

## **ATTACHMENT 17 : PERFORMANCE REMEDY PLAN**

This Attachment 17: Performance Remedy Plan sets forth the terms and conditions under which SWBT will report performance to CLEC and compare that performance to SWBT's own performance or benchmark criteria, whichever is applicable. This Attachment further provides for enforcement through liquidated damages and assessments.

SWBT agrees to provide CLEC a monthly report of performance for the performance measures listed in Appendix 1. SWBT will collect, analyze, and report performance data for these measures in accordance with SWBT's Performance Measurement Business Rules. Both the performance measures and the business rules are subject to modification in accordance with section 6.4 below regarding six month reviews. SWBT and CLEC further agree to use this two-tiered enforcement structure for performance measurements provided for in this Attachment. The Commission approved performance measurements shown in Appendix 1 hereto identify the measurements that belong to Tier 1 or Tier 2 categories, which are further identified as the High, Medium, and Low groups as those terms are used below.

- 1.1 SWBT will not levy a separate charge for provision of the data to CLEC called for under this Attachment. Upon CLEC's request, data files of CLEC's raw data, or any subset thereof, will be transmitted to CLEC. If CLEC's request is transmitted to SWBT on or before the last day of the month for which data is sought, SWBT shall provide the data to CLEC on or before 20<sup>th</sup> day of the month pursuant to mutually acceptable format, protocol, and transmission media. If CLEC's request is transmitted to SWBT after the last day of the month for which data is sought, SWBT shall provide the data to CLEC within 20 days of receipt pursuant to mutually acceptable format, protocol, and transmission media. Notwithstanding other provisions of this Agreement, the Parties agree that such records will be deemed Proprietary Information.
- 2.0 SWBT and CLEC agree to use a statistical test, namely the modified Z-test, for evaluating the difference between two means (SWBT and CLEC) or percentages, or the difference in the two proportions for purposes of this Attachment. SWBT agrees to use the modified Z-tests as outlined below as the statistical tests for the determination of parity when the result for SWBT and the CLEC are compared. The modified Z-tests are applicable if the number of data points are greater than 30 for a given measurement. In cases where benchmarks are established, the determination of compliance is through the comparison of the measured performance delivered to the CLEC and the applicable benchmark. For testing compliance for measures for which the number of data points are 29 or less, the permutation tests as outlined below may be used.
- 3.0 SWBT and CLEC concur that, for purposes of this Attachment, performance for the CLEC on a particular measure will be considered in compliance with the parity requirement when the measured results in a single month (whether in the form of means, percents, or proportions) for the same measurement, at equivalent disaggregation, for both SWBT and CLEC are used to calculate a Z-test statistic

and the resulting value is no greater than the critical Z-value as reflected in the critical Z-statistic table shown below.

## Z-Test

SWBT agrees with the following formulae for determining parity using Z-Test:

For measurement results that are expressed as averages or means

$$Z = ( \text{DIFF} ) / \delta_{\text{DIFF}}$$

Where  $\text{DIFF} = M_{\text{ILEC}} - M_{\text{CLEC}}$

$M_{\text{ILEC}} = \text{ILEC average}$

$M_{\text{CLEC}} = \text{CLEC average}$

$\delta_{\text{DIFF}} = \text{SQRT} [ \delta^2_{\text{ILEC}} ( 1 / n_{\text{CLEC}} + 1 / n_{\text{ILEC}} ) ]$

$\delta^2_{\text{ILEC}} = \text{Calculated variance for ILEC}$

$n_{\text{ILEC}} = \text{number of observations or samples used in ILEC measurement}$

$n_{\text{CLEC}} = \text{number of observations or samples used in CLEC measurement}$

For measurement results that are expressed as percentages or proportions that meet the following criteria:

$$n_{\text{ILEC}} * P_{\text{ILEC}} > 5$$

$$n_{\text{CLEC}} * P_{\text{CLEC}} > 5$$

$$n_{\text{ILEC}} * (1 - P_{\text{ILEC}}) > 5$$

$$n_{\text{CLEC}} * (1 - P_{\text{CLEC}}) > 5$$

### Step 1

$$\rho = \frac{( n_{\text{ILEC}} P_{\text{ILEC}} + n_{\text{CLEC}} P_{\text{CLEC}} )}{n_{\text{ILEC}} + n_{\text{CLEC}}}$$

### Step 2

$$\sigma_{P_{\text{ILEC}} - P_{\text{CLEC}}} = \text{SQRT} [ [ \rho ( 1 - \rho ) ] / n_{\text{ILEC}} + [ \rho ( 1 - \rho ) ] / n_{\text{CLEC}} ]$$

### Step 3

$$Z = ( P_{\text{ILEC}} - P_{\text{CLEC}} ) / \sigma_{P_{\text{ILEC}} - P_{\text{CLEC}}}$$

Where  $n$  = number of observations  
 $P$  = percentage or proportion

If the above conditions are not met, the Fisher's exact test (permutation test for percentages) will be used. The following calculation will be used:

Define  $N_C$  = CLEC sample  
 $N_S$  = SWBT sample  
 $F_C$  = CLEC failures  
 $F_S$  = SWBT failures  
 $U = N_C + N_S$   
 $F = F_C + F_S$

Calculate

$p$  = probability that the CLEC received the observed service or worse

$$P = \frac{\sum_{x=F_C}^{x=\min(F_C, N_C)} \binom{F}{x} \binom{U-F}{N_C-x}}{\binom{U}{N_C}}$$

The value of  $P$  can be converted to an equivalent critical value using the standard normal Z-tables or the appropriate t-table.

