services, feature only orders are excluded from the retail analog. • Excludes Loop Pre-Qualification queries. • Project is a planned event where terms and conditions in which work is performed is agreed to by both the CLEC, Sprint and any other party engaged in the provisioning process. To allow for successful turn-up of facilities or conversion of facilities, each party must negotiate, in good faith, the timelines that allow required activities to be met, equipment ordered, placed and tested to meet the overall objectives of the project. The timeline must meet the rule of reasonable and prudent business practices. If the activity is not agreed to be a project, the transaction will be reported in the appropriate service group type.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Provisioning — Measure 9

Title: Coordinated Customer Conversion as a Percentage On-Time

Area	*Requirement Description*
Description	Measures the percentage of coordinated cut overs CHC started on time where CLEC has requested timed coordination. * Note: *"On time"* means appointment arrival time plus or minus 1 hour. Orders started before appointment arrival time are considered on time if early arrival includes coordination and sign off with the CLEC.
Method of Calculation	[(Number of coordinated cut overs started on time) / (Count of timed coordinated cut overs completed in reporting period)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, and ILEC Affiliates
Reported By	Residence, Business, and LNP conversions
Geographic Level	Statewide
Measurable Standards	

Disaggregation Level	**CLEC**	**Competitive Comparison**	
Resale		**Parity**	**Benchmark**
Res POTS	Res POTS		95% within 1 hour of planned time on due date
Bus POTS	Bus POTS		95% within 1 hour of planned time on due date
LNP	LNP		95% within 1 hour of planned time on due date

Business Rules	• Excludes CLEC caused misses • Applies to CLEC requested coordinated cut overs only
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Provisioning — Measure 11

Title: Percent of Due Dates Missed

Area	*Requirement Description*
Description	Measures the percent of new, move and change orders where installation was not completed by the due date.
Method of Calculation	[(Total Number of Missed Due Dates Due to ILEC Reasons for New, Move and Change Orders) / (Total Number of New, Move and Change Orders)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC, and ILEC Affiliates
Reported By	By service group type and Field Work/No Field Work as appropriate
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level	**CLEC**	**Competitive Comparison**	
Resale		**Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DSO	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	

Business Rules	• Excludes customer caused misses. • Due date is defined as either original due date, revised due date, or final due date if the original or revised due date was missed.

	• For UNE Loop services, feature only orders are excluded from the retail analog. • Excludes Loop Pre-Qualification queries.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Missed Appointment Reason codes as diagnostic data upon raw data request.

Provisioning — Measure 12

Title: Percent of Due Dates Missed Due to Lack of Facilities

Area	*Requirement Description*
Description	Measures the percent of new, move and change orders missed due to lack of facilities. Note: Results also included in Measure "Percent Missed Due Dates"
Method of Calculation	[((Total New, Move and Change Orders Missed Due Dates Due to Lack of Facilities) / (Total Number of New, Move and Change Orders))] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC, and ILEC Affiliates
Reported By	By service group type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS, VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Data	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	

Business Rules	• Due date is defined as either original due date, revised due date, or

	final due date if the original due date, revised due date, or final due date was missed • Excludes customer caused misses. • For UNE Loop services, feature only orders are excluded from the retail analog. • Excludes Loop Pre-Qualification queries.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Provisioning **Measure 13**

Title: Delay Order Interval to Completion Date (For Lack of Facilities)

Area	*Requirement Description*
Description	Measures the average calendar days from due date to completion date on company missed orders due to lack of ILEC facilities.
Method of Calculation	Sum ((Completion Date for orders missed due to lack of ILEC facilities) – (Committed Order Due Date for orders missed due to lack of ILEC facilities)) / (Number of Orders Missed due to lack of ILEC Facilities in the Reporting Period)
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC, and ILEC Affiliates
Reported By	• By service group type • Disaggregated by 1-30 calendar days, 31-90 calendar days and >90 calendar days
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level Resale	**CLEC**	**Competitive Comparison**	
		Parity	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops - Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DSO	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
Subloops – Data	Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	

Business Rules	Excludes Loop Pre-Qualification queries.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Provisioning — Measure 14

Title: Held Order Interval

Area	*Requirement Description*
Description	Measures the time period that service orders are not completed by the original due dates for all ILEC reasons (including lack of facilities).
Method of Calculation	((Reporting Period Close Date) – (Committed Order Due Date)) / (Number of Orders Pending and Past the Committed Due Date) Note: For all orders pending and past the committed due date.
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC, and ILEC Affiliates
Reported By	By service group type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Bus. POTS Dispatched	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	

Business Rules	• Excludes customer caused misses. • Excludes Loop Pre-Qualification queries.

	• Interval is measured in business days.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Missed Appointment Reason codes as diagnostic data upon raw data request. • For UNE Loop services, feature only orders are excluded from the retail analog.

Provisioning **Measure 15**

Title: Provisioning Trouble Reports Prior to Service Order Completion

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the percent of troubles that are reported (via customer or indirectly by CLEC) that occur during the provisioning process.</td></tr>
<tr><td>Method of Calculation</td><td>[(Total number of trouble reports that occur from the time of service order creation, up to and including the date of service order completion) / (Total Number of service orders completed in reporting period)] x 100.</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>• By Resale, UNE Loop Non-Designed, UNE Subloops – Voice Grade, and LNP
• By Affecting Service and Out of Service</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for this measurement.
<table>
<tr><th>Disaggregation Level

Resale</th><th>CLEC</th><th>Competitive Comparison

Parity</th><th>Benchmark</th></tr>
<tr><td>Res. Pots
Bus. Pots</td><td>Res POTS
Bus POTS</td><td>Res POTS
Bus POTS</td><td></td></tr>
<tr><td>UNBUNDLED NETWORK ELEMENTS</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops Non-Designed</td><td>UNE Loops Non-Designed</td><td>B1 Dispatch Non-Designed</td><td></td></tr>
<tr><td>UNE Subloops – Voice Grade</td><td>UNE Subloops – Voice Grade</td><td>B1 Dispatch Non-Designed</td><td></td></tr>
<tr><td>LNP</td><td>LNP</td><td>LNP</td><td></td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>• Excludes CPE and IEC/CLEC caused troubles
• Excludes Subsequent reports
• Excludes Message Reports (circuit reports for which ILEC has no records)
• Excludes ILEC employee generated reports</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.</td></tr>
</table>

Provisioning — Measure 17a

Title: Percentage Troubles in 5 Days for New Orders

Area	*Requirement Description*
Description	Measures the percent of network customer trouble reports received within 5 calendar days of service order completion.
Method of Calculation	[(Total Number of Customer Trouble reports received within 5 calendar days of service order completion) / (Total Number of new, move and change completed orders)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates
Reported By	By service group type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level	**CLEC**	**Competitive Comparison**	
Resale		**Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DSO	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops - Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
LNP	LNP	LNP	

Business Rules	• Excludes CPE and IEC/CLEC caused troubles • Excludes troubles associated with inside wire • Excludes Trouble Reports Received on the Due Date (which instead are reported in the "Provisioning Troubles" measure) • Excludes Subsequent reports

	• Excludes Message Reports (circuit reports for which ILEC has no records) • Excludes ILEC employee generated reports • Excludes Loop Pre-Qualification queries.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Maintenance Disposition codes as diagnostic data upon a request for raw data.

Provisioning — Measure 18

Title: Average Completion Notice Interval

Area	*Requirement Description*
Description	Measures the average time per order to issue notification to CLEC of a completed order.
Method of Calculation	**All Electronic:** ((Date and Time of Electronic Completion Notification to CLEC) - (Date and Time of Work Completion)) / (Number of Orders Completed Electronically) **Electronic/Manual Mix:** [((Date and Time of Electronic Completion Notification to CLEC) – (Date and Time of Work Completion))/(Number of Orders Completed That Required Manual Intervention)]x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, and by ILEC Affiliates
Reported By	Electronic and Electronic/Manual Mix Interface
Geographic Level	Statewide
Measurable Standards	

Disaggregation Level	CLEC	Competitive Comparison	
		Parity	Benchmark
All Electronic	Completion Notice		20 minutes
Electronic/Manual Mix	Completion Notice		95% within 24 hrs

Business Rules	• 24-hour clock is used to measure interval for electronic/manual process. • Excludes weekends and ILEC published holidays • Excludes Loop Pre-Qualification queries
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will track fall out rate.

Maintenance **Measure 19**

Title: Customer Trouble Report Rate

Area	*Requirement Description*
Description	Measures the total number of network customer trouble reports received within a calendar month per 100 circuits/UNEs.
Method of Calculation	[(Total Number of Customer initial and repeat network trouble reports) / (Number of access lines/circuits/UNEs in service at the end of the reporting period)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates
Reported By	By service group type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	
LNP	LNP	LNP	

Business Rules	• Excludes CPE and IEC/CLEC caused troubles • Excludes Subsequent reports • Excludes Message Reports (circuit reports for which ILEC has no records) • Access line/circuit count taken from previous month • Excludes ILEC employee generated reports
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Maintenance Disposition codes as diagnostic data upon a request for raw data.

Maintenance — Measure 20

Title: Percentage of Customer Trouble Not Resolved Within Estimated Time

Area	*Requirement Description*
Description	Measures the percent of trouble reports not cleared by the commitment time.
Method of Calculation	[(Total network trouble reports not cleared by the commitment time for ILEC reasons) / (Total network trouble reports completed)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates
Reported By	• By service group type • By dispatch and no dispatch
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DS0	
UNE Loops - xDSL Provisioned	UNE Loops – xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	
LNP	LNP	LNP	

Business Rules	• Excludes CPE and IEC/CLEC caused troubles • Excludes Subsequent reports

	• Excludes Message Reports (circuit reports which ILEC has no records on) • Excludes ILEC employee generated reports • Excludes customer caused misses • Includes LNP NXX Code Opening Troubles
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Maintenance Disposition codes as diagnostic data upon a request for raw data.

Maintenance — Measure 21

Title: Average Time to Restore

Area	*Requirement Description*
Description	Measures the average duration of customer trouble reports from the receipt of the customer trouble report to the time the trouble is cleared.
Method of Calculation	(Total duration of customer network trouble reports) / (Total customer network trouble reports)
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates
Reported By	• By service group type • By dispatch and no dispatch
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DSO	
UNE Loops - XDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/ DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Res. POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	
LNP	LNP	LNP	

Business Rules	• Excludes CPE and IEC/CLEC caused troubles • Excludes Subsequent reports • Excludes Message Reports (circuit reports which ILEC has no records on) • Excludes ILEC employee generated reports • Includes LNP NXX Code Opening troubles • Elapsed time is measured on a 24-hour-a-day, seven-days-a-week basis.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Maintenance Disposition codes as diagnostic data upon a request for raw data.

Maintenance — Measure 22

Title: POTS Out of Service Less Than 24 Hours

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the percent of POTS out-of-service trouble reports cleared in less than 24 hours.</td></tr>
<tr><td>Method of Calculation</td><td>[(Total number of out of service network troubles cleared in less than 24 hours) / (Total number of out of service network troubles reported)] x 100

Note: For non-design services only</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>By POTS Residence and Business (Resale), UNE Loops -Non-Designed, and UNE Subloops – Voice Grade</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for this measurement.
<table>
<tr><th>Disaggregation Level

Resale</th><th>CLEC</th><th>Competitive Comparison

Parity</th><th>Benchmark</th></tr>
<tr><td>Res. POTS
Bus. POTS</td><td>Res POTS
Bus POTS</td><td>Res POTS
Bus POTS</td><td></td></tr>
<tr><td>UNBUNDLED NETWORK ELEMENTS</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops</td><td></td><td></td><td></td></tr>
<tr><td>UNE Loops Non-Designed</td><td>UNE Loops Non-Designed</td><td>Bus. POTS Dispatched</td><td></td></tr>
<tr><td>UNE Subloops - Voice Grade</td><td>UNE Subloops - Voice Grade</td><td>Bus. POTS Dispatched</td><td></td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>• Residential and Business POTS only
• Excludes no access
• Interval for tickets received Saturday and Sunday begins no later than Monday morning
• Excludes CPE and IEC/CLEC caused troubles
• Excludes Subsequent reports
• Excludes Message Reports (circuit reports for which ILEC has no records)
• Excludes ILEC employee generated reports</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.
• Sprint will provide disaggregation by Maintenance Disposition codes as diagnostic data upon a request for raw data.</td></tr>
</table>

Maintenance — Measure 23

Title: Frequency of Repeat Troubles in 30 Day Period

Area	*Requirement Description*
Description	Measures the percent of customer network trouble reports received within 30 calendar days of a previous report.
Method of Calculation	[(Total customer network trouble reports received within 30 calendar days of a previous customer report) / (Total customer network trouble reports)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, ILEC, and ILEC Affiliates
Reported By	By service group type
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level	**CLEC**	**Competitive Comparison**	
Resale		**Parity**	**Benchmark**
Res POTS	Res POTS	Res POTS	
Bus POTS	Bus POTS	Bus POTS	
ISDN BRI	ISDN BRI	ISDN BRI	
CENTREX	CENTREX	CENTREX	
PBX	PBX	PBX	
DDS	DDS	DDS	
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI	
DS3	DS3	DS3	
VGPL/DS0	VGPL/DS0	VGPL/DS0	
UNBUNDLED NETWORK ELEMENTS			
UNE Loops			
UNE Loops Non-Designed	UNE Loops Non-Designed	Bus. POTS Dispatched	
UNE Loops Designed	UNE Loops Designed	DDS and VGPL/DSO	
UNE Loops - xDSL Provisioned	UNE Loops - xDSL Provisioned	Retail xDSL	
Line Sharing	Line Sharing	Retail xDSL	
UNE Subloops – Voice Grade	UNE Subloops – Voice Grade	Bus. POTS Dispatched	
UNE Subloops – Data	UNE Subloops – Data	Retail xDSL	
Dark Fiber	Dark Fiber	DS3	
UNE Ports	UNE Ports	DS1/ISDN PRI	
EELS	EELS	DS1/ISDN PRI, DS3, VGPL/DS0	
UNE Dedicated Transport	UNE Dedicated Transport	DS1/ISDN PRI, DS3	
UNE Platform	UNE Platform	Resl POTS, Bus. POTS, ISDN BRI, Centrex, PBX	
Interconnection Trunks	Interconnection Trunks	ILEC Dedicated Trunks	
LNP	LNP	LNP	

Business Rules	• Excludes CPE and IEC/CLEC caused troubles • Excludes troubles associated with inside wiring • Excludes Subsequent reports

	• Excludes Message Reports • Excludes ILEC employee generated reports • Includes LNP NXX Code Opening troubles
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will provide disaggregation by Maintenance Disposition codes as diagnostic data upon a request for raw data.

