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Analysis of Qwest's Performance Assurance Plans Final Report

Prepared for:

The Qwest Regional Oversight Committee

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I. Executive Summary

The Performance Assurance Plans (PAPs) in effect in the states in which Qwest Corporation (Qwest) is the incumbent local service provider include provisions for their review and modification. In addition to a regular six-month review to consider potential modifications to the performance measurements, standards, and performance measurement classifications, most PAPs also call for longer-term reviews of the effectiveness of the PAP and whether its continuation is necessary. The triggering event for these longer-term reviews varies from state to state, and the various triggers include Qwest's filing to eliminate its 272 affiliate and a specific point in time (five and one-half years after the PAP's commencement or six months prior to the PAP's proposed end). Because these triggers had occurred or were about to occur, 11 of the 14 state commissions (Commissions) that are members of the Qwest Regional Oversight Committee (ROC) elected to authorize a joint analysis of their PAPs to facilitate the review processes. These 11 participating Commissions engaged The Liberty Consulting Group (Liberty) to conduct this analysis.

The Commission Staff members forming the QPAP/CPAP Collaborative Committee (Collaborative Committee) defined the scope of this work to include a detailed review and analysis of the PAPs and the Performance Indicator Definitions (PID) measures, which are used to assess Qwest's performance. The Collaborative Committee specified that the work would result in draft recommendations concerning:

- The current effectiveness, value, and usefulness of the PAPs and PID measures in relation to their intended purpose and function
- Whether some or all of the PAP or PID measures may no longer be necessary
- Possible modifications to the PAP and PID measures.

The Collaborative Committee intended that the review, analysis, and draft recommendations be provided in a baseline document to be used for collaborative discussions between the various Commission Staffs, Qwest, and the Competitive Local Exchange Carriers (CLECs), and by individual Commissions in appropriate state proceedings. However, each state Commission would use the data and findings in whatever manner it deems appropriate. The present report is meant to provide the baseline documentation of Liberty's review, analysis, and draft recommendations contemplated in the Collaborative Committee's scope definition.

The Collaborative Committee intended this investigation to include consultation with Qwest and the CLECs, in addition to the Commission Staffs. The Commission Staffs and CLECs responded to Liberty's request for input and suggestions, which Liberty used in the analysis and in formulating the recommendations. Qwest elected not to actively participate in the review and declined to provide its positions on or any proposals for changing the PAPs. However, Qwest agreed to provide Liberty with extensive historical data on PAP payments and PID measure results, which were invaluable in supporting the analysis.

Liberty began conducting this analysis in December 2008, focusing on five separate but related lines of inquiry:

1. Analysis of PAP payments and PID measure results
2. Analysis of the structural components of the PAPs
3. Analysis of the structure of the PID measures
4. Analysis of recommendations and experiences of stakeholders
5. Analysis of industry trends.

In evaluating the continuing effectiveness, value, and usefulness of the PAPs, Liberty reviewed:

- The number of active CLECs that have a significant total subscriber base and are dependent on Qwest's wholesale products and services to serve their end users
- The level of Qwest's penalty payments
- The extent of Qwest's performance that is out of compliance with standards
- The burden on Qwest of maintaining the PAPs and whether this burden outweighs the advantage of protecting competitors.

Liberty analyzed trends in PAP payments, PID performance measurement results, transaction volumes, and lines in service since January 2004. Based on this analysis, Liberty determined that the PAP penalty payments have declined overall in all the participating states since the beginning of 2004. A significant source of this general[1] decline has been an improvement in the quality of Qwest's wholesale service performance as measured by the PID measurements. However, another significant source of the payment decreases has been a decline in the number of active CLECs. Nevertheless, the volume of CLEC activity remains significant in all the participating states, and Qwest continues to make payments based on inadequate performance for some functional areas, with the largest number of recent payments coming from sub-standard performance on Maintenance & Repair transactions.

Liberty found that CLEC order volumes and lines in service have declined markedly. Major contributors to this decline were the Federal Communication Commission's (FCC's) Triennial Review Order (TRO) and the Triennial Review Remand Order (TRRO) decisions, which eliminated a number of unbundled services, including Unbundled Network Element – Platform (UNE-P). There has also been a significant decline in Resale transactions and a smaller decline in UNEs unaffected by the TRO and TRRO decisions. Despite these declines, the volume of number porting orders has remained high, indicating the increasing importance of facilities-based competitors like cable companies. The wireless carriers are also major and growing competitors of Qwest, but this source of competition is not reflected in the volumes reported in the PAPs and PID measures, because these carriers rarely, if ever, use the wholesale services monitored in this way.

[1] In addition to the factors mentioned here that apply to all states, special factors contributed to the declines in some of the states. For example, there was a significant decrease in Tier 2 payments in Colorado after 2006, which resulted primarily from Colorado PAP changes introduced after the Colorado three-year review that reduced the number and types of PID measures eligible for Tier 2 payments.

Based on analysis presented in this report, Liberty concludes that the PAPs are still serving a useful purpose in all the participating states. Although Qwest's largest competitors are the wireless and cable companies, which are less dependent on Qwest's wholesale services, there continues to be a significant group of CLECs that rely heavily on Qwest's wholesale services to conduct their business, and there are limited readily available alternatives to Qwest's wholesale service for these CLECs. These CLECs still provide significant competition for Qwest, particularly in such important parts of the market as broadband and business services. As noted, Liberty found that Qwest's performance in providing wholesale services continues to improve, contributing to a decline in PAP payments. Although it is difficult to verify from historical data, the incentive provided by the PAPs has likely contributed to this performance improvement.

Despite the improvement in Qwest's performance and reduction in PAP payments, the PAP incentives continue to be important in helping to ensure that Qwest's performance level does not deteriorate, because Qwest's wholesale services remain critical for the CLECs still relying on them. Recent experiences in Hawaii and northern New England demonstrate the severe impact on competitors when an incumbent local company fails to provide adequate wholesale performance, despite the best intentions and preparations.[2] The circumstances of those cases are very different from what the CLECs face in Qwest's operating territory. However, they illustrate conditions that can arise in extreme cases without adequate protections. The Qwest PAPs help ensure that the correct incentives are in place to prevent such conditions from occurring.

Although concluding that the PAPs should continue to be maintained, Liberty believes some changes should be made in the PAPs to simplify them and make them more targeted to the continuing needs of the competitive marketplace. Liberty used the results of its analysis as well as input from stakeholders, including the CLECs, in identifying potential proposals. In evaluating potential proposals, Liberty considered:

- Whether changes in the marketplace have made elements of the PAPs obsolete
- Whether particular types of transactions are no longer relevant
- Whether the volumes of transactions for sub-measures and products are too small to warrant their continued inclusion in the PAPs
- Whether the PAPs and PID can be simplified
- Whether there are any biases and distortions in the PAPs that need to be corrected
- Whether there are important transactions types that are currently not monitored in the PAPs and PID
- Whether the effort to secure support for and cost of making the changes outweighs the advantage of making them.

Liberty offers several recommendations for the participating Commissions as follows. Many of these recommendations continue a process of evolving the PAPs to tailor them to current needs, which has occurred since their inception. Most notably, major changes were made in the

[2] See, for example, Liberty's report on the FairPoint Communications, Inc. cutover: http://www.puc.state.nh.us/Telecom/Filings/FairPoint/Post-Cutover/FairPoint%20Post-Cutover%20Status%20Report%2004-01-09.pdf

Colorado PAP during 2006 after the three-year review in that state, and in most other states at various times since 2006 in response to recommendations from a joint stipulation between Qwest and some CLECs signed in 2007.

The following recommendations apply to all the participating state PAPs.

Recommendation 1. The Commissions should introduce a new aggregation mechanism to minimize low-volume tests in determining payments. Specifically, transactions for CLECs with low volumes should be aggregated with those of other CLECs, and, as necessary, aggregated over up to a three month period, for the purpose of determining non-conformance and calculating payments.

Recommendation 2. The Commissions should eliminate the following PID measures (in addition to those included in the 2007 Stipulation recommendations) from consideration for PAP payments for those states that use them, and place them on the list of measures subject to the Reinstatement/Removal Process:

- *PO-9 Timely Jeopardy Notices*
- *PO-19 Stand Alone Test Environment (SATE) Accuracy*
- *PO-20 Manual Service Order Accuracy*
- *CP-1 Collocation Completion interval*
- *CP-2 Collocations Completed within Scheduled Intervals*
- *CP-4 Collocation Feasibility Study Commitments Met.*

Recommendation 3. The Commissions should make the following additional changes to certain PID measures in the PAPs:

- *For OP-5 (New Service Quality), use sub-measure OP-5T instead of sub-measures OP-5A and OP-5B.*
- *Replace the current retail analog of "retail Integrated Services Digital Network Basic Rate Interface (ISDN-BRI) designed" with some other retail product or with a benchmark.*

Recommendation 4. The Commissions should eliminate the following low-volume products from the OP and MR measures in the PAPs:

- *Unbundled Digital Signaling Level 3 (DS-3) Loops*
- *Unbundled Dedicated Interoffice Transport (UDIT) – Above DS1*
- *Unbundled 4-Wire Non-Loaded Loops*
- *Loops with Conditioning (applies only to OP measures)*
- *Unbundled ISDN Capable Loops (applies to all states and measures except for MR measures in Arizona and Colorado)*
- *Line Sharing (already removed in Colorado).*

<u>*Recommendation 5.*</u> *The Commissions should make the following additional changes to certain PID measures:*

- *Limit MR-4 (All Troubles Cleared within 48 Hours) to service-affecting troubles*
- *Add a diagnostic sub-measure to OP-4 (Installation Interval) to measure performance on expedited orders*
- *Add a diagnostic sub-measure to MR-7 (Installation Interval) to measure chronic troubles*
- *Add a diagnostic sub-measure to OP-3 (Installation Appointments Met) to measure the percentage of coordinated appointments met.*

<u>*Recommendation 6.*</u> *The Commissions should adopt provisions to assess Qwest for the cost of PAP administration functions, including independent auditor and audit costs and payment of other expenses incurred by the participating Commissions in the regional administration of the PAP, if the Special Funds created by the Tier 2 payments are insufficient for fund these functions.*

<u>The following recommendation applies to all participating states except Colorado and Utah.</u>

<u>*Recommendation 7.*</u> *The Commissions should adopt changes in the PAPs and PID to recognize Qwest's replacement of the Electronic Data Interchange (EDI) interface by the Extensible Mark-up Language (XML) interface.*

<u>The following two recommendations apply only to Colorado.</u>

<u>*Recommendation 8.*</u> *The Colorado Public Utilities Commission should restore the Tier 1B, Tier 1C, and Tier 2 mechanisms to the CPAP, subject to the changes required by Liberty's other recommendations.*

<u>*Recommendation 9.*</u> *The Colorado Public Utilities Commission should make the following additional changes to the CPAP:*

- *Restore the Unbundled Asynchronous Digital Subscriber Line (ADSL)-Capable Loop product*
- *Eliminate the UNE-P products.*

<u>The following recommendation applies to Montana only.</u>

<u>*Recommendation 10.*</u> *The Montana Public Service Commission should adopt the recommendations of the 2007 Stipulation.*

The next chapter of this report (Chapter II) details the background and purpose of Liberty's review, describes Qwest's PAPs and PID measures including a high-level description of recent changes, and outlines Liberty's analysis approach. Chapter III describes Liberty's data analysis. Chapter IV discusses proposals for PAP and PID modifications. Chapter V summarizes Liberty's conclusions and recommendations.

Attached to the proposal are four appendices. Appendix A summarizes the key features of the PAPs, indicating those areas where the PAPs differ among the states. Appendix B provides details of Liberty's data analysis for each of the 11 participating states. Appendix C describes the detailed applicability of Liberty's recommendations for each of the 11 participating states. Appendix D provides a glossary of terms used in the report.

II. Introduction

A. Background and Purpose of the Review

Eleven member state commissions of the Qwest ROC, an organization of the 14 Commissions of the states in which Qwest provides local exchange service, chose Liberty to conduct a review of Qwest PAPs[3] in effect in the 11 participating states. These 11 Commissions are the Arizona Corporation Commission, the Colorado Public Utilities Commission, the Idaho Public Utilities Commission, the Iowa Utilities Board, the Montana Public Service Commission, the Nebraska Public Service Commission, the New Mexico Public Regulation Commission, the North Dakota Public Service Commission, the South Dakota Public Utilities Commission, the Utah Public Service Commission, and the Wyoming Public Service Commission.[4]

The PAP is a mechanism through which Qwest makes payments to the states and/or to CLECs if its performance in providing wholesale services to the CLECs fails to meet the defined standards of certain performance measures that are documented in the Qwest PID. Qwest has filed a PAP in each of the 14 ROC states. The PAPs include provisions for their review and modification;[5] in addition to a regular six-month review to consider potential modifications to the performance measurements, standards, and performance measurement classifications, most PAPs also call for longer-term reviews. In particular, most PAPs call for reviews several years after the initiation of the PAP to assess the PAP's effectiveness and whether its continuation is necessary. The triggering event for these longer-term reviews varies from state to state. In most states, the trigger is when Qwest files to eliminate its Section 272 affiliate. A few states specify a specific point in time (five and one-half years after the PAP's commencement or six months prior to the PAP's proposed end).[6] Because these triggers had occurred or were about to occur, the 11 participating Commissions elected to authorize a joint analysis of their PAPs to facilitate the review processes and engaged Liberty to conduct the analysis. The Commission Staff members forming the Collaborative Committee defined the scope of this review to include:

- A detailed review and analysis of both the performance plan and PID measures, which would include draft recommendations concerning a) the current effectiveness, value, and usefulness of the performance plan and PID measures in relation to their intended purpose and function; b) whether some or all of the performance plan or PID measures may no longer be necessary; and c) possible modifications to the performance plan and PID measures. The review, analysis

[3] In this report, the term "PAP" will be used to designate all the Qwest Performance Assurance Plans. The term "CPAP" will be used to refer to the Colorado Performance Assurance Plan and the term "QPAP" will be used to refer to the PAPs in the other ten participating states.
[4] The Oregon Public Utility Commission and the Washington Utilities and Transportation Commission have elected to participate in the review as an observer. The Minnesota Public Utilities Commission chose not to participate in the study.
[5] These provisions are contained in Section 16.0 of the QPAPs and Section 18.0 of the CPAP.
[6] The Arizona PAP provides for the six-month reviews but has no specific provisions for a longer-term review. The Colorado and New Mexico PAPs call for reviews to begin five and one-half years after the inception of the PAPs. The Idaho, Iowa, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming PAPs call for a review after Qwest eliminates its Section 272 affiliate.

and draft recommendations should be provided in a baseline document, and the baseline document may be used for collaborative discussions between the various Commission Staffs, Qwest and the CLECs and/or for use by individual Commissions in their separate state six-month, six-year, or other appropriate dockets.

- Participation of and consultation with the PAP stakeholders: Qwest, CLECs with business in the relevant fourteen-state region, and the appropriate participating state public commission regulatory bodies.
- Provision to each state of a copy of the analysis and report; each state would then use the data and findings in whatever capacity it sees fit.

Contrary to what was originally contemplated, Qwest elected not to actively participate in the review, although the Commission Staffs and CLECs responded to Liberty's request for input. Nevertheless, Qwest did voluntarily provide Liberty with extensive historical data on PAP payments and PID measure results and answered questions about the data provided, and this input was invaluable in supporting the analysis.

This report provides the baseline documentation of Liberty's review, analysis, and draft recommendations contemplated in the Collaborative Committee's scope definition. Liberty began conducting the analysis in December 2008.

B. Overview of Qwest's Performance Assurance Plans and Performance Measures

The Qwest PAPs and PID are incorporated as exhibits in the Statement of Generally Available Terms and Conditions (SGAT) for Qwest's wholesale local exchange services in each state. The PID is Exhibit B in the SGAT and the PAP is Exhibit K. Each of the PAPs has unique features, but there are two basic versions, one used by Colorado (CPAP) and Minnesota and the other (QPAP) used by the remaining 12 ROC states.

Appendix A of this report lists the most common provisions of the PAPs and the differences from these common provisions applicable to each of the PAPs for the 11 states participating in this review. The PAPs are generally two-tiered, with Tier 1 used for payments to CLECs and Tier 2 for payments to the states.[7] Payments for each tier are based on Qwest's performance on specific PID sub-measures (or sub-measure/product combinations for the CPAP) applicable to that tier. For the QPAPs, the Tier 1 and Tier 2 sub-measures are classified as High, Medium, or

[7] The current version of the CPAP (Ninth Revision, Sixteenth Amended), which has been in effect since January 2, 2009, has eliminated the Tier 2 payments and all Tier 1 payments except Tier 1A. The Colorado Public Utilities Commission adopted these changes in Decision No. C08-1345 by allowing the implementation of Section 18.11 of the CPAP, which provides for such a change after six years but also contemplated the completion of the Colorado Six-Year Review by that time. As noted below, Liberty's analysis provided in this report corresponds to the Six-Year Review for Colorado. In adopting the CPAP change, the Colorado Commission noted, "By the conclusion reached in this Order, we make no predetermination as to the status of any CPAP submeasures following our completion of the Six-Year Review."

Low, depending on their importance, with dollars at risk declining from High to Low sub-measures. For the CPAP, there is no importance distinction for the Tier 2 sub-measures; the CPAP designates sub-measures and product combinations as Tier 1A, 1B, and 1C, which correspond roughly to the High, Medium, and Low classifications for the QPAPs.

PAP payments are based on tests of the extent of Qwest's conformance with defined standards for the sub-measures and the number of consecutive months of non-conformance. Payments for most sub-measurements (Per Occurrence measures) are based on the number of "occurrences," which are measures of i) the volume of transactions, and ii) the extent to which Qwest has missed the standard. Payments for some sub-measurements (Per Measurement measures), which are generally associated with gateway systems and call center performance, are made on a "per measurement" basis, with specific payments determined by the level of performance relative to certain benchmarks independent of the volume of transactions.

The PID contains the definitions and business rules for the measures and sub-measures that Qwest reports, including those used in the PAPs. Some of the PID measures and sub-measures are only diagnostic and are not incorporated in any of the PAPs. There are three basic types of PID measures: i) means, such as mean time to restore; ii) percentages, such as percent report troubles met; or iii) ratios or proportions, such as trouble report rate. The PID provides the descriptions, calculation formulae, product reporting and other disaggregations, and exclusions for the measures and sub-measures, as well as the standards against which the performance is measured. The standards are either parity with a Qwest retail analogue or benchmarks. The measures are classified into ten different domains:

- Electronic Gateway Availability (GA)
- Pre-order/Order (PO)
- Ordering and Provisioning (OP)
- Maintenance & Repair (MR)
- Billing (BI)
- Database Updates (DB)
- Directory Assistance (DA)
- Operator Services (OS)
- Network Performance (NI and NP)
- Collocation (CP).

For example, MR-6 (Mean Time to Restore) is a Maintenance & Repair measure.

The Qwest PAPs generally went into effect at the time of Qwest's Section 271 approval by the Federal Communications Commission (FCC) in each state, which occurred during 2002 and 2003 depending on the state. The specific provisions of the PAPs have changed since their inception, with some, like the CPAP, changing more significantly than the rest. Liberty's analysis covered the period from January 2004 through October 2008 (Study Period). At the end of this Study Period, the version of the PID referenced in most state SGATs (Exhibit B) was Verizon 9.0,[8] and PAPs (Exhibit K) in effect in each of the participating states were:

- Arizona: SGAT Fourteenth Revision, Fourth Amended Exhibit K, dated June 22, 2007
- Colorado: SGAT Ninth Revision, Fifteenth Amended Exhibit K, dated August 13, 2008
- Idaho: SGAT Third Revised, Sixth Amended Exhibit K, dated June 26, 2007
- Iowa: SGAT Sixth Revision, Fifth Amended Exhibit K, dated June 26, 2007
- Montana: SGAT Fifth Revision, Fourth Amended Exhibit K, dated November 30, 2004
- Nebraska: SGAT Sixth Revision, Fifth Amended Exhibit K, dated June 26, 2007
- New Mexico: SGAT Eleventh Revision, Fourth Amended Exhibit K, dated November 24, 2004
- North Dakota: SGAT Exhibit K, dated June 22, 2007
- South Dakota: SGAT Exhibit K, dated June 22, 2007
- Utah: SGAT Seventh Revision, Fifth Amended Exhibit K, dated June 26, 2007[9]
- Wyoming: SGAT Sixth Revision, Fifth Amended Exhibit K, dated June 26, 2007.

Since October 2008, the Colorado and New Mexico PAPs have been revised again. The latest CPAP (Ninth Revision, Sixteen Amended) became effective on January 2, 2009 and the latest New Mexico PAP (Eleventh Revision, Fifth Amended) became effective on May 1, 2009.

1. Past PAP Changes

Although most PAPs have had a number of changes since their inception, the most significant changes have happened at two times in the past:

- For the CPAP, in 2006 after the completion of the three-year review
- For the QPAPs, beginning in 2007 in response to a Qwest-CLEC Stipulation agreement.

[8] As of the date of this report, the Commissions in two of the participating states, Colorado and Utah, have adopted changes to recognize Qwest's replacement of its EDI interface by an XML interface. These changes are captured in an updated PID, version 9.1. Liberty understands that the Washington Utilities and Transportation Commission has also adopted these changes.

[9] At the end of the Study Period, this version of the Utah PAP was only applicable to the parties to the 2007 Stipulation. On February 4, 2009, the Utah Commission issued an order to extend the applicability to all CLECs. That order also adopted changes to reflect the replacement of EDI by XML. These changes are not yet reflected in the Utah SGAT Seventh Revision, Fifth Amended Exhibit K.

CPAP Three-Year Review

Sections 18.7, 18.10, and 18.11 of the CPAP require three and six-year reviews to consider fundamental changes in its structure and operations. Section 18.10 specifies that the three-year review was to begin 30 months (two and one-half years) after the effective date of the CPAP and to be performed with the assistance of an outside, independent expert. The Colorado Public Utilities Commission engaged the Barrington-Wellesley Group, Inc. (BWG) as the independent expert. BWG conducted the review during 2005 and produced a final report on December 7, 2005. During the review, BWG solicited input and proposals from Qwest and the CLEC community, and worked with the parties to facilitate an agreement. Several of the interested parties reached agreement on proposed CPAP changes in a stipulation (Three-Year Review Stipulation),[10] which they presented to the Commission for adoption on February 17, 2006. The Commission adopted the Three-Year Review Stipulation on March 15, 2006.

The CPAP in Section 18.10 specifically required the Three-Year Review to analyze:

1. Payment amounts, determining whether there was any harm associated with particular non-conforming wholesale performance and recommending adjustments in the payment amounts accordingly.
2. Economic alternatives, evaluating whether there were such available alternatives to Qwest's wholesale service offerings and whether these alternatives provided competitors with a meaningful opportunity to compete. This analysis was to consider the rationale for removing measures based on the evidence of Qwest's ability to deliver reliable wholesale performance and/or reduction in Qwest's critical role in the market as a provider of key wholesale inputs.
3. Removal of measure dimensions, determining whether some product disaggregations or geographic areas no longer needed to be measured and/or subjected to payments for non-conforming performance.
4. The revision process, evaluating whether these should take place semi-annually, annually, or otherwise.

BWG drew conclusions and made recommendations in each of these four areas. In particular, they concluded that:

- The CPAP was not a source of financial harm for any party.
- Qwest performance had improved in many areas, but should service deteriorate, the CLECs and the competitive environment could be harmed; therefore, penalties should continue as an incentive to Qwest to maintain and improve performance.
- Qwest appeared to be making payments in Colorado out of proportion to those in the other Qwest states and analysis provided by Qwest indicated that if the QPAP used in other states had been in place in Colorado, penalty payments would have been only 38 percent of the CPAP payments.

[10] The parties to the Three-Year Review Stipulation were Qwest; DIECA Communications, Inc. d/b/a Covad Communications Company; Eschelon Telecom Inc., and MCI Metro Access Transmission Services LLC d/b/a Verizon Access Transmission Services.

- The CLECs continued to rely heavily on Qwest's network to reach end-user customers and few adequate alternatives to Qwest's network exist.
- The volume of certain products was too low for continued tracking and should be removed from the CPAP, but there was not enough information to conclude that any geographic disaggregation should be removed.
- The six-month reviews should be changed to annual reviews.
- Several fundamental changes should be made in the CPAP, including both structural and measure/sub-measure changes.