For Measurement results that are expressed as rates or ratio

$$Z = (\text{DIFF}) / \delta_{\text{DIFF}}$$

Where  $\text{DIFF} = R_{\text{ILEC}} - R_{\text{CLEC}}$   
 $R_{\text{ILEC}} = \text{num}_{\text{ILEC}} / \text{denom}_{\text{ILEC}}$   
 $R_{\text{CLEC}} = \text{num}_{\text{CLEC}} / \text{denom}_{\text{CLEC}}$

$$R_{\text{pool}} = (\text{Num}_{\text{ILEC}} + \text{num}_{\text{CLEC}}) / (\text{denom}_{\text{ILEC}} + \text{denom}_{\text{CLEC}})$$

$$\delta_{\text{DIFF}} = \text{SQRT} [R_{\text{POOL}} (1/\text{denom}_{\text{CLEC}} + 1/\text{denom}_{\text{ILEC}})]$$

#### 4.0 **Qualifications to use Z-Test**

The proposed Z- tests are applicable to reported measurements that contain 30 or more data points.

In calculating the difference between the performances the formula proposed above applies when a larger CLEC value indicates a higher quality of performance. In cases where a smaller CLEC value indicates a higher quality of performance the order of subtraction should be reversed ( i.e.,  $M_{\text{CLEC}} - M_{\text{ILEC}}$  ,  $P_{\text{CLEC}} - P_{\text{ILEC}}$  ,  $R_{\text{CLEC}} - R_{\text{ILEC}}$  ).

For measurements where the applicable performance criterion is a benchmark rather than parity performance compliance will be determined by setting the denominator of the Z- test formula as one in calculating the Z-statistic.

For measurements that are averages, where the performance delivered to a CLEC is compared to SWBT performance and for which the number of data points are 29 or less, SWBT agrees to application of the following alternatives for compliance.

##### 4.1 **Alternative 1**

For measurements that are expressed as averages, SWBT can utilize the Z-test as applicable for data sets of 30 or greater data points or the permutation test to provide evidence of parity. If SWBT uses the Z-test for data sets under 30, the CLEC can independently perform the permutation test to validate SWBT's results. SWBT will supply all data required to perform the permutation test, including the complete ILEC and CLEC data sets for the measure, to CLEC upon request. The results of the permutation test will control over the results of the Z- test analysis as applicable for data sets 30 or greater.

##### 4.2 **Alternative 2**

Permutation analysis which use standard computational routines will be applied to calculate the z-statistic, similar to the logic described below:

- 1) Choose a sufficiently large number T.
- 2) Pool and mix the CLEC and ILEC data sets.
- 3) Randomly subdivide the pooled data sets into two pools, one the same size as the original CLEC data set ( $n_{\text{CLEC}}$  ) and one reflecting the remaining data points, (which is equal to the size of the original ILEC data set or  $n_{\text{ILEC}}$  ).
- 4) Compute and store the Z-test score ( $Z_S$ ) for this sample.

- 5) Repeat steps 3 and 4 for the remaining T-1 sample pairs to be analyzed. (If the number of possibilities is less than 1 million, include a programmatic check to prevent drawing the same pair of samples more than once).
- 6) Order the  $Z_S$  results computed and stored in step 4 from lowest to highest.
- 7) Compute the Z-test score for the original two data sets and find its rank in the ordering determined in step 6.
- 8) Repeat the steps 2 - 7 ten times and combine the results to determine  $P = (\text{Summation of ranks in each of the 10 runs divided by } 10T)$ .
- 9) Using a cumulative standard normal distribution table, find the value  $Z_A$  such that the probability (or cumulative area under the standard normal curve) is equal to P calculated in step 8.
- 10) Compare  $Z_A$  with the desired critical value as determined from the critical Z-table. If  $Z_A$  is greater than the designated critical Z-value in the table, then the performance is noncompliant.

- 4.3 SWBT and CLEC will, upon PSC request, provide software and technical support as needed by Commission Staff for purposes of utilizing the permutation analysis. Any CLEC who opts into this Attachment 17 agrees to share in providing such support to Commission Staff.

## **5.0 Overview of Enforcement Structure**

- 5.1 SWBT agrees with the following methodology for developing the liquidated damages and penalty assessment structure for Tier 1 liquidated damages and Tier 2 assessments:
- 5.2 SWBT will pay liquidated damages to the CLEC according to the terms set forth in this Attachment.
- 5.3 Liquidated damages apply to Tier 1 measurements identified as High, Medium, or Low in Appendix 1.
- 5.4 Assessments are applicable to Tier 2 measures identified as High, Medium, or Low in Appendix 1 and are payable to the Missouri State Treasury.
- 5.5 SWBT will not be liable for the payment of either Tier 1 damages or Tier 2 assessments until the Commission approves an Interconnection Agreement between a CLEC and SWBT containing the terms of Attachment 17 of this Agreement. Tier 2 assessments will be paid on the aggregate performance for all CLECs that are operating in Missouri.

