

The Liberty Consulting Group
65 Main Street
Quentin, PA 17083

Memorandum

To: Megan Doberneck, Covad Communications
From: Bob Stright, The Liberty Consulting Group
Subject: Covad Comments on Liberty Audit
Date: October 16, 2001

Thank you for the comments on Liberty's audit report that were received yesterday via an e-mail sent to the ROC-TAG.

Liberty issued a report on its audit of Qwest's wholesale performance measures on July 11, 2001. Liberty received comments on that report from several parties, including Qwest, AT&T, and WorldCom. Liberty responded to those comments. The purpose of the final report that was issued on September 25, 2001, was to include the releases from the few performance measures to pass the audit after July 11 and to make any changes that may have been required as a result of either the comments received earlier or other new developments. In the end, the only substantive changes to the July report that appeared in the September final report were the additional releases for measures CP-1 through CP-4, PO-6, PO-7, and PO-15.

None of Covad's comments relate to the new material added to the final report. All of Covad's comments could have been made in July or earlier when Liberty issued to the ROC-TAG releases for individual performance measures. Nevertheless, Liberty is pleased to respond to Covad's comments, particularly since there seems to be some significant misconceptions about performance measures and Liberty's audit of them. If Liberty's report was not clear about the scope, process, and results of the audit, possibly this reply will help to clarify misconceptions that others may have as well.

Covad's first comment mentions a "restriction on scope" and a missed opportunity to audit the link between performance and measurement. It should be made very clear that there was no restriction on the scope of the audit, and that a fundamental objective of the audit was to determine whether Qwest's performance reporting, i.e., measurement, reflected actual performance. Liberty believes that it fully met that objective.

Covad is correct that the ROC-TAG, of which Covad is a member, approved the performance measure definitions. Liberty did not evaluate whether these measures were sufficient and adequate. However, this should not be considered a restriction in scope. Rather, Liberty evaluated whether Qwest's actual performance was reflected accurately in the measures determined to be appropriate by Covad and others of the ROC-TAG.

Covad's comment about the perception that Qwest's customers may have about performance is not relevant to this audit. Liberty was not concerned with whether Qwest's reported performance was good or bad, and certainly did not attempt to measure customers' perceptions. Many

improvements in Qwest's processes for gathering, assimilating, and reporting data were implemented as a direct result of Liberty's audit. Thus, the results of the audit should give Qwest's customers increased confidence that the reported performance, whether good or bad, accurately reflects actual performance.

As described in Liberty's report, the audit consisted of three primary aspects: business process, data tracking, and recalculation of results. By far, most of the audit's efforts were directed at the first of these, the very "link" that Covad seems to believe was not audited.

Covad comments on the "sample data sets" it says Liberty used in the audit, and generally claims that Liberty's selection was inappropriate because the states chosen were not among those with a larger volume of data. Covad has misunderstood what Liberty did during the audit. As noted above, one of the required parts of the audit was to recalculate Qwest's results. In several cases, Liberty chose states with smaller volumes to do the recalculation simply for convenience in handling large amounts of data. However, in all cases, Liberty verified that the programming used to determine Qwest's results for these low-volume states was identical to that used for all other states. Liberty was not "sampling" when it did its recalculation, but rather tested the computer code for particular states and products. Liberty also examined the actual code used to make these calculations. Recalculation of results for more states, higher-volume states, or more products would not have added any value to the audit and would not have produced any new findings.

Covad comments that the standards for validation of the performance measures were not identified in the audit documentation. The purpose of the audit was to validate that Qwest's measurement of performance is in the manner prescribed by the Performance Indicator Definition (*PID*) and is reliable. In other words, Liberty sought to determine whether there were reasonable assurances that the performance as measured and reported by Qwest was equivalent to the performance that Qwest actually delivered. To accomplish this, Liberty examined Qwest's processes for collecting and processing data, in order to determine whether Qwest can and does appropriately capture, process, and report performance information against the standards and measures that have been defined. In addition, Liberty conducted an end-to-end analysis of data to verify the complete and accurate functioning of the data capture, security, processing, analysis, and reporting processes audited, and performed an independent calculation of performance measures to corroborate the adequacy of the processes that measure performance against explicit standards and measures. This definition of the standards is clear in the final report.

With regard to PO-5, Covad said that it "suspected" that the metric and the process were not accurately linked because of the measure's exclusions. The ROC-TAG approves the *PID*, which identifies the exclusions. Liberty's audit determined whether Qwest was excluding data in a manner consistent with the *PID*. In fact, the release report for PO-5 discusses the fact that Liberty's audit initially found that data exclusions being made were not identified in the *PID*, but that the situation had been corrected. Liberty also noted its review of the number of exclusions made.

For PO-5, OP-4, and three MR measures, Covad comments about the "small sample size" used by Liberty. As noted above, Covad has misunderstood this part of the audit. Liberty was not sampling data, but rather was completing the recalculation part of the audit.

For OP-5, Covad seems to have a complaint about the definition of the measure rather than an aspect of the audit. Again, the ROC-TAG (Covad being a member) approves these definitions. Covad is correct in that Liberty did not explain why the average of the service orders in the current month and prior month is used in this measure. Liberty assumed apparent that if the measure was to report on trouble reports for new installations (30 days), and that is the number of such reports was for the current period, it would not be logical to only use the number of service orders in the current period but rather an estimate of the number of orders that the trouble tickets may relate to, or the average of the current and prior months.

Concerning some MR measures, Covad questions the number of trouble reports Liberty used for data tracking, but did not present any information that would permit Liberty to respond to any question of why this number was insufficient for this purpose. Covad also questions Liberty's description of the process used by Qwest to pull and process data for the various measures. Perhaps Liberty's description could have been made more clear. In general, Qwest uses the same process for many of the performance measures. A detail file is created using all the possible records pertinent to a measure. Business rules are applied to create an ad hoc file that, among other things, indicates which records have been excluded and the reason for the exclusion. The business rules are not applied "at two different points," as described by Covad.

Finally, Covad suggests that "Liberty should recommend, and Qwest should consider, exception tracking as a method of validation." Liberty did address this issue, and in fact recommended that Qwest should regularly monitor the percentage of exclusions identified in the data set to help identify data problems that may arise in the future. Qwest committed that its Regulatory Reporting Specialists were instituting a process by which the percentage of exclusions for each PID are reviewed as a part of the internal checks prior to publication of monthly results. If Covad believes that an additional performance measure should be created to report on the number of exclusions, it should propose such an addition to the ROC-TAG. Liberty does not believe that an additional measure is warranted in this case.