BWG's report[11] recommended a number of specific changes in addition to those just noted which were subsequently adopted by the Commission. The ones that are most relevant to the current analysis are the following:

- A Reinstatement/Removal Process was introduced into the CPAP, designating certain measures to be removed from payment determinations but providing for automatic reinstatement of the measures based on three consecutive months of non-conforming performance. The measures subject to this process are:[12]
    - GA-3 Gateway Availability Electronic Bonding-Trouble Administration (EB-TA)
    - GA-4 System Availability Exchange Access Control & Tracking (EXACT)
    - GA-7 Timely Outage Resolution Following Software Releases
    - PO-2B Electronic Flow-through[13]
    - PO-3 Local Service Request (LSR) Rejection Notice Interval
    - PO-5D Firm Order Confirmations (FOCs) On Time [Access Service Requests (ASR) for Local Interconnection Service (LIS) Trunks]
    - PO-7 Billing Completion Notification Timeliness
    - PO-8 Jeopardy Notice Interval
    - PO-16 Timely Release Notifications
    - OP-7 Coordinated "Hot Cut" Interval – Unbundled Loop (UNE-L)
    - OP-17 Timeliness of Disconnects Associated with Local Number Portability (LNP) Orders
    - MR-11 LNP Trouble Reports Cleared within 24 Hours
    - BI-4 Billing Completeness

[11] Independent Expert Report for the Three-Year Review of the Qwest Corporation Colorado Performance Assurance Plan, Barrington-Wellesley Group, Inc., December 7, 2005.

[12] BWG also recommended including PO-19 – "Stand-Alone Test Environment (SATE) Accuracy" on the list. However, the Colorado Commission had already determined that PO-19 should be treated as diagnostic and removed from measures that can generate payments. This change was made effective in the CPAP version dated May 6, 2005 (Colorado SGAT Ninth Revision, Ninth Amended Exhibit K, dated May 6, 2005).

[13] PO-2B is evaluated on a quarterly basis and thus reinstatement is based on two consecutive quarters rather than three consecutive months. PO-2A had originally been part of the CPAP, but BWG recommended that it be dropped entirely, because it measures all orders, not just those eligible for flow-through.

  - NI-1 Trunk Blocking
  - NP-1 NXX Code Activation
  - CP-3 Collocation Feasibility Study Interval
  - QX-1 Timely and Complete Notifications of Product/Process Change.[14]
- Implementation of the One-Allowable Miss rule for low-volume benchmark or non-interval parity sub-measures that otherwise would require perfect performance to meet the standard.
- Elimination of the Per Occurrence measurements from Tier 2.
- Elimination of the following product disaggregations with little activity (the criterion for inclusion on the list was a Colorado volume less than 130 from February 2003 through June 2005):
  - Resale Centrex
  - Resale Centrex 21
  - Resale Frame Relay
  - Unbundled ADSL
  - Resale PBX (non-designed and designed)
  - Resale ISDN BRI (non-designed and designed)
  - Resale ISDN PRI (non-designed and designed)
  - Resale DS0 (non-designed and designed)
  - Resale Digital Subscriber Line (DSL) (designed)
  - 911/E911 Trunks.
- Remove Line Sharing as a product disaggregation because of the FCC Triennial Review Order, which eliminates the requirement for Qwest to provide this product.

2007 Qwest-CLEC Stipulation Changes

Apparently motivated in part by some of the changes to the CPAP resulting from the Three-Year Review, Qwest invited CLECs to join it in discussing recommendations for changes to the QPAPs. As a result of these discussions, three CLECs[15] signed a stipulation with Qwest (2007 Stipulation) proposing QPAP changes, which the stipulating parties subsequently filed for approval in the 14 ROC states. The recommended changes in the QPAPs were similar to many of those made to the CPAP after the Three-Year Review, but some additional recommendations applied both to the CPAP and QPAPs. Specifically, the proposed changes included:

[14] QX-1 is not a PID measurement but is defined specifically for the CPAP.

[15] The CLECs who are parties to the 2007 Stipulation are Eschelon Telecom Inc.; DIECA Communications, Inc. d/b/a Covad Communications Company; US Link, Inc. d/b/a TDS Metrocom; and McLeodUSA Communications Services, Inc. (McLeodUSA now does business as PAETEC Business Services.)

- Introduction of the Reinstatement/Removal Process for certain measures. The list of measures is the same as in the CPAP Three-Year Review Stipulation except for the removal of PO-19 and QX-1 from the list of excluded measures.
- Elimination of low-volume product disaggregations. The list is the same as for the CPAP Three-Year Review Stipulation except for the addition of Sub-Loop Unbundling, UNE-P plain old telephone service (POTS), UNE-P Centrex, and UNE-P Centrex 21 to the list of excluded products, and the removal of Unbundled ADSL from the list of excluded products.
- Elimination of Resale DSL from PIDs and modification of PID and PAP references to Qwest DSL, because of the FCC Broadband Order classifying these services as information services.
- Introduction of the One-Allowable Miss rule.
- Changing the minimum payment provision from flat to tiered payments.
- Changing the provisions for Tier 2 payment candidacy to be triggered by three consecutive months of non-conformance unless there are two out of three consecutive months of non-conformance. The payments are triggered by two consecutive month's missed for measures with Tier 1 counterparts and the current month's miss for the rest of the measures.
- Other retail analogue and PID changes, many specific to individual states.
- Other specific PAP provisions, applicable to all or subsets of the states.

Liberty understands that all or most of the recommendations of the 2007 Stipulation have now been adopted by the Commissions of all 11 participating states except Montana. The Utah amendments were originally applicable only to the parties to the Stipulation, but on February 4, 2009, after the Study Period for Liberty's analysis, the Utah Commission extended their applicability to all CLECs.[16] The New Mexico amendments became effective on May 1, 2009.

C. Overview of Liberty's Analysis

1. Guidance from the PAPs

The appropriate context for the current analysis differs among the eleven participating states because the requirements of the PAPs vary. The following lists the PAP guidance associated with the most appropriate context in each of these states.

[16] The Public Service Commission of Utah orders in Docket 07-049-31, issued June 30, 2008, approved the changes for the parties to the 2007 Stipulation only. The Commission's order in Docket 08-049-50, issued February 4, 2009, extended the applicability to all CLECs. The February 4 order also approved changes to reflect the replacement of EDI by XML.

Arizona

The Arizona PAP does not specify the need for any longer-term PAP reviews, but requires regular six-month reviews.[17] Liberty understands from the Arizona Staff that the current analysis is meant for use in such a six-month review. Section 16.1 specifies that these six-month reviews shall review the performance measurements to determine:

- Whether PID measures should be added, deleted, or modified
- Whether the applicable benchmark standards should be modified or replaced by parity standards
- Whether to move a classification of a measure to High, Medium, or Low or Tier-1 to Tier-2.

The criteria for review of the measurements, other than for possible reclassification, shall be:

- Whether there exists an omission or failure to capture intended performance
- Whether there is duplication of another measurement.

However, the PAP also notes in Section 16.1 that

> *... the Commission reserves the right to modify the PAP including, but not limited to performance measurements, penalty amounts, escalation factors, audit procedures and reevaluation of confidence levels, at any time as it sees fit and deems necessary upon Commission Order after notice and hearing.*

Furthermore from Section 16.2,

> *Notwithstanding section 16.1, any party may submit a root cause analysis to the Commission requesting removal of a PID or sub-measure from the PAP or requesting exemption of a PID or sub-measure from the application of the trigger mechanism for reinstatement or subsequent removal. In the analysis and recommendations concerning the root cause analysis, the Commission is to consider, at a minimum, whether the root cause analysis provides evidence of no harm, the same harm as covered by other PID measures, non-Qwest related causes, or other factors which directly relate to the harm or circumstances specific to the PID or sub-measure being analyzed.*

Colorado

In Colorado, the timing of Liberty's analysis is most consistent with that of a six-year review. The CPAP states in Section 18.11:

[17] All the participating QPAPs (in Section 16.1) call for six-month reviews with terms similar to Arizona's. The CPAP originally required six-month reviews, but amendments introduced after the Three-Year Review changed these to annual reviews (Sections 18.2 - 18.6).

> *Except as provided in this Section, this CPAP will expire six years from its effective date. Only Tier 1A submeasures and payments will continue beyond six years, and these Tier 1A submeasures and payments shall continue until the Commission orders otherwise. Five and one-half years after the CPAP's effective date, a review shall be conducted with the objective of phasing-out the CPAP entirely. This review shall focus on ensuring that phase-out of the CPAP is indeed appropriate at that time, and on identifying any submeasures in addition to the Tier 1A submeasures that should continue as part of the CPAP.*

In fact, the six-year point has now passed, and the latest version of the CPAP has implemented the changes required in Section 18.11 (removal of all but the Tier 1A sub-measures). Although the circumstances involved in obtaining commitment for a joint ROC analysis prevented Liberty's analysis from meeting the specific timing for the six-year review, Liberty understands from the Colorado Staff that the analysis will nevertheless be used as part of that review process. The CPAP specifies in Section 18.7 that the following areas are also eligible for change in the three-year and six-year reviews:

- The statistical methodology (Sections 4.0, 5.0 and 6.0) except for additions to the variance tables for new Tier 1A measures
- The payment caps (Sections 11.0 and 18.8)
- The duration of the CPAP (Section 18.11)
- The payment regime structure (Sections 2.0, 7.0, 8.0, 9.0, 10.1, and 10.4) except for the addition of payment amounts for new Tier 2 measures and of payment amounts for violations of change management requirements
- The legal operation of the CPAP (Sections 15.0 and 16.0)
- The Independent Monitor (Section 17.0) with the exception of assignment of the Independent Monitor function to an Administrative Law Judge
- Any proposal that does not relate directly to measuring and/or providing payments for non-discriminatory wholesale performance.

Idaho, Iowa, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming PAPs

The Idaho, Iowa, Montana, Nebraska, North Dakota, South Dakota, Utah, and Wyoming PAPs call for six-month reviews with language and scope similar to Arizona's. In addition, the PAPs call for two other longer-term reviews with similar language. For example, from the Idaho PAP:

> *16.2 Two years after the effective date of the first FCC 271 approval of the PAP, the participating Commissions may conduct a joint review by a independent third party to examine the continuing effectiveness of the PAP as a means of inducing compliant performance. This review shall not be used to open the PAP generally to amendment, but would serve to assist Commissions in determining existing conditions and reporting to the FCC on the continuing adequacy of the PAP to serve its intended functions. The expense of the reviews shall be paid from the Special Fund.*

> *16.3 Qwest will make the PAP available for CLEC interconnection agreements until such time as Qwest eliminates its Section 272 affiliate. At that time, the Commission and Qwest shall review the appropriateness of the PAP and whether its continuation is necessary. However, in the event Qwest exits the interLATA market, that State PAP shall be rescinded immediately.*

Either the six-month review or the second of these two longer-term reviews (Section 16.3) is the most appropriate context for the current analysis. The PAP language indicates that the key objective of the Section 16.3 review is the appropriateness of the PAP and whether it should continue. In the South Dakota PAP, Qwest must petition the Commission for the elimination of the PAP as a precondition for that review.

New Mexico

The New Mexico PAP has provisions for regular six-month review and a two-year review with language similar to the other QPAPs. In addition, like the CPAP, the New Mexico PAP in Section 16.3 has a sunset provision to occur six years after the PAP's effective date, eliminating all sub-measurements except those listed in Attachment 3 and calling for a review with language similar to the QPAP:

> *This QPAP will expire six years from its effective date. Only the submeasurements identified in Attachment 3 and payments will continue beyond six years, and these submeasurements and payments shall continue until the Commission orders otherwise. Five and one-half years after the QPAP's effective date, a review shall be conducted with the objective of phasing-out the QPAP entirely. This review shall focus on ensuring that phase-out of the QPAP is indeed appropriate at that time, and on identifying any submeasurements in addition that should continue as part of the QPAP.*

In addition (Section 16.4),

> *The Commission may, at its discretion, join a multi-state effort to conduct QPAP reviews and develop a process whereby the multi-state group would have the authority to act on the Commission's behalf consistent with its authority under law.*

2. Approach of the CPAP Three-Year Review

In the CPAP Three-Year Review, BWG noted that it was guided by the requirements in CPAP Sections 18.7 and 18.10 and the following general objectives designed to balance the needs of the Commission, the CLECs, and Qwest:

- Simplification (reduction in complexities) of the CPAP

- Avoidance of significant incremental financial, administrative, or operational harm to CLECs or Qwest
- Continuation of incentives for growth in the competitive marketplace
- Balancing the implications for end-user customers, CLECs, and the competitive environment
- Level of historical penalties and implications for future payments
- Flexibility for interested parties to request appropriate modification and provide feedback on any such request.

BWG used the following factors in determining which specific measures and sub-measures should be removed from the CPAP:

- Importance in measuring aspects of service which impact end-user customers, as well as CLECs' ability to communicate with end-users, make customer commitments, operate efficiently, and compete on a level-playing field
- Simplicity of tracking, measuring, and reporting for Qwest, the Commission, and CLECs
- Limited administrative burdens for Qwest and other parties
- Balancing financial and other harm for Qwest and CLECs
- Implications for future penalty payments given past performance and recent trends (conforming performance in the past does not ensure good performance in the future, while strong performance leading to no penalty payments is not a burden for Qwest)
- Flexibility to address changes in regulatory requirements, business realities, and the competitive landscape.

By design, the current analysis was conducted in a different mode from CPAP Three-Year Review. In particular,

- The analysis was designed to meet the separate needs of the eleven participating states rather than a single state.
- The analysis was not intended to be part of any specific on-going reviews or dockets in any of the participating states, but was intended as input to such proceedings.
- There was no collaborative process between the CLECs and Qwest, since Qwest elected not to provide proposals and recommendations and the CLECs provided input through a single Liberty questionnaire.
- There were specific requirements and objectives for the Three-Year Review that do not apply to the Six-Year Review in Colorado.

Thus, the objectives of Liberty's analysis were necessarily somewhat different from BWG's. Nevertheless, Liberty approached aspects of the analysis in ways similar to BWG's.

3. Guidance from the Collaborative Committee

As noted, the ROC Collaborative Committee specifically noted the following areas for this analysis:

- The PAPs and PID measures, with draft recommendations concerning:
  - The current effectiveness, value, and usefulness of the PAP and PID measures in relation to their intended purpose and function
  - Whether some or all of the PAP or PID measures may no longer be necessary
  - Possible modifications to the performance plan and PID measures.
- Participation of and consultation with the PAP stakeholders: Qwest, CLECs, and Commissions.

The Collaborative Committee specifically noted that because of the different contexts of the reviews in the different states, this analysis and the resulting recommendations should be presented in a document to use for discussions and proceedings as each state deems appropriate.

4. Liberty's Approach

Given varied contexts for this review in the different participating states, Liberty relied mainly on the specific requirements of the review outlined by the ROC Collaborative Committee. Based on these requirements, Liberty developed a work plan focused on five separate but related investigations:

1. Analysis of PAP payments and PID measure results
2. Analysis of the structural components of the PAPs
3. Analysis of the structure of the PID measures
4. Analysis of recommendations and experiences of stakeholders
5. Analysis of industry trends.

During the course of the analysis Liberty held project calls with members of the Collaborative Committee and provided monthly status reports of the review to the Committee. Liberty also met with the ROC Commission Staffs on April 23, 2009 in Denver to review the analysis, provide initial results and conclusions, and seek input from the Staffs. Because of the lack of the ability to seek equal input from Qwest and the CLECs, Liberty's analysis was unable to benefit from the give and take that such a process can provide.

Analysis 1 – Historical PAP Payments and PID Measure Results

One method of assessing how well the PAPs and PID measures are working was to examine trends in the payments, transactions volumes, and PID measure results over the life of the PAPs. The purpose of this examination was to identify measures that either might be consistently generating payments or consistently meeting the standards. These were noted for further investigation. The analysis also examined PID measures that are reported but are not currently part of the QPAPs to determine whether there was still any value in Qwest reporting them or if they should be considered for future inclusion in the PAPs. In addition, Liberty examined trends in transaction volumes to determine whether some PID measures or measure reporting dimensions contain so few transactions that they may no longer have value. Liberty also examined any cases where PID measures have been removed from a QPAP and assessed whether there was any evidence that this has influenced Qwest performance.

This analysis included the following steps:

- Qwest provided PAP payment results to Liberty for all 14 states for each month beginning January 2004 and continuing through October 2008 (Study Period)
- Qwest provided PID measure results to Liberty for the 11 participating states for each month from January 2004 through October 2008
- Liberty analyzed trends in the PAP payments at the region-wide (14-state) level
- Liberty analyzed trends in the PAP payments and measure results individually for each of the 11 participating states
- Liberty looked for cases where measures showed low or minimal PAP payments
- Liberty looked for product disaggregations with low activity volumes.

Analysis 2 – QPAP Structure

The purpose of this analysis was to determine whether the current structure of the PAP is meeting its original objectives. The analysis included the following steps:

- Liberty obtained and reviewed the PAP documentation for each of the 11 participating states.
- Liberty reviewed the PAP structural components (*e.g.,* statistical methods, payment levels, payment triggering mechanisms).
- Liberty examined whether the components appeared to be meeting their apparent objectives or were no longer relevant based on the observed historical trends.

Analysis 3 – PID Measure Structure

The purpose of this analysis was to determine whether the current structure of the performance measures is meeting its original objectives. The analysis included the following steps:

- Liberty obtained and reviewed the 14-state PID documentation
- Liberty reviewed the structure of the PID measures (e.g., formula, exclusions, reporting disaggregations)
- Liberty examined whether there are any PID measures or components of the measures that either do not appear to be meeting their apparent objectives, or are no longer relevant based on the observed historical trends.

Analysis 4 – Stakeholder Input

In addition to examining the historical record and the structures of the PAPs and PID measures, Liberty sought input from the principal stakeholders of the PAPs: the Commissions, the CLECs, and Qwest. Liberty asked the Staffs from each of the participating Commissions to provide their own experiences, concerns, recommendations, and objectives related to the PAPs. In addition, Liberty asked the Staff members to provide lists of CLECs to contact regarding their experiences. Then, Liberty contacted the CLECs and Qwest for their input. This analysis included the following steps:

- Liberty asked the Collaborative Committee Commission Staff members for the 11 participating states for their information on:
  - What historical information the states maintain on PAP payment and Qwest performance results
  - Lists of active CLECs in the state and contact information
  - What information the states maintain about the CLECs and other competitors
  - Any input the Staffs had on concerns about or issues with the PAPs
- Liberty developed a questionnaire and reviewed it with the Collaborative Committee.
- Liberty sent the questionnaire to the CLECs and Qwest addressing:
  - What components of the PAPs (including the PID measures involved) are working well and are believed to be necessary to preserve going forward?
  - What components of the PAPs (including the PID measures involved) are not working well and should be changed going forward? If any, how should they be changed?
  - What components of the PAPs (including the PID measures involved) are unnecessary and should be dropped going forward?
  - Other comments or input.

Qwest declined to participate in providing this input.

Analysis 5 – Industry Trends

The purpose of this analysis was to determine trends in the competitive local telecommunications industry in the 11 states that might affect the continued applicability of the PAPs. In particular,

- Liberty used FCC industry analysis reports to examine trends in competition in each of the 11 participating states.
- Liberty examined trends in transaction volumes by product type and function based on the PID measure data provided by Qwest.

Liberty used this information to determine to what extent the PAPs (including the included PID measures, products, and specific structural provisions) still address the needs of the current telecommunications marketplace.

Draw Conclusions and Develop Recommendations

Based on the five streams of analysis described above, Liberty drew conclusions and developed recommendations for the three basic objectives of the study outlined by the Collaborative Committee:

- Evaluation of the current effectiveness, value, and usefulness of the performance plan and PID measures in relation to their intended purpose and function
- Determination whether some or all of the performance plan or PID measures may no longer be necessary
- Consideration of possible modifications to the performance plan and PID measures.

In particular, Liberty evaluated the continued need for PAPs, including whether they are necessary or helpful in maintaining a competitive market. In addition, if the PAPs are to continue Liberty identified and developed recommendations for:

- PID measures that should be eliminated
- Product disaggregations that should be eliminated
- Revisions to and additions of PID measures
- Modifications to PAP structural components.

In this evaluation, Liberty relied principally on the data from the Study Period. However, late in the analysis, Liberty obtained from Qwest additional information about payments from November 2008 through March 2009 for the 11 participating states, and used this additional information in assessing whether to recommend the elimination of PID measures.

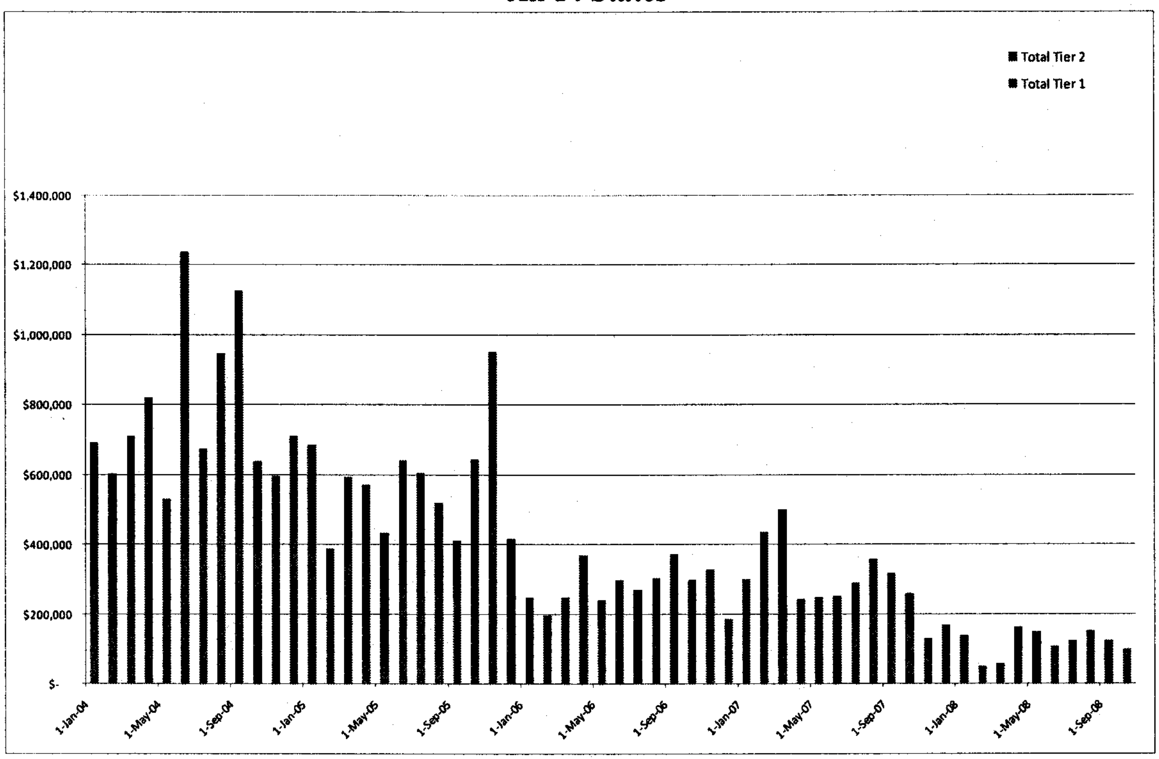
III. Analysis

A. Performance Assurance Plan Payment Trends

Based on data provided by Qwest, Liberty analyzed trends in PAP payments during the Study Period. Through this analysis, Liberty examined which PID measures and product disaggregations contributed most to the payments and how this varies from state to state and during the Study Period.

During the course of its review, Liberty found that both the Tier 1 and Tier 2 payments decreased dramatically during the Study Period. In 2004, monthly payments across all 14 states were more than $600,000 on average (about $500,000 for the 11 states considered in this review). By 2008, monthly payments were typically below $200,000 (below $100,000 in total for the 11 states reviewed). Figure III-A-1 below shows the combined Tier 1 and Tier 2 payments from January 2004 through October 2008 across the Qwest footprint.