**6.0 Procedural Safeguards and Exclusions**

- 6.1 SWBT agrees that the application of the assessments and damages provided for herein is not intended to foreclose other noncontractual legal and regulatory claims and remedies that may be available to a CLEC. By incorporating these liquidated damages terms into an interconnection agreement, SWBT and CLEC agree that proof of damages from any “noncompliant” performance measure would be difficult to ascertain and, therefore, liquidated damages are a reasonable approximation of any contractual damage resulting from a non-compliant performance measure. SWBT and CLEC further agree that liquidated damages payable under this provision are not intended to be a penalty.
- 6.2 SWBT’s agreement to implement these enforcement terms, and specifically its agreement to pay any “liquidated damages” or “assessments” hereunder, will not be considered as an admission against interest or an admission of liability in any legal, regulatory, or other proceeding relating to the same performance. SWBT and CLEC agree that CLEC may not use: (1) the existence of this enforcement plan; or (2) SWBT’s payment of Tier 1 “liquidated damages” or Tier 2 “assessments” as evidence that SWBT has discriminated in the provision of any facilities or services under Sections 251 or 252, or has violated any state or federal law or regulation. SWBT’s conduct underlying its performance measures, and the performance data provided under the performance measures, however, are not made inadmissible by these terms. Any CLEC accepting this performance remedy plan agrees that SWBT’s performance with respect to this remedy plan may not be used as an admission of liability or culpability for a violation of any state or federal law or regulation. Further, any liquidated damages payment by SWBT under these provisions is not hereby made inadmissible in any proceeding relating to the same conduct where SWBT seeks to offset the payment against any other damages a CLEC might recover; whether or not the nature of damages sought by the CLEC is such that an offset is appropriate will be determined in the related proceeding. The terms of this paragraph do not apply to any proceeding before the Commission or the FCC to determine whether SWBT has met or continues to meet the requirements of section 271 of the Act.
- 6.3 SWBT shall not be liable for both Tier 2 “assessments” and any other assessments or sanctions under Missouri Public Service Commission Law or the Commission’s service quality rules relating to the same performance.
- 6.4 Every six months, CLEC may participate with SWBT, other CLECs, and Commission representatives to review the performance measures to determine whether measurements should be added, deleted, or modified; whether the applicable benchmark standards should be modified or replaced by parity standards; and whether to move a classification of a measure to High, Medium, Low, Diagnostic, Tier 1 or Tier 2. The criterion for reclassification of a measure shall be whether the actual volume of data points was lesser or greater than anticipated. Criteria for review of performance measures, other than for possible reclassification, shall be whether there exists an omission or failure to capture intended performance, and whether there is duplication of another measurement. Performance measures for 911 may be examined at any six month review to determine

whether they should be reclassified. The first six-month period will begin when an interconnection agreement including this remedy plan is adopted by a CLEC and approved by the Commission. Any changes to existing performance measures and this remedy plan shall be by mutual agreement of the parties and, if necessary, with respect to new measures and their appropriate classification, by arbitration. The current measurements and benchmarks will be in effect until modified hereunder or expiration of the interconnection agreement.

- 6.5 SWBT and CLEC acknowledge that no later than two years after SWBT or its affiliate receives Section 271 relief, the Commission's intention is to reduce the number of performance measures subject to damages and assessments by 50% to the extent there is a smaller number of measures that truly do capture all of the issues that are competition affecting and customer affecting.
- 6.6 CLEC and SWBT will consult with one another and attempt in good faith to resolve any issues regarding the accuracy or integrity of data collected, generated, and reported pursuant to this Attachment. In the event that CLEC requests such consultation and the issues raised by CLEC have not been resolved within 45 days after CLEC's request for consultation, then SWBT will allow CLEC to have an independent audit conducted, at CLEC's expense, of SWBT's performance measurement data collection, computing, and reporting processes. In the event the subsequent audit reinforces the problem identified during the 45 days of consultation period or if any new problem is identified, SWBT shall reimburse a CLEC any expense incurred by the CLEC for such audit. CLEC may not request more than one audit per twelve calendar months under this section. This section does not modify CLEC's audit rights under other provisions of this Agreement. SWBT agrees to inform all CLECs of any problem identified during the audit initiated by any CLEC.

## **7.0 Exclusions Limited**

- 7.1 SWBT shall not be obligated to pay liquidated damages or assessments for noncompliance with a performance measurement if, but only to the extent that, such noncompliance was the result of any of the following: a Force Majeure event; an act or omission by a CLEC that is contrary to any of its obligations under its interconnection agreement with SWBT or under the Act or Missouri law; or non-SWBT problems associated with third party systems or equipment, which could not have been avoided by SWBT in the exercise of reasonable diligence. Provided, however, the third party exclusion will not be raised more than three times within a calendar year. SWBT will not be excused from payment of liquidated damages or assessments on any other grounds, except by application of the procedural threshold provided for below. Any dispute regarding whether a SWBT performance failure is excused under this paragraph will be resolved with the Commission through a dispute resolution proceeding as outlined in the General Terms and Conditions of this Agreement or, if the parties agree, through commercial arbitration with the American Arbitration Association (AAA). SWBT will have the burden in any such proceeding to demonstrate that its noncompliance with the performance measurement was excused on one of the grounds set forth in this paragraph.

If a Force Majeure event or other excusing event recognized in the first sentence of this section 7.1 only suspends SWBT's ability to timely perform an activity subject to performance measurement, the applicable time frame in which SWBT's compliance with the parity or benchmark criterion is measured will be extended on an hour-for-hour or day-for-day basis, as applicable, equal to the duration of the excusing event.

