STATISTICAL ANALYSIS

A. Statistical Methodologies:

The Performance Assurance Plan uses statistical methodologies as one means to determine if "parity" exists, or if the wholesale service performance for CLECs is equivalent to the performance for Verizon-MA. For performance measures where "parity" is the standard and sufficient sample size exists, Verizon-MA will use the "modified Z statistic" proposed by a number of CLECs who are members of the Local Competitors User Group ("LCUG"). A Z or t score of below -1.645 provides a 95% confidence level that the variables are different, or that they come from different processes. The specific formulas are as follows:

Counted Variables:	Measured Variables:
$Z = \dfrac{P_{INC} - P_{CLEC}}{\sqrt{P_{INC}(1 - P_{INC})\left(\dfrac{1}{n_{INC}} + \dfrac{1}{n_{CLEC}}\right)}}$	$t = \dfrac{\overline{X}_{INC} - \overline{X}_{CLEC}}{\sqrt{S^2{}_{INC}\left(\dfrac{1}{n_{INC}} + \dfrac{1}{n_{CLEC}}\right)}}$

Note: If the metric is one where a higher mean or higher percentage signifies better performance, the proportions (counted variables) or means (measured variables) in the numerator of the statistical formulas should be reversed.

Definitions:

Measured Variables are metrics of means or averages, such as mean time to repair, or average interval.

Counted Variables are metrics of proportions, such as percent measures.

$\overline{X}$ is defined as the average performance or mean of the sample.

S is defined as the standard deviation.

n is defined as the sample size.

p is defined as the proportion, for percentages 90% translates to a 0.90 proportion.

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1 For metrics where higher numbers indicate better performance, this equation is reversed. These include: % Completed w/in 5 days – (1-5 lines – No Dispatch and % Completed w/in 5 days (1-5 lines – Dispatch)

B. Sample Size Requirements:

The standard Z or t statistic will be used for measures where "parity" is the standard, unless there is insufficient sample size. For measured variables, the minimum sample size for both the Verizon and the CLEC is 30. For counted variables, both $n_{INC}p_{INC}(1-p_{INC})$ and $n_{CLEC}p_{CLEC}(1-p_{CLEC})$ must be greater than or equal to 5. When the sample size requirement is not met, Verizon-MA will do the following:

1. If the performance for the CLEC is better than Verizon-MA's performance, no statistical analysis is required.
2. If the performance is worse for the CLEC than Verizon-MA, Verizon-MA will use the t distribution or binomial (counted or measured) until such time as a permutation test can be run in an automated fashion. If the performance is worse for the CLEC than for the incumbent for a counted variable, the incumbent will utilize the hypergeometric distribution, where calculable in an automated fashion in a manner that is contained within, or directly linked to the performance reporting spreadsheets, to produce the same result as would be obtained from the permutation test. The incumbent will provide monthly updates regarding its progress in automating the permutation test for measured variables and for automating the permutation test for counted variables in those instances where the test in not calculable in a manner tied to the performance reporting spreadsheets.
3. If the t or binomial distribution show an "out of parity" result, Verizon will run the permutation test.
4. If the permutation test shows an "out of parity" condition, Verizon-MA will perform a root cause analysis to determine cause. If the cause is the result of "clustering" within the data, Verizon-MA will provide documentation

demonstrating that clustering caused the out of parity condition. The nature of the variables used in the performance measures is such that they do not meet the requirements 100% of the time for any statistical testing including the requirement that individual data points must be independent. The primary example of such non-independence is a cable failure. If a particular CLEC has fewer than 30 troubles and all are within the same cable failure with long duration, the performance will appear out of parity due to this clustering. However, for all troubles, including Verizon-MA troubles, within that individual event, the trouble duration is identical. Another example of clustering is if a CLEC has a small number of orders in a single location, with a facility problem. If this facility problem exists for all customers served by that cable and is longer than the average facility problem, the orders are not independent and clustering occurs. Finally, if root cause shows that the difference in performance is the result of CLEC behavior, Verizon-MA will identify such behavior and work with the respective CLEC on corrective action.

C. Verizon Exceptions Process:

1. A key frailty of using statistics to evaluate parity is that a key assumption about the data, necessary to use statistics, is faulty. As noted, one such assumption is that the data is independent. Events included in the performance measures of provisioning and maintenance of telecommunication services are not independent. The lack of independence is referred to as "clustering" of data. Clustering occurs when individual items (orders, troubles, *etc.*) are clustered together as one single event. This being the case, Verizon-MA will have the right to

file an exception to the performance scores in the Performance Assurance Plan if the following events occur:

a. **Event Driven Clustering: Cable Failure:** If a significant proportion (more than 30%) of a CLEC's troubles are in a single cable failure, Verizon-MA may provide data demonstrating that all troubles within that failure, including Verizon-MA troubles were resolved in an equivalent manner. Verizon-MA also will provide the repair performance data with that cable failure performance excluded from the overall performance for both the CLEC and Verizon-MA. The remaining troubles will be compared according to normal statistical methodologies.

b. **Location Driven Clustering: Facility Problems:** If a significant proportion (more than 30%) of a CLEC's missed installation orders and resulting delay days were due to an individual location with a significant facility problem, Verizon-MA will provide the data demonstrating that the orders were "clustered" in a single facility shortfall. Then, Verizon-MA will provide the provisioning performance with that data excluded. Additional location driven clustering may be demonstrated by disaggregating performance into smaller geographic areas.

c. **Time Driven Clustering: Single Day Events:** If significant proportion (more than 30%) of CLEC activity, provisioning or maintenance, occur on a single day within a month, and that day represents an unusual amount of activity in a single day, Verizon-MA will provide the data demonstrating that the activity is on that day. Verizon-MA will compare that single

day's performance for the CLEC to Verizon-MA's own performance. Then, Verizon will provide data with that day excluded from overall performance to demonstrate "parity."

d. **CLEC Actions:** If performance for any measure is impacted by unusual CLEC behavior, the incumbent Verizon will bring such behavior to the attention of the CLEC to attempt resolution. Examples of CLEC behavior impacting performance results include order quality, causing excessive missed appointments, incorrect dispatch identification, resulting in excessive multiple dispatch and repeat reports, inappropriate X coding on orders, where extended due dates are desired, and delays in rescheduling appointments, when Verizon has missed an appointment. If such action negatively impacts performance, Verizon will provide appropriate detail documentation of the events and communication to the individual CLEC and the Commission.