Network Performance — Measure 24

Title: Percent Blocking on Common Trunks

Area	*Requirement Description*
Description	Measures the total percentage of blockage across all common and shared transport trunk groups exceeding 1% blockage. Note: Includes list of trunks exceeding 1% benchmark
Method of Calculation	[(Total blocked calls across all common and shared transport trunk groups)/(Total call attempts count across all common and shared transport trunk groups)] x 100
Report Period	Monthly
Report Structure	Reported by common/shared transport trunk group
Reported By	State
Geographic Level	Statewide
Measurable Standards	

Disaggregation Level	CLEC	Competitive Comparison Parity	Competitive Comparison Benchmark
State	Common Trunk Group		No more than 1%

Business Rules	• Exclude 911 trunks except where ILEC has augmentation control. • Excludes the maintenance window (12am local time to 6am local time. • Internal traffic data collection procedures exclude force majeur (Acts of God, Natural Disasters, etc.) • Measured by: - Total trunk groups - Percent Blocking
Notes	• Common trunk groups provide service to all customers, therefore, there is one result for both CLEC and ILEC.

Network Performance — Measure 25

Title: Percent Blocking on Interconnection Trunks

Area	*Requirement Description*			
Description	Measures the total percent of blockage on final dedicated interconnection trunk groups exceeding 1% blockage.			
Method of Calculation	[(Total blocked calls across all final dedicated interconnection trunk groups per CLEC)/(Total call attempts count across all final dedicated interconnection trunk groups per CLEC)] x 100			
Report Period	Monthly			
Report Structure	Individual CLEC, CLECs in the aggregate, and ILEC Affiliates			
Reported By	State			
Geographic Level	Statewide			
Measurable Standards				
	Disaggregation Level	**CLEC**	**Competitive Comparison**	
			Parity	**Benchmark**
	State	**Interconnection Trunks**		**No more than 1% blockage**
Business Rules	• Only measured on trunks where ILEC has outgoing traffic to CLECs and where ILEC controls trunk capacity. • Threshold exception trunk detail. • Internal traffic data collection procedures exclude force majeur (Acts of God, Natural Disasters, etc.) • Excludes the maintenance window (12am local time to 6am local time. • Applies to those trunks where the ILEC has augmentation control • Does not apply when trunks are provisioned as two-way trunks.			
Notes	• Measured by: - Total trunk groups - Threshold exceptions - ILEC end office to CLEC end office - ILEC tandem to CLEC end office • Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.			

Network Performance **Measure 26**

Title: NXX Loaded by LERG Effective Date

Area	*Requirement Description*
Description	Measures the number of NXXs loaded and tested by the LERG effective date.
Method of Calculation	[((Number of NXXs loaded and tested by LERG effective date) / (Number of NXXs scheduled to be loaded and tested by LERG effective date))] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates
Reported By	Reported for all NXX codes scheduled to be loaded in reporting period
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for this measurement.

Disaggregation Level	**CLEC**	**Competitive Comparison**	
		Parity	**Benchmark**
CLLI	CLEC NXXs loaded	ILEC NXXs loaded	

Business Rules	• Excludes any NXX codes with requested loading interval of less than the industry standard (currently 45 calendar days). • Excludes any NXX code facilities that cannot be completely tested because the CLEC has not provided an accurate test number or because CLEC facilities have not been installed.
Notes	• NXX loading procedures include central office/tandem translations, verification of translations, call through testing, and AMA testing. • Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Billing — Measure 28

Title: Usage Timeliness

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>This measure captures the elapsed time between the recording of usage data generated either by CLEC retail customers or access usage associated with CLEC customers and the time when the data set, in a compliant format, is available for transmission to the CLEC.</td></tr>
<tr><td>Method of Calculation</td><td>For Resale and UNE Messages:
Sum [(Data Set Transmission Availability Date) – (Date of Message Recording)] / (Count of all messages transmitted within a calendar month of reporting period)

Access:
[(Count of all messages available within 5 days) / (Count of all messages available for transmission in reporting period)] x 100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLECs, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>• Resale
• UNE
• Jointly provided switched access (associated with meet point billing)</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for certain levels of disaggregation for this measurement.
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th colspan="2">Competitive Comparison
Parity | Benchmark</th></tr>
<tr><td>Resale</td><td>CLEC End user messages</td><td>Sprint End user messages</td><td></td></tr>
<tr><td>UNE – Unbundled Network Element</td><td>CLEC billing messages</td><td>Sprint End user messages</td><td></td></tr>
<tr><td>Access (Associated with Meet Point Billing Only)</td><td>CLEC access billing messages</td><td></td><td>95% within 5 days</td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>▪ The reporting period used will be calendar month (based upon the message process date).
▪ Only Automated Message Accuracy (AMA) messages recorded by Sprint LTD are included. Alternate Billed Message and Connecting Company messages recorded by other companies are excluded.
▪ Long duration calls are excluded because the message date does not accurately reflect the date on which the message was recorded. Long duration calls are defined as calls that remain connected through two successive midnights.</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.</td></tr>
</table>

	• This measurement assumes a daily transmission of usage to the CLECs. If the CLECs do not request daily transmissions, the measurement still applies based upon transmission availability date, however the actual timeliness of the usage received by the CLEC will vary depending upon their requirements for frequency of transmissions (e.g. weekly).

Billing — Measure 29

Title: Accuracy of Usage Feed

Area	Requirement Description
Description	Measures the completeness of content, accuracy of information and conformance of formatting of the records the ILEC transmits to the CLEC in the reporting period. *Note: This data will be reported by CLECs. If no data received from CLEC, ILEC will not report the measure.*
Method of Calculation	((Number of Usage Records Delivered in the Reporting Period That Reflected Complete Information Content and Proper Formatting) / (Total Number of Usage Records Transmitted)) x 100
Sprint Measurement Formula	**Sprint is NOT required to report this measure.**
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate
Reported By	
Geographic Level	Statewide
Measurable Standards	**Benchmark for Sprint:** ***There is agreement that performance standard for this measure will not be established until a meeting with both ILECs and CLECs is held and criteria for this measure are defined and accepted by all parties.***
Business Rules	
Notes	

Billing — Measure 30

Title: Wholesale Bill Timeliness

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>This measure captures the elapsed number of calendar days between the scheduled close of a Bill Cycle and the ILEC's transmission availability of the associated invoice to the CLEC.</td></tr>
<tr><td>Method of Calculation</td><td>[(Count of Invoices where difference between distribution date and bill date is less than or equal to 10) / (Count of Total Invoices Distributed within the Reporting Period)] x100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC, CLECs in the aggregate, and by ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>• Resale
• UNE
• Facilities/Interconnection</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th>Competitive Comparison
Parity</th><th>Benchmark</th></tr>
<tr><td>Resale</td><td>CLEC Invoices</td><td></td><td>99% within 10 calendar days</td></tr>
<tr><td>UNE</td><td>CLEC Invoices</td><td></td><td>99% within 10 calendar days</td></tr>
<tr><td>Facilities/Interconnection</td><td>CLEC Invoices</td><td></td><td>99% within 10 calendar days</td></tr>
</table>
</td></tr>
<tr><td>Business Rules</td><td>• Includes only mechanized bills.
• Excludes paper bill, magnetic bill, CD ROM bill or Custom Bill diskette bill.</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.</td></tr>
</table>

Billing — Measure 31

Title: Usage Completeness

Area	*Requirement Description*
Description	Measures the percentage of usage charges appearing on the correct bill. *Correct bill = next available bill
Method of Calculation	[(Count of usage charges on the bill that were recorded within last 30 billing days) / (Total count of usage charges on the bill)] x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates
Reported By	• Resale • UNE • Facilities/Interconnection
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for certain levels of disaggregation for this measurement.

Disaggregation Level	CLEC	Competitive Comparison	
		Parity	Benchmark
Resale	IntraLATA toll messages sent-paid	Sprint IntraLATA toll messages sent-paid	
UNE	Minutes of use		95% complete
Facilities/Interconnection	Minutes of use		95% complete

Business Rules	• Excludes summarized charges. • Billing dataset will be defined as charges occurring in past monthly period and processed within 3 calendar days of the end of the billing month. • Resale long duration calls are excluded because the message date does not accurately reflect the date on which the message was recorded. Long duration calls are defined as calls that remain connected through two successive midnights.
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Billing — Measure 32

Title: Recurring Charge Completeness

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the percentage of fractional recurring charges appearing on the correct bill.
* Correct bill = next available bill</td></tr>
<tr><td>Method of Calculation</td><td>[(Count of fractional recurring charges that are on the correct bill*) / (Total count of fractional recurring charges that are on the bill)] x 100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>• Resale
• UNE
• Facilities/Interconnection</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for certain levels of disaggregation for this measurement.
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th colspan="2">Competitive Comparison
Parity | Benchmark</th></tr>
<tr><td>Resale</td><td>Number of fractional OCCs</td><td>Number of fractional OCCs</td><td></td></tr>
<tr><td>UNE</td><td>% charges on correct bill</td><td></td><td>90% Complete</td></tr>
<tr><td>Facilities/Interconnection</td><td>% charges on correct bill</td><td></td><td>90% Complete</td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>• Billing dataset will be defined as charges occurring in past monthly period and processed within 3 calendar days of the end of the billing month.
• Excludes late charges resulting from mandated billing changes if Sprint makes its changes on time.</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.</td></tr>
</table>

Billing — Measure 33

Title: Non-Recurring Charge Completeness

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the percentage of non-recurring charges appearing on the correct bill.
* Correct bill = next available bill</td></tr>
<tr><td>Method of Calculation</td><td>[(Count of non-recurring charges that are on the correct bill) / (Total count of non-recurring charges that are on the bill)] x 100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>• Resale
• UNE
• Facilities/Interconnection</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for certain levels of disaggregation for this measurement.
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th colspan="2">Competitive Comparison
Parity | Benchmark</th></tr>
<tr><td>Resale</td><td>Total number of non-recurring OCCs</td><td>Total number of non-recurring OCCs</td><td></td></tr>
<tr><td>UNE</td><td>% of charges on correct bill</td><td></td><td>90% complete</td></tr>
<tr><td>Facilities/Interconnection</td><td>% of charges on correct bill</td><td></td><td>90% complete</td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>• Billing dataset will be defined as charges occurring in past monthly period and processed within 3 calendar days of the end of the billing month.
• Excludes late charges resulting from mandated billing changes if Sprint makes its changes on time.</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.</td></tr>
</table>

Billing **Measure 34**

Title: Bill Accuracy

Area	*Requirement Description*
Description	Measures the percentage of the total bill amount that is not adjusted by correcting service orders or adjustments on a rolling six month average.
Method of Calculation	(Total monies billed without corrections on a rolling six month average) / (Total monies billed on a rolling six month average) x 100
Report Period	Monthly
Report Structure	Individual CLEC, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates
Reported By	• Resale - Usage - Recurring Charges - Non-Recurring Charges • UNE - Usage - Recurring Charges - Non-Recurring Charges • Facilities/Interconnection - Usage - Recurring Charges - Non-Recurring Charges
Geographic Level	Statewide
Measurable Standards	Sprint is required to provide a retail analog for certain levels of disaggregation for this measurement.

Disaggregation Level **Resale**	**CLEC**	**Competitive Comparison** **Parity**	**Benchmark**
Usage	Total Dollars billed and adjustments for usage	Total Dollars billed and adjustments for usage – Diagnostic Only	
Recurring Charge	Total Dollars billed and adjustments for recurring charges	Total Dollars billed and adjustments for recurring charges – Diagnostic Only	
Non-recurring Charges	Total Dollars billed and adjustments for non-recurring charges	Total Dollars billed and adjustments for non-recurring charges – Diagnostic Only	
UNE			
Usage	Total Dollars billed and adjustments for usage		Diagnostic Only
Recurring Charge	Total Dollars billed and adjustments for recurring		Diagnostic Only

	Non-recurring Charges	Total Dollars billed and adjustments for nonrecurring		Diagnostic Only
	Facilities/Interconnection			
	Usage	Total Dollars billed and adjustments for usage		Diagnostic Only
	Recurring Charges	Total Dollars billed and adjustments for recurring		Diagnostic Only
	Non-recurring Charges	Total Dollars billed and adjustments for nonrecurring		Diagnostic Only
Business Rules	• Excludes Uncollectable status accounts, restoration charges, non-recurring charges billed in installments, non-regulated charges, refunds of deposits, transfer of payments or balances, returned check charges, taxes, and surcharges. • Excludes adjustments issued for reasons not related to bill accuracy.			
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions. • Sprint will propose a benchmark in the 2003 filing, per agreement of 2002 Workshops.			