- 7.2 In addition to the provisions set forth herein, SWBT shall not be obligated to pay liquidated damages or assessments for noncompliance with a performance measure if the Commission finds such noncompliance was the result of an act or omission by a CLEC that is in bad faith, for example, unreasonably holding orders and/or applications and "dumping" such orders or applications in unreasonably large batches, at or near the close of a business day, on a Friday evening or prior to a holiday, or unreasonably failing to timely provide forecasts to SWBT for services or facilities when such forecasts are required to reasonably provide such services or facilities.
- 7.3 CLEC agrees that a maximum annual cap of \$98 million will apply to the aggregate total of any Tier-1 liquidated damages (including any such damages paid pursuant to this Agreement or to any other Missouri interconnection agreement with a CLEC) and Tier 2 assessments or voluntary payments made by SWBT pursuant to any Missouri interconnection agreement with a performance remedy plan. The annual cap will be determined by SWBT, based on the formula of 36% of Net Return as set forth at ¶ 436 and footnote 1332 of the FCC's December 22, 1999 Memorandum Opinion and Order in CC Docket No. 99-295. In no event will the annual cap be greater than \$98 million per year, or less than \$76.3 million. Once the annual cap is established, a monthly cap will be determined by dividing the amount of the annual cap by twelve. CLEC further acknowledges that a maximum monthly cap of \$8.17 million ( $\$98 \text{ million} \div 12$ ) for Tier 1 liquidated damages will apply to all performance payments made by SWBT under all SWBT Missouri interconnection agreements. To the extent in any given month the monthly cap is not reached, the subsequent month's cap will be increased by an amount equal to the unpaid portion of the previous month's cap. At the end of the year, if the aggregate total of Tier 1 liquidated damages and Tier 2 Assessments under all SWBT Missouri interconnection agreements equals or exceeds the annual cap, but SWBT has paid less than that amount due to the monthly cap, SWBT shall be required to pay an amount equal to the annual cap. In such event, Tier-1 liquidated damages shall be paid first on a pro rata basis to CLECs, and any remainder within the annual cap, shall be paid as a Tier 2 Assessment. In the event the total calculated amount of damages and assessments for the year is less than the annual cap, SWBT shall be obligated to pay ONLY the actual calculated amount of damages and assessments. The annual cap shall be calculated on the first day of the month following the annual anniversary of Commission approval of the Missouri 271 Agreement, using the most recent publicly available ARMIS data. For purposes of applying the cap, the relevant calendar year shall begin on the first day of the month following the month in which the Commission approved the Missouri 271 Agreement.
- 7.3.1 Whenever SWBT Tier 1 payments to an individual CLEC in a given month exceed \$1,000,000, or the Tier 1 payments to all CLECs in a given month exceed the monthly



cap, then SWBT may commence a show cause proceeding as provided for below. Upon timely commencement of the show cause proceeding, SWBT must pay the balance of damages owed in excess of the threshold amount into escrow, to be held by a third party pending the outcome of the show cause proceeding. To invoke these escrow provisions, SWBT must file with the Commission, not later than the due date of the affected damages payments, an application to show cause why it should not be required to pay any amount in excess of the procedural threshold. SWBT's application will be processed in an expedited manner under the General Terms and Conditions of this Agreement. SWBT will have the burden of proof to demonstrate why, under the circumstances, it would be unjust to require it to pay liquidated damages in excess of the applicable threshold amount. If SWBT reports non-compliant performance to a CLEC for three consecutive months on 20% or more of the measures reported to the CLEC, but SWBT has incurred no more than \$340,000 in liquidated damages obligations to the CLEC for that period under the enforcement terms set out here, then the CLEC may commence an expedited dispute resolution under this paragraph pursuant to the General Terms and Conditions of the M2A. In any such proceeding the CLEC will have the burden of proof to demonstrate why, under the circumstances, justice requires SWBT to pay damages in excess of the amount calculated under these enforcement terms.

- 7.3.2 SWBT will post on its Internet website the aggregate payments of any liquidated damages or assessments.
- 7.4 With respect to any interconnection agreement, SWBT and any CLEC may request two expedited dispute resolution proceedings pursuant to the two preceding paragraphs before the Commission or, if the parties agree, through commercial arbitration with the AAA; during the term of the contract without having to pay attorneys fees to the winning company. For the third proceeding and thereafter, the requesting party must pay attorneys fees, as determined by the Commission or AAA, if that party loses.
- 7.5 In the event the aggregate total of Tier 1 damages and Tier 2 assessments under all SWBT Missouri interconnection agreements reaches the annual cap within a given year and SWBT continues to deliver noncompliant performance during the same year to any CLEC or all CLECs, the Commission may recommend to the FCC that SWBT should cease offering in-region interLATA services to new customers.

## **8.0 Tier 1 Damages**

Tier 1 liquidated damages apply to measures designated in Appendix 1 as High, Medium, or Low when SWBT delivers "noncompliant" performance as defined above.