2. Documentation:

Verizon-MA will provide all details, ensuring protection of customer proprietary information, to the CLEC and Department. Details include, individual trouble reports, and orders with analysis of Verizon-MA and CLEC performance. For cable failures, Verizon-MA will provide appropriate documentation detailing all other troubles associated with that cable failure.

3. Timeline for Exceptions Process:

The following is an example illustrating the timeline for the Exception Process.

Action	**Date**
January Performance Reports	February 25th
Verizon Files Exceptions on January Performance	March 15th
CLEC and other interested parties Files Reply to Verizon Exceptions	April 1st
Department Issues Ruling on Exceptions	April 15th
February Performance Reports	March 25th
March Performance Reports	April 25th
Credits Processed for January Performance	By May 1st

APPENDIX E

January 30, 2001

Mode of Entry Bill Credit Mechanism

The following are the steps that will be undertaken to determine whether Bill Credits are due to any CLECs for the MOE categories.

1. For each MOE measure with a "parity" standard: Calculate Z or t score or perform permutation test (for small samples).[1]

2. Convert Z, t or permutation equivalent score to performance score pursuant to the following table:

Statistical Score	Performance Score
≤ -1.645	-2
< -0.8225 and > -1.645	-1
> -0.8225	0[2]

3. For each MOE measure with an absolute standard: Determine Performance Score using performance range for the applicable measure. For small sample sizes, the small sample size table for measures with absolute standards is used. (*See* Appendix C.)

4. If the Aggregate Total Performance Score for a MOE is greater than the minimum value allowable for the applicable MOE (*See* Minimum and Maximum Bill Credit Tables in Appendix A), no bill credits are due to the CLECs that received the particular MOE services in that month. If the value is equal to or less than a minimum value, CLECs will be paid Bill

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[1] When "no activity occurs" in a metric the performance measure and its weight will be excluded from performance score.

[2] For report rate measures – regardless of z or t score – if absolute difference is less than 0.1%, the performance score is a 0.

Credits pursuant to the Bill Credit Tables in Appendix A, which will be adjusted to reflect the monthly volumes or units being used by the CLECs.[3]

5. The MOE Bill Credit Table reflects (1) the range of the aggregate performance scores from the minimum to maximum, (2) the monthly dollars attributable to each score, (3) the aggregate CLEC monthly volumes for the measure, and (4) the corresponding monthly rate what will be paid to each CLEC if Verizon-MA's performance is at that particular level. The individual CLEC's Bill Credit will be determined by multiplying the CLEC's monthly units in service by the applicable rate for the Aggregate MOE score.

6. For example, assume the first two steps of the UNE Bill Credit Table were as follow:

Score	Mon. $	Mon. Vol.	Mon. Rate
-0.29749	$814,484	100,000	$8.14
-0.32273	$898,021	100,000	$8.98

Using the above Credit Table, if the Aggregate MOE score was -0.300 and a CLEC had 5,000 UNE lines (at the end of the month), it would entitled to a $40,700 Bill Credit ($8.14 X 5,000 = $40,700).

8. The Domain Clustering Rule

The Mode of Entry measures are classified into four key domains: Pre-Order, Ordering, Provisioning and Maintenance. To ensure that competition is not negatively influenced by poor performance on measures in any one of these domains, a Domain Clustering Rule has been established under this Plan. The rule, which applies only to the UNE, Resale and DSL MOEs, enables the entire mode of entry performance score to be modified if 75% or more of the total

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[3] The measurement units for UNEs and Resale are lines in service. For Interconnection, it is minutes in use. For Collocation, it is collocation cages installed in the month.

weights for the measures in any of the domains is tripped. For the Pre-Order domain, this percentage is reduced to 66.7%. Under this rule, the lower of the overall MOE score or the Domain score will be used to determine whether any bill credits are due. The domain score will be calculated as follows: First, determine the % of weights tripped, *e.g.*, if a domain contained a number of metrics with a total weight of 80, and 65 of the 80 weights were tripped, the domain percentage would be 81.2%. Since this is greater than 75%, the domain clustering rule will apply,. Next, determine the difference between the minimum and maximum performance scores for the MOE, in which the domain appeared. For example, the minimum score for the UNE MOE is -0.17129 and the maximum score for the UNE MOE is -0.65086, therefore, the difference is -0.47957. This figure would be multiplied by the 81.2%. This equals -0.38941. This number (-0.38941) would be added to the minimum score and would result in a domain clustering score of -0.56070. If the MOE score were -0.388, the performance score for the MOE would be replaced with the domain clustering score of -0.56070 based on the Domain Clustering Rule.

APPENDIX F

January 30, 2001

Critical Measures Performance Scoring

A. The following steps would be taken to determine which CLECs would be entitled to Bill Credits pursuant to the Aggregate Rule, *i.e.,* when aggregate CLEC performance falls below standard for a critical measure.

1. Calculate the total dollars available for Bill Credits per critical measure per month.

An increment table will be developed for each critical measure to determine the Bill Credits available for unsatisfactory performance, *i.e.*, at or less than performance scores of -1. The tables will range from 50% of the maximum monthly amount, for a performance difference of less than 1% to 100% of the amount for performance differences of 10% and greater.[1] A sample table appears below for z and t and performance scores where the maximum monthly amount for the measure is $195,930.