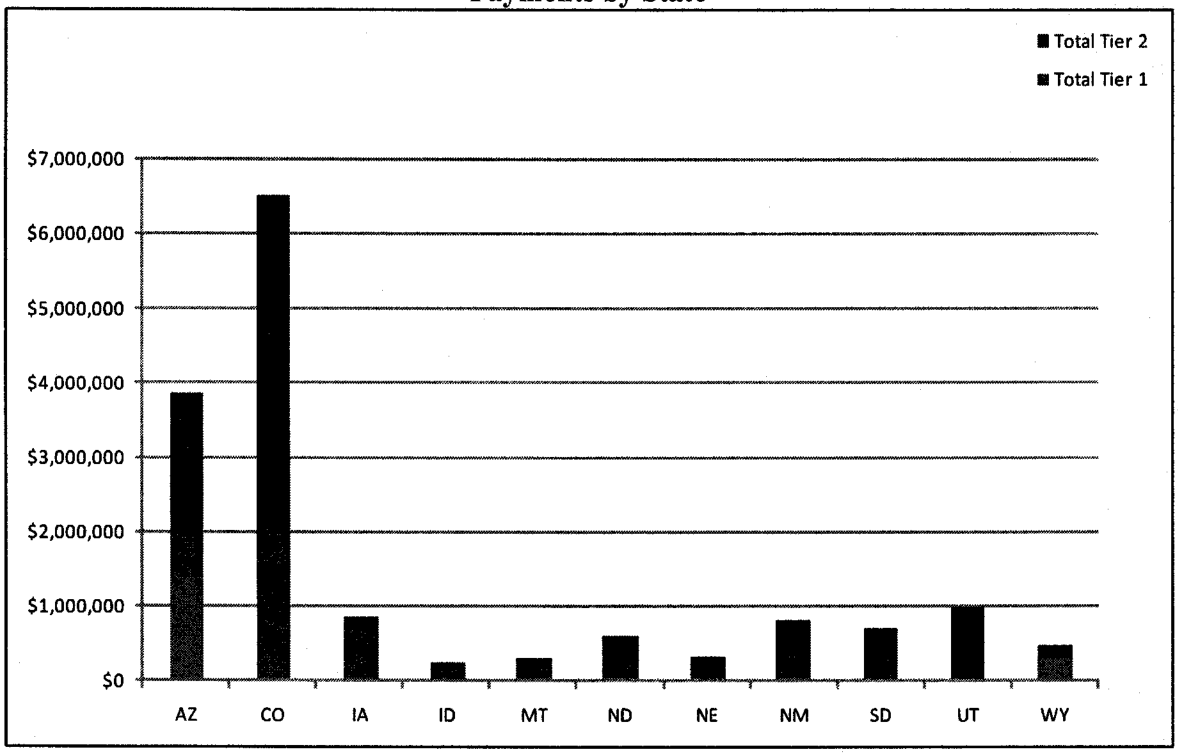
Figure III-A-1
Total Tier 1 and Tier 2 Payments
All 14 States



1. Differences in Payments by State

Analyzing the Tier 1 and Tier 2 payments by state, Liberty found that Arizona and Colorado received about two-thirds of the total payments made during the Study Period for the 11 states that participated in this review. However, each of the 11 states had significant payments, with a total of at least $250,000 in every state. Figure III-A-2 below shows the Tier 1 and Tier 2 payments by state during the Study Period.

Figure III-A-2
Tier 1 and Tier 2
Payments by State



Liberty also reviewed how the payments changed over time for each state participating in this review. Appendix B contains figures with Tier 1 and Tier 2 payments over time for each of the 11 states. For the most part, the Tier 1 payments went down uniformly. Tier 2 payments by state declined in a similar fashion, with one major exception. Colorado payments for Tier 2 dramatically fell after April 2006.

Liberty found that the dramatic reduction in Colorado's Tier 2 payments resulted from changes to the structure of the CPAP after the Three-Year Review. The August 15, 2005 version of the CPAP included two requirements for Tier 2 payments that were eliminated with the May 1, 2006 version:

- That Qwest make Tier 2 payments for Tier 1A or Tier 1B failures that were missed by at least 50 percent of the applicable standard for two or more consecutive months. This could result in a Tier 2 payment of $25,000 for each Tier 1A sub-measure missed and/or $8,000 for each Tier 1B sub-measure missed.

- That Qwest make Tier 2 payments for "Tier 1Y" failures. Fifty percent of the penalties for Tier 1Y failures were paid to the CLEC that received substandard service and 50 percent was paid to Tier 2 Special Fund. The Tier 1Y measures calculated penalties on a Per Occurrence basis.

With the elimination of these two requirements, the remaining Tier 2 measures were calculated on a Per Measurement instead of a Per Occurrence basis. The May 1, 2006 version of the Colorado PAP maintained Tier 2 payments for the following region-wide Wholesale Support Systems measures, which are also found in the other PAPs:

- GA-1, GA-2, GA-3, GA-4,and GA-6
- PO-1
- OP-2
- MR-2

The versions of the CPAP before and after May 1, 2006 allow for Tier 2 payments for PO-6, which is not a Tier 2 measure in the other states. This measure, which evaluates the aggregate performance to all CLECs, is also subject to Per Measurement instead of Per Occurrence payments.[18]

Table III-A-1 below shows that before the May 1, 2006 revision, the highest Tier 2 payments made in Colorado were similar to, though higher than, the payments per unit (*i.e.,* the payments made per transaction) made in other states. Beginning in May 2006, Colorado's Tier 2 payments for these Per Occurrence measures went to zero while Qwest continued to make payments to other states as before.

Table III-A-1
Tier 2 Payments for All States
Before and After the May 1, 2006 CPAP Revision

Measure	Percent of Total CO Tier 2 Payments Before May 2006	Percent of Total CO Tier 2 Payments Beginning May 2006	CO Average Tier 2 Payment per Unit - Before May 2006	All Other States Average Tier 2 Payment per Unit - Before May 2006	All Other States Average Tier 2 Payment per Unit - Beginning May 2006
MR-5	9.9	0	115	49	48
MR-6	6.0	0	244	58	69
MR-8	37.2	0	187	137	215
PO-2	36.1	0	33	18	48

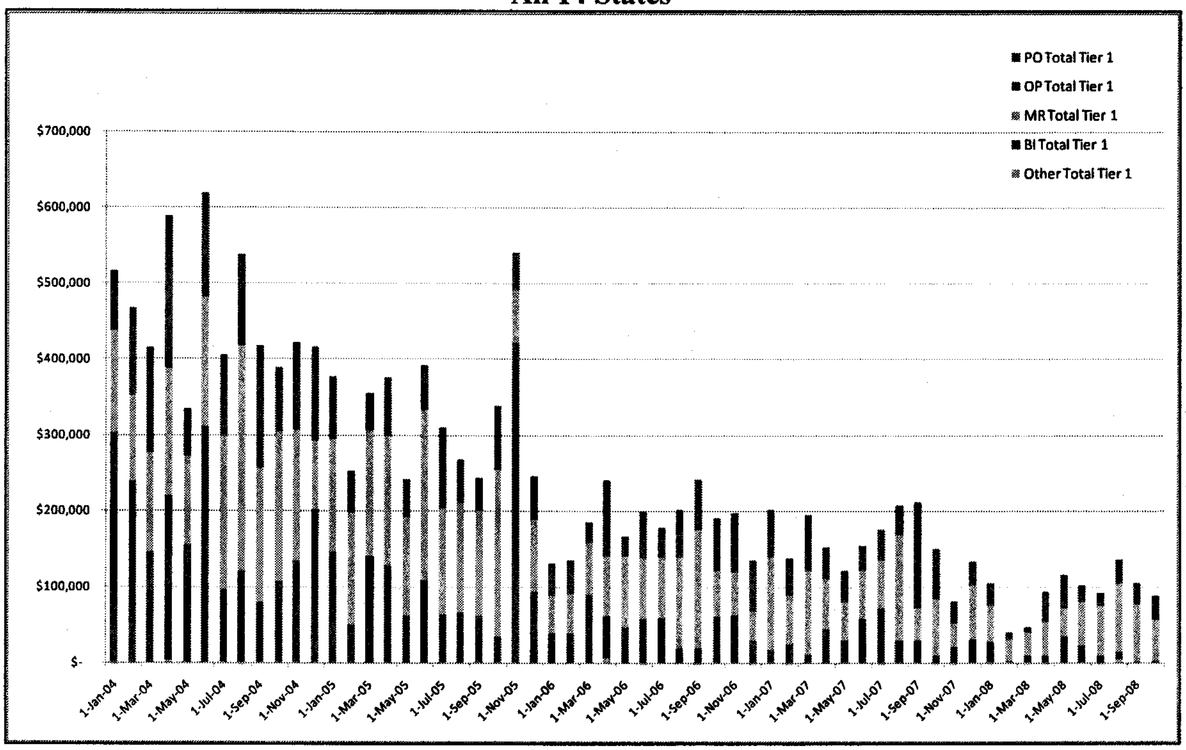
[18] The revised May 1, 2006 Colorado PAP did not contain Per Occurrence Tier 2 penalties like those found in other PAPs for the following measures: GA-7, PO-5, PO-16, PO-19, OP-3, OP-4, OP-5, OP-6, OP-8, OP-13, OP-17, MR-6, MR-7, MR-8, MR-11, BI-1, BI-4, NI-1, NP-1, and CP-2.

Additionally, Qwest noted that Tier 2 payments made for MR-8 Unbundled DS1 and Enhanced Extended Loop (EEL) DS1 were suspended from May 2005 through June 2007 in Colorado "pending a collaborative investigation by the Independent Monitor, Qwest, and CLECs."[19] Qwest continued to pay Tier 2 penalties for MR-8 Unbundled DS1 and/or EEL DS1 in all other states.

2. Differences in Payments by Domain

The vast majority of Tier 1 payments during the period under review were for performance in Pre-Ordering/Ordering (PO), Ordering/Provisioning (OP), Maintenance & Repair (MR), and Billing (BI). In 2004 and 2005 Maintenance & Repair and Billing comprised the majority of Tier 1 payments. Since 2005, Maintenance & Repair alone comprised the majority of Tier 1 payments. Appendix B contains figures with Tier 1 payments by domain over time for each of the 11 states. Figure III-A-3 below shows these Tier 1 payments by domain for all 14 states combined.

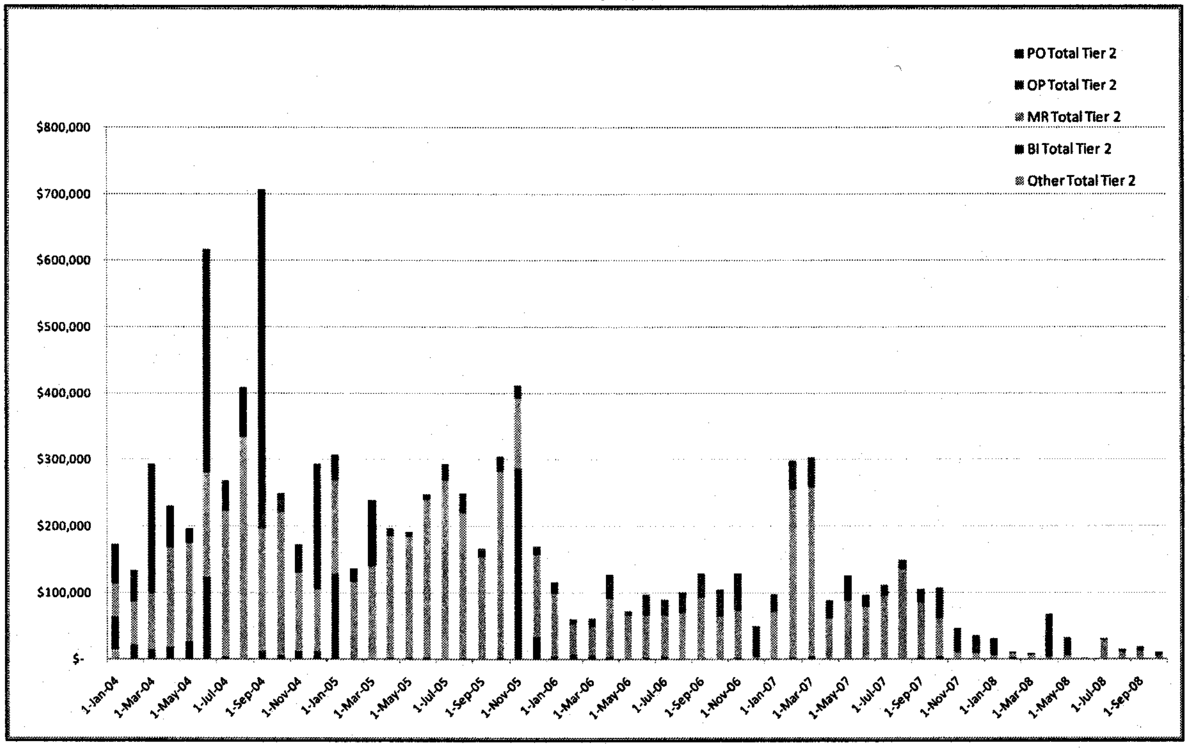
Figure III-A-3
Total Tier 1 Payments by PID Domain
All 14 States



[19] Response to Qwest Data Request #13.

Most Tier 2 payments were for Maintenance & Repair, but in 2004 and early 2005, Qwest paid significant amounts of Tier 2 payments for Pre-Ordering/Ordering and Billing performance. The large Tier 2 payments for Maintenance & Repair occurred frequently until 2008 when Tier 2 payments in general were minor due to improved performance for MR-2 and MR-8. Figure III-A-4 below shows these Tier 2 payments by domain.

Figure III-A-4
Total Tier 2 Payments by PID Domain
All 14 States



Only 15 measures were responsible for the overwhelming majority (97 percent) of Tier 1 and Tier 2 payments in the 11 states in the study. The MR-8 measure was associated with over $5 million of the approximately $16 million in Tier 1 and Tier 2 payments during the Study Period. Payments for BI-3A accounted for more than $2 million of Tier 1 and Tier 2 combined payments during the Study Period. Figure III-A-5 below shows the Tier 1 and Tier 2 payments by measure. The top three measures (MR-8, BI-3A, and OP-4) generated 57 percent of the payments during the Study Period.

Figure III-A-5
Total Tier 1 and Tier 2 Payments by PID – 11 States

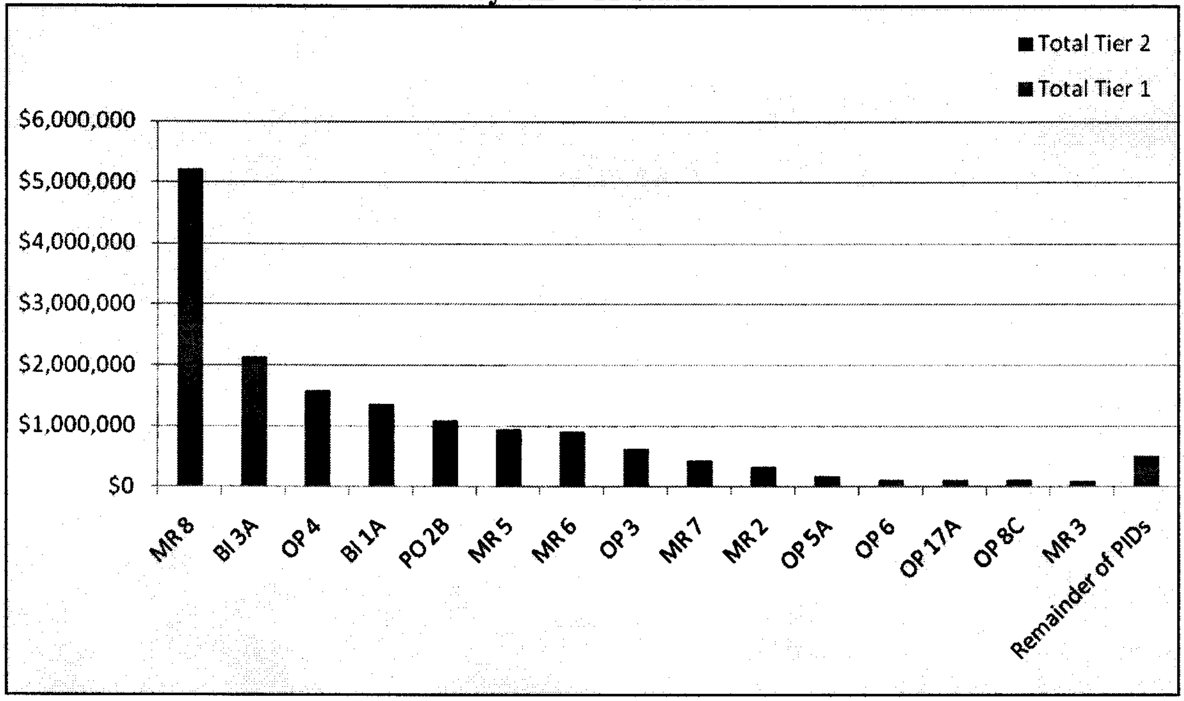


Table III-A-2 below provides the detailed data in the figure above.

Table III-A-2
Total Tier 1 and Tier 2 Payments by PID – 11 States

PID Code	Title	Total Tier 1	Total Tier 2	Total Tier 1 and Tier 2 Payment
MR-8	Trouble Rate	$2,656,552	$2,556,198	$5,212,750
BI -3A	Billing Accuracy – Adjustments for Errors (UNEs and Resale)	$2,011,695	$114,308	$2,126,003
OP-4	Installation Interval	$1,031,604	$548,242	$1,579,846
BI-1A	Time to Provide Recorded Usage Records (UNEs and Resale)	$964,463	$398,182	$1,362,645
PO-2B	Electronic Flow-through (all flow-through-eligible LSRs)	$4,543	$1,065,000	$1,069,543
MR-5	All Troubles Cleared within 4 hours	$679,753	$268,349	$948,102
MR-6	Mean Time to Restore	$748,702	$161,616	$910,318
OP-3	Installation Commitments Met	$460,897	$178,711	$639,608
MR-7	Repair Repeat Report Rate	$335,064	$95,313	$430,377
MR-2	Calls Answered within 20 Seconds – Interconnect Repair Center	N/A	$344,000	$344,000

OP-5A	New Service Installation Quality Reported to Repair	$162,118	$14,976	$177,094
OP-6	Delayed Days	$105,720	$20,813	$126,533
OP-17A	Timeliness of Disconnects associated with LNP Orders (timely CLEC requests)	$111,190	$0	$111,190
OP-8C	Number Portability Timeliness (without Loop Coordination)	$104,657	$4,500	$109,157
MR -3	Out of Service Cleared within 24 Hours	$90,770	$446	$91,216
Remainder of PIDs	---	$349,996	$182,788	$532,784

The list and order of the top 15 PIDs with regard to total Tier 1 and Tier 2 payments changes slightly if only more recent data after May 2006 is used. Nevertheless, MR-8, OP-4, and BI-3A remain the top three contributors, generating 60 percent of the payments; the top 15 PID measures still represent 98 percent of the Tier 1 and Tier 2 payments in the 11 states during this more recent period. Table III-A-3 below shows these detailed data.

Table III-A-3
Total Tier 1 and Tier 2 Payments
by PID after May 2006– 11 States

PID Code	Title	Tier 1 Payment	Tier 2 Payment	Total Tier 1 and Tier 2 Payment
MR-8	Trouble Rate	$675,634	$284,453	$960,087
OP-4	Installation Interval	$503,606	$380,666	$884,272
BI-3A	Billing Accuracy – Adjustments for Errors (UNEs and Resale)	$447,717	$0	$447,717
MR-2	Calls Answered within 20 Seconds – Interconnect Repair Center	N/A	$342,000	$342,000
MR-6	Mean Time to Restore	$275,799	$0	$275,799
OP-3	Installation Commitments Met	$181,432	$75,675	$257,107
MR-5	All Troubles Cleared within 4 hours	$207,662	$0	$207,662
BI-1A	Time to Provide Recorded Usage Records (UNEs and Resale)	$90,099	$0	$90,099
MR-7	Repair Repeat Report Rate	$82,829	$4,000	$86,829
OP-6	Delayed Days	$47,143	$3,900	$51,043
OP-2	Calls Answered within Twenty Seconds – Interconnect Provisioning Center	$0	$45,833	$45,833
OP-5A	New Service Installation Quality Reported to Repair	$39,915	$2,450	$42,365

PO-7A	Billing Completion Notification Timeliness	$27,317	$0	$27,317
PO-6A	Work Completion Notification Timeliness	$26,949	$0	$26,949
MR-3	Out of Service Cleared within 24 Hours	$25,485	$0	$25,485
Remainder of PIDs	---	$57,193	$18,417	$75,610

B. Wholesale Volumes

As part of its review, Liberty analyzed the ordering volumes and total lines in service for the wholesale products and services that Qwest records in the PID measures, and examined how these volumes have changed over the Study Period.B ecause some products, such as those Qwest provides through commercial agreements, are not included in the PID measurements, this analysis is not meant to depict the full scope of wholesale products available. Nevertheless, it does show the volumes of transactions and lines relevant for determining the PAP payments.

During its examination of ordering volumes captured in the PID measurements, Liberty used the number of service orders Qwest recorded in its PID measurements for inward services[20] and for standalone number ports. As a measure of service order volumes for inward services, Liberty used the denominator of OP-3 (Installation Commitment Met) which provides data on the total number of service orders for inward services completed in the reporting period.[21] As a measure of LSR volumes for standalone number port orders, Liberty used the denominator of OP-8C (LNP Timeliness without Loop Coordination).

Liberty also examined trends in the number of CLEC lines in service which depend on Qwest wholesale services measured by the PID measurements. For this quantity, Liberty used the denominator of the MR-8 (Trouble Rate measure), which provides data on the total number of lines in service for each product disaggregation during the reporting period.

This analysis revealed that overall wholesale service order transaction volumes measured in the PID measures have decreased significantly over the course of the Study Period as shown in Table III-B-1.

[20] Inward services are defined as order types for change of service, new service, and transfer of service.

[21] In its analysis, Liberty did not include disconnect and record change service orders which are excluded from the OP-3 service order volumes. Liberty also excluded any other service orders subject to the OP-3 exclusions, such as service orders for which the due date was missed for non-Qwest reasons and service orders with invalid due dates or application dates. Despite these exclusions, Liberty was able to obtain sufficient information to determine the order volume trends for the purposes of this study, using the total inward order volumes obtained from the OP-3 denominator.

Table III-B-1
Inward Service Order Volumes
Total 14-State Region

Year	Annual Order Volume	Difference from Previous Year	Monthly Average
2004	1,022,208	N/A	85,184
2005	377,738	-644,470	31,478
2006	245,067	-132,671	20,422
2007	162,966	-82,101	13,581
2008 (through October)	113,643	*	11,364

* The difference will not be indicative of the full year experience as the 2008 data only extends through October.

Liberty found that the biggest factors in this decrease in order volumes measured by the PID measures were the TRO and the TRRO decisions, which removed the requirement for Qwest to offer UNE-P and Line Sharing services as unbundled network elements under Section 251 of the 1996 Telecommunications Act.[22] As a result of these orders, Qwest offers services equivalent to UNE-P and Line Sharing under commercial agreements with the CLECs, which are not tracked or reported by the PID measures.[23] In 2004, these services accounted for 745,490 (72.9 percent) of the 1,022,208 total inward orders issued to Qwest by the CLECs. The vast majority (722,988) of these 745,490 orders were for UNE-P POTS. However, after the effective date of the TRRO in 2005, the order volume for these services dropped to 8,928 orders, a 98.9 percent decrease from the previous year's order volumes. The order volume for Line Sharing and UNE-P service has continued to decline to the 2008 region-wide monthly average of only 31 orders per month for these services.[24]

Liberty found that Qwest has experienced declining ordering volume for all wholesale services and products with the exception of the five products shown in Table III-B-2. For example, in 2004 Qwest averaged 5,260 orders per month for all Resale services, while in 2008 the average dropped to 814 resale orders per month. For all other inward service orders (*e.g.*, unbundled loops, unbundled dedicated interoffice transport, Enhanced Extended Loops, etc.), Qwest averaged 17,800 orders per month in 2004. The average number of monthly orders Qwest received for these services in 2008 was 8,763 (through October). Two factors that may have contributed to the drop in Qwest's overall wholesale service order volumes are i) CLECs entering into commercial agreements with Qwest, thereby removing their ordering activity from the PID calculations, and ii) the general trends in the telecommunications industry of customers

[22] FCC 03-36, Triennial Review Order, August 21, 2003 and FCC 04-290 Triennial Review Remand Order, February 4, 2005.

[23] In response to Data Request #18, Qwest explained that it replaced its UNE-P offer with its commercial products offering of Qwest Platform Plus (QPP). This offering was later replaced by Qwest Local Services Platform (QLSP).