- 8.1 Under the damages for Tier 1 measures, the number of measures that may be classified as "noncompliant" before a liquidated damage is applicable is limited to the K values shown below. The applicable K value is determined based upon the total number of measures with a sample size of 10 or greater that are required to be reported to a CLEC where a sufficient number of observations exist in the month to permit parity conclusions regarding a compliant or noncompliant

condition. For any performance measurement, each disaggregated category for which there are a minimum of 10 data points constitutes one “measure” for purposes of calculating K value. The designated K value and the critical Z-value seek to balance random variation, Type 1 and Type 2 errors. Type 1 error is the mistake of charging an ILEC with a violation when it may not be acting in a discriminatory manner (that is, providing noncompliant performance). Type 2 error is the mistake of not identifying a violation when the ILEC is providing discriminatory or noncompliant performance.

Liquidated damages in the amount specified in the table below apply to all “noncompliant” measures in excess of the applicable “K” number of exempt measures. Liquidated damages apply on a per occurrence basis, using the amount per occurrence taken from the table below, based on the designation of the measure as High, Medium, or Low in Appendix 1 and the number of consecutive months for which SWBT has reported noncompliance for the measure. For those measures listed on Appendix 2 as “Measurements Subject to Per Occurrence Damages or Assessments With a Cap,” the amount of liquidated damages in a single month shall not exceed the amount listed in the table below for the “Per Measurement” category. For those measures listed in Appendix 2 as “Measurements Subject to Per Measure Damages or Assessment,” liquidated damages will apply on a per measure basis, at the amounts set forth in the table below. The methodology for determining the order of exclusion, and the number of occurrences is addressed below in section 11.0, “Methods of Calculating the Liquidated Damages and Assessment Amounts.”

- 8.3 The “K” exemption will not apply if SWBT has been non-compliant in the previous two consecutive months for the following performance measurements: PMs 1.1, 5, 13, 35, 55.1, 58, 59, 59.1, 65.1, 67, 69, 70, 73, 107 and 114. The “K” exemption will again apply when two consecutive months of compliant performance has been demonstrated.

### **LIQUIDATED DAMAGES TABLE FOR TIER 1 MEASURES**

Per occurrence						
Measurement Group	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6 and each following month
High	\$150	\$250	\$500	\$600	\$700	\$800
Medium	\$75	\$150	\$300	\$400	\$500	\$600
Low	\$25	\$50	\$100	\$200	\$300	\$400

Per Measure / Cap*						
Measurement Group	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6 and each

						following month
High	\$25,000	\$50,000	\$75,000	\$100,000	\$125,000	\$150,000
Medium	\$10,000	\$20,000	\$30,000	\$40,000	\$50,000	\$60,000
Low	\$5,000	\$10,000	\$15,000	\$20,000	\$25,000	\$30,000

### ASSESSMENT TABLE FOR TIER 2 MEASURES

Per occurrence

Measurement Group	
High	\$500
Medium	\$300
Low	\$200

Per Measure/Cap\*

Measurement Group	
High	\$75,000
Medium	\$30,000
Low	\$20,000

\* For per occurrence with cap measures, the occurrence value is taken from the per occurrence table, subject to the per measure with cap amount.

**8.4** For measures reported on an aggregate Company-wide basis, any Tier I penalty will be assessed by reference to the relative weight of the individual CLEC activity in Missouri in proportion to such activity within SWBT's service area as a whole, subject to the associated cap. The following process will calculate this payment:

1. Determine the individual CLEC market ( $C^M$ ) in the SWBT states. This is equal to the sum of the resold ( $R^M$ ) and UNE access lines ( $U^M$ ) in the five-state region.<sup>1</sup>
2. The maximum assessment is then calculated for the given performance measure on the individual CLEC Market ( $P^M$ ).
3. Determine the individual CLEC market in the each state ( $C^s$ ).<sup>2</sup> The sum of each state's individual CLEC market will equal total individual CLEC market in the SWBT states. In other words,  $C^{s1} + C^{s2} + C^{s3} + C^{s4} + C^{s5} = C^M$ .
4. Determine the state specific proportion of the  $C^M$ .

<sup>1</sup> The number of resale and UNE access lines (both UNE-loop and UNE-platform) are used to determine the CLEC Market share to be used for the calculation of state specific payments.

<sup>2</sup> This data will be equal to the number of loops or UNE equivalents from Performance Measures #37, 54, & 65.

5. Payments are then calculated for the given performance measure on each state's individual CLEC market ( $P^s$ ).

The Tier I payment to be assessed in Missouri will be the lesser of the calculated state payment ( $P^s$ ) or the measurement cap

- 8.5 Tier 1 Liquidated Damages for PM 107 - "Percentage Missed Collocation Due Dates" are based on the number of days missed and are as follows:

Missed by 1-10 Days	\$150 per day
Missed by 11-20 Days	\$300 per day
Missed by 21-30 Days	\$450 per day
Missed by 31-40 Days	\$500 per day
Missed by greater than 40 days	\$1000 per day

## 9 **Tier 2 Assessments to the State**

- 9.1 Assessments payable to the Missouri State Treasury apply to the Tier 2 measures designated on Appendix 1 as High, Medium, or Low when SWBT performance is out of parity or does not meet the benchmarks for the aggregate of all CLEC data. Specifically, if the Z-test value is greater than the critical Z-value, the performance for the reporting category is out of parity or below standard.

Tier 2 measurements must have at least 10 observations per month to determine compliance.