Billing — Measure 36

Title: Accuracy of Mechanized Bill Feed

Area	*Requirement Description*
Description	Measures the percentage of mechanized bill feeds that are accurately passed to the CLEC in the reporting period. **Sprint is NOT required to report this measure.** *Note: This data will be reported by CLECs. If no data received from CLEC, ILEC will not report the measure.*
Method of Calculation	(Total # of files that passed / Total # of files sent in that reporting period) x 100
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate
Reported By	
Geographic Level	Statewide
Measurable Standards	**Benchmark for Sprint:** **There is agreement that performance standard for this measure will not be established until a meeting with both ILECs and CLECs is held and criteria for this measure are defined and accepted by all parties.**
Business Rules	
Notes	

Database Updates — Measure 37

Title: Database Update Timeliness

Area	*Requirement Description*
Description	Measures the percentage of Directory Assistance and Directory Listings updates to databases within 24 hours.
Method of Calculation	(Count of updates completed within 24 hours in reporting period) / (Count of updates completed in reporting period) x 100
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate , ILEC and ILEC Affiliates
Reported By	Service Order generated updates
Geographic Level	Statewide
Measurable Standards	**Sprint:** Service Order Updates – Parity

Disaggregation Level	**CLEC**	**Competitive Comparison**	
		Parity	**Benchmark**
Service Orders	DA/DL Updates	DA/DL Updates	

Business Rules	• The start time of requests received after the end of the business day will be the beginning of the next business day. • Business day is defined as published hours of operation for the ILEC ordering center.
Notes	• CLECs reserve the right to request additional databases be included in this measure. Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

Database Updates — Measure 38

Title: Percent Database Accuracy

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>The percentage of E911and DA records that were updated by Sprint in error. The data required to calculate this measurement will be provided by the CLEC. The CLEC will provide the number of records transmitted and the errors found. Sprint will verify the records determined to be in error to validate that the records were input by Sprint incorrectly. An update is completed without error if the database completely and accurately reflects the activity specified on the order submitted by the CLEC.
E911 Databases
Directory Assistance/Listings Database</td></tr>
<tr><td>Method of Calculation</td><td>[(Count of Updates Completed without error) / (Count of Updates Completed)]x 100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLECs, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>For E911 Database:
Service Order generated updates
Direct gateway input
For DA/Listings:
Service Order generated updates</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for this measurement.
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th colspan="2">Competitive Comparison</th></tr>
<tr><th></th><th></th><th>Parity</th><th>Benchmark</th></tr>
<tr><td>E911</td><td></td><td></td><td></td></tr>
<tr><td>Service Order</td><td>Number Updates</td><td>Number Updates</td><td></td></tr>
<tr><td>Direct Gateway</td><td></td><td></td><td>TBD</td></tr>
<tr><td>Directory Assistance / Directory Listing</td><td></td><td></td><td></td></tr>
<tr><td>Service Order</td><td>Number Updates</td><td>Number Updates</td><td></td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>Excludes CLEC caused errors</td></tr>
<tr><td>Notes</td><td>CLECs reserve the right to request additional databases be included in this measure.
Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.</td></tr>
</table>

Database Updates — Measure 39

Title: E911 MS Database Update

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the percentage of E911 database updates completed within 48 hours.</td></tr>
<tr><td>Method of Calculation</td><td>(Number of records updated within 48 hours) / (Total number of records updated) x 100</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLECs, CLECs in the aggregate, by ILEC (if analog applies) and by ILEC Affiliates</td></tr>
<tr><td>Reported By</td><td>Update types</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint is required to provide a retail analog for certain levels of disaggregation for this measurement.
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th colspan="2">Competitive Comparison</th></tr>
<tr><th></th><th></th><th>Parity</th><th>Benchmark</th></tr>
<tr><td>Service Order Update</td><td>911 Updates</td><td>911 Updates</td><td></td></tr>
<tr><td>Direct Gateway Update</td><td>% Updates within 48 hours</td><td></td><td>99% in 48 hours</td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td>• Excludes scheduled system outages.
• Excludes Carrier caused delays due to requests to put file on hold or delays in processing records due to invalid data or invalid file formats (i.e. CLEC caused errors).
• Interval is measured in clock hours.</td></tr>
<tr><td>Notes</td><td>• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection, and the CLECs under proprietary information provisions.
• For this measurement, Sprint will provide a retail analog for retail to resale customers and a benchmark for those facility based CLEC carriers that use Sprint to load their ALI records to the PSAPs via file transfer methods</td></tr>
</table>

Collocation — Measure 40

Title: Time to Respond to a Collocation Request

Area	*Requirement Description*
Description	Measures the percentage of time the ILEC responds to a CLEC complete collocation request, within the allotted time.
Method of Calculation	**Space Availability:** [(Count of Complete Requests returned within 15 calendar days) / (Count of requests returned for Space Availability)] x 100 **Price and Schedule Quote:** **[(Count of Complete Requests Returned within 15 calendar days) /** (Count of requests returned for Price and Schedule Quote)] x 100 **Right Of Way Required:** [(Count of complete Space Availability requests requiring ROW permits returned within 15 calendar days)/(Count of Space Availability requests returned that required ROW permits)] x 100 **ICB (Individual Case Basis) Quote:** [(Count of complete ICB Price and Schedule Quote requests returned within 15 calendar days)/(Count of ICB Price and Schedule Quote requests)] x 100
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate and by ILEC Affiliates
Reported By	• All Collocation Types: Caged, Cageless, Virtual, and Other • Space Availability • Price and Schedule Quote • Space Availability Requests Requiring ROW Permits • Price and Schedule Quotes for non-Commission Approved Price List requests with Individual Case Basis (ICB) requirements
Geographic Level	Statewide
Measurable Standards	Benchmark

Disaggregation Level	CLEC	Competitive Comparison	
		Parity	Benchmark
Space Availability:			
Physical Caged	Space Availability Requests		100% in 15 Calendar days
Physical Cageless	Space Availability Requests		100% in 15 Calendar days
Virtual	Space Availability Requests		100 % in 15 Calendar days
Other	Space Availability Requests		100% in 15 Calendar days
ROW	Space Availability Requests		100% in 15 Calendar days

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Sprint Performance Measurements Report Requirements

	Price and Schedule Quote			
	Physical Caged	Price and Schedule Quotes		100% in 15 Calendar days
	Physical Cageless	Price and Schedule Quotes		100% in 15 Calendar days
	Virtual	Price and Schedule Quotes		100% in 15 Calendar days
	Other	Price and Schedule Quotes		100% in 15 Calendar days
	ICB Requests	ICB Price and Schedule Quotes		100% within 15 Calendar days
Business Rules	• Excludes orders canceled by CLEC • Excludes requests/applications that are incomplete and must be returned to CLEC for completion. The new completed version counts as a new request. • If a CLEC submits ten or more applications within ten calendar days the initial 15 day response period will increase by 10 days for every additional 10 applications. • Sprint will provide a tracking log for ROW requests that provide the following component: Name of agency contacted, date ROW request submitted to the agency, and date ROW received from agency.			
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.			

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Collocation — Measure 41

Title: Time to Provide a Collocation Arrangement

Area	Requirement Description
Description	Measures the percentage of time the ILEC responds to the CLEC approved* collocation request, within the allotted time. *Approved means ILEC approves the application and has received, from CLEC, financial payment or bond.
Method of Calculation	**New Arrangement (Physical Caged, Physical Cageless, Other):** [(Count of Collocation Arrangements completed within 90 calendar days) / (Count of Collocation Arrangements Completed)] x 100 **New Arrangement (Virtual):** [(Count of Collocation Arrangements completed within 60 calendar days) / (Count of Collocation Arrangements Completed)] x 100 **Augment Arrangement:** [(Count of Collocation Arrangements completed within 45 calendar days) / (Count of Collocation Arrangements Completed)] x 100
Report Period	Monthly
Report Structure	Individual CLECs, CLECs in the aggregate and by ILEC Affiliates
Reported By	• All Collocation Types: Caged, Cageless, Virtual, and Other • New • Augment
Geographic Level	Statewide

Measurable Standard

Disaggregation Level	CLEC	Competitive Comparison	
		Parity	Benchmark
New Arrangement			
Physical Caged	Collocation Arrangements		100% within 90 days
Physical Cageless	Collocation Arrangements		100% within 90 days
Virtual	Collocation Arrangements		100% within 60 days
Other	Collocation Arrangements		100% within 90 days
Augment Arrangement			
Physical Caged	Collocation Arrangements		100% within 45 days
Physical Cageless	Collocation Arrangements		100% within 45 days
Virtual	Collocation Arrangements		100% within 45 days
Other	Collocation Arrangements		100% within 45 days

Business Rules	• Excludes orders canceled by CLEC • Excludes requests/applications that are incomplete and must be returned to CLEC for completion
Notes	• Sprint agrees to provide affiliate data to the PUC, Bureau of Consumer Protection and the CLECs under proprietary information provisions.

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Interfaces — Measure 42

Title: Percentage of Time Interface is Available

Area	*Requirement Description*
Description	Measures percent of time OSS interface is available compared to scheduled availability.
Method of Calculation	[((Number of Scheduled Interface Available Hours) - (Number of Unscheduled Interface Unavailable Hours)) / (Scheduled Interface Available Hours)] x 100
Report Period	Monthly
Report Structure	CLECs in the aggregate
Reported By	By interface type accessed by CLECs
Geographic Level	Statewide
Measurable Standards	**Disaggregation Level** / **CLEC** / **Competitive Comparison** — **Parity** / **Benchmark** Ordering / IRES Availability / / 98.5% of scheduled hours

Business Rules	• Outage hours are obtained from outage reports
	• Any change requests for extended availability during the reporting period are added to the scheduled hours.
	• Scheduled interface availability hours:
	  • 8AM - 8PM EST (Monday-Friday)
	  • Excludes non-business days and ILEC published holidays
	  • CLECs are notified via e-mail in advance of changes to the published availability schedule

Notes	• Sprint has one interface which does both pre-ordering and ordering; therefore, both of these functions are reported under ordering. • Any outage in a source system that inhibits the system from performing pre-ordering or ordering functions is considered an outage.

Interfaces **Measure 43**

Title: Average Notification of Interface Outages

Sprint discontinued reporting of this measure effective 10-1-00

<table>
<tr><th>Area</th><th>Requirement Description</th></tr>
<tr><td>Description</td><td>Measures the time it takes the ILEC to notify the CLEC of an outage of an interface.</td></tr>
<tr><td>Method of Calculation</td><td>Sum ((Date and time of Outage Notification to CLECs)-(Date and time of ILEC awareness of Interface Outage)) / (Total Number of Interface Outages)</td></tr>
<tr><td>Report Period</td><td>Monthly</td></tr>
<tr><td>Report Structure</td><td>Individual CLEC CLECs in the aggregate</td></tr>
<tr><td>Reported By</td><td>By interface type for all interfaces accessed by CLECs</td></tr>
<tr><td>Geographic Level</td><td>Statewide</td></tr>
<tr><td>Measurable Standards</td><td>Sprint discontinued reporting of this measure effective 10-1-00
<table>
<tr><th>Disaggregation Level</th><th>CLEC</th><th colspan="2">Competitive Comparison</th></tr>
<tr><th></th><th></th><th>Parity</th><th>Benchmark</th></tr>
<tr><td>Interface Type</td><td>Number of Notifications</td><td></td><td>97% in 15 minutes</td></tr>
</table></td></tr>
<tr><td>Business Rules</td><td></td></tr>
<tr><td>Notes</td><td></td></tr>
</table>

Interfaces **Measure 44**

Title: Center Responsiveness

Area	*Requirement Description*
Description	Measures the average time it takes the ILEC's work center to answer a call.
Method of Calculation	(Date and Time of Call answer – (Date and Time of Call Receipt)/ (Total calls answered by center))
Report Period	Monthly
Report Structure	CLECs in the aggregate, and by ILEC (if analog applies)
Reported By	• ILEC Ordering Center • ILEC Repair Center
Geographic Level	Statewide
Measurable Standards	

Disaggregation Level	**CLEC**	**Competitive Comparison**	
		Parity	**Benchmark**
Ordering Center	ACD Inc Calls		20 Sec
Repair Center (Designed)	ACD Inc Calls	Parity by design	
Repair Center (Non-Designed)	ACD Inc Calls		20 Sec

Business Rules	• Does not include abandoned calls. • Measured by individual queue, if applicable, in each ILEC center.
Notes	

REPORTING PROCESS

Performance reports will be provided by the fifteenth calendar day of the month succeeding the reporting period. The reporting period is the calendar month, unless otherwise noted. Positive reporting will be done for all measures, even those reported on an exception only basis.

If the CLEC announces they will discontinue service to all of their end users, performance reporting for the CLEC will cease on the last day of the month of the discontinuation month.

When reporting begins on a new measure or for a new CLEC, the ILEC is only required to report results after a full calendar month of data is available. CLEC failure to provide an Operating Company Number (OCN) on orders will result in those orders being excluded from the CLEC Service Performance Measurements. Exclusions based on application of business rules apply to both the numerator and denominator of the Method of Calculation with the exception of Measure 2.

For those measures where results appear to be statistically less than parity or not meeting the benchmark level, the ILEC will perform analysis of the data upon CLEC request. This analysis will detail the underlying causes contributing to the reported performance results. Within 90 days of the web-site publication of monthly results, a report recipient may request an analysis of a measurement that is less than parity or not meeting the benchmark. The ILEC will provide the analysis within 45 days of the request.

Authorized users will have access to monthly reports through an interactive web-site. Each CLEC will have access to its own data, aggregate CLEC data, and ILEC data. The Public Utilities Commission will have access to reports for all entities, including ILEC Affiliate data. ILEC Affiliate data will not be included in CLEC aggregate data.

In addition to the performance measure results themselves, Sprint will provide data which comprise the results and which are readily available from the systems that provides the reportable data. Raw data will be archived for a period of 24 months to provide an adequate audit trail and will be retained with sufficient detail so that CLECs can reasonably reconcile the data captured by the ILEC (for the CLEC) with its own internal data. Furthermore, data that relates to the ILEC's own performance will be retained, at a consistent level of disaggregation comparable to that reported for the CLECs.

SERVICE GROUP TYPES

Service Group Type	Sprint	CLEC
RESALE		
Residential POTS	Residential POTS	Residential POTS
Business POTS	Business POTS	Business POTS
ISDN BRI	ISDN BRI	ISDN BRI
Centrex	Centrex	Centrex
PBX	PBX	PBX
DDS	DDS	DDS
DS1/ISDN PRI	DS1/ISDN PRI	DS1/ISDN PRI
DS3	DS3	DS3
VGPL/DS0	VGPL/DS0	VGPL/DS0
UNBUNDLED NETWORK ELEMENTS		
UNE Loops Designed 5.5 dB 2 or 4 wire analog assured 2 wire Digital ISDN Capable	DDS, VGPL/DS0	UNE Loops Designed
UNE Loops xDSL Provisioned	Retail xDSL	UNE Loops xDSL Provisioned
UNE Loops Non-Designed 8dB weighted 2/4 wire analog basic/Coin	Bus. POTS Dispatched	UNE Loops Non-Designed
UNE Ports	DS1/ISDN PRI	UNE Ports
UNE Platform (i.e., loop + port + transport)	Res POTS, Bus POTS, ISDN BRI, Centrex, PBX	UNE Platform
UNE Sub Loops – Voice Grade	Bus. POTS Dispatched	UNE Sub Loops – Voice
UNE Sub Loops – Data	Retail xDSL	UNE Sub Loops – Data
UNE Dedicated Transport	DS1/ISDN PRI, DS3	UNE Dedicated Transport
Line Sharing	Retail xDSL	Line Sharing
Dark Fiber	DS3	Dark Fiber
EELS	DS1/ISDN PRI, DS3, VGPL/DS0	EELS
Interconnection Trunks	ILEC Dedicated Trunks	Interconnection Trunks
LNP	LNP	LNP
Projects	Projects as defined below.	Projects as defined below.