Table F-1-1
Allocation of Dollars for Critical Measures
Measures with Statistical Evaluation Standards

Statistical Score		Performance	Increment	Dollars
From	To	Score		
	> -0.8225	0	0%	$0
≤ -0.8225	> -0.9048	-1.0	50%	$97,965
≤ -0.9048	> -0.9870	-1.1	55%	$107,762
≤ -0.9870	> -1.0693	-1.2	60%	$117,558
≤ -1.0693	> -1.1515	-1.3	65%	$127,355
≤ -1.1515	> -1.2338	-1.4	70%	$137,151
≤ -1.2338	> -1.3160	-1.5	75%	$146,948
≤ -1.3160	> -1.3983	-1.6	80%	$156,744
≤ -1.3983	> -1.4805	-1.7	85%	$166,541
≤ -1.4805	> -1.5628	-1,8	90%	$176,337
≤ -1.5628	> -1.6450	-1.9	95%	$186,134
≤ - 1.645		-2.0	100%	$195,930

[1] For HOT Cut Performance, if either metric is below standard, the entire critical measure is treated as below standard.

Table F-1-2
Allocation of Dollars for Critical Measures
Measures with 95% Standards [2]

% Performance		Performance	Increment	Dollars
From	To	Score		
	≥ 95.0	0	0%	$0
< 95.0	≥ 94.5	-1.0	50%	$97,965
< 94.5	≥ 94.0	-1.1	55%	$107,762
< 94.0	≥ 93.5	-1.2	60%	$117,558
< 93.5	≥ 93.0	-1.3	65%	$127,355
< 93.0	≥ 92.5	-1.4	70%	$137,151
< 92.5	≥ 92.0	-1.5	75%	$146,948
< 92.0	≥ 91.5	-1.6	80%	$156,744
< 91.5	≥ 91.0	-1.7	85%	$166,541
< 91.0	≥ 90.5	-1,8	90%	$176,337
< 90.5	≥ 90.0	-1.9	95%	$186,134
< 90.0		-2.0	100%	$195,930

2. **The aggregate performance score would be used to determine the amount of Bill Credits available for CLECs who received unsatisfactory performance.**

   Pursuant to table F-1-1, $97,965 would be available if the aggregate z-score equaled -0.823 and the performance score equaled -1[3]

3. **Determine which CLECs qualify for the market adjustment.**

   For measures where the statistical score is used, the cutoff point for qualification is Verizon-MA's score on the critical measure +/- one sampling error (based upon the Verizon-MA sampling error). Each CLEC's performance is compared to the cutoff point. Performance equal to or less than the cutoff qualifies for Bill Credits. For example, if Verizon-MA's performance score was .13 and the sampling error was .03, all CLECs with scores equal to or greater than .16 would qualify.

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2 For Performance Measures with other % standards, the range of performance will be similarly distributed in 10 even increments.

3 When calculating a market adjustment for metrics that use absolute standards (generally a 95% standard) all CLECs at the -1 level or less would qualify. The calculation of the dollars is similar to the z-score method.

4. **Calculate the individual market adjustments for qualified CLECs.**

   a. Determine each CLEC's allocated weight. Multiply the CLEC's score on the measure by the volume of its service to be credited.

   b. Determine each CLEC's weighted share. Aggregate the amounts from step "a" and divide each CLECs share by this total to determine each CLEC's weighted share.

   c. Determine each CLEC's dollar share. Multiply the CLEC's weighted share by the total amount available for market adjustment.

B. The following steps will be taken to determine whether any CLECs would be entitled to Bill Credits pursuant to the Individual Rule, i.e., for CLECs who receive a performance score ≤ -1 for two consecutive months:

1. Determine if any CLECs qualify for Bill Credit Adjustment. CLECs qualify for a Bill Credit if they received a final score equal to or less then -.8225 for z and t scores or equal to or less than -1 for absolute scores on any of the measures included in the critical measurements for the applicable month.

2. Determine each CLECs Bill Credit Adjustment base. The CLECs individual z or t or performance score is used as a starting point to determine the monthly amount available for bill credits to that CLEC.

3. Calculate Bill Credit Adjustment to apply to the CLECs impacted. The monthly dollars available to the CLEC are converted to a rate assuming that 1/3 of the market would receive a Z or t-score of -.8225 or less or a performance score of -1 or less. This rate is multiplied by the CLEC's volume (*e.g.*, lines in services) to determine the amount to be credit to the CLEC for that critical measure.