- 9.2 For those measurements where a per occurrence assessment applies, an assessment as specified in the Assessment Table in section 8.2 for each occurrence is payable to the Missouri State Treasury for each measure that exceeds the critical Z-value, shown in the table in section 9.3 below, for three consecutive months. For those measurements listed in Appendix 2 as measurements subject to per occurrence with a cap, an assessment as shown in the Assessment Table in section 8.2 above for each occurrence with the applicable cap is payable to the Missouri State Treasury for each measure that exceeds the critical Z-value, shown in the table below, for three consecutive months. For those Tier 2 measurements listed in Appendix 2 as subject to a per measurement assessment an assessment amount as shown in the Assessment Table in section 8.2 above is payable to the Missouri State Treasury for each measure that exceeds the critical Z-value, shown in the table below, for three consecutive months.

- 9.3 The following table will be used for determining the Critical Z-value for each measure, as well as the K values referred to below based on the total number of measures that are applicable to a CLEC in a particular month. The table can be extended to include CLECs with fewer performance measures. The Critical Z-value for Tier 2 will be calculated in the same manner as for Tier 1.<sup>3</sup>

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<sup>3</sup> This sentence is added to clarify the manner in which critical-Z value is calculated.

**Critical Z-Statistic Table**

Number of Performance Measures	K Values	Critical Z - Value
1	0	1.65
2	0	1.96
3	0	2.12
4	0	2.23
5	0	2.32
6	0	2.39
7	0	2.44
8	1	1.69
9	1	1.74
10-19	1	1.79
20-29	2	1.73
30-39	3	1.68
40-49	3	1.81
50-59	4	1.75
60-69	5	1.7
70 – 79	6	1.68
80 – 89	6	1.74
90 – 99	7	1.71
100 – 109	8	1.68
110 – 119	9	1.7
120 – 139	10	1.72
140 – 159	12	1.68
160 – 179	13	1.69
180 – 199	14	1.7
200 – 249	17	1.7
250 – 299	20	1.7
300 – 399	26	1.7
400 – 499	32	1.7
500 – 599	38	1.72
600 – 699	44	1.72
700 – 799	49	1.73
800 – 899	55	1.75
900 – 999	60	1.77
1000 and above	Calculated for Type 1 Error Probability of 5%	Calculated for Type 1 Error Probability of 5%

9.4 For measures reported on an aggregate Company-wide basis, any Tier 2 assessment will be calculated by reference to the relative weight of CLEC activity in Missouri in proportion to such activity within SWBT's service area as a whole, subject to the associated cap. The following process will be used to calculate this payment:

- 1) Determine the total CLEC market ( $C^M$ ) in the SWBT states. This is equal to the sum of the resold ( $R^M$ ) and UNE access lines ( $U^M$ ) in the five-state region.<sup>4</sup>
- 2) The maximum assessment is then calculated for the given performance measure on the total CLEC Market ( $P^M$ ).
- 3) Determine the CLEC market in the each state ( $C^s$ ).<sup>5</sup> The sum of each state's CLEC market will equal total CLEC market in the SWBT states. In other words,
 
$$C^{s1} + C^{s2} + C^{s3} + C^{s4} + C^{s5} = C^M$$
- 4) Determine the state specific proportion of the  $C^M$ .
- 5) Payments are then calculated for the given performance measure on each state's CLEC market ( $P^s$ ).
- 6) The Tier 2 payment to be assessed in Missouri will be the lesser of the calculated state payment ( $P^s$ ) or the measurement cap.

## 10.0 General Assessments

10.1 If SWBT fails to submit performance reports by the 20th day of the month, the following assessments apply unless excused for good cause by the Commission:

If no reports are filed, \$5,000 per day past due;

If incomplete reports are filed, \$1,000 per day for each missing performance result.

- 10.2 If SWBT alters previously reported data to a CLEC, and after discussions with SWBT the CLEC disputes such alterations, then the CLEC may ask the Commission to review the submissions and the Commission may take appropriate action. This does not apply to the limitation stated under section 7.0 titled "Exclusions Limited."
- 10.3 When SWBT performance creates an obligation to pay liquidated damages to a CLEC or an assessment to the State of Missouri under the terms set forth herein, SWBT shall make payment in the required amount on or before the 30<sup>th</sup> day following the due date of the performance measurement report for the month in which the obligation arose (e.g., if SWBT performance through March is such that SWBT owes liquidated damages to CLECs for March performance, or assessments to the State of Missouri for January – March performance, then those payments will be due May 20, 30 days after the April 20

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<sup>4</sup> The number of resale and UNE access lines (both UNE-loop and UNE-platform) are used to determine the CLEC Market share to be used for the calculation of state specific payments.

<sup>5</sup> The CLEC market in each state will be represented by (i.e., equal to) the number of loops or UNE equivalents from Performance Measures #37, 54, & 65.

due date for reporting March data). For each day after the due date that SWBT fails to pay the required amount, SWBT will pay interest to the CLEC at the maximum rate permitted by law for a past due liquidated damages obligation and will pay an additional \$500 per day to the Missouri State Treasury for a past due assessment.