[24] In response to Data Request #18, Qwest indicated that it still reports a small number of UNE-P and Line Sharing services in the PID because not every CLEC completed the interconnection/commercial agreements with Qwest that would have moved these services to the non-reportable comparable commercial agreement service (*e.g.*, the Qwest Local Service Platform replacement service for UNE-P service).

migrating away from the wireline service business to competitors such as cable and wireless service providers.[25]

Table III-B-2
Products that Experienced an Increase in Order Volumes

Product	Percent Increase (2004 – 2008)
2-Wire Non-Loaded Loops	8.6
ADSL Capable Loops	22.0
EEL-DS-1	34.3
DS-1 Loops	64.0
xDSL Capable Loops	90.7

Consistent with industry trends of reduced reliance on wireline telecommunications service, Qwest experienced a steady increase in the number of service orders it received from its competitors for stand-alone LNP. Stand-alone LNP orders are typically issued by competitors such as wireless carriers and cable companies that are able to gain access to the end-user without relying on Qwest's wireline facilities to do so. These carriers typically only order number ports (to move the existing customer's telephone number to their network), directory listings, and interconnection trunks from the Incumbent Local Exchange Carriers (ILECs). Table III-B-3 shows the trend in Qwest's stand-alone LNP service order volumes.

Table III-B-3
Stand-alone LNP Service Order Volumes[26]

Year	Total LNP Orders	Difference	Monthly Average
2004	466,374	N/A	38,865
2005	553,943	87,569	46,162
2006	588,090	34,147	49,008
2007	597,430	9,340	49,786
2008 (through October)	523,221	*	52,322

* The difference will not be indicative of the full year experience as the 2008 data only extends through October.

As can be expected from the results on Qwest's order volume trends, the wholesale lines in service followed the same downward trend in volume as shown in Table III-B-4.

Table III-B-4
Wholesale Lines In Service

Year End	Lines In Service Volume	Difference
December 2004	2,712,891	N/A
December 2005	1,890,999	(821,892)
December 2006	1,726,161	(164,838)
December 2007	1,691,505	(34,656)
October 2008	1,624,765	*

* The difference will not be indicative of the full year experience as the 2008 data only extends through October.

[25] See Section E, "Industry Trends" for additional details.

[26] The data for this table was obtained from the denominator of the OP-8C "Number Portability Timeliness" measure, which provides data on the total number of standalone number ports.

The very large reduction in the number of lines in service between 2004 and 2005 is also a result of the TRO and TRRO decisions. In December 2004, Qwest reported 876,122 UNE-P and Line Sharing lines in service. By December of 2005 this number dropped by 727,778 lines to a total of 148,344 in-service UNE-P and Line Sharing lines, accounting for 88.5 percent of the total loss in wholesale lines between 2004 and 2005. This number was further reduced by 87,612 lines to a total of 60,732 UNE-P and Line Sharing lines in service at the end of 2006, accounting for 53.2 percent of the wholesale line loss in 2006. Qwest also experienced a significant reduction in its Resale service lines during the Study Period. Qwest's year-end-2004 resold lines in service totaled 143,895 lines. Since that time the number of in-service Resale lines has decreased by 60.8 percent to 56,389 lines as of October 2008. Additionally, many of the wholesale lines that are reported in the PID measures may have also been replaced by such commercial-agreement services as Qwest Local Service Platform (QLSP) which would not be reflected in the numbers reported by Qwest in the PID measures.

For other wholesale services such as UNE-L, the reduction in in-service lines has not been as significant as it has been for UNE-P and for Resale lines. Qwest ended 2004 with 1,692,874 lines in service for these products, as counted by the PID measures, and since that time there has only been a 10.6 percent reduction in these in-service line counts to an October 2008 total of 1,513,970 lines in service. As shown in Table III-B-5, Qwest has actually experienced very significant growth from 2004 to October 2008 in some products in this product category.

Table III-B-5
Unbundled Products that Experienced Significant Line Growth

Product	Percent Increase (2004 – October 2008)
2-Wire Non-Loaded Loops	20.7
DS-1 Loops	71.1
EEL-DS-1	117.7
Sub-Loops	346.1
xDSL Loops	642.5
ADSL Capable Loops	787.9

The following region-wide graphs provide a summary view of the trends discussed above in Qwest's wholesale order transactions and wholesale lines-in-service volumes.

Figure III-B-1
Ordering Volumes: All States

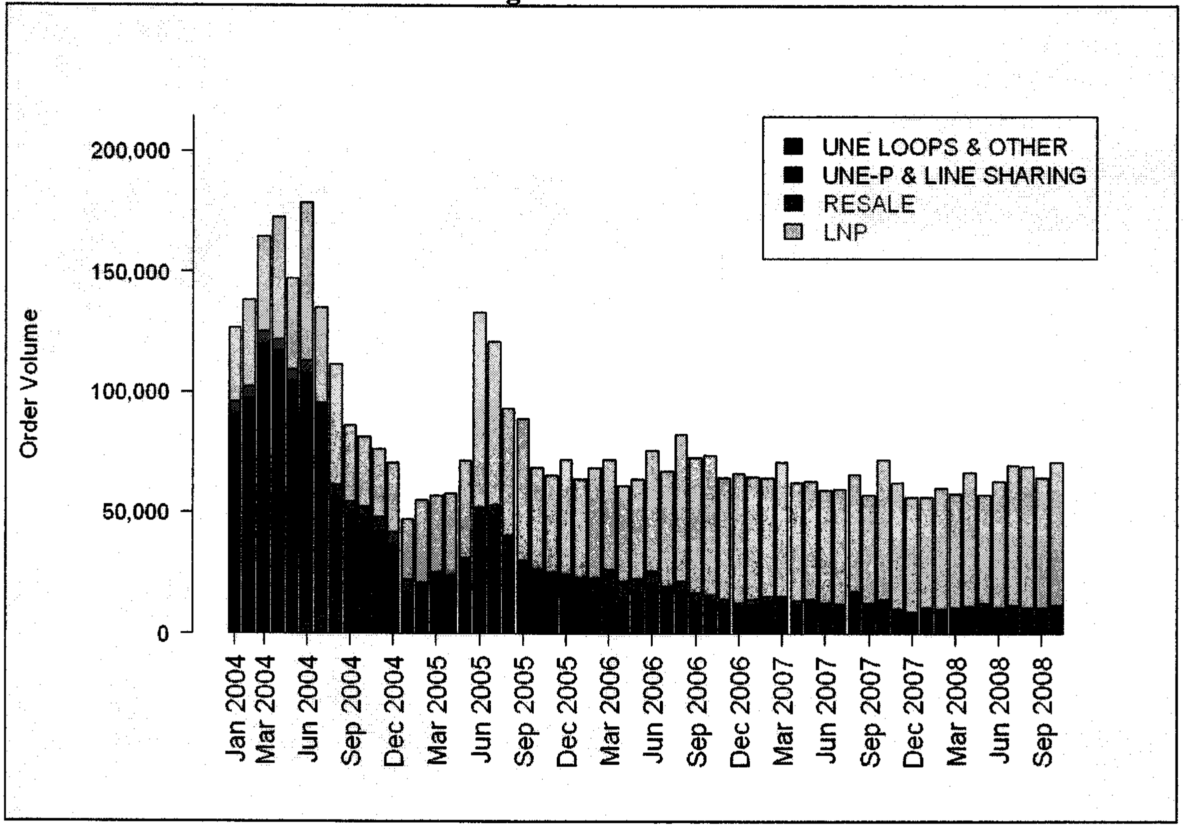
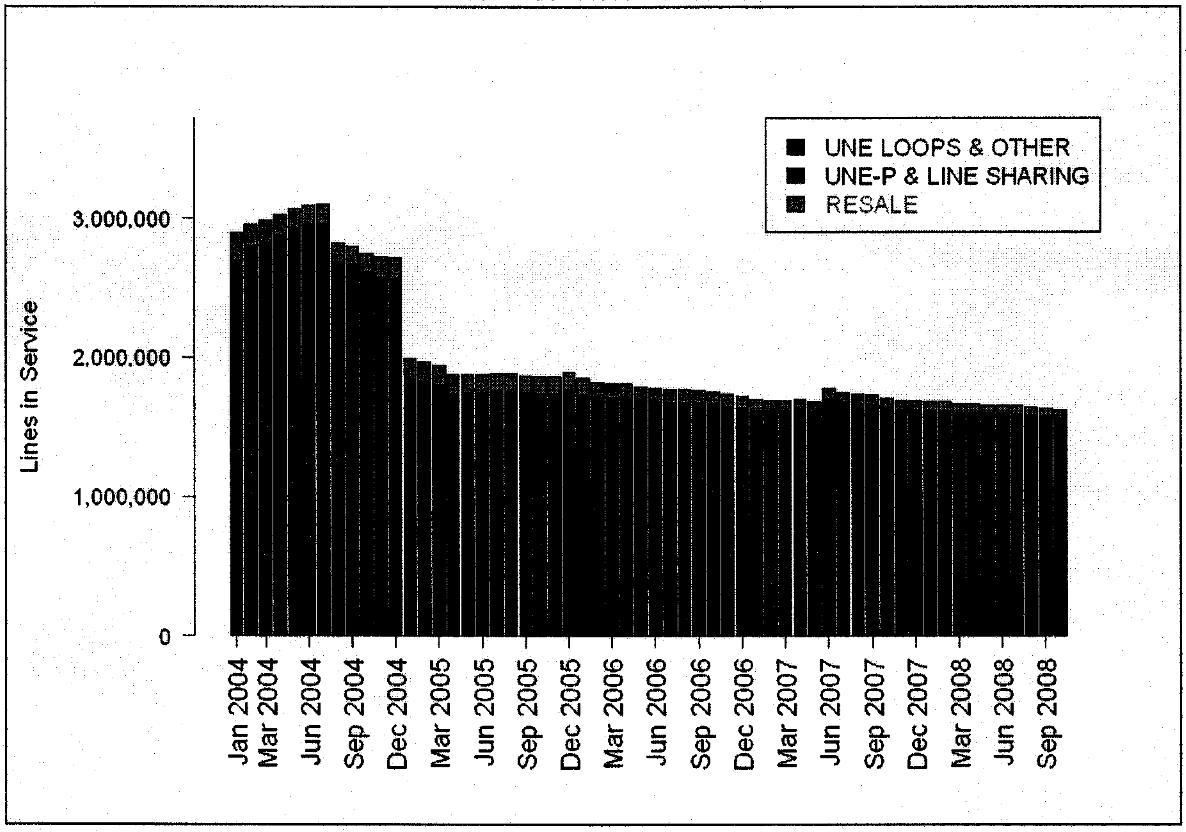


Figure III-B-2
Lines in Service: All States



The same downward trends in both overall wholesale order volumes and wholesale lines in service can be seen at the state level. Although there are some state-specific variations, such as an increase in the order volumes in Montana, Liberty found that the general trend has been a decrease in the number of inward wholesale orders and in wholesale lines in service as reflected in Tables III-B-6 and III-B-7 respectively.

Table III-B-6
State-Specific Wholesale Order Volumes
Total Inward Orders
2004-2008

State	2004	2005	2006	2007	2008 (through October)
Arizona	305,039	168,613	140,204	117,784	87,890
Colorado	179,329	147,464	120,413	111,231	106,503
Iowa	106,795	53,169	48,830	45,061	29,882
Idaho	29,502	15,761	9,128	16,566	12,367
Montana	11,226	10,327	17,815	16,718	12,253
North Dakota	30,351	17,045	11,549	26,873	9,400
Nebraska	58,881	25,376	18,635	16,169	14,401
New Mexico	42,743	20,514	17,827	17,446	18,295

South Dakota	36,222	11,553	23,032	16,010	8,930
Utah	128,612	83,712	57,623	53,558	53,160
Wyoming	15,352	8,624	13,698	9,415	7,698

Table III-B-7
State-Specific Wholesale Lines In Service
Total Lines
2004-2008

State	Year End 2004	Year End 2005	Year End 2006	Year End 2007	October 2008
Arizona	398,595	245,566	230,897	240,901	229,799
Colorado	367,218	289,842	249,935	265,888	250,443
Iowa	175,631	114,844	94,127	82,266	78,682
Idaho	53,886	34,702	31,401	32,573	31,959
Montana	29,603	26,643	28,026	26,677	25,406
North Dakota	42,360	39,981	38,319	34,334	34,006
Nebraska	98,962	50,609	43,549	41,712	41,238
New Mexico	71,298	47,525	45,576	41,913	38,107
South Dakota	54,748	20,715	18,462	16,714	16,702
Utah	208,053	148,250	130,027	129,725	127,288
Wyoming	30,147	12,973	13,256	11,826	11,976

As displayed in Table III-B-8, the trend for standalone LNP orders, which is currently the most prevalent wholesale ordering type, shows quite a bit of variation across the states with many states showing significant growth in the annual volume of these orders while the order volumes in other states (such as North Dakota and South Dakota) seem to fluctuate from year to year. Arizona and Nebraska have experienced a declining volume in these orders.[27] Graphs of the state-specific order volume trends can be found in Appendix B.

Table III-B-8
State-Specific Standalone LNP Order Volumes
Total Orders
2004-2008

State	2004	2005	2006	2007	2008 (through October)
Arizona	146,894	135,191	119,841	100,451	77,460
Colorado	53,754	92,245	89,871	91,405	91,000
Iowa	40,041	24,230	32,762	36,438	25,720
Idaho	10,189	9,218	6,517	14,262	9,548
Montana	2,964	6,836	15,087	14,654	10,716
North Dakota	3,460	7,380	4,640	22,645	6,683
Nebraska	19,406	18,886	15,471	13,390	12,986
New Mexico	5,865	12,787	11,643	14,858	16,819
South Dakota	13,033	7,786	19,903	15,431	8,652
Utah	31,110	37,305	38,947	40,383	41,892
Wyoming	990	3,792	11,072	8,487	7,262

[27] Because the data for 2008 is incomplete, it is possible that Nebraska's 2008 volumes will match or exceed its 2007 volumes which will represent the first time the downward trend in Nebraska LNP order is reversed.

Liberty also found that most of the in-service line losses were in the UNE-P and Resale products. The line loss for all other products, such as UNE-L, has not been as large and in some states has even grown. The trends in UNE-P, Resale, and UNE-L are depicted in Tables III-B-9, III-B-10 and III-B-11 respectively. Additionally, graphs of the state-specific trends in line loss can be found in Appendix B.

Table III-B-9
State-Specific Lines In Service
UNE-P[28]
2004-2008

State	Year-End 2004	Year-End 2005	Year-End 2006	Year-End 2007	October 2008
Arizona	149,279	12,066	7,594	4,895	4,057
Colorado	95,748	32,726	17,319	10,420	8,879
Iowa	56,171	6,779	2,140	1,228	1,899
Idaho	15,862	588	6	4	16
Montana	7,264	365	214	83	65
North Dakota	19,085	1,055	24	30	343
Nebraska	38,918	2,743	764	429	479
New Mexico	24,895	6,261	4,484	2,985	3,064
South Dakota	31,151	581	6	5	0
Utah	74,109	16,854	4,514	3,028	2,663
Wyoming	19,142	2,326	2,134	1,430	1,491

Table III-B-10
State-Specific Lines In Service
Resale Lines
2004-2008

State	Year-End 2004	Year-End 2005	Year-End 2006	Year-End 2007	October 2008
Arizona	6,188	5,121	4,332	2,464	1,979
Colorado	11,842	8,506	5,147	4,960	4,494
Iowa	9,958	9,398	5,239	3,841	3,605
Idaho	1,339	1,045	714	551	554
Montana	9,652	6,800	5,067	3,843	3,362
North Dakota	4,818	3,222	2,536	1,506	1,040
Nebraska	2,925	2,179	1,069	846	778
New Mexico	2,812	1,855	1,554	1,165	1,022
South Dakota	5,936	4,263	3,357	2,788	2,399
Utah	2,973	3,688	2,586	1,646	2,140
Wyoming	3,129	2,848	1,681	1,017	839

[28] In response to Data Request #18, Qwest indicated that not all CLECs have completed the commercial agreements that require Qwest to continue reporting in-service UNE-P lines as UNE-P rather than as the QLSP commercial agreement replacement product for UNE-P.

Table III-B-11
State-Specific Lines In Service
"UNE-L and Other" Lines[29]
2004-2008

State	Year-End 2004	Year-End 2005	Year-End 2006	Year-End 2007	October 2008
Arizona	243,128	228,379	218,971	233,542	223,763
Colorado	259,628	248,610	227,469	250,508	237,070
Iowa	109,502	98,667	86,748	77,197	73,178
Idaho	36,685	33,069	30,681	32,018	31,389
Montana	19,951	19,478	22,745	22,751	21,979
North Dakota	37,542	35,704	35,759	32,798	32,623
Nebraska	57,119	45,687	41,716	40,437	39,981
New Mexico	43,591	39,409	39,538	37,763	34,021
South Dakota	17,661	15,871	15,099	13,921	14,303
Utah	130,971	127,708	122,927	125,051	122,485
Wyoming	7,876	7,799	9,441	9,379	9,646

Based on this analysis of volume trends, Liberty concludes:

- The TRO and TRRO had a significant impact on the volume of service orders and lines in service that Qwest receives and reports on in the PID measures.
- With the exception of orders for a small number of UNE-L products, EELs, and standalone number ports, the trend in Qwest's overall LSR order volumes continues to show declining volumes.
- Lines in service dropped dramatically for Resale and UNE-P, and to a much lesser extent for unbundled network element products.
- Competition is increasing from service providers that provide their own facilities to the end-users such as wireless and cable companies, as evidenced by the generally increasing volume of standalone number port orders.
- There are some state level variations to the regional level trends, such as the fluctuating or declining volumes in standalone number port orders in some states.

C. Qwest's Performance

Qwest's overall performance across the states during the course of the Study Period showed improvement. As detailed in Section III.A, failures for specific measures and their product disaggregations were the underlying cause of the majority of Tier 1 and Tier 2 payments.

To better understand the results relating to failure rate, the statistical design of the PAPs needs to be considered. That design allows for random variation in month-to-month performance. This is because a process that is producing parity results will, by chance, be below parity some months and above parity some months. The statistical tests that are part of the PAP only produce a failing result five percent of the time when Qwest is operating at parity. The percentage is lower

[29] The "other" category includes all lines that are not provided by Qwest resold service or by UNE-P service. It does not include lines that are self-provided by the CLEC such as cable company lines.

for small sample sizes. Thus, failure rates of below five percent can be considered to be artifacts of the statistical framework and not a true indication that Qwest is providing substandard service.

When sample sizes are small, there is simply not enough information in most circumstances to make a clear determination whether Qwest has met the standard (at or above parity for parity measures or at or above the benchmark for benchmark measures), and the tests applied to determine penalties can lead to biases. For most states, the Z-score cutoff for failure declines when sample sizes are below ten, making it more likely that Qwest will pay penalties even when they are operating at parity. (Such a condition is known in statistics as a "Type I error.") In contrast, most states have now added the "One Allowable Miss Rule," which applies to benchmark and non-interval parity measures. This rule prevents a single miss from causing payments, and means that for small sample sizes (typically below 20) service below benchmark may not lead to payments. (Such a condition is known in statistics as a "Type II error.") The end result is that when sample sizes are small, Qwest will pay penalties in more circumstances when they are operating at parity (for parity measures), and Qwest will not pay penalties in more circumstances when they are operating below the benchmark (for benchmark measures and non-interval parity measures).

Liberty reviewed the average and median sample sizes per test over the Study Period. Because most measures are broken down by product, state, and CLEC, the median sample size was only about four for the entire period. The average sample size began at about 70 and dropped to 50 over the course of the Study Period. As a result, the small sample size rules used in the PAPs are becoming more important in determination of penalties, and the Type I and Type II error issues mentioned above are more prevalent.

The following graphs show the percentage of state-level measure failures over time by measurement domain: Pre-Ordering/Ordering (PO), Ordering/Provisioning (OP), Maintenance & Repair (MR), Billing (BI), and all other measures.

For Pre-Ordering/Ordering, measure failures began at about seven percent in 2004 and slowly declined to approximately three percent by 2008. As noted above, a failure rate near five percent would be expected even when Qwest is providing service at, or slightly above, the standard.

Figure III-C-1
Percent of Failed PO PIDs

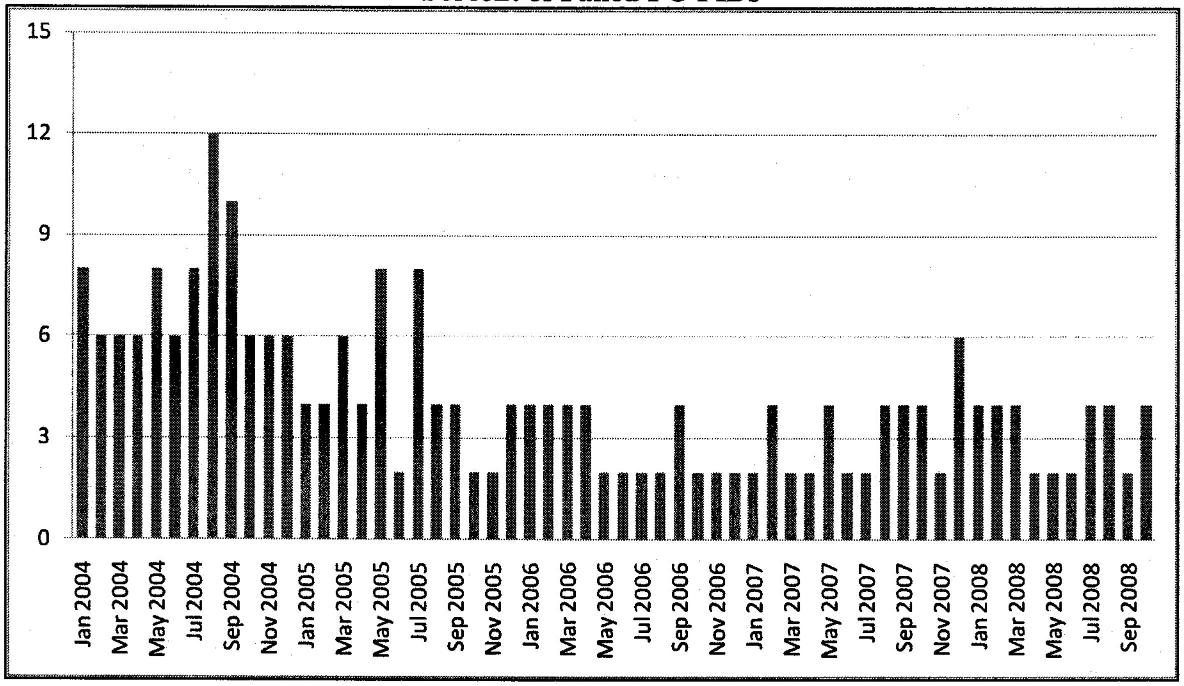


Table III-C-1 table shows the average failure rate by year for PO measures.

Table III-C-1
Average Failure Percent by Year - PO

Year	Average Percent Failure
2004	7.3
2005	4.3
2006	2.8
2007	3.2
2008	3.2

For Ordering/Provisioning, the percent of PID measure failures was similarly low. The monthly average decreased from six percent in 2004 to two percent in 2008. Figure III-C-2 shows the monthly failure rate for OP measures over time.