INTERCONNECTION TRUNKS will be included in measures: 2, 7, 8, 11, 12, 13, 14, 19, 20, 21, 23, 25, 30, 31, 32, 33, 34.

LNP is considered a facilities based service group type. LNP will be a level of disaggregation for the following measures: 2, 4, 9, 15, 17a, 19, 20, 21, and 23. Service orders with multiple service group types will be categorized according to the service group type of the first access line entered on the order.

PROJECTS are defined as follows:
"Project is a planned event where terms and conditions in which work is performed is agreed to by both the CLEC, Sprint and any other party engaged in the provisioning process. To allow for successful turn-up of facilities or conversion of facilities, each party must negotiate, in good faith, the timelines that allow required activities to be met, equipment ordered, placed and tested to meet the overall objectives of the project. The timeline must meet the

rule of reasonable and prudent business practices. If the activity is not agreed to be a project, the transaction will be reported in the appropriate service group type."

SERVICE ORDER TYPES

- **New Service Installations**
- **Service Migrations without Changes**
- **Service Migrations with Changes**
- **Move and Change activities**
- **Feature Changes**
- **Service Disconnects**

AUDITING

The parties support a comprehensive audit of the ILECs' reporting procedures and reportable data if the PUC, BCP or greater than 50% of CLECs agree an audit is desired. This audit would be on behalf of all CLECs and would be performed by independent auditors. Each ILEC shall submit its annual comprehensive audit to the commission, and distribute copies (which include only non-proprietary information) to parties on the Commission's service list in this proceeding.

The cost of this audit would be shared between the CLECs and the audited ILEC.

In addition to an audit, the ILECs and CLECs agree that the CLECs would have the right to mini-audits of individual performance measures during the year. When a CLEC has reason to believe the data collected for a measure is flawed or the reporting criteria for the measure is not being adhered to, it has the right to have a mini-audit performed on the specific measure upon written request (including e-mail), which will include the designation of a CLEC representative to engage in discussions with the ILEC about the requested mini-audit. If, 45 days after the CLEC's written request, the CLEC believes that the issue has not been resolved to its satisfaction, the CLEC will commence the mini-audit upon providing the ILEC with 5 business days advance written notice. Each CLEC would be limited to auditing five single measures during the year. The CLEC would pay for the mini-audit, including the ILEC's reasonable associated costs and expenses, unless the ILEC is found to be misreporting or misrepresenting data or to have non-compliant procedures, in which case, the ILEC would pay for the mini-audit, including the CLECs' reasonable associated costs and expenses. If, during a mini-audit of individual measures, more than 50% of the measures in a major service category are found to have flawed data or reporting problems, the entire service category will be re-audited at the expense of the ILEC. The major service categories for this purpose are:

- Pre-Ordering
- Ordering
- Provisioning
- Maintenance
- Network Performance
- Billing
- Database Updates
- Collocation
- Interfaces

Each mini-audit shall be submitted to the Commission as a proprietary document subject to the applicable protection afforded by Nevada Administrative Code 703.527 through 703.5282.

REVIEW PROCEDURES

As experience is acquired under this Stipulation Agreement with the new performance measurements and underlying business processes, the Parties expect to learn which measurements set forth in Section II may not have been properly defined or are more or less useful than others. The Parties also expect that experience will show whether new measurements are needed or whether certain existing measurements are not needed or require modification. Accordingly, the Parties agree to reconvene in the period dictated by NAC.704.680303 to review the effectiveness of and modifications to the performance measurements approved by the Commission in this proceeding. In the event the Parties cannot agree on any addition, deletion or modification, they will jointly submit such dispute for resolution by the Nevada PUC.

If, prior to the agreed-upon review date, there is consensus that one or more measures are not effective, the parties will schedule meetings to discuss modifying the measure(s) or process(es). If there is no consensus, any individual party seeking formal review by the Nevada PUC shall give notice to the other parties of its intent to do so. The party will also describe the action it intends to take and the reason(s) for its proposed actions.

DEFINITION OF TERMS

TERM	DEFINITION
Automatic Location Identifier (ALI)	The feature of E911 that displays at the Public Safety Answering Point (PSAP) the street address of the calling telephone number. This feature requires a data storage and retrieval system for translating telephone numbers to the associated address. ALI may include Emergency Service Number (ESN), street address, room or floor, and names of the enforcement, fire and medical agencies with jurisdictional responsibility for the address. The Management System (E911) database is used to update the Automatic E911 Location Identifier databases.
Affiliate	An entity that (directly or indirectly) owns or controls, is owned or controlled by, or is under common ownership or control with another entity. The Telecommunications Act defines "Own" as owning an equity interest (or equivalent thereof) of more than 10 percent, or as defined by state commissions."
Benchmark Measurable Standards	Benchmark measures have an agreed upon standard to determine compliance due the lack of a meaningful retail analog comparison.
Call Blocking	A condition on a telecommunications network where, due to a maintenance problem or an over capacity situation in a part of the network, some or all originating or terminating calls cannot reach their final destinations. Depending on the condition and the part of the network affected, the network may make subsequent attempts to complete the call or the call may be completely blocked. If the call is completely blocked, the calling party will have to re-initiate the call attempt.
Centralized Data Collection	Centralized Data Collection system collects hourly operational measurement data from switches/trunks groups for the LTD, and provides a direct feed to CIRAS. The information is used for traffic forecasting by trunk capacity planners.
Code Opening	Process by which new NPA/NXXs (area code/prefix) are defined, through software translations to network databases and switches, in telephone networks. Code openings allow for new groups of telephone numbers (usually in blocks of 10,000 or less with number pooling) to be made available for assignment to an ILEC's or CLEC's customers, and for calls to those numbers to be passed between carriers.
Common Channel Signaling System 7 (CCSS7)	A network architecture used to for the exchange of signaling information between telecommunications nodes and networks on an out-of-band basis. Information exchanged provides for call set-up and supports services and features such as CLASS and database query and response.
Common Transport	Trunk groups between tandem and end office switches that are shared by more than one carrier, often including the traffic of both the ILEC and several CLECs.
Completion	The time in the order process when the service has been provisioned and service has been deployed.
Completion Notice	A notice the ILEC provides to the CLEC to inform the CLEC that the requested service order activity is complete.
Coordinated Hot Cut	Coordinated Customer Conversion of Orders that have a due date negotiated between the ILEC, the CLEC, and the customer so that work activities can be performed on a coordinated basis under the direction of the receiving carrier.
Customer Requested Due Date	A specific due date requested by the customer which is either shorter or longer than the standard interval or the interval offered by the ILEC.
Customer Trouble Reports	A report that the carrier providing the underlying service opens when notified that a customer has a problem with their service. Once resolved, the status of the trouble is changed to closed.
Dedicated Transport	A network facility reserved to the exclusive use of a single customer, carrier or pair of carriers used to exchange switched or special, local exchange, or exchange access traffic.

DEFINITION OF TERMS

TERM	DEFINITION
Delayed Order	An order which has been completed after the scheduled due date and/or time
Diagnostic Measurable Standards	This indicates that the results per the measurement will be reported for analysis purposes only and are not subject to determination of compliance or non-compliance.
Directory Assistance Database	A database that contains subscriber records used to provide live or automated operator-assisted directory assistance. Including 411, 555-1212, NPA-555-1212.
Directory Listings	Subscriber information used for DA and/or telephone directory publishing, including name and telephone number, and optionally, the customer's address.
DS-0	Digital Service Level 0. Service provided at a digital signal speed commonly at 64 kbps, but occasionally at 56 kbps.
DS-1	Digital Service Level 1. Service provided at a digital signal speed of 1.544 Mbps.
DS-3	Digital Service Level 3. Service provided at a digital signal speed of 44.736 Mbps.
Due Date	The date provided on the FOC the ILEC sends the CLEC identifying the planned completion date for the order.
End Office Switch	A switch from which an end users' exchange services are directly connected and offered.
Firm Order Confirmation (FOC)	Notice the ILEC sends to the CLEC to notify the CLEC that it has received the CLECs service order, created a service request, and assigned it a due date.
Flow-Through	The term used to describe whether a LSR electronically is passed from the OSS interface system to the ILEC legacy system to automatically create a service order. LSRs that do not flow through require manual intervention for the service order to be created in the ILEC legacy system.
Held Order	An order for which the ILEC has issued a FOC, but whose due date has passed without it being completed.
Installation	The installation activity required to activate a service request.
Installation Troubles	A trouble, which is identified after service order activity and installation have been completed, on a customer's line. It is likely attributable to the service activity (within a defined time period).
Inside Wiring	The telecommunications wiring located at a customer's premises that extends beyond the demarcation point.
Interconnection Trunks	A network facility that is used to interconnect two switches generally of different local exchange carriers
Interface Outage	A planned or unplanned failure resulting in the unavailability or access degradation of a system.
Jeopardy	A failure in the service provisioning process which results potentially in the inability of a carrier to meet the committed due date on a service order
Jeopardy Notice	The actual notice that the ILEC sends to the CLEC when a jeopardy condition has been identified.
Lack of Facilities	A shortage of cable facilities identified after a due date has been committed to a customer, including the CLEC. The facilities shortage may be identified during the inventory assignment process, or during the service installation process. If no facilities are available, the ILEC will issue a jeopardy.

DEFINITION OF TERMS

TERM	DEFINITION
Line Sharing	Unbundling of the local loop to make the high-frequency portion of the local loop available to CLECs (DLECs), while the physical line and low-frequency voice path continues to be provided by the ILEC. Line Sharing allows customers to receive both services (voice and data) on the same line, eliminating the need for consumers to procure a second line.
Local Exchange Routing Guide (LERG)	A Telcordia master file that is used by the telecom industry to identify NPA-NXX routing and homing information, as well as network element and equipment designations. The file also includes scheduled network changes associated with activity within the North American Numbering Plan (NANP).
Local Exchange Traffic	Traffic originated on the network of a LEC in a local calling area that terminates to another LEC in a local calling area.
Local Number Portability	A network technology which allows end user customers to retain their telephone number when moving their service between local service providers. This technology does not employ remote call forwarding, but actually allows the customer's telephone number to be moved and redefined in the network of the new service provider. The activity to move the telephone number is called "porting".
Local Service Confirmation	OBF term for a FOC
Mechanized Bill	A bill that is delivered via electronic transmission.
Meet Point Billing	A billing arrangement used when two or more LECs jointly provide access to and from an interexchange carrier (IEC) for inter LATA traffic. This arrangement can be Single Bill, where one LEC bills the IEC on behalf of both LECs and remits payment to the other LEC or Multiple Bill, where each LEC bills their portion directly to the IEC.
Missed Commitment Notification	A notice from ILEC to inform CLEC that the committed due date on an order has been missed.
Non-Recurring Charge	A rate charged for a product or a service that is assessed on a one-time basis.
NXX, NXX Code or Central Office Code	The three digit switch entity indicator that is defined by the "D", "E", and "F" digits of a 10-digit telephone number within the NANP. Each NXX Code contains 10,000 station numbers.
Ordering and Billing Forum (OBF)	Industry forum which works to develop national ordering and billing standards.
Other Charges and Credits	Partial month recurring and non-recurring charges, installation, and other charges other than basic monthly charges appearing on a bill.
Parity Measurable Standards	Indicates a retail analog process or system exists and can report the ILEC and ILEC Affiliate results to be compared to the CLEC results.
Parity by Design	Parity by Design occurs where the same process or system is used for both CLEC and ILEC and does not allow the opportunity to discriminate or to recognize differences between CLEC activity and ILEC activity. As such, the results calculated will apply for all CLECs and ILEC measurable standards.
Permanent Number Portability (also known as Local or Long Term Number Portability)	A network technology which allows end user customers to retain their telephone number when moving their service between local service providers. This technology does not employ remote call forwarding, but actually allows the customer's telephone number to be moved and redefined in the network of the new service provider. The activity to move the telephone number is called "porting".

DEFINITION OF TERMS

TERM	DEFINITION
Physical Collocation	Shall have the meaning set forth in 47 C.F.R. Section 51.5.
Plain Old Telephone Service (POTS)	Refers to basic 2 wire analog residential and business services. Can include feature capabilities (e.g., CLASS features).
Projects	Service requests that exceed the line size and/or level of complexity which would allow for the use of standard ordering and provisioning processes. Generally, due dates for projects are negotiated, coordination of service installations/changes is required and automated provisioning may not be practical.
Provisioning Troubles	A trouble report that is opened for a customer's existing or new service for a trouble identified between the time of the service order creation to the time of order completion. Provisioning troubles that are associated with a CLECs customers include troubles that occur and are reported during the conversion of an ILEC customer to a CLEC.
Query Types	Pre-ordering information that is available to a CLEC that is categorized according to standards issued by OBF, the FCC and/or the Nevada PUC.
Recurring Charge	A rate charged for a product or service that is assessed each successive billing period.
Reject	A status that can occur to a CLEC submitted local service request (LSR) when it does not meet certain criteria. There are two types of rejects: syntax, which occurs if required fields are not included in the LSR and content, which occur if invalid data is provided in a field. A rejected service request must be corrected and re-submitted before provisioning can begin.
Repeat Report	Any trouble report that is a second (or greater) report on the same telephone number/circuit ID and at the same premise address within 30 days. The original report can be any category, including excluded reports, and can carry any disposition code.
Service Group Type	The designation used to identify a category of similar services, .e.g., UNE loops
Service Order	The work order created and distributed in ILECs systems and to ILEC work groups in response to a complete, valid service request.
Service Order Type	The designation used to identify the major types of provisioning activities associated with a service request
Service Request	The transaction sent from the CLEC to the ILEC to order services or to request a change(s) be made to existing services.
Standard Interval	The interval that the ILEC quotes to its customers with respect to how long it will take to provision a service request. These intervals are standardized by specific service type and type of service modification requested ILECs publish these standard intervals in documents used by their own service representatives as well as ordering instructions provided to CLECs. POTS services do not have standard intervals; their installation intervals are based on force available and workload. They may change as frequently as twice a day.
Subsequent Reports	A trouble report that is taken on a previously reported trouble prior to the date and time the initial report has a status of "cleared".
Summarized Charges	Billing charges that are aggregated on the bill, rather than individually itemized, e.g., local usage minutes on resale or retail calls, which are listed on the bill as "xx" minutes with no call detail.