- 10.4 SWBT may not withhold payment of liquidated damages to a CLEC, for any amount up to \$1,000,000 a month, unless SWBT had commenced an expedited dispute resolution proceeding on or before the payment due date, asserting one of the three permitted grounds for excusing a damages payment below the procedural threshold (Force Majeure, CLEC fault, and non-SWBT problems associated with third-party systems or equipment). In order to invoke the procedural threshold provisions allowing for escrow of damages obligations in excess of \$1,000,000 to a single CLEC (or \$8.17 million to all CLECs), SWBT must pay the threshold amount to the CLEC(s), pay the balance into escrow, and commence the show cause proceeding on or before the payment due date.
- 10.5 CLEC will have access to monthly reports on performance measures and business rules through an Internet website that includes individual CLEC data, aggregate CLEC data, and SWBT's data.
- 10.6 The cap provided in Section 7.3 does not apply to assessments under Section 10 of this Attachment.
- 10.7 SWBT agrees to provide the following whenever it reports two consecutive parity or benchmark violations on any Performance Measurement identified below, and for each succeeding consecutive violation of that Measurement.
- 10.8 In the event SWBT misses any Tier-2 measurement for two consecutive months, and for each succeeding violation of that measurement, SWBT shall conduct an investigation to identify the problem and take corrective action. In addition, SWBT shall post such findings and a description of corrective action on its web site.
- 10.9 In the event SWBT misses any Tier-1 measurement for two consecutive months, for each succeeding violation of that measurement, upon request from a CLEC, SWBT shall conduct a joint investigation with the requesting CLEC to identify and resolve the problem in a cooperative manner. Such corrective action may include additional training, allocation of additional resources, or modification of SWBT processes, to the extent appropriate.

#### **11.0 Methods of Calculating the Liquidated Damages and Assessment Amounts**

The following methods apply in calculating per occurrence liquidated damages and assessments:

##### **11.1 Tier 1 Liquidated Damages**

###### **11.1.1 Application of K Value Exclusions**



Determine the number and type of measures with a sample size greater than 10 that are “noncompliant” for the individual CLEC for the month, applying the parity test and bench mark provisions provided for above. Sort all measures having non-compliant classification with a sample size greater than 10 in ascending order based on the number of data points or transactions used to develop the performance measurement result (e.g., service orders, collocation requests, installations, trouble reports). Exclude the first “K” measures designated Low on Appendix 1, starting with the measurement results having the fewest number of underlying data points greater than 10. If all Low measurement results with a non-compliant designation are excluded before “K” is exceeded, then the exclusion process proceeds with the Medium measurement results and thereafter the High measurement results. If all Low, Medium, and High measurements are excluded, then those measurements with sample sizes less than 10 may be excluded until “K” measures are reached. In each category measurement results with non-compliant designation having the fewest underlying data point are then excluded until either all noncompliant measurement results are excluded or “K” measures are excluded, whichever occurs first. For the remaining non-compliant measures that are above the K number of measures, the liquidated damages per occurrence are calculated as described further below. (Application of the K value may be illustrated by an example, if the K value is 6, and there are 7 Low measures and 1 Medium and 1 High which exceed the critical Z-value, the 6 Low measures with the lowest number of service orders used to develop the performance measure are not used to calculate the liquidated damages, while the remaining 1 Low measure, 1 Medium measure, and 1 High measure which exceed the critical Z-value are used.) In applying the K value, the following qualifications apply to the general rule for excluding measures by progression from measures with lower transaction volumes to higher. A measure for which liquidated damages are calculated on a per measure basis will not be excluded in applying the K value unless the amount of liquidated damages payable for that measure is less than the amount of liquidated damages payable for each remaining measure. A measure for which liquidated damages are calculated on a per occurrence basis subject to a cap will be excluded in applying the K value whenever the cap is reached and the liquidated damages payable for the remaining noncompliant measures are greater than the amount of the cap.

#### 11.1.2 Calculating Tier 1 Liquidated Damages

##### 11.1.2.1 Measures for Which the Reporting Dimensions are Averages or Means

Step 1: Calculate the average or the mean for the measure for the CLEC that would yield the critical Z-value. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the critical Z-value by adding or subtracting the critical Z-value to the benchmark as appropriate, subject to section 4.0 and the Business Rules.).

Step 2: Calculate the percentage difference the between the actual average and the calculated average.

$\%diff = (Clec\text{-}result - Calculated\_Value) / Calculated\ Value$ . Assuming high values indicate poor performance. The percent difference will be capped at a maximum of 100%.

Step 3: Multiply the total number of data points by the percentage calculated in the previous step and the per occurrence dollar amount taken from the Liquidated Damages Table to determine the applicable liquidated damages for the given month for that measure.

11.1.2.2 Measures for Which the Reporting Dimensions are Percentages, Ratios or Proportions.

- Step 1: Calculate the percentage for the measure for the CLEC that would yield the critical Z-value. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the critical Z-value by adding or subtracting the critical Z-value to the benchmark as appropriate, subject to section 4.0 and the Business Rules.).
- Step 2: Calculate the difference between the actual percentage for the CLEC and the calculated percentage.
- Step 3: Multiply the total number of data points by the difference in percentage calculated in the previous step and the per occurrence dollar amount taken from the Liquidated Damages Table in section 8.2 to determine the applicable liquidated damages for the given month for that measure.

12.1 Tier Two Liquidated Assessments

- 12.1.1 Determine the Tier 2 measurement results, such as High, Medium, or Low that are noncompliant for three consecutive months for all CLECs, or individual CLEC if the measure is not reported for all CLECs and which has at least 10 data points each month..

If the noncompliant classification continues for three consecutive months, an additional assessment will apply in the third month and in each succeeding month as calculated below, until SWBT reports performance that meets the applicable criterion. That is, Tier 2 assessments will apply on a “rolling three month” basis, one assessment for the average number of occurrences for months 1-3, one assessment for the average number of occurrences for months 2-4, one assessment for the average number of occurrences for months 3-5, and so forth, until satisfactory performance is established.