Figure III-C-2
Percent of Failed OP PIDs

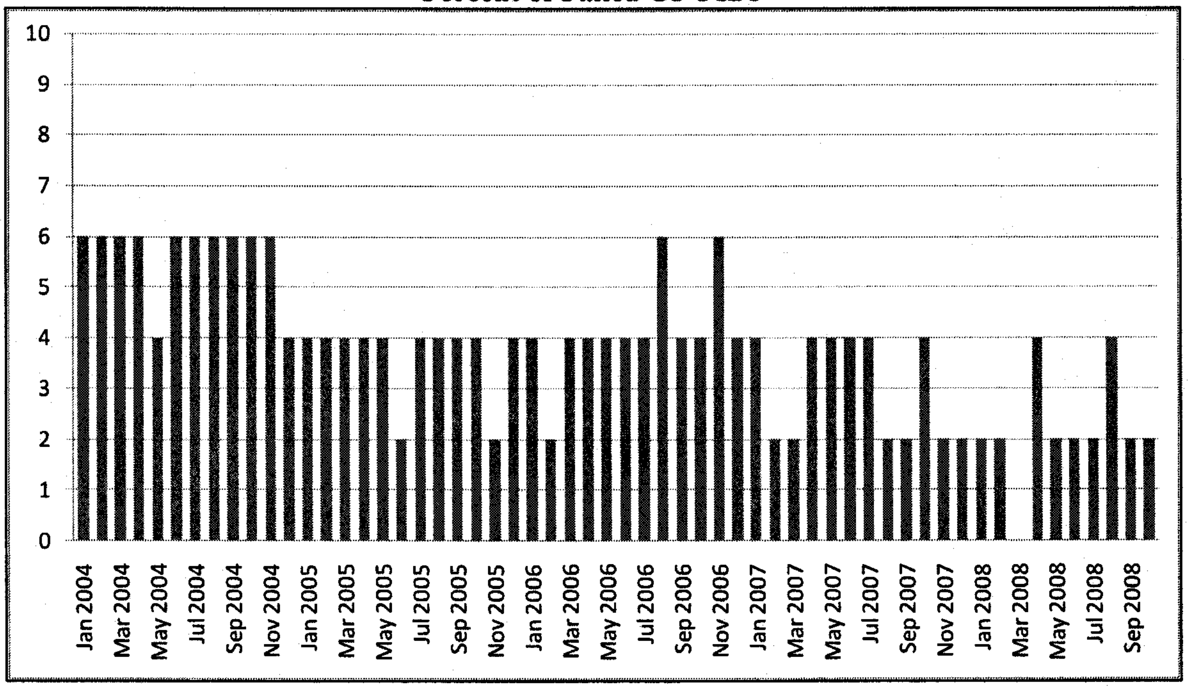


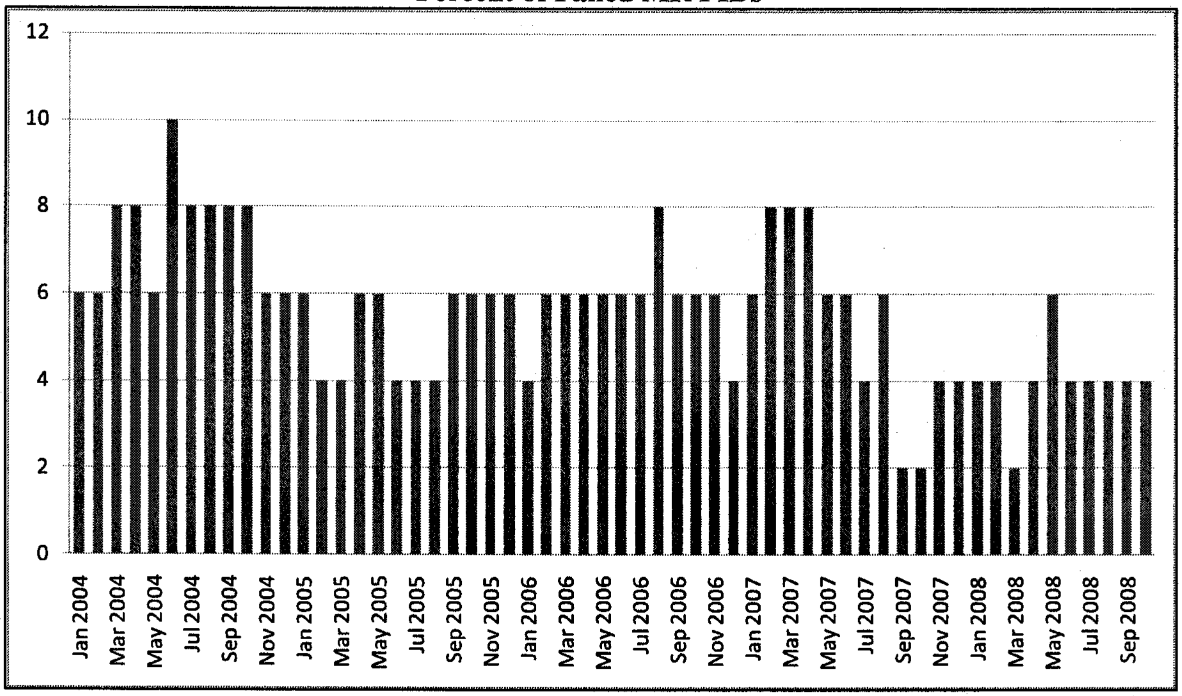
Table III-C-2 show the average failure rate by year for OP measures.

Table III-C-2
Average Failure Percent by Year - OP

Year	Average Failure Percent
2004	5.7
2005	3.7
2006	4.2
2007	3.0
2008	2.2

For Maintenance & Repair the percent of PID failures also remained at or below ten percent. The monthly averages decreased from seven percent in 2004 to four percent in 2008. The following figure shows the monthly failure rate for MR measures over time.

Figure III-C-3
Percent of Failed MR PIDs



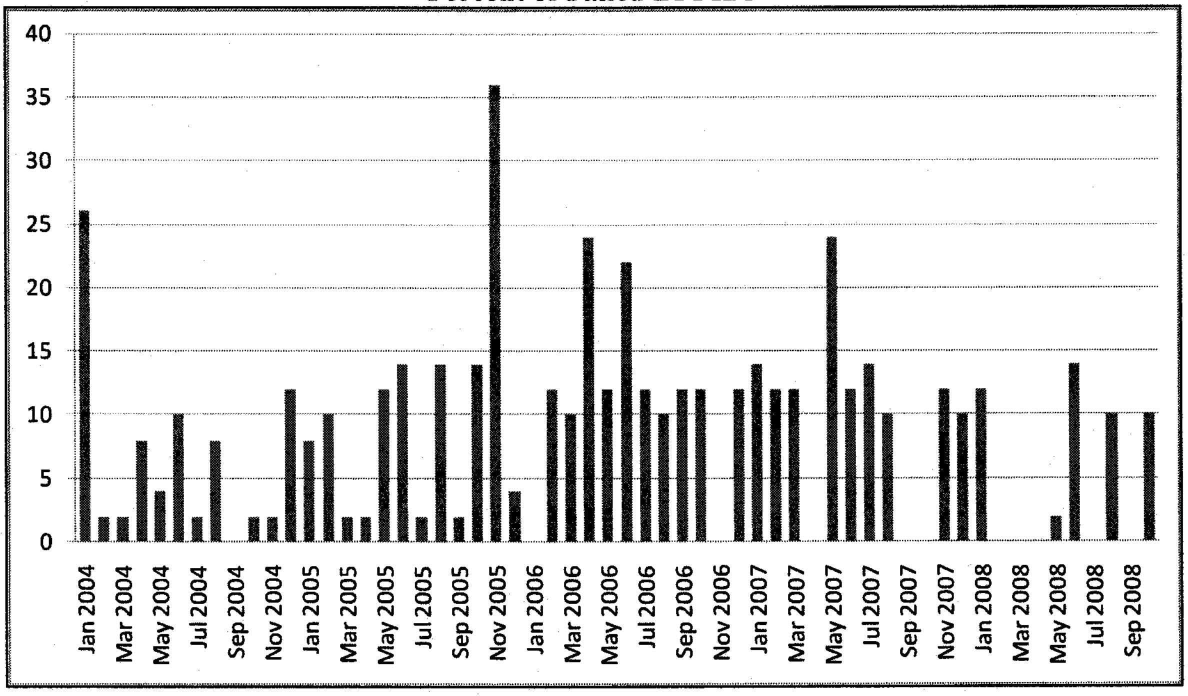
The following table show the average failure rate by year for MR measures.

Table III-C-3
Average Failure Percent by Year - MR

Year	Average Failure Percent
2004	7.3
2005	5.2
2006	5.8
2007	5.3
2008	4.0

For Billing measures, the percent of PID measure failures varied more over time than the other domains. In 11 out of the 58 months under review (approximately 19 percent), there were no failures, while in November 2005 the percentage peaked at 36 percent. For six of the last 12 months, failure rates were at or above ten percent. The figure below shows monthly failure rates for BI measures.

Figure III-C-4
Percent of Failed BI PIDs



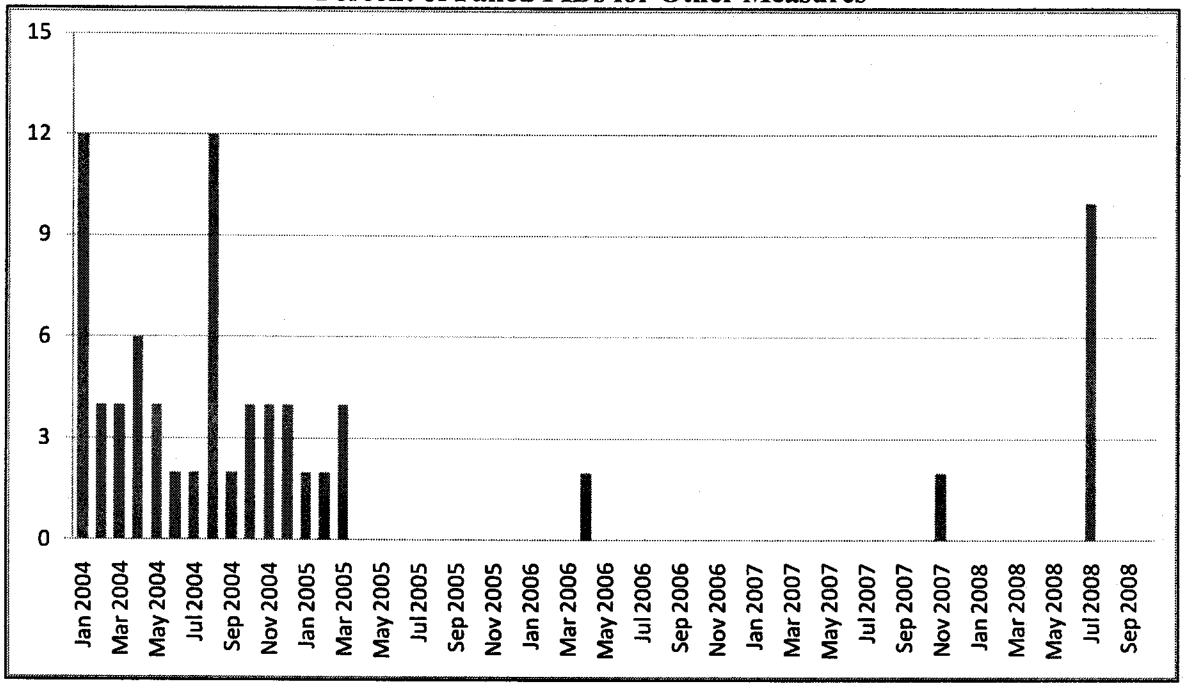
The following table show the average failure rate by year for BI measures.

Table III-C-4
Average Failure Percent by Year - BI

Year	Average Failure Percent
2004	6.5
2005	10
2006	11.5
2007	10
2008	4.8

For all other measures, there were no PID failures in 40 out of 58 months under review. In January and August 2004, however, the PID failure rate peaked at 12 percent. In July 2008, the PID measure failure rate was ten percent. In general, the failure rate for the other measures was low with a few anomalies.

Figure III-C-5
Percent of Failed PIDs for Other Measures



The following table show the average failure rate by year for other measures.

Table III-C-5
Average Failure Percent by Year – Other

Year	Average Failure Percent
2004	5.0
2005	0.7
2006	0.2
2007	0.2
2008	1.0

In summary, Qwest's failure rate by measurement area across states showed improvement during the Study Period. For all domains, average failure rates in 2008 are below five percent, indicating that Qwest performance overall is at or above the standard, according to the statistical framework inherent in the QPAPs. However, for certain measurements and products the failure rates have been consistently high. In particular MR-5 EEL_DS1 and UBL_DS1, MR-6 (multiple products), MR-8 UBL_DS1, OP-4 EEL_DS1 and UBL_DS1 are consistently above five percent, indicating continued substandard performance. Also, as detailed in Section III.A, failures for specific measures and their product disaggregations caused the majority of Tier 1 and Tier 2 payments. These payments were not caused by poor performance for an entire measurement area.

D. Historical Analysis of Key Payment Drivers

The extreme complexity of the PAP payment mechanisms makes it difficult to summarize the key drivers of payments without some sort of modeling. Thus, Liberty performed statistical analyses, including regression modeling, of Tier 1 and Tier 2 payments to determine the major factors driving the payments in the 11 states reviewed during the Study Period. These analyses adjusted for measure and product, and thus the specific results given are averages over measure and product.

Liberty found four major items that led to increases or declines in payments: i) transaction volume,[30] ii) PID failure rate, iii) Number of CLECs with activity, and iv) severity of failure. Transaction volume is expected to impact payment amounts because most payments are Per Occurrence, meaning that the amount paid is based on the number of transactions that fell below the standard or benchmark. However, with lower volume and the same failure rate, there will be fewer such transactions driving payments. PID failures lead directly to payments in most cases, so PID failure rate should be highly associated with payment amount. The number of CLECs with activity should not obviously affect payments once total transaction volume has been considered if the performance for each CLEC is approximately the same. The reason why the number of CLECs might have an effect could be that there are differences among CLECs or that a higher number of CLECs leads to more Type I errors, which is the error that occurs when Qwest is required to make a payment despite service that is at or above standard in general. This error can happen as a result of the statistical testing that is performed to determine that parity was met. Finally, severity should have some impact on payment amounts, since the number of occurrences increase with severity of the failure and because some states have penalties for more severe failures.

The effects of these four factors were largely consistent across states, product, and measure, with the exception of Billing. Billing is discussed separately below. For non-Billing measures, the biggest determinant of payments made was the number of CLECs, while for Billing, the biggest driver was transaction volume (typically the total dollar amount billed).

Tier 1 Measure Payments

With the exception of Billing-related payments, transaction volume had little or no effect on Tier 1 payment amounts, either at a regional level or by individual state. However, the other three factors considered (*i.e.*, failure rate, number of CLECs, and severity) did affect payments. For example, a doubling of the failure rate typically gave rise to an increased payment of $15 for the related measure and disaggregation. An additional CLEC meant that, on average, $35 more in payments were made. A doubling of the severity of the miss typically resulted in an increased payment of $6. These results varied some by state, but the overall conclusion was the same.

[30] Transaction volume is defined as the CLEC denominator used in the measure calculations. For Ordering and Provisioning, volume is typically number of orders while for Maintenance & Repair, it is typically the number of troubles reported. For Billing, it is typically total dollar amount billed.

Results for Billing measures were both higher overall and substantively different in that transaction volume had a very significant and substantial effect on total payments. The relationship between failure rate and severity remained similar to that in non-Billing measures; *i.e.,* failure rate had far more effect than severity. On the other hand, the addition of a CLEC was less important than a doubling of overall failure rate. This differs from the non-Billing measures, for which change in the number of CLECs was more important than either failure rate or severity.

Payments for Tier 2 Measures

For its regression analysis of Tier 2 measures, Liberty found that it was not possible to measure the effects by state, because for many products and measures, there were no Tier 2 payments in a particular state. Thus, Liberty looked at the effects for all 11 states in a single model for non-Billing measures and a second model for Billing measures.[31] Because most Tier 2 payments are for the aggregate CLEC, Liberty did not attempt to consider the effect of adding an individual CLEC. Liberty found that volume did not have a strong effect on overall Tier 2 payments, though for non-Billing measures (except Colorado) there was a statistically significant effect. Similarly, failure rates were generally not statistically significantly related to Tier 2 payment amounts. Severity had a clear and strong effect on Tier 2 payments.

E. Industry Trends

In order to understand how changes in the telecommunications industry might affect the continued applicability of the PAPs or the relevance of aspects of the PAP structure, Liberty examined recent industry trends in the Qwest local operating territory. Liberty reviewed the most current data available on the FCC's website to investigate industry trends.[32] One of the most significant trends is the continuing decline of in-service access lines for traditional ILEC wireline carriers. Since its nationwide peak of 188.5 million access lines in service at year-end 2000, the number of traditional wireline access lines has decreased by 22.1 percent to a year-end 2006 total of 146.9 million access lines in service.[33] These figures include end-user access lines, access lines resold to other carriers, and UNE-P lines. They do not include CLEC lines provided over their own facilities, such as cable company lines. Table III-E-1 reflects the 10-year trend in ILEC wireline lines in service.

[31] Liberty reviewed Colorado separately for non-Billing measures, but there was not sufficient data to consider Colorado separately for Billing measures. Liberty handled Colorado differently because of the structural change in the CPAP that resulted in almost no Tier 2 payments after May 2006.

[32] FCC documents referenced by Liberty include "Local Telephone Competition: Status as of December, 2007" and "Trends in Telephone Service," August 2008 report. Both documents were created by the Industry Analysis and Technology Division of the Wireline Competition Bureau and are dated September 2008.

[33] "Trends in Telecommunications Service," August 2008; p. 7-1 and Table 7.1. Unlike other data in these reports which typically extend to year-end 2007, this data was only provided through year-end 2006. Additionally, this reduction is not entirely indicative of the actual reduction in access lines during this timeframe and understates the number of lines that were lost. Prior to 2005 only LECs with at least 10,000 lines in a state were required to report to the FCC. Beginning with the June 2005 report, all LECs were required to report their lines-in-service counts regardless of the number of lines they had. Therefore all access line counts from 2000 to year-end 2004 have been understated by not including the lines for these smaller carriers.

Table III-E-1
Trends in ILEC Wireline Access Lines
1997-2006

Year-end	Wireline access lines in service	Annual Growth
1997	173,866,799	N/A
1998	179,849,045	3.4
1999	185,002,911	2.9
2000	188,499,486	1.9
2001	185,587,160	-1.5
2002	180,095,333	-3.0
2003	173,147,710	-3.9
2004	165,979,938	-4.1
2005	157,037,503	-5.4
2006	146,848,926	-6.5

For total access lines in service the FCC reports include all access lines, including those that are self-provided by the CLECs. Table III-E-2 reflects the three-year trend from year-end 2005 through year-end 2007 of total ILEC and CLEC in-service access lines for each state participating in this study.[34]

Table III-E-2
Total ILEC and CLEC Access Lines In Service[35]
11-State View

State	2005 Lines In Service	2006 Lines In Service	Percent change 2005-2006	2007 Lines In Service	Percent change 2006-2007
Arizona	3,273,829	3,193,105	-2.5	3,104,872	-2.8
Colorado	2,928,554	2,658,781	-9.2	2,451,394	-7.8
Idaho	748,393	740,226	-1.1	703,396	-5.0
Iowa	1,546,333	1,511,339	-2.3	1,468,712	-2.8
Montana	524,610	517,114	-1.4	509,566	-1.5
Nebraska	918,609	892,697	-2.8	888,691	-0.5
New Mexico	957,838	934,816	-2.4	888,496	-5.0
North Dakota	345,786	337,370	-2.4	324,159	-3.9
South Dakota	415,243	397,441	-4.3	387,330	-2.5
Utah	1,184,901	1,139,235	-3.9	1,055,368	-7.4
Wyoming	285,637	281,587	-1.4	273,091	-3.0
11-State Total	13,129,733	12,603,711	-4.0	12,055,075	-4.4

According to its 2008 Annual Report, Qwest's line loss has been more severe than for the industry as a whole. Qwest indicated that between 2006 and 2007 it lost 1,006,000 access lines, a 7.3 percent decrease in access lines from the previous year, and between 2007 and 2008 it lost an additional 1,224,000 access lines, a decrease of 9.6 percent from the previous year. However, Liberty notes that although the nationwide figures shown in Table III-E-1 and the state-wide numbers shown on Table III-E-2 represent a total reduction of access lines in service for the

[34] Because of the data issue referenced in the previous footnote, this table does not reflect data prior to 2005.
[35] "Local Telephone Competition Status as of December, 2007;" Tables 10 and 11.

entire industry, some of the access-line loss reported by Qwest in its annual report was from losses to competitors using their own facilities and not a complete disconnect of the access line.

In its report, the FCC suggests that this reduction in wireline access lines is likely due to some consumers substituting wireless service for wireline service, and some households eliminating second lines when they move from dial-up internet service to broadband service.[36] This assumption is supported by the data in the FCC's report which shows that from 2005 through 2007, there was a 13.3 percent reduction in residential lines nationwide whereas the nationwide reduction in business lines was only 2.1 percent.[37] Residential customers are more likely than business customers to disconnect their wireline service and replace it with a wireless alternative. They are also the most likely users of dial-up internet access.

Unlike the wireline industry, the FCC report indicates that the wireless industry is experiencing robust growth.[38] From year-end 2005 to year-end 2007 the number of wireless subscribers increased by 45,568,000 subscribers, a 22.4 percent increase in wireless phone users over the two-year period. Total nationwide wireless subscribers at year end 2007 were 249,235,715. This means that given the 2007 population estimate of 302 million people in the United States, cell phone penetration has reached 82.8 percent of the total population.[39] Table III-E-3 reflects the three-year trend in wireless growth in the 11-states, providing the number of wireless subscribers in each state at the end of each year.

Table III-E-3
Total Wireless Subscribers
11-State View

State	2005 subscribers	2006 Subscribers	Percent change 2005-2006	2007 Subscribers	Percent change 2006-2007
Arizona	3,844,357	4,405,032	14.6	4,799,648	9.0
Colorado	3,246,994	3,608,209	11.1	3,967,902	10.0
Idaho	834,219	972,825	16.6	1,078,387	10.9
Iowa	1,811,400	2,009,826	11.0	2,165,772	7.8
Montana	525,003	619,620	18.0	693,507	11.9
Nebraska	1,160,062	1,272,067	9.7	1,387,022	9.0
New Mexico	1,170,186	1,333,210	13.9	1,489,120	11.7
North Dakota	431,675	472,799	9.5	513,238	8.6
South Dakota	481,404	547,812	13.8	596,562	8.9
Utah	1,529,501	1,774,755	16.0	1,970,501	11.0
Wyoming	342,008	387,164	13.2	441,161	14.0
Total	15,376,809	17,403,319	13.2	19,102,820	9.8

[36] "Trends in Telecommunications Service," August 2008; p. 7-1.
[37] "Local Telephone Competition Status as of December, 2007;" Table 2.
[38] "Local Telephone Competition Status as of December, 2007;" Table 14.
[39] Population estimate obtained from the Population Reference Bureau at www.prb.org.

Nationwide, the CLECs experienced a one percent decline in their market share for access lines in service between 2005 and 2007, going from a market share of 19.1 percent of the total access lines in service to a share of 18.1 percent. During this period the CLECs' portion of the total access-line market dropped from 31.4 million access lines in service at year-end 2005 to 28.7 access lines in service at year-end 2007.[40] As shown in Table III-E-4, this loss was driven mainly by service provided over UNEs, a category which the FCC's TRO and TRRO orders significantly changed by delisting some products, including UNE-P.

Table III-E-4
CLEC Access Lines by Service Type[41]

Year	Total CLEC Lines (000)	Resold[42] Lines (000)	Percent Resale	UNE Lines (000)	Percent UNE	CLEC Owned Facilities (000)	Percent Facilities Based
2005	31,388	6,704	21.4	14,521	46.3	10,163	32.4
2006	28,626	5,819	20.3	11,663	40.7	11,144	38.9
2007	28,717	6,411	22.3	10,582	36.8	11,724	40.8

Of the CLECs providing service using their own facilities, the FCC's report indicates that there has been significant growth in cable companies providing telephone service over their cable facilities. According to the FCC data, access lines over cable facilities between 2005 and 2007 grew by 64.7 percent going from 5.1 million lines at year-end 2005 to 8.4 million lines at year-end 2007. By year-end 2007, cable facilities accounted for 29.2 percent of all CLEC lines.[43]

Table III-E-5 shows the year-end CLEC lines in service for the 11-states for 2005 through 2007. According to the FCC report, these figures reflect all CLECs doing business in each of the states and include access lines for cable and other companies that provide their own access-line facilities to the end users. These figures do not, however, include mobile wireless users. As shown in Table III-E-5, there are some very significant variations in the CLEC line growth trends with most states showing growth in overall CLEC access lines, while states such as Colorado and Utah have lost CLEC lines over the three-year period.

Liberty notes that the state-specific access line data reported in the FCC's report are very different from the in-service quantities that Liberty derived from the Qwest reported access lines in service using the denominator of the MR-8 "Trouble Rate" measure. For the total CLEC access lines shown on Table III-E-5, in all cases the FCC's line counts are substantially higher than the total CLEC lines reported by Qwest.[44] A number of factors contribute to this difference. These factors include line counts in the FCC report from companies that self-provide access line facilities and thus will not be reflected in Qwest's reported numbers,C LECs doing business with

[40] "Local Telephone Competition Status as of December, 2007;" Table 1.
[41] "Local Telephone Competition Status as of December, 2007;" Table 3.
42 The FCCs report defines resold lines as including lines that the CLEC provides by using special access lines or other facilities that it obtains from unaffiliated ILECs or CLECs as tariffed services or under commercial agreements
[43] "Local Telephone Competition Status as of December, 2007;" Table 5.
[44] Total CLEC lines reported by Qwest can be found in Table III-B-7 in section III.B of this report.