APPENDIX G

	Pre-Ordering	VZ	CLEC		UNE			Diff.	Perf. Score	Wgt.	Wgtd. Score
PO-1-01-6020	**Customer Service Record - EDI**										
PO-1-01-	**Customer Service Record - CORBA**										
PO-1-01-	**Customer Service Record - WEB GUI**										
PO-1-02-6020	Due Date Availability - EDI										
PO-1-02-	Due Date Availability - CORBA										
PO-1-02-	Due Date Availability - WEB GUI										
PO-1-03-6020	Address Validation -EDI										
PO-1-03-	Address Validation - CORBA										
PO-1-03-	Address Validation - WEB GUI										
PO-1-04-6020	Product and Service Availability - EDI										
PO-1-04-	Product and Service Availability - CORBA										
PO-1-04-	Product and Service Availability - WEB GUI										
PO-1-05-6020	Telephone Number Availability and Reservation - EDI										
PO-1-05	TN Availability and Reservation - CORBA										
PO-1-05	TN Availability and Reservation - WEB GUI										
PO-2-02-6020	**OSS Interface Availability - Prime - EDI**										
PO-2-02-	**OSS Interface Availability - Prime - CORBA**										
PO-2-02-	**OSS Interface Availability - Prime - WEB GUI**										
PO-3-02-3000	% Answered within 30 Seconds - Ordering										
PO-3-04-3000	% Answered within 30 Seconds - Repair										
OR	**Ordering**			Observations							
OR-1-02-3320	**% On Time LSRC - Flow Through - POTS - 2hrs**										
OR-1-04-3100	**% OT LSRC/ASRC -No facilities check(Elec.-No Flow Through)-POTS**										
OR-1-04-3200	% OT LSRC/ASRC -No facilities check(Elec.-No Flow Through)-Specials										
OR-1-06-3320	**% On Time LSRC/ASRC - Facilities check (Electronic) - POTS**										
OR-1-06-3200	% On Time LSRC/ASRC - Facilities check (Electronic) - Specials										
OR-2-02-3320	**% On Time LSR Reject - Flow Through - POTS**										
OR-2-04-3320	**% OT LSR/ASR Rej.-No facilities check(Elec.-No Flow Through)-POTS**										
OR-2-04-3200	% OT LSR/ASR Rej.-No facilities check (Elec.-No Flow Through)-Specials										
OR-2-06-3320	**% On Time LSR/ASR Reject-Facilities check (Electronic) - POTS**										
OR-2-06-3200	% On Time LSR/ASR Reject-Facilities check(Electronic) - Specials										
OR-4-09-3000	**% SOP to Bill Completion Sent w/in 3 Business Days**										
OR-5-03-3112	% Flow Through - Achieved - POTS & Specials										
PR	**Provisioning**	VZ	CLEC	VZ	CLEC	VZ Standard Deviation	Sampling Error	Stat. Score			
PR-3-08-3142	% Completed w/in 5 Days (1-5 lines-No Dispatch)-UNE-P/Other										
PR-3-09-3142	% Completed w/in 5 Days (1-5 lines-Dispatch)-UNE-P/Other										
PR-4-01-3200	**% Missed Appointment - VZ - Total - Specials**										
PR-4-01-3510	**% Missed Appointment - VZ - Total - EEL**										
PR-4-01-3530	% Missed Appointment - VZ - Total - IOF										
PR-4-02-3100	Average Delay Days - Total - POTS										
PR-4-02-3200	Average Delay Days - Total - Specials										
PR-4-04-3140	% Missed Appointment - VZ - Dispatch - Platform										
PR-4-04-3113	**% Missed Appointment - VZ - Dispatch - New Loop**										
PR-4-05-3140	**% Missed Appointment- VZ - No Dispatch - Platform**										
PR-5-01-3100	% Missed Appointment - Facilities - POTS										
PR-5-01-3200	% Missed Appointment - Facilities - Specials										
PR-5-02-3100	% Orders Held for Facilities > 15 days - POTS										
PR-5-02-3200	% Orders Held for Facilities > 15 days - Specials										
PR-6-01-3121	% Installation Troubles within 30 days - POTS Other										
PR-6-01-3200	% Installation Troubles within 30 days - Specials										
PR-6-02-3520	**% Installation Troubles within 7 days - Hot Cut**										
PR-9-01-3520	**% On Time Performance - Hot Cut**										
MR	**Maintenance & Repair**							Diff.			
MR-1-01-2000	Average Response Time - Create Trouble										
MR-1-03-2000	Average Response Time - Modify Trouble										
MR-1-04-2000	Average Response Time - Request Cancellation of Trouble										
MR-1-06-2000	Average Response Time - Test Touble (POTS only)										
								Stat. Score			
MR-2-01-3200	Network Trouble Report Rate - Specials										
MR-2-02-3112	Network Trouble Report Rate - Loop (POTS)										
MR-3-01-3112	% Missed Repair Appointments - Loop										
MR-3-02-3100	% Missed Repair Appointments - Central Office										
MR-4-01-3200	**Mean Time to Repair - Specials**										
MR-4-02-3112	**Mean Time to Repair - Loop Trouble**										
MR-4-03-3100	**Mean Time to Repair - CO Trouble**										
MR-4-08-3100	**% Out of Service > 24 Hours - POTS**										
MR-4-08-3200	% Out of Service > 24 Hours - Specials										
MR-5-01-3100	**% Repeat Reports w/in 30 days - POTS**										
MR-5-01-3200	**% Repeat Reports w/in 30 days - Specials**										
BI	**Billing**										
BI-1-02-2030	% DUF in 4 Business Days		89.00								
	"NA" - no activity "UD" - under development							Totals			

Under the provisions of the Plan, the -1 performance scores are subject to adjustment based on the next two month's performance.

Verizon MA **271 Backslide Report** Month

RESALE

	Pre-Ordering	VZ	CLEC	Diff.	Perf. Score	Wgt.	Wgtd. Score
PO-1-01-6020	**Customer Service Record - EDI**						
PO-1-01-	**Customer Service Record - CORBA**						
PO-1-01-	**Customer Service Record - WEB GUI**						
PO-1-02-6020	Due Date Availability - EDI						
PO-1-02-	Due Date Availability - CORBA						
PO-1-02-	Due Date Availability - WEB GUI						
PO-1-03-6020	Address Validation -EDI						
PO-1-03-	Address Validation - CORBA						
PO-1-03-	Address Validation - WEB GUI						
PO-1-04-6020	Product and Service Availability - EDI						
PO-1-04-	Product and Service Availability - CORBA						
PO-1-04-	Product and Service Availability - WEB GUI						
PO-1-05-6020	Telephone Number Availability and Reservation - EDI						
PO-1-05	TN Availability and Reservation - CORBA						
PO-1-05	TN Availability and Reservation - WEB GUI						
PO-2-02-6020	**OSS Interface Availability - Prime - EDI**						
PO-2-02-	**OSS Interface Availability - Prime - CORBA**						
PO-2-02-	**OSS Interface Availability - Prime - WEB GUI**						
PO-3-02-2000	% Answered within 30 Seconds - Ordering						
PO-3-04-2000	% Answered within 30 Seconds - Repair						

OR	Ordering	Observations							
OR-1-02-2320	**% On Time LSRC - Flow Through - POTS - 2hrs**								
OR-1-04-2100	**% OT LSRC/ASRC -No facilities check(Elec.-No Flow Through)-POTS**								
OR-1-04-2200	% OT LSRC/ASRC -No facilities check(Elec.-No Flow Through)-Specials								
OR-1-06-2320	**% On Time LSRC/ASRC - Facilities check (Electronic) - POTS**								
OR-1-06-2200	% On Time LSRC/ASRC - Facilities check (Electronic) - Specials								
OR-2-02-2320	**% On Time LSR Reject - Flow Through - POTS**								
OR-2-04-2320	**% OT LSR/ASR Rej.-No facilities check(Elec.-No Flow Through)-POTS**								
OR-2-04-2200	% OT LSR/ASR Rej.-No facilities check (Elec.-No Flow Through)-Specials								
OR-2-06-2320	**% On Time LSR/ASR Reject-Facilities check (Electronic) - POTS**								
OR-2-06-2200	% On Time LSR/ASR Reject-Facilities check(Electronic) - Specials								
OR-4-09-2000	**% SOP to Bill Completion Sent w/in 3 Business Days**								
OR-5-03-2000	% Flow Through - Achieved - POTS & Specials								