12.1.2 Measures for Which the Reporting Dimensions are Averages or Means

- Step 1: Calculate the average or the mean for the measure for the CLEC that would yield the critical Z-value for the third consecutive month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the Critical Z-value by adding or subtracting the critical Z-value to the benchmark as appropriate, subject to section 4.0 and the Business Rules.).
- Step 2: Calculate the percentage difference between the actual average and the calculated average for each month. The calculation is as follows:

## Parity Measurements:

$\%diff = (\text{actual average} - \text{calculated average}) / \text{calculated average}$ . (high average indicates poor performance.). The percent difference will be capped at a maximum of 100%.

## Benchmark measures:

$\%diff = (\text{actual average} - \text{benchmark} - \text{critical Z}) / \text{actual average}$ .

- Step 3: Multiply the total number of data points each month by the percentage calculated in the previous step. Calculate the average for three months rounding to the next integer and multiply the result by \$500, \$300, and \$200 for Measures that are designated as High, Medium, and Low respectively; to determine the applicable assessment payable to the Missouri State Treasury for that measure.

### 12.1.3 Measures for Which the Reporting Dimensions are Percentages, Ratios or Proportions

- Step 1: Calculate the monthly percentage for the measure for the aggregate CLEC that would yield the critical Z-value for each month. Use the same denominator as the one used in calculating the Z-statistic for the measure. (For benchmark measures, calculate the value that would yield the critical Z-value by adding or subtracting the critical Z-value to the benchmark as appropriate, subject to section 4.0 and the Business Rules.).
- Step 2: Calculate the difference between the actual percentage for the aggregate CLEC and the calculated percentage for each of the three non-compliant months. The calculation is as follows:

## Parity Measurements:

$Diff = \text{CLEC result} - \text{calculated percentage}$ . (This formula is applicable where a high value is indicative of poor performance. The formula is reversed where high performance is indicative of good performance.)

## Benchmark Measurements:

$Diff = \text{CLEC result} - \text{benchmark} - \text{critical z value (if applicable)}$

- Step 3: Multiply the total number of data points for each month by the difference in percentage calculated in the previous step. Calculate the average for three months rounding to the next integer and multiply the result by \$500, \$300, and \$200 for measures that are designated as High, Medium, and Low respectively; to determine the applicable assessment for that measure.
- 13.0 Advanced and Nascent Services**

13.1 In order to ensure parity and benchmark performance where CLECs order low volumes of advanced and nascent services, SWBT will make additional voluntary payments to the Missouri State Treasury on those measurements listed in section 14.2 below ("Qualifying Measurements"). Such additional voluntary payments will only apply when there are more than 10 and less than 100 observations for a Qualifying Measurement on average statewide for a three month period with respect to the following order categories:

- UNE loop and port combinations,
- resold ISDN,
- ISDN UNE loop and port combinations,
- BRI loop with test access, and
- DSL loops.

13.2 The Qualifying Measurements are as follows:

Provisioning Measurements

- PMs 29, 45, 58 - Percent SWBT Caused Missed Due Dates
- PMs 35, 46, 59 - Installation Trouble Reports Within "X" Days
- PMs 27, 43, 56 - Mean Installation Interval
- PMs 32, 49, 62 - Average Delay Days for SWBT Caused Missed Due Dates
- PM 55.1 - Average Installation Interval – DSL
- PM 57 - Average Response Time for Loop Qualification Information

Maintenance Measurements

- PMs 38, 66 - % Missed Repair Commitments
- PMs 41, 53, 69 - % Repeat Reports
- PMs 39, 52, 67 - Mean Time to Restore
- PMs 37, 54, 65 - Trouble Report Rate

13.3 The additional voluntary payments referenced in section 14.1 will be made if SWBT fails to provide parity or benchmark service for the above measurements as determined by the use of the modified Z-test and a critical Z-value for either:

- 3 consecutive months; or
- 6 months or more in a calendar year.

13.4 The additional voluntary payments will be calculated on the rolling average of occurrences or measurements, as appropriate, where SWBT has failed to provide parity or benchmark performance for 3 consecutive months. If SWBT fails to provide parity or benchmark performance in Missouri for 6 or more months in a calendar year, the voluntary payments will be calculated as if all such months were missed consecutively.

- 13.5 If, for the three months that are utilized to calculate the rolling average, there were 100 observations or more on average for the qualifying measurement or sub-measurement, then no additional voluntary payments will be made to the Missouri State treasury. However, if during this same time frame there is an average of more than 10 but less than 100 observations for a qualifying measurement on a statewide basis, then SWBT shall calculate the additional payments to the Missouri State treasury by first applying the normal Tier 2 assessment calculation methodology to that qualifying measurement, and then trebling that amount.
- 13.6 Any payments made hereunder shall be subject to the annual cap set forth in section 7.3.
- 14.0 Attached hereto, and incorporated herein by reference, are the following Appendices:
- Appendix 1: Performance Measures Subject to Tier 1 and Tier 2 Damages Identified as High, Medium, and Low
- Appendix 2: Measurements Subject to Per Occurrence Damages or Assessment With a Cap and Measurements Subject to Per Measure Damages or Assessment
- Appendix 3: Performance Measurement Business Rules (Version 3.0)