Qwest under commercial agreements that are shown as resold lines in the FCC report but are not included in Qwest's reported MR-8 figures, use of access line equivalents for reporting lines in the FCC report, and possible reporting errors. To the best of Liberty's knowledge there are no audits of the data reported by the telecommunications carriers to the FCC for the creation of its report.

Table III-E-5
CLEC Access Lines
11-State[45]

State	2005 Total CLEC Lines	2006 Total CLEC Lines	Percent change 2005-2006	2007 Total CLEC Lines	Percent change 2006-2007
Arizona	978,582	1,017,866	4.0	1,070,963	5.2
Colorado	590,821	452,270	-23.5	394,574	-12.8
Idaho	75,951	76,063	0.2	74,962	-1.5
Iowa	221,758	238,161	7.4	268,858	12.9
Montana	52,014	71,746	37.9	93,177	29.9
Nebraska	237,496	248,839	4.8	265,020	6.5
New Mexico	65,123	75,169	15.4	72,932	-3.0
North Dakota	66,830	70,031	4.8	70,767	1.1
South Dakota	136,073	119,025	-12.5	119,051	0.0
Utah	260,478	244,772	-6.0	211,583	-13.6
Wyoming	34,004	43,552	28.1	48,391	11.1
Total	2,719,130	2,657,494	-2.3	2,690,278	1.2

The FCC's August 2008 "Trends in Telephone Service" report, which provides data through June of 2007, shows that the availability of high-speed service lines has more than doubled in the two-year period from June 2005 through June 2007.[46] According to the data reported by the FCC in June 2005 there were 42,517,810 high-speed lines available to end users and by June of 2007 the number of these available lines grew to 100,921,647, an increase of 137 percent over the two year period.[47] Table III-E-6 provides information on the number of lines available by technology type during this period. As can be seen from this table, during this period there was explosive growth in mobile wireless high-speed data access which overtook both cable modem and ADSL as the most prevalent technology available to subscribers.

[45] "Local Telephone Competition Status as of December, 2007;" Table 9.

[46] For FCC reporting purposes, high-speed service "lines" are considered both wired and wireless connections to end users that are faster than 200kbps in at least one direction. For FCC reporting purposes, high-speed service "lines" are defined as connections, both wired and wireless, to end users that are faster than 200kbps in at least one direction.

[47] For ILECs and cable system operators, reporting is based on the availability of high-speed service to their respective end users whether or not the household actually subscribes to the service.

Table III-E-6
High-Speed Lines Over 200kbps in One Direction
By Technology Type[48]

Technology	June 2005 (000)	June 2006 (000)	Percent change 2005-2006	June 2007 (000)	Percent change 2006-2007
ADSL[49]	16,316	22,584	38.4	27,516	21.8
SDSL[50]	412	337	-18.2	320	-5.0
Traditional Wireline	487	611	25.5	709	16.0
Cable Modem	24,017	29,174	21.5	34,409	17.9
Fiber	316	686	117.5	1,403	104.5
Satellite	377	495	31.3	669	35.2
Fixed Wireless	209	361	72.7	586	62.3
Mobile Wireless	380	11,017	2799.2	35,305	220.5
Power Lines and Other	5	5	0.00	5	0.00

Table III-E-7 reflects the growth in high-speed access lines in the 11-states, while the type of technology used to provide these lines is provided in Table III-E-8.

Table III-E-7
High-Speed Lines Over 200kbps in One Direction
11-States[51]

State	June 2005 (000)	June 2006 (000)	Percent change 2005-2006	June 2007 (000)	Percent change 2006-2007
Arizona	809,819	1,392,711	72.0	2,192,644	57.4
Colorado	688,189	1,165,853	69.4	1,827,860	56.8
Idaho	149,023	202,926	36.2	483,049	138.0
Iowa	325,710	446,187	37.0	826,096	85.2
Montana	90,583	139,946	54.5	346,230	147.4
Nebraska	253,968	355,013	39.8	537,693	51.5
New Mexico	174,534	252,361	44.6	544,706	115.8
North Dakota	86,274	108,476	25.7	144,994	33.7
South Dakota	112,506	138,621	23.2	164,627	18.8
Utah	259,150	471,137	81.8	818,665	73.8
Wyoming	55,905	70,574	26.2	205,711	191.5
Total	3,005,661	4,743,805	57.8	8,092,275	70.6

[48] "Trends in Telecommunications Service," August 2008; Table 2.1.
[49] Asymmetric Digital Subscriber Line
[50] Symmetrical Digital Subscriber Line
[51] "Trends in Telecommunications Service," August 2008; Table 2.7.

Table III-E-8
High-Speed Lines by Technology Type
June 2007 - 11-States[52]

State	ADSL	SDSL	Traditional Wireline	Cable Modem	Fiber	Fixed Wireless	Total[53]
Arizona	405,724	1,491	12,630	850,307	1,996	17,122	2,192,644
Colorado	529,504	2,810	16,060	560,557	1,285	21,864	1,827,860
Idaho	129,188	340	1,507	116,273	635	34,905	483,049
Iowa	270,101	4,244	3,151	267,712	5,633	14,802	826,096
Montana	95,790	2,549	876	74,246	286	7,653	346,230
Nebraska	124,126	3,135	1,081	238,019	527	10,866	537,693
New Mexico	179,856	401	1,867	117,336	424	2,518	544,706
North Dakota	51,096	3,288	382	76,353	5,508	4,873	144,994
South Dakota	45,772	3,895	252	100,903	2,724	4,878	164,627
Utah	249,683	5,454	N/A	3,947	1,907	21,252	818,665
Wyoming	49,933	1,657	190	N/A	294	3,445	205,711
Total	2,130,773	29,264	37,996	2,405,653	21,219	144,178	8,092,275

In summary, based on review of the FCC's reports, as well as the data derived from Qwest's PID measurement reports and from Qwest's annual report, Liberty notes the following trends:

- Subscribers to telephone service using traditional wireline facilities (*i.e.,* twisted pair) have been continually declining since 2000.
- Wireless services are experiencing considerable growth and are contributing to the loss of wireline services as customers give up their traditional phone service in favor of a wireless option.
- Facilities-based CLECs such as cable companies are growing while CLEC services provided via Resale and UNE are generally on the decline.[54]
- Though CLECs are becoming less dependent on the Qwest for Resale and, to a lesser extent, UNE products, many CLECs are still dependent on these services and products to serve their end users.
- Access to high-speed data lines has grown significantly over the period of 2005-2007, especially through mobile wireless facilities. Cable facilities and ADSL service are also widely used technologies for access to broadband services. Many CLECs that provide a DSL service alternative to Qwest are dependent on Qwest's wholesale products, such as UNE-L to serve their customers.

[52] "Trends in Telecommunications Service," August 2008; Table 2.6.
[53] Total exceeds the sum of the parts because, although specific data for Satellite, Mobile Wireless and Power Lines are not available at the state level, these technologies are included in the total line count.
[54] As shown on Tables III-B-9 and III-B-10, found in section III-B of this report, between 2004 and 2008 Qwest Resale lines have shown a continuous decline in CLEC lines purchased from Qwest; however, the trend in UNE lines varies by state with some states showing stable to slightly growing UNE line counts.

Trends such as the shift away from wireline services and the decline in the use of Resale and, to a lesser extent, UNEs by the CLECs suggest the need for some revisions to the PAP. However, because many CLECs continue to depend on Qwest to serve their customers through Resale and UNE services and products, the PAP remains a critical tool to ensure parity of service performance by Qwest.

F. Summary and Conclusions

From the analysis of the historical data on PAP payments, Liberty determined that both Tier 1 and Tier 2 payments have decreased overall across the Qwest operating region and in each of the participating states during the Study Period (January 2004 through October 2008). The principal reasons for this reduction applicable across the region are: i) a decline in the number of active CLECs and ii) improvement in Qwest's performance. Liberty found that the Qwest failure rate (number of times Qwest has been out of conformance with the standards as determined by the PAP tests) has generally decreased in all measure domains across this time period. Although the general trend in payments was evident in all the participating states, there was some variation in the detail trends from state to state. For example, there was a dramatic decrease in Tier 2 payments in Colorado, after implementation of changes in 2006 after the CPAP Three-Year Review. Only a few PID measures generate the majority of the PAP payments; 15 measures have been the source of 97 percent of the payments, with the Maintenance and Repair (MR) domain dominating the payments, particularly recently. Only three measures have been responsible for approximately 60 percent of the payments: MR-8 (Trouble Rate), BI-3A (Billing Accuracy – Adjustments for Errors), and OP-4 (Installation Intervals).

Liberty found that CLEC order volumes and lines in service reported in the PID measures have also declined markedly during the Study Period. A major contributor to this decline was the adoption by the FCC of the TRO and TRRO orders, which delisted a number of UNEs including those key to UNE-P (particularly unbundled switching). Lines in service dropped dramatically for Resale and to a much lesser extent for UNE products (with the exception of those delisted by the TRO and TRRO). Despite the decline in Resale and UNE orders, orders for number porting have remained high, indicating the increasing importance of facilities-based competitors. There are some state-level variations to these regional trends, with a large share of the market in Resale in some states, for example.

Liberty used data reported by the FCC to examine trends in the telecommunications industry as a whole in the Qwest operating territory, including trends in competition. Such data provide information on the full set of competitors and competitive services, not just those captured in the Qwest PID measures. This data reveals that there has been an increasing decline in subscribers to services using traditional wireline facilities, but growth in the wireless services. Fully facilities-based competitors, such as cable companies, have a growing subscriber base, while services provided via Resale and, to a lesser extent, UNE are in decline. Nevertheless, there is still a significant number of CLECs with a considerable subscriber base that still depend on Qwest's services and products to serve their end users. There has also been a considerable growth in broadband services, and many CLECs use Qwest's UNE-L to provide these services. In addition, Liberty understands that a number of CLECs rely on wholesale services, such as QLSP, that Qwest provides through commercial agreements rather than as UNEs, particularly after the FCC's TRO and TRRO orders eliminated UNE-P and other network elements from the list of UNEs. However, Qwest does not include these services in its PAP payment calculations and PID reports, and Liberty has no data to quantify the volume of products and services provided through these means.

Based on this analysis, Liberty considered the continuing effectiveness, value, and usefulness of the PAP. In making this evaluation, Liberty considered how important the PAPs are in continuing to maintain competition. In particular, this involved considering:

- The number of active CLECs with a significant total subscriber base and dependent on Qwest's wholesale products and services to serve their end users
- The level of Qwest's penalty payments
- The extent of Qwest's performance that is out of compliance with standards
- The burden on Qwest of maintaining the PAPs and whether this burden outweighs the advantage of protecting competitors.

Although recent changes in the industry have resulted in significant reductions in volumes of a number of services, there are still a number of CLECs with significant a subscriber base and transaction volumes. These CLECs depend on Qwest's wholesale services and products in various ways to provide service. There are few realistic alternatives available to Qwest's wholesale products and services for essential components these CLECs use, such as UNE-L. Although these CLECs' share of the market has declined overall since 2004, they continue to provide significant competition for Qwest, particularly in such important parts of the market as broadband and business services, as shown in Tables III-B-2 and III-B-5. These tables show the products that have experienced growth in CLEC orders and lines in service growth between 2004 and 2008. The CLEC growth products are those that a CLEC would typically be ordering to service either a business customer (*e.g.*, DS-1 Loop) or a broadband customer (*e.g.*, xDSL Loops, 2-Wire Non-Loaded Loop).

Although there is evidence that Qwest's wholesale performance has been improving, the PAPs continue to provide incentives to help ensure that Qwest's performance level does not deteriorate. Despite the decline in PAP penalty payments, the level of payments is still significant. In addition, Liberty is aware that there have been recent cases, in Hawaii and northern New England, where the inability of an incumbent local exchange company to provide reliable and high quality wholesale services to CLECs has significantly affected the ability of those CLECs to serve their own end-user customers. Although the causes of this poor wholesale performance was related to a change of ownership and operation of the local exchange businesses in these cases, and thus they are unrelated to the current situation in the Qwest territory, the examples do demonstrate the harm to competitors that can result from poor wholesale performance by an incumbent. The Qwest PAPs help assure that the correct incentives are in place to help prevent such conditions occurring.

Because Qwest's participation in this study was limited to providing data on PAP payments and PID results and answering questions about them, Liberty has no data on the costs and other burdens on Qwest of maintaining the PAPs. However, because the infrastructure to maintain the PAPs has been in place for some time, the principal cost to Qwest is likely to be in processing the underlying data and running the PAP systems. Although this certainly imposes a cost on Qwest, it appears to be acceptable given the significant CLEC community relying on Qwest's wholesale services. Liberty recognizes that Qwest has significant competitors, such as the wireless and cable providers, that do not rely on Qwest's wholesale services or only rely on them to a limited extent. These competitors appear to be gaining in market share. Nevertheless, Liberty does not believe this is justification for abandoning the PAP and thereby potentially placing those competitors relying on Qwest's wholesale services at a potential disadvantage.

Although Liberty concludes that the PAPs continue to serve a useful purpose and should be maintained, the industry trends do support the need for some continued fine tuning of the PAP structures. Trends such as the shift away from wireline services and the decline in the use of Resale and, to a lesser extent, UNEs by the CLECs suggest the need for some revisions to the PAPs to ensure that they are focused on those products, services, and transactions that are still important for the CLEC community. Section IV examines which changes would best serve this purpose.

IV. Proposals

Liberty considered a number of changes to improve the PAPs by eliminating unnecessary aspects and increasing their focus on the types of service, products, and transactions that continue to be important in maintaining a healthy CLEC community in the Qwest territory. Liberty also looked at the underlying PID measures to see what changes might be appropriate to achieve the same ends. In evaluating these various options, Liberty used the following considerations:

- Whether changes in the marketplace have made elements of the PAPs obsolete
- Whether particular types of transactions are no longer relevant
- Whether the volumes of transactions for sub-measures and products are too small to warrant their continued inclusion in the PAPs
- Whether the PAPs and PID can be simplified
- Whether there are any biases and distortions in the PAPs that need to be corrected
- Whether there are important transactions types that are currently not monitored in the PAPs and PID
- Whether the effort to secure support for and cost of making the changes outweighs the advantage of making them.

Liberty notes that it is difficult to address all of these considerations simultaneously. For example, the PAPs could be significantly simplified by decreasing the number of sub-measurements and product disaggregations. However, doing so would cause the measurements to lose resolution and potentially introduce biases and distortions.

In identifying possible changes, Liberty used both input from stakeholders and the results of the analysis outlined in Section III. The following sections provide a discussion of the input and analysis Liberty used to develop the PAP change proposals.

A. Stakeholder Input

At the beginning of this study, Liberty contacted the Commission Staff members the Collaborative Committee and requested input on any concerns or issues they have with the PAPs. The responses indicated no specific concerns. Liberty also drafted a stakeholder questionnaire, and shared it with the Staffs for edits and other input. Liberty developed a list of CLECs based on input from the Collaborative Committee, including email and U.S. mail addresses. Where possible, Liberty sent the questionnaire to the recipients by email; when no email addresses were available, Liberty sent the questionnaire to the CLECs by U.S. mail. In some cases, Liberty had multiple contacts for the same company or for different subsidiaries of a company. In those cases, Liberty requested that the recipients coordinate responses so as to obtain a single response for a company. Liberty sent the questionnaire to 92 different CLEC recipients. Although Qwest had indicated it did not plan to participate in this study, Liberty also sent a questionnaire to Qwest. Qwest did not respond to the questionnaire.

Liberty's questionnaire contained the following questions:

1. In which states of the 14-state Qwest operating territory do you do business? For which affiliates and legal entities and under what names do you do business in those states?
2. What Qwest wholesale services (*e.g.*, resold services, specific unbundled network elements, Local Number Porting) do you currently use? What Qwest wholesale services have you used in the past but no longer use? For which states in the Qwest operating region do you use these services?
3. Have you "opted in" to the QPAP (or CPAP) for any of the states in the Qwest operating territory in which you do business? That is, have you adopted the QPAP or CPAP as part of your interconnection agreement with Qwest? If so, in which states?
4. If you are not currently "opted in" to the QPAP or CPAP, have you done so in the past? If so, in which states and for what time periods?
5. If you have "opted in" to a QPAP (CPAP), have you ever received "Tier 1" payments from Qwest?
6. If you have never "opted in" to a QPAP (CPAP), what experience with or knowledge do you have of these plans?
7. Please specify which QPAPs (CPAP) components (*e.g.*, the sizes of the payments, how payments are assessed, focus on individual CLEC vs. aggregate CLEC results*)* you believe are working well and those you believe are not working well. If relevant, please also include in this response your opinions about the specific PID measures, products tracked, standards (benchmark and parity), and reporting levels (*e.g.*, state, MSA, Zone Type) in the measures.
8. If there were to be changes in the QPAPs (CPAP) in the future, which current components or PID measures (including products tracked, standards, and reporting levels) do you believe are necessary to preserve and/or are particularly important for your company? To the extent that this response might vary by state, please indicate how.
9. What QPAP (CPAP) components or PID measures (including products tracked, standards, and reporting levels) do you believe are unnecessary and can be dropped? To the extent that this response might vary by state, please indicate how.
10. What QPAP (CPAP) components or PID measures (including products tracked, standards, and reporting levels) do you believe should be added? Would you recommend changing any PID measures that are now diagnostic (without standards) to ones with standards and including them in the QPAPs (CPAP), or vice versa? To the extent that this response might vary by state, please indicate how.
11. Please specify the interface used by your company (*i.e.*, IMA-GUI or IMA-XML) for submitting LSRs and ASRs to Qwest. If you use both interfaces, please provide an estimate of your percent usage for each (*e.g.*, GUI – 35%, XML – 65%).

12. Please provide any other comments and input that you believe Liberty and the Commission Staffs should have in conducting this review and analysis.

Liberty received 14 replies, including responses from

- 360networks (USA), Inc.
- American Fiber Network, Inc.
- Blackfoot Communications, Inc. (f/k/a Montana Wireless, Inc.)
- Bullseye Telecom, Inc.
- Cbeyond Communications, LLC
- DIECA Communications, Inc. d/b/a Covad Communications Company
- Integra Telecom, Inc.[55]
- Level 3 Communications, LLC
- LISCO f/k/a LTDS
- McLeodUSA Telecommunications Services, Inc. d/b/a PAETEC Business Services
- Unity Business Networks
- Talk America d/b/a Cavalier Telephone
- TW Telecom LLC
- XO Communications Services, Inc.

One of the responding CLECs, Cavalier, indicated that it does not do business in Qwest's territory. Three other CLECs (Level 3, LISCO, and Unity Business Networks) responded that they had limited experience with the PAPs or were unable to provide much input about the PAPs for other reasons. The other eleven CLECs provided a number of comments and suggestions.

Generally, the CLECs indicated satisfaction with the PAPs and PID measures and believed they were important in helping to maintain telecommunications competition in the Qwest region. Integra pointed out that traditionally AT&T and MCI had the most resources to advocate for the CLECs' position. Now that they have merged with Regional Bell Operating Companies, their advocacy for CLECs has significantly diminished, which increases the need for a strong PAP to protect the CLECS.

The CLECs generally believed that no PAP components or PID measures, including product disaggregations, should be dropped because they were no longer necessary. However, several CLECs made specific suggestions for additions to the PAPs and PID measures, as follows.

UNE Facility Assignment

Integra, PAETEC, and Blackfoot Communications expressed concerns about the ability to obtain DSL-capable loops that support their bandwidth requirements because Qwest does not provision available pairs to meet their requirements, substituting lower capability pairs instead. Integra and

[55] Integra subsidiaries and affiliated operating in the Qwest operating territory include Electric Lightwave, Eschelon, Mountain Telecom, InfoTel Communications, One Eighty Communications, and Advanced TelCom,

PAETEC advocate the development of a PID measure to ensure the appropriate and nondiscriminatory assignment of facilities. Blackfoot Communications indicated interest in supporting this proposal.

While Liberty believes the CLECs have raised a valid concern, it is not clear that it can be addressed within the context of Liberty's analysis. It appears that a commitment from Qwest to provide a UNE-L product offering with the bandwidth requirements to meet the CLECs' needs is the most appropriate way to address the concern. Whether Qwest is required to provide such a product and have its performance measured through the PAPs is a question that goes beyond the scope of Liberty's study.

Expedited Ordering

Integra observed that there currently are no requirements in the PAPs that address the process for expedited ordering. PAETEC joins Integra in the recommendation to develop such requirements. Liberty believes this is a relevant issue to address through PID changes, and offers a recommendation for it in Section IV.E.

Chronic Troubles

Integra noted that there is no PID measure that measures chronic troubles, and indicated that such troubles have serious end-user customer impacts. Integra defines these as cases where there are more than two troubles for a given customer in a specified timeframe, where that timeframe should extend beyond 30 days because the situation can occur over extended periods of time. PAETEC and Cbeyond support Integra's recommendation to develop a measure of chronic troubles and incorporate it in the PAPs. Liberty believes this is a relevant issue to address through PID changes, and offers a recommendation for it in Section IV.E.

MR-6 (Mean Time to Restore) Modifications

Integra indicated that the 2007 Stipulation included a modification of MR-6 to remove No Trouble Found (NTF) and Test Okay (TOK) trouble reports when the ticket's duration is one hour or less, because there is a greater percentage of NTF and TOK reports for retail than wholesale circuits. Typically, such trouble reports are quickly resolved, and removing short duration ones helped to resolve a bias against Qwest. However, Integra claims that, in retrospect, this change has introduced another bias, because it fails to take into account the fact CLECs provide test results to Qwest before Qwest begins to repair a CLEC facility, unlike the retail case. PAETEC and Cbeyond support Integra's argument that this bias needs to be corrected.

It is not clear to Liberty that the bias the CLECs describe actually exists. To the best of Liberty's knowledge, Qwest performs a mechanized loop test (MLT) on its retail lines before opening a trouble report on a customer's line. The MLT results that the Qwest technician receives should be the equivalent of the test results that the CLEC provides to Qwest. However, if the CLECs have evidence that such a bias exists, the best way to resolve the issue would be through collaborative discussions with Qwest.

Retirement of EDI and Replacement by XML

Qwest has retired its Electronic Data Interchange (EDI) interface, which it provided as means for CLECs to submit pre-order and order transactions, and has introduced an Extensible Mark-up Language (XML) interface as a replacement for the retired EDI interface. Integra notes that Colorado, Utah, and Washington have introduced changes to the PID and PAPs to account for these changes. The changes are incorporated into PID Version 9.1. PAETEC supports Integra's recommendation that these changes should be made throughout the Qwest operating territory. Liberty concurs with this recommendation and addresses it Section IV.C.

Coordinated Appointments

Blackfoot Communications noted that there is a large charge associated with coordinated installations and indicated that Qwest has not been reliably meeting these appointments. This causes Blackfoot to be charged more for a service which is no better than the basic installation service. Blackfoot recommends the development of a PID measure to monitor this issue. Liberty believes this is a relevant issue to address through PID changes, and offers a recommendation for it in Section IV.E.

Increasing Penalties for Chronically Failing Domains

Cbeyond suggested that penalties should increase in cases where Qwest is consistently making PAP payments in a given category. This is an interesting suggestion. However, Liberty believes that the mechanisms for penalty escalation for continuing non-conformance are adequate to address the concern.

Better Ability to Understand Payments

360networks and American Fiber Network noted difficulty in understanding the PAP payments they received; in particular, they find it difficult to tie the payment to specific transaction failures and are unable to receive useful information from Qwest in understanding the payments. 360networks indicates that it would be helpful for Qwest in its reports and the documents that accompany the payments to provide information that enables 360networks to track the payments with particular transactions and the particular service standards with which Qwest failed to comply.

While Liberty agrees that the PAPs are complex, both 360networks and American Fiber Network acknowledged that their experience with the PAPs has been limited. Because CLECs professing more experience with the PAPs did not raise the same concerns, Liberty believes more information would need to be gathered about from the CLEC community as a whole before the need to address this concern could be assessed. Such additional investigation is beyond the scope of this study, but might be appropriate to raise as a point of discussion in industry collaborative sessions.