DEFINITION OF TERMS

TERM	DEFINITION
Tandem Switch	Switch used to connect and switch trunk circuits between and among Central Office switches.
Time to Restore	The time interval from the receipt, by the ILEC, of a trouble report on a customer's service to the time service is fully restored to the customer.
Trouble Cause Code	A code identifying the known or suspected cause of a trouble condition.
Trouble Disposition	A code identifying the end result of diagnostic and/or repair activities on a customer trouble report.
Usage Data	Data generated in network nodes to identify switched call data on a detailed or summarized basis. Usage data is used to create customer invoices for the calls.
Usage Records	The individual call records created in a switch to report the date, time, duration, calling and called numbers associated with a given call
Virtual Collocation	Shall have the meaning set forth in 47 C.F.R. Section 51.5.

NEVADA PERFORMANCE MEASURES: GLOSSARY OF ACRONYMS

ACRONYM	DESCRIPTION
ALI	Automatic Location Identifier (for E911 systems)
AS	Affecting Service (type of trouble condition)
BDT	Billing Data Tape
BRI	Basic Rate Interface (type of ISDN service)
CHC	Coordinated "Hot" Cut
CKT	Circuit
CLEC	Competitive Local Exchange Carrier
CO	Central Office
CPE	Customer Premises Equipment
CSR	Customer Service Record
DA	Directory Assistance
dB	Decibel
DDS	Digital Data Service
DID	Direct Inward Dialing
DS0	Digital Service 0
DS1	Digital Service 1
DS3	Digital Service 3
E911 MS	E911 Management System
EAS	Equal Access Service
EDI	Electronic Data Interchange
FOC	Firm Order Confirmation
GUI	Graphical User Interface
HDSL	High-bit-rate Digital Subscriber Line
HICAP	High Capacity Digital Service
IEC	Inter-exchange Carrier
ILEC	Incumbent Local Exchange Carrier
IRES	Integrated Request Entry System
N, T, C	Service Order Types - N(new), T(to or transfer), and C(change)
ISDN	Integrated Services Digital Network
IW	Inside Wire
LATA	Local Access Transport Area
LERG	Local Exchange Routing Guide
LNP	Local (or Long Term) Number Portability

NEVADA PERFORMANCE MEASURES: GLOSSARY OFACRONYMS

ACRONYM	DESCRIPTION
LSMS	Local Service Management System
LSR	Local Service Request
MRC	Missed Appointment Reason Code
NANP	North American Numbering Plan
NDM	Network Data Mover
NPAC	Number Portability Administration Center
NXX	Telephone number prefix
OBF	Ordering and Billing Forum
OOS	Out of service (type of trouble condition)
OSS	Operations Support System
PBX	Private Branch Exchange
PON	Purchase Order Number
POTS	Plain Old Telephone Service
PRI	Primary Rate Interface (type of ISDN service)
PUC	Public Utilities Commission
SCP	Service Control Point
SGT	Service Group Type
SOT	Service Order Type
SS7	Signaling System 7
STP	Signaling Transfer Point
TN	Telephone Number
UNE	Unbundled Network Element
VGPL	Voice Grade Private Line
xDSL	(x) Digital Subscriber Line

MISSED APPOINTMENT REASON CODES
Sprint Due Date - Specials

Jeopardy Code	Description
1	Incorrect or Incomplete Order
2	Related Order Not Issued
3	Related Order Not Completed
4	Pending Cancellation
5	Pending Due Date Change
6	Local Facilities Not Available or Late
7	Local Facilities Incorrectly Assigned
8	Local Facility Records Incorrect
9	Late Local Loop Makeup
10	Defective Local Facility
11	Access Customer Facilities Not Available
12	Connecting Company Facilities Not Available
13	CIRAS Records Incomplete or Inaccurate
14	Intracompany Facilities Not Available
15	Incorrect or Late Engineering
16	This code is not currently used
17	Translation Late or Unavailable
18	Unable to Meet Design Requirements
19	Central Office Equipment Not Installed
20	Circuit Order Equipment Late or Not Available
21	Defective Equipment
22	Customer Not Ready to Test or Accept Service
23	Customer Reason/Other than Code #22
24	Change of Due Date/Customer Reason
25	Access Denied by End User Customer
26	System Not Available
27	System Edit/Error
28	Lack of Manpower
29	Weather Conditions
30	Work Completed on Time-Reported Late
31	Not Installed as Engineered
32	Connecting Company Not Ready
33	Original Date Met, Field RID Required Changes
34	Natural Disaster
35	Union Issues

36	Overtime/budget Restriction
37	Order/tech not dispatched
38	Dark Fiber LAM interval
39	Maintenance resource priority
40	Date not signed off by owner
41	No Response to Escalation
42	Worked on Time Admin Change
50	Manpower
51	Workload
52	Due Date priority
53	Delay in table updates
54	EOC info received late from CIRAS
55	Systems outage
56	Entered late by representative
57	Late issuance of connecting company order

Note: Bolded codes are customer exclusion reasons

MISSED APPOINTMENT REASON CODES
Sprint - Retail

Code	Customer Reasons - Description
AB	This code will indicate working service was found at the time of installation and delayed the original due date installation.
CL	The due date was not met due to inaccurate or incomplete information received from the customer to work the service order.
RD	The customer called and requested a different date prior to the appointed due date.
SA	Plant employee attempted to complete order on appointed date but could not gain access to the customer's premise.
SO	The installation was delayed because customer requested an instrument that is not normally offered and it had to be special ordered.
SR	The customer indicated he was not ready for completion of the request on the original due date or provided incomplete or incorrect information which prohibited completion of the request on the original due date (trip was made).

MISSED APPOINTMENT REASON CODES
Sprint - Retail

Code	Company Reasons - Description
PL	Unanticipated plant workload precluded the completion of the order on the original due date.
SE	Request was delayed because there was a temporary lack of standard station equipment.
PF	Lack of plant facilities delayed the completion of the order.
PB	Bad cable pair or cable plant exists.
IW	Inclement weather delayed installation.
CE	Commercial provided incomplete or inaccurate information.
ME	Marketing provided incomplete or inaccurate information.
CO	Any other Company Reason.

DISPOSITION CODES
Sprint

Code	Description
CAN	Cancellation of ticket at customer request
CC	Came Clear
CO	Central Office – The trouble was found in central office equipment. This includes concentrators, remotes, OPMs.
CPE	Customer Provided Equipment – Trouble found in the end user's equipment or wiring. This also includes extended demarc. If the problem was customer action, XCC is used.
FAC	Facility – Anything from the local distribution frame protector to the protector on the end user site.
INF	Ticket created for informational purposes only
HSD	High Speed Data
OTH	Other – Sprint LTD Network
ND	Natural Disaster – Hurricane, Earthquake, Tornado, Volcano, Typhoon
STN	Station – Network Interface Devices (NIDs), loopback devices, jacks, up to the demarc
TOK	Test Okay/No Trouble Found – Could not identify the problem the customer reported either through remote or field testing.
XCC	IXC/CLEC
CCO	Connecting Company – The problem was identified in connecting company network or equipment, referrals to connecting company.
TT	Translations Trouble
UNK	Unknown
PRV	Provisioning Trouble

Note: Bolded codes are customer reason exclusion codes

2002 Sprint

Performance Measurement Plan
Compliance Methodology

October 23, 2002

Overview

The Telecommunications Act of 1996 ("the Act"), and the FCC's associated rules, require incumbent local exchange carriers ("ILECs") to provide competitive local exchange carriers ("CLECs") with nondiscriminatory access to operations support systems ("OSS"). In the August 1996 Local Competition First Report and Order, the FCC commented generally that ILECs must provide CLECs with access to the pre-ordering, ordering, provisioning, billing, repair, and maintenance OSS sub-functions pursuant to the Act, such that CLECs are able to perform such OSS sub-functions in "substantially the same time and manner" as the ILECs can for themselves. In August of 1997, the FCC's *Ameritech Opinion* analyzed the nondiscriminatory access requirements of §251(c) to a Regional Bell Operating Company's ("RBOC's") §271 application, and clarified that for those OSS sub-functions with retail analogs, a RBOC "must provide access to competing carriers that is equal to the level of access that the RBOC provides to itself, its customers or its affiliates, in terms of quality, accuracy and timeliness." The FCC further clarified in the *Ameritech Opinion* that for those OSS functions with no retail analog, a BOC must offer access sufficient to allow an efficient competitor "a meaningful opportunity to compete."

This document describes the method used to determine parity and benchmark compliance for measures in the Sprint Performance Measurement Plan (PMP). Also described are the associated provisions that are necessary counterparts to the parity methodology (e.g., forgiveness and materiality) and benchmark methodology (e.g., small sample adjustments), and provisions that are associated with determination of compliance. This methodology was created for the 2001 Sprint PMP and approved in Docket 01-1049 by the Public Utilities Commission of Nevada on February 11, 2001. This methodology was retained for the 2002 Sprint PMP with slight modifications. This methodology is appropriate for Sprint and yields actionable compliance information regarding Sprint's service to CLEC customers.

1. General Principles

1.1 The Compliance Methodology described herein is to be associated with the state commission approved Sprint Performance Measurement Plan (the "PMP").

1.2 The Compliance Methodology describes the method for determining compliance for parity measures (those measurements where the level of service that Sprint provides to CLECs can be compared to the level of service Sprint provides to its retail customers), and for benchmark measures (those measurements for which there is no comparable level of service between the service Sprint provides to CLECs and the service Sprint provides to its retail customers).

1.3 Sprint will calculate compliance on a submeasure basis for each reportable CLEC under the provisions of this methodology. A submeasure is the individual, disaggregated reported result for each measurement defined in Sprint's PMP.

1.4 For parity measurements, Sprint will use statistical testing to determine whether any submeasure differences between Sprint's retail results and Sprint's results for the individual CLEC, are statistically significant. Various statistical testing methodologies will be used for measures reported as means (averages), proportions (percentages) and rates.

1.4.1 For parity measurements, where a submeasurement difference between Sprint's retail results and the results for the individual CLEC is found to be statistically significant, a measure of severity (see Attachment B) will be calculated.

1.5 For benchmark measurements, Sprint's performance results for each CLEC will be compared to the benchmark defined in the PMP, without the use of statistical testing for significance. If Sprint's performance results for the CLEC are observed to be at a level of service that does not meet the benchmark, the result will be considered noncompliant..

1.5.1 For benchmark measurements, if the result is found to be noncompliant, a measure of severity (see Attachment B) will be calculated.

1.6 The determination of compliance is further subject to certain Compliance Accuracy Provisions as described in this document.

1.7 Compliance will not be calculated for specific (sub)measurements per the PMP:

1.7.1 For any measurement or submeasurement classified in the PMP as "Diagnostic Only", "Parity by Design" or with benchmark level "TBD".

1.7.2 For any result that contains 4 or fewer Sprint or CLEC transactions. These results will be reported but no compliance will be assessed.

2. Compliance Methodology for Benchmark Measurements

2.1 Sprint service performance levels that do not achieve the benchmarks will be considered noncompliant. No statistical evaluation is performed for benchmark submeasures to determine compliance.

2.2 A measure of severity, D_B (called "D sub B", see Attachment B), will be calculated for each noncompliant benchmark submeasure, based upon the difference between the service performance levels Sprint provides to each individual CLEC, and the benchmark standard.

2.2.1 The following table sets forth the severity level for benchmark *proportion* measures, per affected CLEC per submeasure, when service does not meet the benchmark:

BENCHMARK PROPORTION MEASURES	
Performance Level	**Severity Level**
$0 < D_B < 5$	Minor
$5 <= D_B < 15$	Moderate
$D_B >= 15$	Severe

2.2.2 A different performance level is appropriate for benchmark *mean* measures. The following table sets forth the severity level for benchmark *mean* measures, per affected CLEC per submeasure, when service does not meet the benchmark:

BENCHMARK MEAN MEASURES	
Performance Level	**Severity Level**
$0 < D_B < 25$	Minor
$25 <= D_B < 50$	Moderate
$D_B >= 50$	Severe

3. Statistical Testing Methodology for Parity Measurements

3.1 Statistical testing will be conducted when there are at least 5 transactions each for Sprint retail and individual CLEC. Results for 4 or fewer transactions will be reported for diagnostic purposes.

3.2 The general statistical testing methodology is to conduct a hypothesis test with
H_0 : CLEC performance is "better than or equal to" Sprint performance.
H_1 : CLEC performance is "worse than" Sprint performance.

3.2.1 Calculations are made under the assumption that larger performance measurement values indicate worse service. For measures where this assumption does not hold true (i.e. larger values indicate better service), the calculation of a test statistic will

be reversed. In other words, a difference between Sprint and CLEC service will always be shown as a numerically negative difference when CLEC service is worse.

3.3 Any statistical test yielding a p-value will be converted to a z-score for purposes of reporting consistency, and to enable calculation of the severity value.

3.4 A significance level, or Type I error rate, of 10% will be used for testing purposes.

3.4.1 This results in a critical value of –1.2817 for z-scores. Any z-score less than or equal to –1.2817 will result in a rejection of H_0.

3.4.2 Modifications are made to the traditional t-statistic typically used for testing the difference between two means (due to sensitivity to testing assumptions). The "adjusted, asymmetric two-sample t-test" is designed to test the difference between means, without sensitivity to a larger CLEC variance, while adjusting for bias caused by population skewness. Instead of pooling the variances from both Sprint retail and CLEC observations, only using Sprint variance increases the ability of the test statistic to identify a difference in means should the CLEC have a greater variation. A modified z-score is calculated at the cell level by converting the adjusted, asymmetric t-test statistic via the respective probability density function.

3.5 All statistical tests will be performed at the submeasure level, per CLEC.

3.5.1 Statistical comparisons made at the cell-level, when applicable, will be aggregated into a single test statistic at the submeasure level.

3.5.2 Attachment A outlines all statistical techniques utilized for any cell-level comparisons, as well as all test statistics.