PR	Provisioning	VZ	CLEC	VZ	CLEC	VZ Standard Deviation	Sampling Error	Stat. Score			
PR-3-08-2100	% Completed w/in 5 Days (1-5 lines - No Dispatch) - POTS										
PR-3-09-2100	% Completed w/n 5 Days (1-5 lines - Dispatch) - POTS										
PR-4-01-2200	**% Missed Appointment - VZ - Total - Specials**										
PR-4-02-2100	Average Delay Days - Total - POTS										
PR-4-02-2200	Average Delay Days - Total - Specials										
PR-4-04-2100	**% Missed Appointment - VZ - Dispatch - POTS**										
PR-4-05-2100	**% Missed Appointment- VZ - No Dispatch - POTS**										
PR-5-01-2100	% Missed Appointment - Facilities - POTS										
PR-5-01-2200	% Missed Appointment - Facilities - Specials										
PR-5-02-2100	% Orders Held for Facilities > 15 days - POTS										
PR-5-02-2200	% Orders Held for Facilities > 15 days - Specials										
PR-6-01-2100	% Installation Troubles within 30 days - POTS										
PR-6-01-2200	% Installation Troubles within 30 days - Specials										

MR	Maintenance & Repair							Diff.			
MR-1-01-2000	Average Response Time - Create Trouble										
MR-1-03-2000	Average Response Time - Modify Trouble										
MR-1-04-2000	Average Response Time - Request Cancellation of Trouble										
MR-1-06-2000	Average Response Time - Test Touble (POTS only)										
								Stat. Score			
MR-2-01-2200	Network Trouble Report Rate - Specials										
MR-2-02-2100	Network Trouble Report Rate - Loop (POTS)										
MR-3-01-2100	% Missed Repair Appointments - Loop										
MR-3-02-2100	% Missed Repair Appointments - Central Office										
MR-4-01-2200	**Mean Time to Repair - Specials**										
MR-4-02-2100	**Mean Time to Repair - Loop Trouble**										
MR-4-03-2100	**Mean Time to Repair - CO Trouble**										
MR-4-08-2100	**% Out of Service > 24 Hours - POTS**										
MR-4-08-2200	% Out of Service > 24 Hours - Specials										
MR-5-01-2100	**% Repeat Reports w/in 30 days - POTS**										
MR-5-01-2200	**% Repeat Reports w/in 30 days - Specials**										

BI	Billing										
BI-1-02-2030	% DUF in 4 Business Days		89.00								
	"NA" - no activity "UD" - under development							Totals			

Under the provisions of the Plan, the -1 performance scores are subject to adjustment based on the next two month's performance.

Verizon MA 271 Backside Report

DSL

Month

	Pre-Ordering	VZ	CLEC	Observations	Observations CLEC			Diff.	Perf. Score	Wgt.	Wgtd. Score
PO-1-06-	Facility Available/Loop Qualification - EDI										
PO-1-06-	Facility Available/Loop Qualification - WEBGUI										
PO-8-01-	Avg. Response Time - Manual Loop Qualification										
PO-8-02-	Avg. Response Time - Engineering Record Request										
OR	**Ordering**										
OR-1-04-	% On Time LSRC/ASRC -no facilities check (E) -2Wire Digital										
OR-1-04-	% On Time LSRC/ASRC -no facilities check (E) -2Wire xDSL										
OR-1-04-	% On Time LSRC/ASRC -no facilities check (E) -Line Share										
OR-1-06-	% On Time LSRC/ASRC - facilities check (E) -2Wire Digital										
OR-1-06-	% On Time LSRC/ASRC - facilities check (E) -2Wire xDSL										
OR-1-06-	% On Time LSRC/ASRC - facilities check (E) -Line Share										
OR-2-04-	% On Time LSR/ASR Reject - no facilities check (E) -2Wire Digital										
OR-2-04-	% OT LSR/ASR Reject - no facilities check (E) -2Wire xDSL										
OR-2-04-	% OT LSR/ASR Reject - no facilities check (E) - Line Share										
OR-2-06-	% On Time LSR/ASR Reject - facilities check (E) -2Wire Digital										
OR-2-06-	% On Time LSR/ASR Reject - facilities check (E) -2Wire xDSL										
OR-2-06-	% On Time LSR/ASR Reject - facilities check (E) - Line Share										
PR	**Provisioning**					VZ Standard Deviation	Sampling Error	Stat. Score			
PR-3-07-	% Comp. w/in 4 Days (1-5 lines) Tot.- Line Share										
PR-3-07-	% Comp. w/in 4 Days (1-5 lines) Tot.- Line Share										
PR-3-10-	% Comp. w/in 6 Days (1-5 lines) Tot.- 2Wire xDSL										
PR-4-02-	Average Delay Days - Total - 2Wire Digital										
PR-4-02-	Average Delay Days - Total - 2Wire xDSL										
PR-4-02-	Average Delay Days - Total - Line Share										
PR-4-04-	% Missed Appointment - Dispatch - 2Wire Digital										
PR-4-04-	% Missed Appointment- Dispatch - 2 Wire xDSL										
PR-4-04-	% Missed Appointment - Dispatch - DSL Line Share										
PR-4-05-	% Missed Appt. - No Disp. - Line Share										
PR-6-01-	% Installation Troubles w/in 30 Days - 2Wire Digital										
PR-6-01-	% Installation Troubles w/in 30 Days - 2Wire xDSL										
PR-6-01-	% Installation Troubles w/in 30 Days - Line Share										
MR	**Maintenance & Repair**										
MR-2-02-	Network Trouble Report Rate - Loop - 2Wire Digital										
MR-2-02-	Network Trouble Report Rate - Loop - 2Wire xDSL										
MR-2-02-	Network Trouble Report Rate - Loop - Line Share										
MR-2-03-	Network Trouble Report Rate - CO - 2Wire Digital										
MR-2-03-	Network Trouble Report Rate - CO - 2Wire xDSL										
MR-2-03-	Network Trouble Report Rate - CO - Line Share										
MR-3-01-	% Missed Repair Appt. - Loop - 2Wire Digital										
MR-3-01-	% Missed Repair Appt. - Loop - 2Wire xDSL										
MR-3-01-	% Missed Repair Appt. - Loop - Line Share										
MR-3-02-	% Missed Repair Appt. - CO - 2Wire Digital										
MR-3-02-	% Missed Repair Appt. - CO - 2Wire xDSL										
MR-3-02-	% Missed Repair Appt. - CO - Line Share										
MR-4-02-	Mean Time To Repair - Loop - 2Wire Digital										
MR-4-02-	Mean Time To Repair - Loop - 2Wire xDSL										
MR-4-02-	Mean Time To Repair - Loop - Line Share										
MR-4-03-	Mean Time To Repair - CO - 2Wire Digital										
MR-4-03-	Mean Time To Repair - CO - 2Wire xDSL										
MR-4-03-	Mean Time To Repair - CO - Line Share										
MR-5-01-	% Repeat Reports w/in 30 Days - 2Wire Digital										
MR-5-01-	% Repeat Reports w/in 30 Days - 2Wire xDSL										
MR-5-01-	% Repeat Reports w/in 30 Days - Line Share										
	"NA" - no activity "UD" - under development							Totals	-98		