B. Mechanisms to Address Low Volume Issues

As discussed in Section III.C, Liberty's analysis has found that a large number of the tests conducted to determine penalty payments are based on small numbers of CLEC transactions. Small sample sizes can introduce biases into the results. The basic PAP design anticipated that small sub-measure volumes would occur to some extent, and all the PAPs introduced special testing procedures to use in low-volume situations in an attempt to moderate these biases. These include:

- Use of permutation tests for cases where the number of transactions is less than 30
- Restrictions on Tier 2 tests to cases where the volumes are 10 or greater
- Adjustments in the critical Z-values, depending on CLEC volume, for both modified Z-tests and permutation tests
- Variance factor adjustments for Tier 1A measure tests in the CPAP.

For parity measures, small sample sizes create the possibility of failure even when performance is at parity, because both the standard and the permutation test used in these circumstances are typically designed to fail at least five percent of the time due to chance variation in performance.

The basic testing rules in the PAP were intended for typical CLEC volumes of around 140, not the low volumes that occurred during the Study Period. At the volume of 140, the chance of generating payments for a process that was in parity (called Type I error chance) is about equal to the chance of generating no payments for a process that is substantially out of parity (called Type II error chance). In 2008, typical CLEC volume is well below ten for the measurement disaggregations as they currently exist, thus producing a high chance of Type I error for parity measures and a high chance of Type II error for benchmark measures. This higher Type II error is due to the One Allowable Miss Rule, which is explained below. Although the small sample rules listed above were designed to increase the sensitivity to performance and reduce the Type I and Type II error chances when CLEC volumes are small, they are imperfect. Therefore, the probability of bias is significantly higher when these rules are invoked as frequently as they have been during the Study Period.

Some of the changes introduced into the PAPs through the CPAP Three-Year Review and 2007 Stipulation recommendations have helped to alleviate aspects of this problem. Of particular note are the One Allowable Miss Rule and the elimination of low-volume product sub-measures. The One Allowable Miss Rule apples to sub-measure with a benchmark standard (or for non-interval parity sub-measures),[56] which is sometimes the case for Line Splitting and UBL-xDSLI Loops in the OP measures. This rule implies, for example, that consistent performance of 90 percent (*e.g.*, 9 out of 10) for a benchmark measure with a standard of 95 percent will not produce any payments, because there will be only a single miss.

[56] That is, those measuring percent, ratios, or proportions

Despite these changes, Liberty observed that there continue to be very frequent low-volume situations that are not accounted for in these changes. To help alleviate this problem with small volumes, Liberty proposes to additional changes to the PAP:

- Elimination of measures from payment calculations that have relatively low CLEC volumes. This is described in Section IV.C.
- Additional elimination of low-volume product disaggregations of measures. This proposal is described in Section IV.D.
- A change to the PAP's testing rules to aggregate low-volume transactions.

Liberty considered three main approaches to achieve the aggregation of low-volume transactions: i) aggregation across products, ii) aggregation across months, and iii) aggregation across CLECs. After some analysis, Liberty rejected the first approach. Aggregation across products increases the sample size. However, in order to retain reasonable retail analogues for the aggregated products, it would be necessary to introduce a complex process of weighting both the wholesale and retail transactions. In addition, some measures have product disaggregations with retail analogues and others with benchmarks. The process of combining retail analogues and benchmarks would also be complex. In addition, even with different standards for the different products, such a combination would tend to mask poor performance and could mean that sustained poor performance for one product could be compensated for by sustained good performance for another product. Therefore, Liberty rejected the approach of combining product disaggregations, and believes that the only way to make this approach workable without unnecessary additional complexity would be for the industry to agree to new retail analogues for the aggregated products.

Liberty recognizes there can also be concerns with aggregation across months and CLECs. In particular, aggregation across time would delay the application of payments, and aggregation across CLECs could potentially dilute the impact of an individual CLEC's transactions. However, Liberty notes that there already exists a similar type of CLEC aggregation in the Low Volume, Developing Markets mechanism[57] in the PAPs. Liberty used this as a model for the CLEC aggregation and to combine this with the monthly aggregation, if insufficient volumes are attained.

Liberty's low-volume aggregation proposal would work as follows:

1. Aggregate transactions for all CLECs that have fewer than ten transactions in a month for any given sub-measure disaggregation (*e.g.*, OP-3A Resold Business Service) before determining whether a payment is due.
2. If the outcome of this CLEC aggregation equals or exceeds ten transactions, use the aggregate result for these CLECs to calculate whether penalty payments are required.

[57] The Low Volume Developing Markets mechanism is described in Section 10.0 of all the QPAPs, but is not included in the CPAP.

3. Should the calculation determine that Qwest was out of compliance with the standard for the sub-measure, payments will be made to the aggregated CLECs based on each CLEC's relative share of the total number of misses.
4. If the aggregate total does not exceed ten transactions, then carry forward the aggregate result to the following two months until either the threshold of ten aggregate transactions is met or three months of results data have been used in an attempt to meet the minimum volume threshold.[58]
5. When either of these criteria has been met, the process starts again the following month for that sub-measure.[59]

Any CLEC with ten or more transactions on the same sub-measure would not have its results aggregated with the other CLECs; it will be treated as a standalone CLEC consistent with the current process. By way of a hypothetical example, assume that a state has four CLECs with transaction volume for the OP-3A, Resale Business product. CLEC A has three transactions, CLEC B has four transactions, CLEC C has four transactions and CLEC D has 12 transactions. Under this proposal, CLECs A, B and C would have their respective results combined together. This would bring the aggregate total to 11 transactions, which would be used for penalty payment calculations assuming there were some failures. Because it has 12 transactions on its own, CLEC D's results would not be combined with the others.

Liberty examined one other approach to minimize low volume situations: combining MSA and Zone disaggregations. In order to assess the applicability of this approach, Liberty considered whether the MSA and Zone designations, which apply to the measures OP-3, OP-4, OP-6, MR-3, MR-4, MR-5, MR-6, MR-7, and MR-9, make a difference in performance. Liberty found that although these designations did not always make a difference in performance results, there were frequently statistically significant differences, and thus these designations were still important in determining and comparing performance overall.

Table IV-B-1 below shows by measure the calculated p-values and a determination of whether there exists a statistically significant difference between MSA and Zone disaggregation results. A p-value of less than .05 indicates that there does exist a statistically significant difference in the results for the measure. While these differences do not appear to exist for all measures, Liberty does not recommend combining Zone and MSA for any measures, because that would make comparisons across measures difficult.

[58] Another issue that needs to be addressed is how to account for the consecutive month payment escalation when such aggregation across months is required. There are multiple ways to address this issue, but Liberty recommends treating aggregation across months as if it were a single month for payment escalation purposes. For example, suppose a CLEC experienced a failure requiring payment in April, either because there was a single failure for that CLEC in April or because April was the last month of an aggregation across months in which that CLEC participated. Then, if the CLEC participates in an aggregation across May, June, and July that results in a failure, that failure would be treated as the next consecutive month of failure for the purpose of determining the payment level.

[59] This is superior to having a rolling three month window, because a single bad month will not affect payments more than one time.

Table IV-B-1
Statistical Analysis
MSA and Zone Disaggregation Result Differences

Measure	p-value	Statistically Significant Difference?
OP3	0.742	No
OP4	0.000	Yes
OP4-AB	0.415	No
OP4-DE	0.000	Yes
OP6	0.003	Yes
OP6-12	0.102	No
OP6-45	0.010	Yes
OP6A	0.140	No
OP-6A12	0.334	No
OP-6A45	0.188	No
OP6B	0.000	Yes
OP-6B12	0.334	No
OP-6B45	0.001	Yes
MR3	0.115	No
MR4	0.425	No
MR5	0.811	No
MR6	0.003	Yes
MR6-AB	0.001	Yes
MR6-DE	0.584	No
MR7	0.037	Yes
MR9	0.000	Yes

Liberty also reviewed the other mechanisms involving low volume situations, including the "Low Volume, Developing Markets" mechanism found in Section 10 of every participating state PAP except Colorado's. Liberty found these mechanisms to still be useful and does not recommend changing them. In particular, the "Low Volume, Developing Markets" provisions provide minimum payments for certain products (mainly ADSL) when ordering volumes are low and Qwest does not meet the PID standard. Liberty concluded that these provisions appear to be obsolete in most states for ADSL, where volumes are far above the minimums. However, Liberty also believes that this provision is helpful in ensuring parity for developing markets and that new products could be added as needed.

C. Proposed Performance Measure Changes Affecting the PAPs

Through the CPAP Three-Year Review and consideration of the 2007 Stipulation recommendations, all participating states except Montana have already removed a number of PID measures from automatic inclusion in the PAP payment mechanisms. In almost all cases,[60]

[60] The PO-2A sub-measures was completely eliminated from the CPAP in 2006.

the eliminated measures are subject to a PID Reinstatement/Removal Process. This mechanism reinstates the measures and allows them to generate payments after three months of non-conforming performance, and removes them once conforming performance is restored.

Based on the analysis of historical payments and Qwest performance described in Section III, Liberty reexamined PID measures excluded. Liberty also used the following criteria to determine whether any additional PID measures should be excluded from the PAP payment mechanism:

- Payment history and hence Qwest's performance for the wholesale process the PID measurement measures
- Transaction volumes for the measured process
- Impact of the poor performance for the measured process on the CLECs' ability to conduct its business and on the CLECs' end-user customers.

After further analysis, Liberty concurs with the list of measures identified in the 2007 Stipulation, but noted five measures on this list that nevertheless have generated modest to substantial payments. Liberty also identified six additional measures that should be considered for removal from PAP payment plans and included on the Reinstatement/Removal Process list.

In conducting its analysis, Liberty used the PAP payment data from January 2004 through October 2008. To identify additional candidates for PAP removal Liberty initially focused on all measures that generated less than $10,000 in total payments for all states during the January 2007 through October 2008 time period. Liberty then examined the payment history on these measures in prior years and in the November 2008 through March 2009 timeframe to determine whether the low level of payments was consistent throughout the entire period. If the payment amounts were relatively small, Liberty considered the other factors listed above. In addition to the measures that Liberty proposes adding to the Reinstatement/Removal Process list, Liberty also proposes revisions to three other performance measures that would affect the PAP payment calculations. These proposals are detailed below.

1. Review of Measures on the Reinstatement/Removal List

One of Liberty's primary criteria for removal of PID measures from the PAP is the history of payments during the Study Period. The size and consistency of these payments is a measure of Qwest's performance for the process underlying the PID measure. Liberty reexamined these payments for the PID measures removed through the CPAP Three-Year Review or recommendation from the 2007 Stipulation, taking into account the fact that these payments would necessarily drop off significantly after their removal from a PAP. In almost all these cases, the PAP payments were small or modest even before the measures were placed on the Reinstatement/Removal list. However, five of the measures generated modest to substantial payments: PO-2B (Electronic Flow-through), PO-3 (LSR Rejection Notice Interval), PO-7 (Billing Completion Notification Timeliness), OP-17 (Timeliness of Disconnects Associated with LNP Orders), and BI-4 (Billing Completeness). After further examination, Liberty concludes that these measures are appropriate to remain on the Reinstatement/Removal list, as discussed below.

PO-2B - "Electronic Flow-Through"

PO-2B is a measure that is only in the Colorado and the New Mexico PAPs among the participating states.[61] It measures the percentage of orders expected to flow through without manual handling that actually flow through. Order flow-through is important because manual handling of orders can slow implementation and increase errors. PO-2B is a benchmark measure, and only Resale, UNE-L, LNP, and UNE-P have benchmarks and thus affect payments. The benchmarks for these products are 95 percent, 85 percent, 95 percent, and 95 percent, respectively. As noted in Section III.B, only UNE-L and LNP continue to have substantial ordering volumes in the Qwest region. Table IV-C-1 shows the payments generated by PO-2B during the Study Period.

Table IV-C-1
11-State Penalty Payment History
PO-2B "Electronic Flow-Through"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$984,202	$79,434	$742	$1,898	$3,267	$2,062

As can be seen, the payments were very large before the removal PO-2B from the CPAP in 2006, and have been significant since then, despite the inclusion of the measure in only in the New Mexico PAP.[62] Despite the size of the payments, BWG supported the removal of this measure during the CPAP Three-Year Review because Qwest's performance had recently improved (as shown by the reduced payments in 2005 over 2004) and other PAP measures help assure and timely installation (OP-3). Liberty believes that this logic is still sound.[63] In addition, because the measure is on the Reinstatement/Removal list, consistent poor flow-through performance for three months would still cause payments to be assessed.

PO-3 - "LSR Rejection Notice Interval"

PO-3 is a measure in all the participating state PAPs which assesses the timeliness of Qwest's providing notices of rejection of CLECs' service requests. The payment history is shown in Table IV-C-2, and shows modestly high payments continuing into the present, despite the removal of this measure from most of the PAPs.

[61] PO-2B is also in the Minnesota and Washington PAPs.
[62] Of the $984,202 in total 2004 payments, $900,000 was Tier 2 payments made to Colorado. In 2005, of the $79,434 paid in total payments, $75,000 was Colorado Tier 2 payments.
[63] Although Liberty recommends in Section IV.B.2 the removal of PO-20 also, Qwest's performance on this measure has been reasonably good and it remains on the Reinstatement/Removal list.

Table IV-C-2
11-State Penalty Payment History
PO-3 "LSR Rejection Notice Interval"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$29,061	$10,314	$9,985	$534	$2,914	$2

In the CPAP Three-Year Review, BWG recommended removal of this measure because PO-5, which measures FOC timeliness, provides an incentive for Qwest to provide FOCs on time. Timely FOCs indirectly allow CLECs to determine whether their orders have been rejected. Liberty believes that this logic is still sound.

PO-7 - "Billing Completion Notification Timeliness"

PO-7 is a measure in all the participating state PAPs which assesses the timeliness of Qwest's providing notices of completion of the CLECs' orders in Qwest's billing systems. The payment history is shown in Table IV-C-3, and shows modestly high payments continuing into the present, with particularly high payments during 2007, despite the removal of the measure from the CPAP and several QPAPs.

Table IV-C-3
11-State Penalty Payment History
PO-7 "Billing Completion Notification Timeliness"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$18,148	$8,113	$2,123	$25,752	$335	$61

In the CPAP Three-Year Review, BWG recommended removal of this measure because it measures only notification timeliness not the actual completion of the order, and therefore does not measure a process that has a direct impact on a CLECs' customers. Liberty notes that there can be some end-user customer impact from failure of a CLEC to receive a timely billing completion notification. The billing completion notification is Qwest's notification that all parts of an order are complete, including updating of the billing records. However, Liberty supports the continued removal of PO-7 from the PAPs. PO-6, which measures the timeliness of work completion notifications, remains in the PAPs and provides an indication to the CLEC of completion of all the provisioning work on the order. Furthermore, any consistent poor performance on providing timely billing completion notices would still produce penalties, because PO-7 remains on the Reinstatement/Removal list.

OP-17 - "Timeliness of Disconnects Associated with LNP Orders"

OP-17 is a measure in all the participating state PAPs which assesses whether Qwest completes number ports without disconnecting the customer's line before the scheduled time and date. Only OP-17A is non-diagnostic and part of the PAPs. The OP-17A payment history is shown in Table IV-C-4, and shows high payments initially but relatively small payments since 2004. While a premature disconnect of the customer's line by Qwest prior to the date and time of the number port will remove the customer from service, Liberty notes that the significant reduction in payments since 2004 indicates that Qwest is providing relatively good service for this function and believes it is appropriate to keep the OP-17 measures on the Reinstatement Process List.

Table IV-C-4
11-State Penalty Payment History
OP-17A "Timeliness of Disconnects Associated with LNP Orders"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$108,940	$1,500	$0	$600	$150	$150

BI-4 - "Billing Completeness"

BI-4 is a measure in all the participating state PAPs which assesses the completeness of Qwest's bills to the CLECs. BI-4 payment history is shown in Table IV-C-5, and shows a continuing modest level of payments.

Table IV-C-5
11-State Penalty Payment History
BI-4 "Billing Completeness"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$19,697	$5,462	$312	$2,239	$6,171	$1,262

In the CPAP Three-Year Review, BWG recommended removal of this measure, because BI-3 measure the extent of billing adjustments, and such adjustments would be required if the bills were not complete. Furthermore, with the phase-out of UNE-P, the likelihood that CLECs will rely on Qwest's bills to invoice usage to end-users is reduced. Given the relatively modest payments for BI-4 relative to BI-3, Liberty sees no reason to change that assessment.

2. Additional Measures Recommended for the Reinstatement/Removal Process

Through this analysis, Liberty identified six other measures to recommend as additions to the Reinstatement/Removal list.

PO-9 - "Timely Jeopardy Notices"

PO-9 is a parity measure that can be found in the PAP for all states which assesses how well Qwest provides timely notices to the CLECs that the installation date and an order is in jeopardy. Table IV-C-6 demonstrates that the PAP payments generated by this measure have been relatively small. PO-9 is disaggregated into four sub-measures; PO-9A – "Non-Designed Services," PO-9B – "Unbundled Loops." PO-9C – "LIS Trunks," and PO-9D – "UNE-P POTS," all of which experience low to moderate transaction volumes each month.

Table IV-C-6
11-State Penalty Payment History
PO-9 "Timely Jeopardy Notices"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$9	$0	$28	$371	$39	$56

PO-9 was considered for removal during the CPAP Three-Year Review, but BWG decided not to recommend removal because timely jeopardy notices are critical to the CLECs' ability to provide a realistic date to their end-user customers for service implementation. Liberty agrees that it is important for a CLEC to be able to communicate with its customer when a due date will be missed, but notes that the payments have continued to be small, implying that Qwest's compliance with the standard has been relatively good. Additionally, Liberty found the volumes of jeopardy notices associated with this measure to be very small for three of the four PO-9 sub-measures, with the PO-9A, PO-9C and PO-9D sub-measures averaging less than ten transactions per month at the 14-state level between January 2007 and October 2008. The PO-9B sub-measure experienced a moderate level of jeopardy notices averaging 403 transactions per month across the 14-state region during the same time frame. By placing this measure on the Reinstatement/Removal list, it can affect payments after three months of poor performance, thereby continuing to provide an incentive to Qwest to provide timely jeopardy notices.

PO-19 – "Stand-Alone Test Environment (SATE) Accuracy"

PO-19 is a benchmark measure that is currently used only in the Arizona and New Mexico PAPs.[64] This measure addresses Qwest's performance in providing an accurate test environment for new software releases. This measure has never experienced a penalty payment from January 2004 through March 2009 demonstrating that Qwest's performance has been good over the entire Study Period. In addition, the process has limited immediate impact on end-user customers. Therefore, Liberty recommends placing this measure on the Reinstatement/Removal list.

PO-20 – "Manual Service Order Accuracy"

The PO-20 measure has a history of low penalty payments, as shown on Table IV-C-7. Liberty found that although Qwest often fails to meet the 95 percent benchmark on this measure, this failure frequently results from a single miss on a low volume of transactions (*i.e.*, Qwest would need to have 100 percent performance or it would fail as the result of a single miss). Of the total payments that Qwest made between 2004 and October 2008, 29.7 percent were generated by single miss failures to meet the 95 percent benchmark. Now that the One Allowable Miss Rule has been implemented in most states, the number of such failures would be diminishing, as shown in the recent payment history.

[64] PO-19 is listed as a diagnostic measure in the CPAP. In early versions of the CPAP, PO-19 was eligible for generating penalty payments. However, it was made diagnostic during 2005 prior to the completion of the Three-Year Review in the CPAP version dated 5/6/05 (Colorado SGAT Ninth Revision, Ninth Amended Exhibit K, dated May 6, 2005).

Table IV-C-7
11-State Penalty Payment History
PO-20 "Manual Service Order Accuracy"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$2,846	$4,356	$2,542	$1,885	$212	$225

PO-20 was not considered for removal in the CPAP Three-Year Review because it was argued that there could be significant end-user consequences from manual service order errors. However, given the relatively low volume of Qwest manual inward service orders evaluated each month and recent payment history, Liberty believes that placing this measure on the Reinstatement/Removal list will provide adequate protection for the customers.

CP-1 – "Collocation Completion Interval"

CP-1, a benchmark measure only found in the Arizona and Colorado PAPs, has generated only a minimal Tier 1 payment of $4 in Arizona in 2007. There were no other payments in Arizona and no payments made in Colorado during the 2004 through March 2009 timeframe. The CP-1 measure is also a very low volume measure with an average of only 1.3, 0.8, and 3.0 transactions per month in Colorado and an average of 1.0, 1.3 and 3.3 transactions per month in Arizona for the CP-1A, CP-1B and CP-1C sub-measures respectively. Qwest did not miss the benchmark on any of the CP-1 sub-measures in any other state from January 2007 through October 2008.

CP-1 was considered for removal during the CPAP Three-Year Review, but BWG elected not to recommend its removal because of the importance of collocation for CLEC market entry. Because of the recommendation to remove CP-3, BWG felt it was important to maintain at least one collocation measure in the PAP. At the time of BWG's analysis, the FCC had recently issued the TRO and TRRO orders, which eliminated UNE-P. BWG speculated that this would likely increase the importance of collocation, because the elimination of UNE-P would force the CLECs to rely on other UNEs. However, Liberty's analysis shows that overall CLEC entry and the volume of collocation has in fact decreased since 2005. Thus, given the relatively low volumes and the consequent limited impact of temporary poor performance on collocation completion timeliness, Liberty recommends placing CP-1 on the Reinstatement/Removal list,

CP-2 – "Collocations Completed within Scheduled Intervals"

CP-2 is a benchmark measure which is in the PAPs of all participating states, except Colorado. It has generated no payments during the Study Period in any of the participating states. During the January 2007 through October 2008 timeframe, the CP-2B sub-measure averaged only 20 collocation completions per month and the CP-2C sub-measure averaged only 23 monthly collocation completions across the entire 14-state region. There were no collocation completions measured by the CP-2A sub-measure during this time. The focus of CP-2 is similar to CP-1, timely collocation completion intervals. Therefore, the same considerations apply, and Liberty recommends placing CP-2 on the Reinstatement/Removal list.

CP-4 – "Collocation Feasibility Study Commitments Met"

The CP-4 measure appears in the PAPs for all participating states, except Colorado. This measure did not result in any penalty payments from January 2004 through March 2009. It is also a measure that typically has a relatively low volume of transactions with an average of 43 transactions per month across the entire 14-state region for the period of January 2007 through October 2008. This measure is similar to CP-3, which was removed from the CPAP as part of the Three-Year Review. In its analysis, BWG concluded that CP-3 was relatively unnecessary, given the existence of CP-1, which measures ultimate completion timeliness, rather than one step in the process, like CP-3. Liberty agrees with this assessment. Given the low collocation volumes and lack of past penalty payments Liberty recommends placing CP-4 on the Reinstatement/Removal list.

3. Other Measures Considered for the Reinstatement/Removal Process

Liberty considered several other measures for inclusion in the Reinstatement/Removal process because of low PAP payments. However, after considering other factors, Liberty does not recommend that these measures be removed from the PAPs. The reasons that Liberty recommends their continued inclusion in the PAPs follow.

GA-1 – "Gateway Availability – IMA-GUI" and GA-6 – "Gateway Availability – GUI-Repair"

Both of these measures have had low PAP payments over the Study Period, as shown in Table IV-C-8. However, the IMA-GUI is necessary for the many CLECs to electronically transmit automated pre-ordering and ordering transactions, and the Repair GUI is similarly necessary for transmitting electronic maintenance and repair transactions. The ability to conduct these transactions is critical for the CLECs and would have a significant impact on their end-user customers if these systems were unavailable to the CLECs. All the parties during the CPAP Three-Year Review concurred that these measures should not be removed at that time. The same considerations that were raised at that time are still valid. Sustained poor availability of these interfaces would have a major impact on the CLECs' ability to do business, and if they were to be placed on the Reinstatement/Removal list, Qwest would only be assessed penalties after three months of poor performance. Therefore, Liberty does not recommend that these two measures be removed from the PAPs and put on the Reinstatement/Removal list.

Table IV-C-8
11-State Penalty Payment History
GA-1 "Gateway Availability – IMA-GUI" & GA-6 "Gateway Availability – GUI-Repair"

	2004	2005	2006	2007	2008 through October	November 2008 to March 2009
GA-1	$9,167	$0	$0	$0	$9.167	$0
GA-6	$9,167	$0	$0	$0	$0	$8,167

PO-1 – "Pre-Order/Order Response Times"

The PO-1 measure never experienced a penalty payment due to a failure during the 2004 to 2008 timeframe. However, similar to the GA-1 and GA-6 measures, the PO-1 measure monitors a high volume activity critical to the entire CLEC community. As a result, Liberty does not recommend removing it from the PAP. This is consistent with BWG's conclusion during the CPAP Three-Year Review.