3.6 When approved by the Commission on a measurement/submeasurement basis, Sprint's retail data and CLEC data will be compared at levels that provide the most accurate parity comparisons (i.e., wire center, etc...).

3.6.1 For statistical validity, the parity comparison between CLEC and Sprint retail data will be made with data generated from similar processes and conditions. Since the performance data are collected from daily operations, they are "observed" results. These observed results, or observational data, may not be produced under similar procedures and conditions.

3.6.1.1 This level of comparison is to ensure a "like-to-like" comparison, and is referred to as the "cell level". The like-to-like comparison is a necessary condition for achieving correct statistical testing results for both Sprint retail and CLEC data.

3.6.1.1.1 For example, suppose a new CLEC starts operations around a single wire center. For some period of time, a large percentage of the CLEC's service orders are 'N' (New) orders. When compared to Sprint's retail service orders that included 'N', 'C' and 'T' (New, Change, and Transfer) orders, Sprint may be called out of parity erroneously because 'N' orders typically take longer than 'C' or 'T' orders. By comparing only the Sprint 'N' orders to CLEC 'N' orders, a true result can be obtained.

3.6.1.1.2 Cell-level comparisons are for statistical accuracy, and do not necessitate additional detail in the reported submeasure level as defined in the PMP.

3.6.2 Cell level comparisons will be proposed by Sprint and submitted for approval by the Commission on a per-submeasure or per-measure basis.

3.6.2.1 Measurement/submeasurements with Commission-approved cell-level comparisons are listed in Attachment C.

3.6.2.2 When like-to-like comparisons are approved for a specific measure or submeasure, results will be calculated using various statistical techniques appropriate for cell level comparisons (see Attachment A for detailed methodology).

3.6.2.3 When there is more than one cell for a submeasure, the z-scores at the cell level will be aggregated into one overall test statistic, called the "truncated z-score" (see Attachment A), which is used to determine whether a statistically significant difference exists at the submeasure level. A submeasure with a single cell will not be aggregated into the truncated z-score, but will simply use the z-score as calculated for the cell.

3.6.2.4 If entries in comparison cells are exactly proportional over a covariate, the aggregated index should be very nearly the same as if comparisons on the covariate had not been done. In other words, if relative performance between Sprint retail and CLEC service at the cell level is equivalent (for all cells) to relative performance at the reporting level, then the aggregated z-score should be roughly the same as a modified z-score applied at the reporting level.

3.6.2.5 The contribution of each comparison cell should depend on the number of observations in the cell.

3.6.2.6 Cancellation between comparison cells will be limited. In other words, positive outcomes should not be allowed to cancel negative ones.

3.7 A measure of severity, D_P (called "D sub P", see Attachment B) will be associated with a difference between the service performance levels Sprint provides to each individual

CLEC and the service performance levels Sprint provides to its retail customers when service is determined to be out of parity.

3.7.1 The following table sets forth the parity severity levels, per affected CLEC per submeasure, when the result is found to be noncompliant:

PARITY MEASUREMENTS	
Measure of severity	**Severity Level**
$0 < \|D_P\| < .5$	Minor
$.5 <= \|D_P\| < 2$	Moderate
$\|D_P\| >= 2$	Severe

4. Compliance Accuracy Provisions

4.1 The use of statistical testing for parity measures helps to mitigate the risk of noncompliance due simply to random variation in processes. However, due to the nature of the statistical tests, the expectation is that noncompliance will periodically be assessed even when a state of consistent parity exists (called a Type I error). To compensate for the impact of Type I errors, Sprint will utilize the following forgiveness plan to improve the accuracy of compliance assessment. This forgiveness plan is applied separately for each submeasure and each CLEC as follows:

4.2 Sprint's noncompliance will be forgiven on a submeasure basis only when certain criteria are met. These criteria are:

4.2.1 For every submeasure, per CLEC, the first accrued forgiveness will occur upon the first month of activity, and again every six (6) months of activity thereafter.

4.2.2 Each forgiveness must be used within six (6) months upon accrual. In other words, an accrued forgiveness is lost if not used within six (6) months.

4.2.3 If there is no activity for a particular submeasure, per CLEC, for twenty-four (24) consecutive months, the process of accruing forgivenesses will begin again upon the next month of activity. In other words, Sprint will not track inactivity beyond twenty-four (24) months for the purpose of accruing forgivenesses.

4.2.4 A forgiveness can only be used to offset noncompliance for the same submeasure, and CLEC, for which the forgiveness was originally accrued.

4.2.5 If a forgiveness is available to be used, it must be used at the first opportunity, with the following exception:

4.2.6 A forgiveness may never be used, for a particular submeasure and CLEC, in consecutive months.

4.2.7 Available forgivenesses may not offset a severe non-compliance.

4.3 Sprint will implement materiality thresholds:

4.3.1 Materiality thresholds mitigate situations where benchmark results or parity comparisons misidentify differences as significant. This is due to the fact that small-sample benchmark results, or parity statistical significance, is not necessarily synonymous with business significance. Situations that produce misidentification of differences as significant include but are not limited to the following:

4.3.1.1 Small samples for parity measures. For measures typically associated with small samples, the measure itself can be highly sensitive to small differences in service. Similar to the small sample adjustment used for benchmark proportion measures, small samples for parity measures (especially proportion and rate measures) can result in the need for perfect or near-perfect service in order to be deemed compliant. For example, the measure *Trouble Report Rate* is defined as the number of trouble tickets per month divided by the number of access lines the customer has. Due to small CLEC transaction sizes, a single trouble report for a CLEC with few access lines can produce non-compliance. Since one trouble report for a month does not have a significant impact on the CLEC's ability to compete, this is a statistically significant difference that is not synonymous with business significance.

Measurement 19

The following adjustment table applies to all submeasures in Measurement 19, and will be applied when a statistically significant difference is identified:

Number of CLEC Access Lines (CLEC Denominator)	Permitted Troubles
1 to 4	n/a (no compliance assessment)
5 to 24	1
25 to 74	2
75 or more	3

For example: For a CLEC with 100 access lines and 1 trouble, accompanied by a statistically significant difference, this table indicates that more than 3 troubles would be required before a significant business impact would occur. As a note for how *not* to use this table, consider a CLEC with 4 troubles and better than parity service (i.e. the CLEC is receiving better service than the retail results). This table does not indicate that no more than 3 troubles are ever allowable. It is used only when there is a statistically significant difference identified.

4.3.1.2 Large samples for parity measures. Submeasures with a high volume of CLEC transactions produce statistical comparisons that are overly sensitive to small differences between Sprint and CLEC results. This can produce non-compliance when the actual difference in Sprint and CLEC results is very small. For example, if a CLEC has thousands of submeasure transactions in a month, there may be a

statistically significant difference, but only a slight difference in results (i.e., a difference of 0.4% on *Usage Completeness*). Since this type of difference does not significantly impact the CLEC's ability to compete, this is a statistically significant difference that is not synonymous with business significance.

4.4 For benchmark proportion measures, small samples can result in the need for service beyond the benchmark in order to achieve compliance. For instance, the only way to achieve a 95% benchmark with 19 orders would be to fail on none. One failure would result in performance of 94.7%. The small sample adjustments to benchmark proportion measures would, for example, allow for 1 failure in the 19 orders to achieve compliant performance.

4.4.1 Sprint will implement the following table for Small Sample Adjustments to all Benchmark Proportion Measures:

Small Sample Adjustments to Benchmark Proportion Measures							
90% Benchmark		**95% Benchmark**		**98% Benchmark**		**99% Benchmark**	
Sample Size (CLEC Denominator)	Maximum Permitted Misses	Sample Size (CLEC Denominator)	Maximum Permitted Misses	Sample Size (CLEC Denominator)	Maximum Permitted Misses	Sample Size (CLEC Denominator)	Maximum Permitted Misses
1 to 4	n/a	1 to 4	n/a	1 to 4	n/a	1 to 4	n/a
5 to 9	1	5 to 19	1	5 to 49	1	5 to 97	1
10 to 20	2	20 to 40	2	50 to 99	2	98 to 202	2
21 to 31	3	41 to 63	3	100 to 149	3	203 to 319	3
32 to 44	4	64 to 88	4	150 to 199	4	320 to 445	4
45 to 50	5	89 to 100	5	200 to 250	5	446 to 500	5

4.5 Sprint may perform a limited root-cause analysis process within 45 days of the issuance of the monthly performance reports to provide a reasonable opportunity to explain exceptional conditions. When a root-cause analysis is invoked, Sprint will have the burden of proving that but for the occurrence of an "exceptional condition" Sprint would have succeeded on the submeasure.

4.5.1 Examples of these exceptional conditions include, but are not limited to the following:

4.5.1.1 Significant activity by a third party external to and not controlled by Sprint (e.g., damaged facilities, third party systems, bomb threats)

4.5.1.2 Failure of a CLEC process or system (e.g., CLEC switch failure, CLEC backlog of orders)

4.5.1.3 Environmental events not considered force majeure (e.g., fire or other hazardous condition)

4.5.1.4 Force majeure events

4.5.2 Sprint will not be required to utilize a forgiveness if it is determined that noncompliance is not warranted due to an exceptional condition under this section.

4.5.3 If Sprint finds that an exceptional condition had a significant impact on Sprint's ability to provide compliant service, Sprint will exclude the affected data from results and publish a notification and full justification on the reporting website.

4.5.3.1 If the exceptional condition was identified after the affected results were reported, Sprint will exclude the affected data from results, publish a notification and full jusufication on the reporting website, and repost the results in accordance with the Reporting Obligations section of this Methodology.

4.5.4 Commission Staff or a CLEC may initiate a request for a review of differences associated with the assessment of exceptional conditions. If modification of reports is found to be appropriate, Sprint will repost the results in accordance with the Reporting Obligations section of this Methodology.

4.5.4.1 If the review process does not yield a mutually acceptable outcome, Commission Staff or a CLEC may initiate a request for an expedited hearing process in accordance with the Commission's rules to resolve differences. If modification of reports is requested by the Commission, Sprint will repost the recommended results in accordance with the Reporting Obligations section of this Methodology.

5. Reporting Obligations

5.1 The due date for reports will be assumed to be no later than the 20th calendar day of the month, unless otherwise approved by the Commission.

5.2 Sprint must publish results for all "reportable" CLECs. Reportable CLECs meet all of the following criteria:

5.2.1 The CLEC must have placed one (1) or more CLEC product orders in the past six (6) months.

5.2.2 The CLEC must have one (1) or more CLEC access lines.

5.2.3 The CLEC must utilize IRES to submit orders.

5.3 If reporting inaccuracies are discovered after the reporting due date, Sprint may repost results and publish a notification of the repost on the reporting website.

5.3.1 Sprint will archive repost notifications and make these available on the reporting website for twelve (12) calendar months.

5.4 If stated in the Performance Measurement Plan, additional reporting obligations will apply.

6. Uniform Business Rules

6.1 Relevant changes to the Nevada PMP will apply to the Florida PMP.

6.1.1 When the Nevada PUC issues an order approving changes to the Nevada PMP, Sprint will submit a request within 15 days to the Florida PSC for approval of those changes. The Florida PSC is requested to review and approve the changes within 15 days, and approve a simultaneous implementation date.

Attachment A

Statistical Calculations for Parity Submeasurements

Statistical methods:

SAMPLE SIZE	*TYPE OF MEASURE*	*STATISTICAL METHOD (WITHOUT CELL LEVEL COMPARISONS)*	*STATISTICAL METHOD (WITH CELL LEVEL COMPARISIONS)*
"small"	mean	Permutation Testing	Permutation Testing (p-value converted to a z-score)
	proportion	Fisher's Exact Test (i.e. Hypergeometric)	Standard Z, with finite population correction
	rate	Binomial Test	Standard Z, with finite population correction
"large"	mean	Modified Z, with skewness correction (Sprint variance used, rather than pooled variance)	Modified Z, with skewness correction (Sprint variance used, rather than pooled variance)
	proportion	Standard Z, with finite population correction	Standard Z, with finite population correction
	rate	Standard Z, with finite population correction	Standard Z, with finite population correction

Statistical functions definitions:

$\Phi^{-1}(x)$ Inverse cumulative standard normal distribution function.

$pt(t,df)$ Cumulative distribution function of a t-statistic with df degrees of freedom.

$BN(x,n,p)$ Binomial distribution density function. The probability of observing x of n successes with a probability p of success.

$CBN(x,n,p)$ Cumulative binomial distribution function.

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

$HG(q,m,n,k)$ Hypergeometric distribution density function where q represents the number of red balls out of a sample of size k drawn from an urn containing m red balls and n black ones.

$CHG(q,m,n,k)$ Cumulative hypergeometric distribution.

$$CHG(q,m,n,k) = P(H \le q) = \begin{cases} 0 (q < \max(0, k-m)) \\ \sum_{h=\max(0,k-m)}^{q} HG(h) (\max(0,k-m) \le q \le \min(k,m)) \\ 1 (q > \min(k,m)) \end{cases}$$

$rank(x)$ Ranks the input variables. In case of ties, the average rank is calculated.

$choose(n,k)$ Calculates the binomial coefficients.

Global variable definitions:

L	=	The total number of occupied cells.[1]
j	=	An index counter indicating cell number.
n_{1j}	=	The number of Sprint transactions in cell j.
n_{2j}	=	The number of CLEC transactions in cell j.
n_j	=	The total number of transactions in cell j.
X_{1jk}	=	Individual Sprint transactions in cell j.
X_{2jk}	=	Individual CLEC transactions in cell j.
Φ^{-1}	=	Inverse cumulative standard normal distribution function.

Mean Performance Measures[2]

At this time, the following calculations will apply to parity submeasures contained in measures 6, 7, 13, 14, 21, 28, and 44. Any subsequent change to measure classification (mean, proportion, rate) to a measure or submeasure in the PMP will take precedence over this list.

Variable definitions:

STATISTIC	*DEFINITION*	*EXPLANATION*
$\bar{X}_{1j} = \frac{1}{n_{1j}} \sum_{k=1}^{n_{1j}} X_{1jk}$	Sprint sample mean of cell j.	Add observations and divide by the number of observations.
$\bar{X}_{2j} = \frac{1}{n_{2j}} \sum_{k=1}^{n_{2j}} X_{2jk}$	CLEC sample mean of cell j.	Add observations and divide by the number of observations.