Under the provisions of the Plan, the -1 performance scores are subject to adjustment based on the next two month's performance.

Verizon Massachusetts

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INTERCONNECTION (TRUNKS)

OR	Ordering	CLEC	Obs.	Perf. Score	Wgt.	Wgtd. Score
OR-1-12-5020	% On Time Firm Order Confirmations					
OR-1-13-5020	% On Time Design Layout Record					
OR-2-12-5000	% On TimeTrunk ASR Reject					

PR	Provisioning	VZ		Observations VZ	Observations CLEC	VZ Standard Deviation	Sampling Error	Stat. Score			
PR-4-01-5000	% Missed Appointment - VZ - Total										
PR-4-02-5000	Average Delay Days - Total										
PR-4-07-3540	% On Time Performance - LNP only										
PR-5-01-5000	% Missed Appointment - Facilities										
PR-5-02-5000	% Orders Held for Facilities > 15 Days										
PR-6-01-5000	% Installation Troubles w/in 30 Days										
MR	**Maintenance & Repair**										
MR-4-01-5000	Mean Time to Repair - Total										
MR-5-01-5000	% Repeat Reports w/in 30 Days										
NP	**Network Performance**										
NP-1-03-5000	# of Final Trunk Groups Blocked 2 months										
NP-1-04-5000	# of Final Trunk Groups Blocked 3 months										

Collocation

Perfromance Report for Critical Measure # 12

NP	Network Performance	CLEC	Obs.	Wgt.
NP-2-01-2000	% OT Response to Request for Physical Collocation - New			
NP-2-01-	% OT Response to Request for Physical Collocation - Augment			
NP-2-02-2000	% OT Response to Request for Virtual Collocation - New			
NP-2-02-	% OT Response to Request for Virtual Collocation - Augment			
NP-2-05-2000	% On Time - Physical Location -New			
NP-2-05-	% On Time - Physical Location -Augment			
NP-2-06-2000	% On Time - Virtual Location - New			
NP-2-06-	% On Time - Virtual Location - Augment			
NP-2-07-2000	Average Delay Days - Physical - New			
NP-2-07-	Average Delay Days - Physical -Augment			
NP-2-08-2000	Average Delay Days - Virtual - New			
NP-2-08-	Average Delay Days - Virtual - Augment			

"NA" - no activity "UD" - under development

Under the provisions of the Plan, the -1 performance scores are subject to adjustment based on the next two month's performance.