[1] If comparisons are performed at the submeasure level, L = 1 and only one cell (the submeasure) exists. If comparisons are performed at the cell level, L may exceed 1 and more than one cell may exist (see Attachment C for the list of (sub)measurements approved for comparison at the cell level).

[2] Only perform STEP 4 and STEP 5 if L > 1 (e.g., if this is a cell-level comparison, and there is more than one cell with CLEC activity, then perform STEP 4 and STEP 5).

$s_{1j}^2 = \frac{1}{n_{1j}-1}\sum_{k=1}^{n_{1j}}(X_{1jk}-\bar{X}_{1j})^2$	Sprint sample variance in cell j. May be NA for very small sample sizes.	Subtract each observation by its mean, square the difference, add them all up, and divide by the number of observations minus 1.
$s_{2j}^2 = \frac{1}{n_{2j}-1}\sum_{k=1}^{n_{2j}}(X_{2jk}-\bar{X}_{2j})^2$	CLEC sample variance in cell j. May be NA for very small sample sizes.	Subtract each observation by its mean, square the difference, add them all up, and divide by the number of observations minus 1.
$\gamma_{1j} = \frac{\frac{1}{n_{1j}}\sum_{k=1}^{n_{1j}}\left(X_{1jk}-\bar{X}_{1j}\right)^3}{\left[\frac{1}{n_{1j}}\sum_{k=1}^{n_{1j}}\left(X_{1jk}-\bar{X}_{1j}\right)^2\right]^{3/2}}$	The Sprint sample skewness in cell j. May be NA for very small sample sizes.	Subtract each observation by its mean, cube the difference, add them all up, and divide by the number of observations. Then divide that number by the cubed square root of the population variance.
$\gamma_{2j} = \frac{\frac{1}{n_{2j}}\sum_{k=1}^{n_{2j}}\left(X_{2jk}-\bar{X}_{2j}\right)^3}{\left[\frac{1}{n_{2j}}\sum_{k=1}^{n_{2j}}\left(X_{2jk}-\bar{X}_{2j}\right)^2\right]^{3/2}}$	The CLEC sample skewness in cell j. May be NA for very small sample sizes.	Subtract each observation by its mean, cube the difference, add them all up, and divide by the number of observations. Then divide that number by the cubed square root of the population variance.
XY_j	Combined Sprint and CLEC samples.	Concatenate the Sprint and CLEC samples into a single variable.

STEP 1: Calculate Cell Weights

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

For each cell, multiply the Sprint sample size and the CLEC sample size, divide by their sum, and take a square root.

If all Sprint and CLEC transactions within a cell have identical performance measures (e.g. service durations), set $W_j = 0$.

STEP 2: Calculate a Z-statistic for each cell

a. If $W_j = 0$, then set $Z_j = 0$.

b. If $\min(n_{1j}, n_{2j}) > 6$ and $s_{1j}^2 > 0$

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

where

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

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

and g is the median value of all values of γ_{1j} over all cells within the submeasure (reporting level) such that

i) $\gamma_{1j} > 0$

ii) $n_{1j} > 6$, and

iii) $n_{1j} > n_{3q}$, where n_{3q} is the 3 quartile of all n_{1j}.in cells where (i) and (ii) are true.

If no cells within a submeasure exist that satisfy conditions (i) - (iii), then set g = 0.

Calculate the p-value from the T_j statistic with $n_{1j} - 1$ degrees of freedom using $P_j = pt(T_j, n_{1j} - 1)$.

Calculate the z-score Z_j from this p-value as $Z_j = \Phi^{-1}(P_j)$.

c. If $[\min(n_{1j}, n_{2j}) \leq 6$ OR $s_{1j}^2 = 0]$ AND $W_j > 0$ (from part 1):

1) Calculate the number of possible permutations
Nperms = $choose(n_j, n_{1j})$

2) If $n_{1j} = n_{2j} = 1$, then $Z_j = \begin{cases} 0.6744898 & X_{1j} > X_{2j} \\ 0 & X_{1j} = X_{2j} \\ -0.6744898 & X_{1j} < X_{2j} \end{cases}$

3) If only $n_{1j} = 1$ then let R_0 equal the rank of the Sprint observation in the combined sample XY_j. Calculate $Z_j = \Phi^{-1}\left(\frac{R_0 - 0.5}{n_j}\right)$.

4) If only $n_{2j} = 1$ then let R_0 equal the rank of the CLEC observation in the combined sample XY_j. Calculate $Z_j = -\Phi^{-1}\left(\frac{R_0 - 0.5}{n_j}\right)$.

5) If $\min(n_{1j}, n_{2j}) \geq 2$ and $Nperms \leq 1000$ then
   i) Generate all possible permutations of sizes n_{1j} and n_{2j} from the combined sample XY_j.
   ii) For each permuted sample, calculate the sum of sample of size n_{1j}.
   iii) Let R_0 equal the rank of the observed sum within all of the permuted sums. Calculate $Z_j = \Phi^{-1}\left(\frac{R_0 - 0.5}{Nperms}\right)$.

6) If $\min(n_{1j}, n_{2j}) \geq 2$ and $Nperms > 1000$ then
   i) Generate 1,000 random permutations of sizes n_{1j} and n_{2j} from the combined sample XY_j.
   ii) For each permuted sample, calculate the sum of the sample of size n_{1j}.
   iii) Let R_0 equal the rank of the observed sum within the 1000 permuted sums and calculate $Z_j = \Phi^{-1}\left(\frac{R_0 - 0.5}{1001}\right)$.

STEP 3: Truncate Z-statistic for each cell

For each cell, $Z_j^* = \begin{cases} Z_j & L = 1 \\ \min(0, Z_j) & \text{otherwise} \end{cases}$.

Note that there is no truncation step if there is only one cell in the submeasure calculation.

STEP 4: Calculate the theoretical mean and variance of the truncated statistic under parity.

1. If for cell j, $W_j = 0$, set $ExpectedMean_j^{parity}$, $ExpectedVariance_j^{parity}$, and $ExpectedSkew_j^{parity}$ all equal to 0.
2. If $\min(n_{1j}, n_{2j}) > 6$ and $s_{1j}^2 > 0$
   a. $ExpectedMean_j^{parity} = -\frac{1}{\sqrt{2\pi}}$.
   b. $ExpectedVariance_j^{parity} = \frac{1}{2} - \frac{1}{2\pi}$

c. $ExpectedSkew_j^{parity} = -\left(\frac{1}{2\sqrt{2\pi}} + \frac{2}{(2\pi)^{\frac{3}{2}}}\right)$

3. If $\min(n_{1_j}, n_{2_j}) \le 6$ OR $s_{1j}^2 = 0$

   a. Let $N_j = \min(Nperms, 1000)$

   b. For $i = 1,\ldots,N_j; z_{ji} = \min\left\{0, \Phi^{-1}\left(\frac{i-0.5}{N_j}\right)\right\}$.

   c. $\Theta_{ji} = \frac{1}{N_j}$

   d. $ExpectedMean_j^{parity} = \sum_{i=1}^{N_j} \Theta_{ji} z_{ji}$

   e. $ExpectedVariance_j^{parity} = \sum_{i=1}^{N_j} \Theta_{ji} z_{ji}^2 - (ExpectedMean_j^{parity})^2$

   f. $ExpectedSkew_j^{parity} =$

$$\sum_i \Theta_{ji} z_{ji}^3 - 3ExpectedMean_j^{parity} \times ExpectedVariance_j^{parity} - \left[ExpectedMean_j^{parity}\right]^3$$

STEP 5: Calculate the initial aggregate test statistic.

$$Z_0^T = \begin{cases} Z_1 & L = 1 \\ Z^T = \dfrac{\sum_j W_j (Z_j^* - ExpectedMean_j^{parity})}{\sqrt{\sum_j W_j^2 \times ExpectedVariance_j^{parity}}} & otherwise \end{cases}$$

STEP 6: Calculate the final aggregate test statistic.

1. If L = 1, we use the cell modified Z statistic. $Z^T = Z_0{}^T = Z_1$.

2. If L > 1, do the following.

   a. Calculate the aggregate skewness coefficient.

$$g_{agg} = \frac{\sum_j W_j^3 \times ExpectedSkew_j^{parity}}{6 \times \left(\sum_j W_j^2 \times ExpectedVariance_j^{parity}\right)^{\frac{3}{2}}}$$

b. If $Z_0^T > -\frac{1+4g_{agg}^2}{4g_{agg}}$ or $-10^{-6} < g_{agg} < 0$ then $Z^T = Z_0{}^T$.

c. Otherwise

$$Z^T = \frac{-1+\sqrt{1+4g_{agg}^2+4g_{agg}Z_0^T}}{2g_{agg}}$$

Proportion Performance Measures[3]

The following calculations will apply to parity submeasures contained in measures 5, 8, 10, 11, 12, 15, 17a, 20, 22, 23, 26, 31, 32, 33, 34, 37, 38, and 39. Any subsequent change to measure classification (mean, proportion, rate) to a measure or submeasure in the PMP will take precedence over this list.

Variable definitions:

a_{1j} = Number of Sprint cases possessing an attribute of interest in cell j.

a_{2j} = Number of CLEC cases possessing an attribute of interest in cell j.

a_j = Number of cases possessing an attribute of interest in cell j.

NOTE: All measurements made using the number of *misses* (or negative measurement value).

STEP 1: Calculate Cell Weights.

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

For each cell, multiply the Sprint sample size and the CLEC sample size, the proportion of affected transactions and the proportion of non-affected transactions, divide by the total number of transactions, and take a square root.

STEP 2: Calculate a Z-statistic for each cell.

If $W_j = 0$ then set $Z_j = 0$.

Else, calculate the Z-statistic as $Z_j = \dfrac{n_j a_{1j} - n_{1j} a_j}{\sqrt{\dfrac{n_{1j}n_{2j}a_j(n_j - a_j)}{n_j - 1}}}$

STEP 3: Truncate Z-statistic for each cell.

$$\text{For each cell, } Z_j^* = \begin{cases} Z_j & L = 1 \\ \min(0, Z_j) & \text{otherwise} \end{cases}$$

Note that there is no truncation step if there is only one cell in the submeasure calculation.

[3] Only perform STEP 4 if L > 1 (e.g., if this is a cell-level comparison, and there is more than one cell with CLEC activity, then perform STEP 4).

STEP 4: Calculate the theoretical mean and variance of the truncated statistic under parity.

1. If for cell j, $W_j = 0$, set $ExpectedMean_j^{parity}$, $ExpectedVariance_j^{parity}$, and $ExpectedSkew_j^{parity}$ all equal to 0.
2. If $\min\left\{a_{1j}\left(1-\frac{a_{1j}}{n_{1j}}\right), a_{2j}\left(1-\frac{a_{2j}}{n_{2j}}\right)\right\} > 9$.
   a. $ExpectedMean_j^{parity} = -\frac{1}{\sqrt{2\pi}}$.
   b. $ExpectedVariance_j^{parity} = \frac{1}{2} - \frac{1}{2\pi}$.
   c. $ExpectedSkew_j^{parity} = -\left(\frac{1}{2\sqrt{2\pi}} + \frac{2}{(2\pi)^{\frac{3}{2}}}\right)$
3. Else, if $\min\left\{a_{1j}\left(1-\frac{a_{1j}}{n_{1j}}\right), a_{2j}\left(1-\frac{a_{2j}}{n_{2j}}\right)\right\} \le 9$.
   a. Let $i = \max(0, a_j - n_{2j}),\ldots,\min(a_j, n_{1j})$.
   b. Calculate $z_{ji} = \min\left\{0, \frac{n_j i - n_{1j} a_j}{\sqrt{\frac{n_{1j} n_{2j} a_j (n_j - a_j)}{n_j - 1}}}\right\}$ for each value of i.
   c. For each value of i, calculate $\Theta_{ji} = HG(i, n_{1j}, n_{2j}, a_j)$.
   d. $ExpectedMean_j^{parity} = \sum_{i=1}^{N_j} \Theta_{ji} z_{ji}$.
   e. $ExpectedVariance_j^{parity} = \sum_{i=1}^{N_j} \Theta_{ji} z_{ji}^2 - (ExpectedMean_j^{parity})^2$.
   f. $ExpectedSkew_j^{parity} =$
      $$\sum_i \Theta_{ji} z_{ji}^3 - 3ExpectedMean_j^{parity} \times ExpectedVariance_j^{parity} - \left[ExpectedMean_j^{parity}\right]^3$$

STEP 5: Calculate the initial aggregate test statistic.

1. If L = 1 and $\min\left\{\left\{a_{1j}\left(1-\frac{a_{1j}}{n_{1j}}\right), a_{2j}\left(1-\frac{a_{2j}}{n_{2j}}\right)\right\}\right\} \le 9$,

   $Z_0^T = \Phi^{-1}(\alpha)$

where $\alpha = CHG(a_{1j}, n_{1j}, n_{2j}, a_j)$.

2. If $L > 1$ or $\min\left\{a_{1j}\left(1-\frac{a_{1j}}{n_{1j}}\right), a_{2j}\left(1-\frac{a_{2j}}{n_{2j}}\right)\right\} > 9$,

$$Z_0^T = \begin{cases} Z_1 & L = 1 \\ Z^T = \dfrac{\sum_j W_j (Z_j^* - ExpectedMean_j^{panty})}{\sqrt{\sum_j W_j^2 \times ExpectedVariance_j^{panty}}} & otherwise \end{cases}$$

STEP 6: Calculate the final aggregate test statistic.

1. If $L = 1$, we use the cell modified Z statistic. $Z^T = Z_0^T$.

2. If $L > 1$, do the following.

   a. Calculate the aggregate skewness coefficient.

$$g_{agg} = \frac{\sum_j W_j^3 \times ExpectedSkew_j^{panty}}{6 \times \left(\sum_j W_j^2 \times ExpectedVariance_j^{panty}\right)^{\frac{3}{2}}}$$

   b. If $Z_0^T > -\frac{1+4g_{agg}^2}{4g_{agg}}$ or $-10^{-6} < g_{agg} < 0$ then $Z^T = Z_0^T$.

   c. Otherwise

$$Z^T = \frac{-1+\sqrt{1+4g_{agg}^2+4g_{agg}Z_0^T}}{2g_{agg}}$$

Rate Performance Measures[4]

The following calculations will apply to parity submeasures contained in measure 19. Any subsequent change to measure classification (mean, proportion, rate) to a measure or submeasure in the PMP will take precedence over this list.