		Verizon Massachusetts	Resale		UNE		Trunks		Collocation		DSL		Total
		CRITICAL MEASURES	%	$	%	$	%	$	%	$	%	$	$
		PRE-ORDERING											
1	metric	**OSS Interface**											
	PO-1-01	Customer Service Record - EDI	X		X								
	PO-1-01	Customer Service Record - CORBA	X		X								
	PO-1-01	Customer Service Record - WEB GUI	X		X								
	PO-1-06	Facility Availability (Loop Qualification) - EDI									X		
	PO-1-06	Facility Availability (Loop Qualification) - WEB GUI									X		
	PO-2-02	OSS Interface Availability - Prime - EDI	X		X								
	PO-2-02	OSS Interface Availability - Prime - CORBA	X		X								
	PO-2-02	OSS Interface Availability - Prime - WEB GUI	X		X								
		ORDERING											
2		**% On Time Ordering Notification**											
	OR-1-02	% On Time LSRC - Flow Through - POTS - 2hrs	X		X								
	OR-1-04	% OT LSRC<10 Lines (Elec.-No Flow Through)-POTS	X		X								
	OR-1-04	% On Time LSRC <10 Lines (E) -2Wire xDSL									X		
	OR-1-04	% On Time LSRC <10 Lines (E) -DSL Line Share									X		
	OR-1-06	% OT LSRC >=10 Lines (Electronic) - POTS	X		X								
	OR-2-02	% On Time LSR Reject - Flow Through - POTS	X		X								
	OR-2-04	% OT LSR Rej.<10 lines (Elec.-No Flow Through)-POTS	X		X								
	OR-2-04	% OT LSRC Reject <10 Lines (E) -2Wire xDSL									X		
	OR-2-04	% OT LSRC Rej. <10 Lines (E) -DSL Line Share									X		
	OR-2-06	% On Time LSR Reject >= 10 Lines (Elec.) - POTS	X		X								
	OR-4-09	% SOP to Bill Completion Sent w/in 3 Bus. Days	X		X								
		PROVISIONING											
3		**% Completed**											
	PR-3-07	% Comp. w/in 4 Days (1-5 lines) Tot.- Line Share									X		
	PR-3-10	% Comp. w/in 6 Days (1-5 lines) Tot.- 2Wire xDSL									X		
4a	PR-4-01	**% Missed Appointment - VZ - Total - EEL**											
4b		**% Missed Appointment**											
	PR-4-01	% Missed Appointment - VZ - Total - Specials	X		X								
	PR-4-01	% Missed Appointment - VZ - Total - Trunks					X						
	PR-4-02	Average Delay Days - Total - 2Wire xDSL									X		
	PR-4-02	Average Delay Days - Total - DSL Line Share									X		
	PR-4-04	% Missed Appointment - VZ - Total - Dispatch - POTS	X										
	PR-4-04	% Missed Appt. - VZ - Total - Dispatch - New Loops			X								
	PR-4-04	% Missed Appointment- Dispatch - 2Wire xDSL									X		
	PR-4-05	% Missed Appt. - VZ - Total - No Dispatch - POTS	X										
	PR-4-05	% Missed Appt. - No Disp. - DSL Line Share									X		
5	PR-4-06	**% Missed Appt. - VZ - No Disp.- Platform**											
		Hot Cut Performance											
	PR-6-01	% OT - Hot Cut (adj. for missed appts. due to late LSRC)			X								
	PR-6-02	% Troubles within 7 Days - Hot Cut			X								
7	PR-4-07	**% On Time Performance - UNE LNP**											
		MAINTENANCE											
8		**Missed Repair Appts.**											
	MR-3-01	% Missed Repair Appt. (Loop) - 2Wire xDSL									X		
	MR-3-01	% Missed Repair Appt. (Loop) - DSL Line Share									X		
9		**Mean Time To Repair**											
	MR-4-01	Mean Time To Repair - Specials	X		X								
	MR-4-01	Mean Time To Repair - Trunks					X						
	MR-4-02	Mean Time To Repair - Loop - 2Wire xDSL									X		
	MR-4-02	Mean Time To Repair - Loop - Line Share									X		
	MR-4-02	Mean Time To Repair - Loop Trouble	X		X								
	MR-4-03	Mean Time To Repair - Central Office	X		X								
	MR-4-08	% Out Of Service > 24 Hours - POTS	X		X								
10		**% Repeat Reports within 30 Days**											
	MR-5-01	% Repeat Reports w/in 30 Days - POTS	X		X								
	MR-5-01	% Repeat Reports w/in 30 Days - Specials	X		X								
	MR-5-01	% Repeat Reports w/in 30 Days - Total - 2Wire xDSL									X		
	MR-5-01	% Repeat Reports w/in 30 Days - Tot. - DSL Line Share									X		
		NETWORK PERFORMANCE											
11		**Final Trunk Groups Blocked**											
	NP-1-03	Blocked 2 months					X						
	NP-1-04	Blocked 3 months					X						
12		**Collocation**											
	NP-2-01/2	% On Time Response to Request for Collocation							X				
	NP-2-05/6	% On Time - Collocation							X				
	NP-2-07/8	Average Delay Days							X				
		# of full share measures in category **Total**											

Under the provisions of the Plan, -1 performance scores are subject to adjustment based on the next two month's performance.

Month

Special Provision - UNE Ordering

		% On Time	Observations	Market Adj.
OR-1-04-3100	% OT LSRC<10 Lines (Elec.-No Flow Through)-POTS			
OR-1-06-3320	% On Time LSRC >=10 Lines (Electronic) - POTS			
OR-2-04-3320	% OT LSR Rej.<10 lines (Elec.-No Flow Through)-POTS			
OR-2-06-3320	% On Time LSR Reject >= 10 Lines (Elec.) - POTS			

Not enough $$'s in current month to fund market adjustment!! - check prior months

Total Market Adj.*

* For allocation, any UNE Ordering market adjustment is combined with the MOE UNE market adjustment allocation.

Special Provision - UNE Flow Through

PR-5-01-3000 % Flow Through - Total - POTS & Specials

Month	%	Observations Gross #	Observations Flow-thru
Month - 1			
Month - 2			
Month - 3			
Overall			

OR-5-03-3112 % Flow Through - Achieved - POTS & Specials

Month	%	Observations Gross #	Observations Flow-thru
Month - 1			
Month - 2			
Month - 3			
Overall			

Market Adjustment *

* For allocation, any Flow Though market adjustment is combined with the MOE UNE market adjustment allocation.

Special Provision - Hot Cut - Loop Performance

		% On Time Current Mo.	Observations	% On Time Prior Month	Observations
PR-9-01-3520	% On Time Performance - Hot Cut				

		%Troubles	%Troubles Prior Month
PR-6-02-3520	% Installation Troubles within 7 days - Hot Cut		

Greater of - Tier I (2 mo) or Tier II (1mo) Total

Market Adjustment *

* For allocation purposes, any Hot Cut market adjustment is combined with the Critical measure market adjustment allocation.

Special Provision - Electronic Data Interface Measures

		% On Time	Observations
PO-9-01	% Missing Notifier Trouble Ticket PONS Cleared within 3 Bus. Days		

		% Reject	Observations
OR-3-02	% Resubmission Rejection		

Market Adjustment

		% On Time	Observations	Market Adj.
OR-4-09	% SOP to Bill Completion within 3 Business Days			

Total Market Adj.*

* For allocation, any EDI market adjustment is allocated to all CLEC's using the EDI interface based on the number of lines in service.