Variable definitions:

b_{1j}	=	Number of Sprint base elements in cell j.
b_{2j}	=	Number of CLEC base elements in cell j.
b_j	=	Total number of base elements cell j.
$r_{1j} = n_{1j} / b_{1j}$	=	Sprint sample rate of cell j.
$r_{2j} = n_{2j} / b_{2.}$	=	CLEC sample rate of call j.
$q_j = b_{1j} / b_j$	=	Relative proportion of Sprint elements for cell j.

STEP 1: Calculate Cell Weights.

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

For each cell, multiply the number of Sprint base elements, the number of CLEC base elements and the number of transactions, divide by the total number of base elements squared, and take a square root.

STEP 2: Calculate a Z-statistic for each cell.

If $W_j = 0$ then set $Z_j = 0$.

Else, calculate the Z-statistic as $Z_j = \frac{n_{1j} - n_j q_j}{\sqrt{n_j q_j (1 - q_j)}}$

STEP 3: Truncate Z-statistic for each cell.

For each cell, $Z_j^* = \begin{cases} Z_j & L = 1 \\ \min(0, Z_j) & \text{otherwise} \end{cases}$

Note that there is no truncation step if there is only one cell in the submeasure calculation.

[4] Only perform STEP 4 if L > 1 (e.g., if this is a cell-level comparison, and there is more than one cell with CLEC activity, then perform STEP 4).

STEP 4: Calculate the theoretical mean and variance of the truncated statistic under parity.

1. If for cell j, $W_j = 0$, set $ExpectedMean_j^{parity}$, $ExpectedVariance_j^{parity}$, and $ExpectedSkew_j^{parity}$ all equal to 0.

2. If $\min(n_{1j}, n_{2j}) > 15$ *and* $n_j q_j (1-q_j) > 9$

   a. $ExpectedMean_j^{parity} = -\frac{1}{\sqrt{2\pi}}$.

   b. $ExpectedVariance_j^{parity} = \frac{1}{2} - \frac{1}{2\pi}$

   c. $ExpectedSkew_j^{parity} = -\left(\frac{1}{2\sqrt{2\pi}} + \frac{2}{(2\pi)^{\frac{3}{2}}}\right)$

3. If $\min(n_{1j}, n_{2j}) \le 15$ *or* $n_j q_j (1-q_j) \le 9$

   a. Let $i = 0, \ldots, n_j$.

   b. Calculate $z_{ji} = \min\left\{0, \frac{i - n_j q_j}{\sqrt{n_j q_j (1-q_j)}}\right\}$ for each value of i.

   c. For each value of i, calculate $\Theta_{ji} = BN(i, n_j, q_j)$.

   d. $ExpectedMean_j^{parity} = \sum_{i=1}^{N_j} \Theta_{ji} z_{ji}$.

   e. $ExpectedVariance_j^{parity} = \sum_{i=1}^{N_j} \Theta_{ji} z_{ji}^2 - (ExpectedMean_j^{parity})^2$.

   f.

$$ExpectedSkew_j^{parity} = \sum_{i} \Theta_{ji} z_{ji}^3 - 3ExpectedMean_j^{parity} \times ExpectedVariance_j^{parity} - \left[ExpectedMean_j^{parity}\right]^3$$

STEP 5: Calculate the initial aggregate test statistic.

1. If L = 1 and ($\min(n_{1j}, n_{2j}) \le 15$ or $n_j q_j (1-q_j) \le 9$),

   $Z_0^T = \Phi^{-1}(\alpha)$

   where $\alpha = CBN(n_{1j}, n_j, q_j)$.

2. If L > 1 or $\min(n_{1j}, n_{2j}) > 15$ *or* $n_j q_j (1-q_j) > 9$,

$$Z_0^T = \begin{cases} Z_1 & L = 1 \\ Z^T = \dfrac{\sum_j W_j (Z_j^* - ExpectedMean_j^{parity})}{\sqrt{\sum_j W_j^2 \times ExpectedVariance_j^{parity}}} & otherwise \end{cases}$$

STEP 6: Calculate the final aggregate test statistic.

1. If L = 1, we use the cell modified Z statistic. $Z^T = Z_0^T$.

2. If L > 1, do the following.
   a. Calculate the aggregate skewness coefficient.

$$g_{agg} = \frac{\sum_j W_j^3 \times ExpectedSkew_j^{parity}}{6 \times \left(\sum_j W_j^2 \times ExpectedVariance_j^{parity} \right)^{\frac{3}{2}}}$$

   b. If $Z_0^T > -\dfrac{1+4g_{agg}^2}{4g_{agg}}$ or $-10^{-6} < g_{agg} < 0$ then $Z^T = Z_0^T$.

   c. Otherwise

$$Z^T = \frac{-1+\sqrt{1+4g_{agg}^2+4g_{agg}Z_0^T}}{2g_{agg}}$$

Attachment B

Measures of Severity (parity and benchmark)

Benchmark Measurements:

Definition:

$$D_B = \frac{\mathbf{I} - B}{B} \times 100\%$$

where **I** is Sprint performance (mean, proportion, or rate) in service to a CLEC, and B is the benchmark set as the performance tolerance limit. This calculation assumes that the larger the value of **I**, the worse the service. For measures where this assumption does not hold true, the subtraction in the numerator is reversed. In other words, the numerator should be positive when the service to the CLEC is worse than the benchmark.

Rationale:

Upon determining that Sprint performance (in service to a CLEC) is not meeting the benchmark, the measure of severity will be calculated to represent the percentage difference from the benchmark. For example, if the benchmark is 4 hours and Sprint performance is 5 hours, then $D_B = \frac{5.0 - 4.0}{4.0} \times 100\%$, or $\mathbf{D_B = 25\%}$. For a benchmark mean measure, this result would be considered a "moderate" deviation from the benchmark. Such a measure for compliance is only valid if the benchmark is set appropriately; set as a tolerance limit as opposed to a target.

Parity Measurements:

Definition:

Given Z^T (as calculated in STEP 6, Attachment A, for mean, proportion, and rate measures), define the measure of severity D_P as:

$$D_P = \sqrt{\frac{1}{N_1} + \frac{1}{N_2}} Z^T$$

where N_1 and N_2 are the number of Sprint and CLEC transactions combined from all cells in a submeasure with $W_j > 0$ (where W_j **is the cell weight for cell** j**, as defined in Attachment A**). As described in section 9 of this document, Z^T is negative when the CLEC is receiving non-compliant service.

Rationale:

Upon determining that an out-of-parity situation exists for a particular submeasure, for a particular CLEC, a measure of severity will be calculated to reflect the magnitude of the performance difference between Sprint's retail and Sprint's CLEC service. The statistical tests performed to determine whether service is in parity, provide the "yes" or "no" answer to the

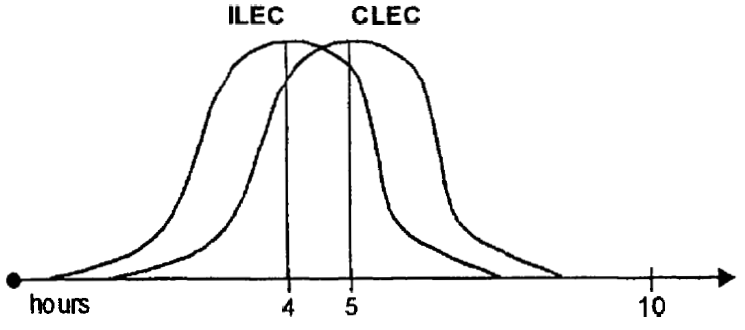
question of parity service. Further, the z-score itself provides a measure for the degree of certainty as to whether parity service exists. However, this degree of certainty does not indicate the severity of non-compliance, mainly due to the fact that the z-score is highly dependent on the sample size. If the submeasure has a considerably large sample size, yet a small difference between Sprint's retail and Sprint's CLEC service, the large sample size could cause the z-score to indicate a high confidence in lack of parity. This high confidence told by the z-score indicates that there is a *statistically* significant difference in service for the CLEC, but it does not indicate that there is a significant difference in service from a *business impact* point of view.

A reasonable measure of severity will provide an indication for how different the Sprint's CLEC service is from that of Sprint's service to its retail customers. Because parity service is defined as the CLEC receiving equivalent service to that provided to Sprint's retail customers, the measure of severity should indicate the difference between Sprint's retail and Sprint's CLEC service. In practice, there are important considerations for appropriately calculating such a measure of severity. First, the measure should be consistent with the results of the z-score, accounting for the differences in calculations that result from small samples, truncating, weighting of cells, and adjustments for skewness. Second, the measure of severity should be applicable to all types of measurements (mean, proportion, and rate). These considerations can be taken into account by utilizing the aggregate, truncated z-score, Z^T; simply adjusting the z-score so as to not include the sensitivity to sample size.

To visualize how this measure of severity works, consider the example of a mean submeasure having a single cell. In this case, it can be shown that D_P is simply the difference in mean performance between the Sprint's retail and Sprint's CLEC service, measured relative to the dispersion (or standard deviation) of Sprint's retail service. As an equation, this yields:

$D_P = \frac{\overline{X}_1 - \overline{X}_2}{s_1}$, where $\overline{X}_1$ is the mean Sprint retail service, $\overline{X}_2$ is the mean Sprint service to CLECs, and s_1 is the standard deviation of Sprint's retail service. Under this example, consider the following graphs depicting a scenario in which a CLEC receives out-of-parity service on two different submeasurements ("Submeasurement A" and "Submeasurement B"):

Submeasurement A

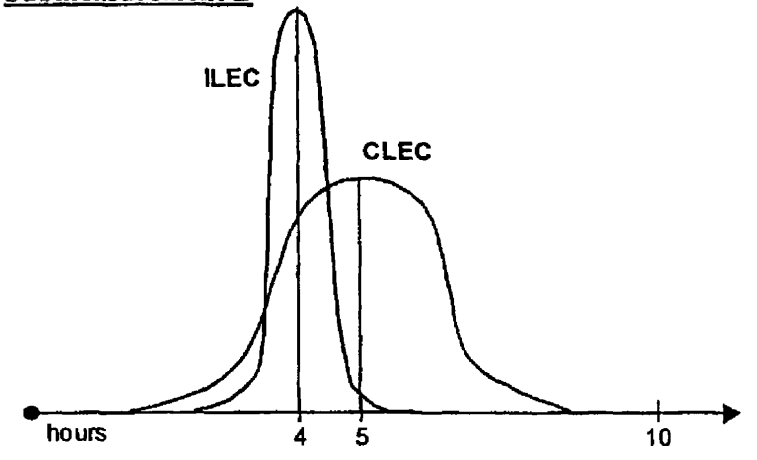


If the service provided on submeasurement A to Sprint's retail customers has a standard deviation of 1.2 hours, then

$D_P = \frac{4.0 - 5.0}{1.2}$, or $D_P = -0.83$.

So, for submeasurement A, the CLEC receives out-of-parity service that is a "moderate" severity.

Submeasurement B



If the service provided to Sprint's retail customers on submeasurement B has a standard deviation of 0.4 hours, then

$D_P = \frac{4.0 - 5.0}{0.4}$, or $\mathbf{D_P = -2.50}$.

So, for submeasurement B, the CLEC receives out-of-parity service that is a "severe" severity.

Notice that the difference in the mean service is the same for both submeasurements. However, because Sprint's service to its retail customers on submeasurement B has a lower dispersion (or standard deviation) than Sprint's service on submeasurement A, the severity of the mean difference is higher for submeasurement B.

Attachment G

Parity Measures and Submeasures with Cell-level Comparisons

Cell-level comparisons (using the statistical methodology described in Attachment A) will be applied to the following measurements:

Measurement Number / Description	**Cell Level (i.e., wire center, etc...)**
5 - Percentage of Orders Jeopardized	Wire Center, Company Number
6 - Average Jeopardy Notice Interval	Wire Center, Company Number
7 - Average Completed Interval	Service Order Type, CLLI Code, Wire Center, Company Number
8 - Percent Completed Within Standard Interval	Service Order Type, CLLI Code, Wire Center, Company Number
9 - Coordinated Customer Conversion as a Percentage On-Time	Company Number
11 - Percent of Due Dates Missed	Service Order Type, CLLI Code, Wire Center, Company Number
12 - Percent Due Dates Missed Due to Lack of Facilities	Service Order Type, CLLI Code, Wire Center, Company Number
13 - Delay Order Interval to Completion Date (For Lack of Facilities)	Service Order Type, CLLI Code, Wire Center, Company Number
14 - Held Order Interval	Service Order Type, Wire Center, Company Number
15 - Provisioning Trouble Reports Prior to Service Order Completion	Company Number
17a - Percentage Troubles in 5 Days for New Orders	CLLI Code, Wire Center, Company Number
19 - Customer Trouble Report Rate	Wire Center, Company Number
20 - Percentage of Customer Trouble Not Resolved Within Estimated Time	CLLI Code, Wire Center, Company Number
21 - Average Time to Restore	CLLI Code, Wire Center, Company Number
22 - POTS Out of Service Less Than 24 Hours	Wire Center, Company Number
23 – Frequency of Repeat Troubles in 30 Day Period	CLLI Code, Wire Center, Company Number
25 - Percent Blocking on Interconnection Trunks	Location (ILEC office CLLI), Company Number
28 - Usage Timeliness	Company Number
31 - Usage Completeness	Company Number
32 - Recurring Charge Completeness	Company Number

33 - Non-Recurring Charge Completeness	Company Number
34 - Bill Accuracy	Company Number
37 - Database Update Timeliness	Company Number
38 - Percent Database Accuracy	Company Number
39 - E911MS Database Update Interval	Company Number

Definitions:

Company Number – Sprint LTD has two operating companies in FL. Therefore we calculate results at the company level to establish parity before aggregating the results into one FL result.

Wire Center – A building housing one or more end office and/or tandem switches.

CLLI Code – (Common Language Location Identifier) An 11-digit code that Sprint LTD assigns to a Carrier's location to designate the central office or area served by a central office.

Service Order Type – The designation used to identify the major types of provisioning activities associated with a service request. (i.e. New Installation, Change or Move Order, Disconnect, etc)