Month

Change Control Assurance Plan

		% On Time	Observations	Mrkt Adj.
PO-4-01	% Change Management Notices sent on Time (type 3,4,5)			

	* Cumlative number of delay days greater than 8 standard	Delay Days*	Observations
PO-4-03	Change Management Notice Delay 8 plus Days (type 1-5)		

		% Test Deck Wgt. Failure	Test Deck Wgt.
PO-6-01	% Software Validation		

	* Cumlative number of delay hours greater than 48 hour standard	Delay Hours*	Observations
PO-7-04	Delay Hours - Failed/Rejected Test Deck Transactions Transactions failed, no workaround		

Total Market Adjustment
Resale allocation
UNE allocation

Verizon Massachusetts

PAP/CCAP Market Adjustment Summary

Month

For demonstration purposes, metrics have been failed to show financial results.	Weighted Score	Market Adjustment
MODE OF ENTRY		
Resale		
Unbundled Network Elements		
Trunks		
Digital Subscriber Lines		
Mode of Entry Total		
# **CRITICAL MEASURES**		
1 OSS Interface		
2 % On Time Ordering Notification		
3 % Completed		
4a % Missed Appointment - VZ - Total - EEL		
4b % Missed Appointment		
5 % Missed Appt. - VZ - No Disp.- Platform		
6 Hot Cut Performance		
7 % On Time Performance - UNE LNP		
8 Missed Repair Appts.		
9 Mean Time To Repair		
10 % Repeat Reports within 30 Days		
11 Final Trunk Groups Blocked		
12 Collocation		
Critical Measure Total		
SPECIAL PROVISIONS		
UNE Ordering		
UNE Flow Through (Quarterly)		
UNE Hot Cut Loop		
EDI Measures		
Special Provision Total		
CHANGE CONTROL		
Grand Total		

Under the Plan, -1 performance scores are subject to adjustment based on the next two month's performance.

271 Backslide Market Adjustment Summary - CLEC A

Month

		Weighted Score	Market Adjustment	Number of Units in Market	Market Adjust. Rate	Number of Units for CLEC A	Total Market Adjustment for CLEC A
	MODE OF ENTRY						
	Resale						
	Unbundled Network Elements						
	Trunks						
	DSL						
	TOTAL MOE $ to CLEC A						$0
	CRITICAL MEASURES / EDI Special Provision						
1	OSS Interface	Resale					
1	OSS Interface	UNE					
1	OSS Interface	DSL					
2	% On Time LSRC - Flow Through - POTS - 2hrs	Resale					
2	% OT LSRC<10 Lines (Elec -No Flow Through)-POTS	Resale					
2	% OT LSRC >=10 Lines (Electronic) - POTS	Resale					
2	% On Time LSR Reject - Flow Through - POTS	Resale					
2	% OT LSR Rej <10 lines (Elec.-No Flow Through)-POTS	Resale					
2	% On Time LSR Reject >= 10 Lines (Elec.) - POTS	Resale					
2	% SOP to Bill Completion Sent w/in 3 Bus. Days	Resale					
2	% On Time LSRC - Flow Through - POTS - 2hrs	UNE					
2	% OT LSRC<10 Lines (Elec -No Flow Through)-POTS	UNE					
2	% OT LSRC >=10 Lines (Electronic) - POTS	UNE					
2	% On Time LSR Reject - Flow Through - POTS	UNE					
2	% OT LSR Rej <10 lines (Elec -No Flow Through)-POTS	UNE					
2	% On Time LSR Reject >= 10 Lines (Elec.) - POTS	UNE					
2	% SOP to Bill Completion Sent w/in 3 Bus. Days	UNE					
2	% On Time LSRC <10 Lines (E) -2Wire xDSL	DSL					
2	% On Time LSRC <10 Lines (E) -DSL Line Share	DSL					
2	% OT LSRC Reject <10 Lines (E) -2Wire xDSL	DSL					
2	% OT LSRC Rej. <10 Lines (E) -DSL Line Share	DSL					
3	% Comp. w/in 4 Days (1-5 lines) Tot.- Line Share	DSL					
3	% Comp. w/in 6 Days (1-5 lines) Tot.- 2Wire xDSL	DSL					
4a	% Missed Appointment - BA - Total - EEL	UNE					
4b	% Missed Appointment - BA - Total - Specials	Resale					
4b	% Missed Appointment - BA - Total - Dispatch - POTS	Resale					
4b	% Missed Appointment - BA - Total - No Dispatch - POTS	Resale					
4b	% Missed Appointment - BA - Total - Specials	UNE					
4b	% Missed Appointment - BA - Total - Dispatch - New Loop	UNE					
4b	% Missed Appointment - BA - Total - Trunks	Trunks					
4b	Average Delay Days - Total - 2Wire xDSL	DSL					
4b	Average Delay Days - Total - DSL Line Share	DSL					
4b	% Missed Appointment- Dispatch - 2Wire xDSL	DSL					
4b	% Missed Appt. - No Disp. - DSL Line Share	DSL					
5	% Missed Appointment - BA - No Dispatch - Platform	UNE					
6	% On Time Performance / % Troubles Within 7 Days	Hot Cut					
7	% On Time Performance - LNP	Trunks					
8	% Missed Repair Appt. (Loop) - 2Wire xDSL	DSL					
8	% Missed Repair Appt. (Loop) - DSL Line Share	DSL					
9	Mean Time to Repair - Specials	Resale					
9	Mean Time to Repair - Loop Trouble	Resale					
9	Mean Time to Repair - Central Office	Resale					
9	% Out of Service > 24 Hours - POTS	Resale					
9	Mean Time to Repair - Specials	UNE					
9	Mean Time to Repair - Loop Trouble	UNE					
9	Mean Time to Repair - Central Office	UNE					
9	% Out of Service > 24 Hours - POTS	UNE					
9	Mean Time to Repair - Trunks	Trunks					
9	Mean Time To Repair - Loop - 2Wire xDSL	DSL					
9	Mean Time To Repair - Loop - Line Share	DSL					
10	% Repeat Reports within 30 Days - POTS	Resale					
10	% Repeat Reports within 30 Days - Specials	Resale					
10	% Repeat Reports within 30 Days - POTS	UNE					
10	% Repeat Reports within 30 Days - Specials	UNE					
10	% Repeat Reports within 30 Days - 2Wire xDSL	DSL					
10	% Repeat Reports within 30 Days - DSL Line Share	DSL					
11	Final Trunk Group Blocked - 2 Months	Trunks					
11	Final Trunk Group Blocked - 3 Months	Trunks					
12	% On Time Response to Request for Collocation	Collocation					
12	% On Time - Collocation	Collocation					
12	Average Delay Days	Collocation					
	Special Provision - Electronic Data Interface Measures						
	tical Measure / EDI Special Provision $ to CLEC A						$0

APPENDIX H

January 30, 2001