PO-5 – "Firm Order Confirmations On Time"

PO-5 measures the timeliness of FOCs, and contains four sub-measures. One sub-measure, PO-5D, which measures FOC timeliness for LIS trunks, was placed on the Reinstatement/Removal Process list for the CPAP after the Three-Year Review and on the PAPs of all the other participating states except Montana following a recommendation in the 2007 Stipulation. The other three sub-measures remain active in the PAPs of all the participating states. Table IV-C-9 shows the history of payments generated by this measure during the Study Period. The payments have not been large, particularly recently, but there have been payments for all three of the sub-measures remaining in the PAP.

Table IV-C-9
11-State Penalty Payment History
PO-5 "Firm Order Confirmations On Time"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$14,748	$3,000	$13,050	$1,496	$1,169	$942

Despite the relatively low recent payments from PO-5, Liberty does not recommend placement of this measure on the Reinstatement/Removal list. This is consistent with the recommendations of all parties during the CPAP Three-Year Review, and there is no evidence that the circumstances since that time have changed to alter the considerations leading to those recommendations. Timely FOCs are very important for CLECs, because they contain information crucial to meeting their end-user customers' needs in service installations, such as installation due dates and assigned telephone numbers, which the CLECs need for communicating service delivery expectations with their customers. There also remains a high volume for such transactions. FOCs are needed for every order issued by the CLEC, unlike jeopardy notices, which are only required in cases where there is a delay in providing service. Therefore, Liberty believes it is appropriate for PO-5 (FOCs on Time) to remain in the PAP while PO-9 (Timely Jeopardy Notices) can move to the Reinstatement/Removal list.

OP-13A – "Coordinated Cuts On Time – Unbundled Loop"

OP-13A measures the timeliness of coordinated hot cuts for UNE-L. The payment history is shown in Table IV-C-10. The payments have been relatively small, but consistent across the Study Period. Despite, the relatively low payments, Liberty does not recommend removal of OP-13A from the PAPs. Hot cuts continue to be an important transaction for a large number of CLECs that provide service through UNE-L; poor hot cut performance can have a significant impact on such CLECs' customers. Therefore, Liberty does not recommend removal of this measure from the PAPs. This is consistent with the BWG's conclusions during the CPAP Three-Year Review, and the changes in the industry since then have not minimized the importance of these arguments.

Table IV-C-10
11-State Penalty Payment History
OP-13 "Coordinated Cuts On Time – Unbundled Loop"

2004	2005	2006	2007	2008 through October	November 2008 to March 2009
$2,733	$890	$4,172	$1,330	$1,247	$1,608

BI-1 – "Time to Provide Recorded Usage Records"

BI-1 is a measure in all participating state PAPs which assesses Qwest's timeliness in providing usage records. CLECs use these records to bill their customers or other carriers and to verify the accuracy of their Qwest bills. There are two sub-measures BI-1A, which assesses the timeliness of usage for Resale and UNE products, and BI-1B, which assesses the timeliness of usage for jointly provided switched access. The payment history is shown in Table IV-C-11. The payments have been very high in the past, but have been dropping off significantly recently, partly because the reduction in CLECs use of Resale and UNE products involving switched usage (like UNE-P) has dropped dramatically over the Study Period. Nevertheless, the BI-1A payments remain well above the threshold Liberty used for identifying candidate measures to remove from the PAPs.

Table IV-C-11
11-State Penalty Payment History
BI-1 "Time to Provide Recorded Usage Records"

	2004	2005	2006	2007	2008 through October	November 2008 to March 2009
BI-1A	$443,324	$804,073	$66,315	$38,866	$10,067	$5,008
BI-1B	$5,380	$55,002	$0	$0	$0	$0

During the CPAP Three-Year Review, BWG recommended keeping BI-1 in the PAP largely because of the impact on the CLECs and their end-user customers of untimely usage records. Despite the drop in volume of these usage records resulting from changes in the CLEC service mix, a number of CLECs continue to rely on them for the data the CLEC needs to bill its costumers. Late usage records provided to the CLECs will result in late billing to the CLECs' customers. Therefore, Liberty believes BI-1 should remain in the PAP.

BI-3 – "Billing Accuracy – Adjustments for Errors"

BI-3 is a measure in all participating state PAPs which assesses the accuracy of Qwest's bills rendered to the CLECs for wholesale services by measuring the percentage of billed revenue that has been adjusted because of errors. There are two sub-measures BI-3A, which measures errors in UNE and Resale bills, and BI-3B, which measures errors in reciprocal compensation bills. The payment history is shown in Table IV-C-12. The payments have been very high for UNE and

Resale bills (BI-3A), but recently there have been no payments for reciprocal compensation bills (BI-3B). Liberty therefore considered whether to eliminate BI-3B from the PAPs.

Table IV-C-12
11-State Penalty Payment History
BI-3 "Billing Accuracy – Adjustments for Errors"

	2004	2005	2006	2007	2008 through October	November 2008 to March 2009
BI-3A	$1,111,576	$403,809	$297,355	$253,935	$59,328	$36,999
BI-3B	$21,074	$10,726	$0	$0	$0	$0

During the CPAP Three-Year Review, BWG recommended keeping BI-3 in the PAP although wholesale billing errors have relatively little impact on end-user customers. BWG noted that billing errors nevertheless can absorb considerable CLEC resources. Liberty agrees. Despite the lack of recent payments for BI-3B, the continued high payments for BI-3A indicate good reason to keep both sub-measures of BI-3 in the PAP.

4. Additional PID change proposals that would affect the PAP

In addition to proposing measures that should be considered for removal from the PAP and placed on the Reinstatement/Removal Process list, Liberty has identified three additional PID change proposals that would impact the PAP.

OP-5 - "New Service Quality"

This measure was designed to evaluate the quality of newly-installed service orders that are free of CLEC/customer-initiated trouble reports during the provisioning process and within 30 calendar days following installation completion. Currently this measure is divided into four sub-measures: OP-5A "New Service Installation Quality Reported to Repair," OP-5B "New Service Provisioning Quality," OP-5T "New Service Installation Quality – Total," and OP-5R, "New Service Quality Multiple Report Rate." OP-5A has a parity standard and OP-5B has a benchmark standard for those product disaggregations that have a standard, and both OP-5A and OP-5B are in all the state PAPs.[65] Both the OP-5T and OP-5R sub-measures are currently diagnostic measures. The OP-5A performance measure reports the percentage of inward line service orders that are free of trouble repair reports within 30 calendar days of installation completion. The PID defines repair trouble reports as CLEC or retail customer notifications to Qwest of an out-of-service or other service affecting condition for which Qwest opens a repair ticket in its maintenance and repair management and tracking operations support systems. The PID specifies that OP-5A considers trouble reports created by Qwest's call center and stored in its call center database provisioning trouble reports and includes these tickets in the OP-5B results calculation.[66]

[65] Each of these two sub-measures has a few products that are diagnostic.
[66] 14-State 271 PID, Version 9.0.

OP-5B measures the percentage of inward line service orders free of provisioning trouble reports during the provisioning process and within 30 calendar days of installation completion. The PID defines provisioning trouble reports as CLEC notifications to Qwest of out-of-service or other service affecting conditions that are attributable to provisioning activities, including but not limited to LSR/service order mismatches and conversion outages. For provisioning trouble reports, Qwest creates call center tickets in its call center database. Qwest captures call center tickets closed in the reporting period or the following month for this measurement. Qwest does not count call center tickets closed to network reasons in OP-5B when a repair trouble report for that order is captured in OP-5A.[67]

Liberty believes that the manner in which this measure is currently split between repair center trouble reports and call center trouble reports creates an unnecessary complexity to the reporting structure. This split of trouble reports is not required to make a determination of the quality of Qwest's new service installations, which is the overall purpose of OP-5. It also creates a low volume problem for the calculation of OP-5B payments, because the number of call center provisioning trouble reports created by Qwest that count toward this sub-measure is very small. For example, for the time period of January 2007 through October 2008, with the exception of two product disaggregations, every product reported under the OP-5B sub-measure averaged less that one provisioning trouble report per month across the entire 14-state region. Additionally, the two products that did average more than one provisioning trouble reports per month, unbundled analog loops and resale residential service, also experienced extremely low volumes of 8.3 and 1.6 provisioning troubles per month,re spectively. Total Tier 1 payments for this sub-measure for all of 2007 and 2008 were $681. In contrast, OP-5A had nine product disaggregations that exceeded an average of 10 repair trouble reports per month across the 14-state region with five of these nine product disaggregations averaging more than 30 trouble reports per month.[68] Tier 1 payments for the OP-5A sub-measure during this same time period were $31,184.

To eliminate the low volume problem for OP-5B, that sub-measure could be removed from the PAPs. However, Liberty believes that a better approach would be to use what is effectively a combination of OP-5A and OP-5B. This can be accomplished by changing OP-5T from a diagnostic to a parity measure and replacing OP-5A and OP-5B in the PAPs with OP-5T. Qwest calculates the OP-5T based on both types of trouble reports (*i.e.*, repair trouble reports and provisioning trouble reports) essentially combining the OP-5A and OP-5B sub-measures into a single measure that can be used to determine the quality of Qwest's new service installations. Because the OP-5T measure would be used to determine parity of new service installation quality based on the total number of repair trouble reports referred to Qwest within 30 calendar days of service installation, the same parity standards that are used for the OP-5A measure would be used for the OP-5T measure.

[67] Ibid, p 59.

[68] The five products and the average monthly trouble report volume for each are: unbundled analog loops (122..2 troubles per month), unbundled DS-1 loops (66.8 troubles per month), EEL DS-1 (65.0 troubles per month), Unbundled 2-wire non-loaded loops (56.5 troubles per month) and Resale residential service (48.5 troubles per month).

Electronic Gateway Availability (GA) and Pre-Order/Order (PO) Measures

Version 9.0 of the PID document (Exhibit B) and the QPAP (Exhibit K) for most states, still contains measures that involve reporting on the availability and the performance of the IMA-EDI interface. However, Qwest retired this interface in November 2007 and replaced it with the IMA-XML interface, which was made available to the CLECs in October 2006. Currently most states do not have measures in the PAP monitoring Qwest's performance on the XML interface. Colorado was the only state among the 11-states participating in this study for which the reporting measures specific to the XML interface had been approved before the end of the Study Period. The Utah Commission approved PAP changes to incorporate the XML interface on February 4, 2009.[69] Liberty recommends that the remaining states adopt those changes in Version 9.1 of the 14-State PID document and corresponding PAP changes which eliminate reference to the EDI interface and replace the EDI performance results with those for the XML interface. The specific measures affected by this proposal are:

- GA-2 – "Gateway Availability – IMA-EDI" – this PID should be replaced by GA-8 in the PAPs
- GA-8 – "Gateway Availability – IMA-XML" – this PID should replace GA-2 in the PAPs
- PO-1 – "Pre-Order/Order Response Time"
- PO-2 – "Electronic Flow-through"
- PO-3 – "LSR Rejection Notice Interval"
- PO-4 – "LSRs Rejected"
- PO-5 – "FOCs On Time"
- PO-6 – "Work Completion Notification Timeliness"
- PO-7 – "Billing Completion Notification Timeliness"
- PO-16 – "Timely Release Notifications"
- PO-19 – "SATE Accuracy"
- PO-20 – "Manual Service Order Accuracy"

Ordering and Provisioning Measures (OP)

Versions 9.0 and 9.1 of the PID document use retail ISDN-BRI designed service as the parity standard for a number of wholesale UNE-L products in the ordering and provisioning measures. However, Qwest rarely has any order volumes for its retail ISDN-BRI designed service. As a result, Qwest cannot fail the measure test for these wholesale products because there is no retail analog result to measure against. Liberty recommends that the standard for these wholesale products be changed to either i) a retail product that experiences consistent volumes or ii) a benchmark measure, if such a retail comparative does not exist. Liberty recommends that that a collaborative process be used to determine the appropriate replacement standards for retail ISDN-BRI. The measures and products affected by this recommendation are:

- OP-3 – "Installation Commitments Met"

[69] The Washington Utilities and Transportation Commission has also approved these changes.

ISDN Capable Loop

- OP-4 – "Installation Interval"
  ISDN Capable Loop
- OP-5 – "New Service Quality"
  Non-Loaded 2-Wire Loop
  ADSL Qualified Loop
  ISDN Capable Loop
- OP-6 – "Delayed Days"
  Non-Loaded 2-Wire Loop
  XDSLI Capable Loop
  ADSL Capable Loop
  ISDN Capable Loop
- OP-15 – "Interval for Pending Orders Delayed Past Due Date"
  Non-Loaded 2-Wire Loop
  ADSL Qualified Loop
  ISDN Capable Loop

D. Proposed Product Changes

One of the recommendations in the 2007 Stipulation is to remove low volume products from applicable OP and MR measures from the PAPs in all 14 states in the Qwest operating territory except Colorado. Most of these products were eliminated from the CPAP in 2006 after the Three-Year Review. The performance results for these low volume products continue to be reported in the 271 performance plans. The products identified for removal from the PAPs in the 2007 Stipulation include:

- Resale Centrex
- Resale Centrex 21
- Resale DS0 (Designed and Non-Designed)
- E911/911 Trunks
- Resale Frame Relay
- Resale Basic ISDN (Designed and Non-Designed
- Resale Primary ISDN (Designed and Non-Designed)
- Resale PBX (Designed and Non-Designed)
- Sub-Loop Unbundling
- UNE-P POTS
- UNE-P Centrex
- UNE-P Centrex 21

Liberty agrees that, with the exception of sub-loop unbundling in Colorado,[70] the products shown on the list above have a low level of transaction activity in all the participating states, and that it is appropriate to remove them from the PAP. Because of the continued low order and trouble report volumes for these products, Liberty recommends that they be removed from the PAP in all states that still include them, with that one exception.[71]

Liberty examined the historical ordering and trouble reporting volumes on the remaining products to identify other candidates for removal from the PAPs. As the basic criterion for product removal, Liberty used the condition that the ordering and trouble reporting volumes never exceeded ten transactions per month in any state at the CLEC aggregate level from January 2007 through October 2008. Liberty also considered products that came close to meeting this criterion and considered them on a case-by-case basis. Based on this analysis, Liberty recommends that the states remove six additional low volume products from the PAPs for all OP and MR measures in which they appear, with one exception noted below:

- Unbundled DS-3 Loops
- UDIT – Above DS-1
- Unbundled 4-Wire Non-Loaded Loops
- Loops with Conditioning[72]
- Unbundled ISDN Capable Loops (Applies to all states and measures except for MR measures in Arizona and Colorado)
- Line Sharing

Appendix B contains tables that show the state-by-state ordering and trouble report volumes for these six products. As shown in these tables, in Arizona and Colorado there were low monthly ordering volumes for the Unbundled ISDN Capable Loops but a significant number of trouble reports each month. This is because of the substantial embedded base of such loops in Arizona and Colorado (1,356 and 1,000, respectively, in October 2008). Thus, Liberty recommends making the exception for these two states in removing this product from the MR measures.[73]

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[70] Sub-loop unbundling averaged 14.4 orders per month in Colorado from January 2007 through October 2008, but had little to no order activity in the other ten participating states during this same time period.

[71] Montana should remove all the products on the 2007 Stipulation list. Colorado should remove UNE-P POTS, Centrex, and Centrex 21.

[72] "Loops with Conditioning" is a product disaggregation for OP measures but not for MR measures. Loops ordered in this way appear in other provisioned product categories in the MR measures, such as UBL 2-Wire Non-Loaded Loops.

[73] Because calculation of MR-8 (Trouble Report Rate) includes not only trouble report volumes but also lines, an argument could be made that both the trouble reports and lines should be considered in determining whether "volumes" are too small for product disaggregations of this measure. Thus, states with large quantities of lines in service for the products Liberty has identified for elimination might want to modify Liberty's recommendations. However, in the interest of enhancing simplicity, Liberty chose not to introduce the extra complexity this would entail.

Table IV-D-1 below provides a summary view of the ordering volumes on the products listed above for January 2007 through October 2008. The information provided in this table is the 22-month average monthly volume in the state that had the greatest level of transaction activity, the highest transaction level for the state that had the greatest number of transactions in a single month, the number of states that average more than three transactions per month during the 22-month period, the number of states that exceeded ten transactions in any given month, and the number of times ten transactions per month were exceeded across all states. The only product that experienced more than ten transactions in a single state more than once was Loops with Conditioning which occurred in Iowa in May 2008 (18 transactions) and again in September 2008 (12 transactions). However, Iowa's monthly average volume for this product was 1.8 orders per month. Thus, these two months appear to be exceptional and do not affect Liberty's recommendations to remove the product in all states.

Line Sharing requires special mention. Ordering volumes in Colorado exceeded Liberty's low-volume threshold during the first six months of 2007. However, the volumes have been very low in Colorado since then, probably as a result of the TRO/TRRO phase-out provisions for this product. Thus, it is still appropriate for Line Sharing to be excluded from the CPAP, as occurred in a CPAP in 2006 after the Three-Year Review. For all the other states, this product meets the low ordering volume criterion; only one other state received any orders for the product. All states, including Colorado, met Liberty's criteria for Line Sharing trouble reports, supporting Liberty's recommendation to removing the Line Sharing product from all the MR measures.

Table IV-D-1
CLEC Aggregate Ordering Volumes for Selected Products
January 2007 – October 2008
11-State Summary View

Product	Greatest Average Monthly Volume in Any State (Transactions Per Month)	Greatest Single Monthly Volume in Any State (Transactions)	Number of States that Averaged Less than 3 Transactions Per Month	Number of States that Exceeded 10 Transactions	Number of Times 10 Transactions Was Exceeded
UBL-DS3	0.5	3	11	0	0
UDIT Above DS1	3.5	16	10	1	1
UBL 4-Wire Non-Loaded Loop	1.3	11	11	1	1
Loops with Conditioning	4.9	18	10	3	4
UBL ISDN Capable Loop	3.9	12	10	1	1
Line Sharing[74]	6.8	40	10	1	3

[74] All the Line Sharing statistics on this summary table are for Colorado. New Mexico was the only other state with any Line Sharing order volumes during the 2007-2008 period, and it only received a single order for the service.

There are a number of other product disaggregations with typically low to moderate ordering and trouble report volumes although larger than the products considered above. Although the volumes are high enough for continued inclusion in the PAPs, they are small enough in many states that the kind of low-volume test situations discussed in Section IV-C occur. As discussed in that section, Liberty recommends an aggregation method for these low volume situations that will help alleviate this problem.

In addition to the product removals mentioned, Liberty has one recommendation for adding a product. The Colorado Commission should add the Unbundled ADSL Capable Loop product to the CPAP. This product was removed from the CPAP as part of the Three-Year Review decision in 2006. Since that time, the ADSL Capable Loop product has been experiencing increasing volumes in Colorado and appears to be an increasingly important competitive product for the CLECs in that state. This product is currently included in the QPAP for the other 10 states participating in this study. As shown in Table IV-D-2 below, for the period of January 2007 through October 2008, Colorado's order volumes for this product generally exceed those of the other participating states. Additionally, for the most recent period of November 2008 through March 2009, which is not included on the table below, Colorado averaged 73.8 ADSL capable loop order per month, showing continuing growth in the volumes of these orders in the state.

Table IV-D-2
Order volumes for ADSL Capable Loops

State	2007 volumes	January through October 2008 volumes	Average monthly volume for 10 month period in 2008	Total Volumes
Arizona	16	337	33.7	353
Colorado	2	527	52.7	529
Idaho	0	0	0	0
Iowa	257	87	8.7	344
Montana	40	47	4.7	87
North Dakota	830	760	76.0	1,590
Nebraska	184	113	11.3	297
New Mexico	363	181	18.1	544
South Dakota	0	0	0	0
Utah	0	41	4.1	41
Wyoming	82	67	6.7	149

E. Proposed Performance Indicator Definition Changes

Liberty proposes that the states consider four changes to the PIDs that will not have an impact on the PAPs. These proposals are a result of both the measure analysis performed by Liberty and input that Liberty received from the CLECs. Some of these changes will make the reported results more meaningful. Others add sub-measures to monitor Qwest's service quality for activities that CLECs indicate are important to their business and are not monitored today. These sub-measures would be diagnostic and allow evidence to be developed as to whether Qwest's performance for these activities warrants inclusion of the sub-measures in the PAP. These changes are described below.

1. MR-4 – "All Troubles Cleared within 48 Hours"

The purpose of the MR-4 measures is currently described as: "[e]valuates timeliness of repair for specified services, focusing on trouble reports of all types (both out of service and service affecting) and on the number of such trouble reports cleared within the standard estimate for specified services (*i.e.*, 48 hours for service-affecting conditions)."[75] Liberty proposes that the definition of this measure be modified so that it only reports service affecting trouble reports and not all trouble reports, thereby eliminating the out-of-service troubles from the report. The rationale for this is that Qwest's performance for out-of-service trouble reports, which have an objective restoral time of 24 hours, is reported by the MR-3 "Out of Service Cleared with 24 Hours" measure. Because the product disaggregations for both the MR-3 and MR-4 measure are identical, including out-of-service trouble reports in the MR-4 reported results could potentially mask poor performance in the resolution of service affecting troubles on these products within 48 hours. The lower objective restoration time of 24 hours for out-of-service troubles will effectively lower the overall restoration time for all trouble reports. By limiting the MR-4 measure to service affecting troubles only, the users of the report will receive more accurate data on Qwest's ability to resolve these troubles within 48 hours.

2. OP-4 - "Installation Interval"

The OP-4 measure evaluates the timeliness of Qwest's ability to install service for customers by calculating the average time it takes Qwest to install inward service orders for various products. One of the CLECs suggested that Qwest also report on its performance on expedited service orders. Liberty believes that such a sub-measure may provide useful data to both the CLECs and Qwest regarding Qwest's ability to install service on a reduced interval in circumstances that call for it. As such, Liberty proposes that a diagnostic sub-measure be added to OP-4 to report on Qwest's results in meeting expedited due dates.

3. MR-7 – "Repair Repeat Trouble Rate"

The MR-7 measure evaluates the accuracy of Qwest's repair performance by calculating the number of repeat trouble reports on the same line or circuit within 30 days of the initial trouble report being closed. However, neither this, nor any other, measure provides data on the number of chronic trouble reports being experienced by the CLECs. Chronic troubles would be defined as lines or circuits that receive greater than two trouble reports over an extended period of time. Liberty believes that it is possible that the repeat trouble report metric is missing an important component of reporting on chronic troubles that may be indicative of faulty facilities, other

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network problems and/or Qwest repair process problems. Liberty proposes that Qwest include a diagnostic sub-measure to the MR-7 measure or create an entirely new MR measure that will report the number of lines and circuits that receive more than two trouble reports over a rolling six month period to provide the users of the PID reports data on the number of chronic trouble reports that CLECs are experiencing.

4. OP-3 – "Installation Commitments Met"

The OP-3 measure is intended to evaluate Qwest's ability to install services for customers by the scheduled due date. One of the inputs that Liberty received from the CLECs is that Qwest does not reliably meet coordinated installation appointments that it sets with the CLEC. The CLECs pay a greater non-recurring installation charge for such appointments. To provide Qwest, the CLECs and the states with the ability to monitor Qwest's performance on these coordinated appointments, Liberty proposes that Qwest add a diagnostic sub-measure to the OP-3 measure. This sub-measure would report the percent of coordinated appointments that Qwest is able to meet.

F. Other PAP Changes

As noted, the decline in Tier 2 payments during the Study Period has been particularly significant, and larger than that for Tier 1 payments. Most states rely on the Tier 2 payments to provide the funds for administration of the PAP, since as for audits and studies such as this one. A continued decrease in Tier 2 payments could leave insufficient funds for PAP administration. Because the purpose of the PAP is to help incent wholesale performance rather than provide funds to the states, Liberty believes that an alternative means should be considered for funding PAP administration activities in addition to the Tier 2 payments. For example, the CPAP has provisions that in certain cases if the Special Fund created to hold the Tier 2 payments are insufficient to pay for certain PAP administration activities, Qwest would be assessed for the cost. Liberty believes that a more general provision of this sort would be advisable in all the PAPs.

Liberty also examined other aspects of the PAP structure for possible changes. Liberty's analysis and review confirmed that, with some exceptions in Colorado, performance has a similar impact on payments throughout the 11 states as discussed in Section III.D. However, the 11 state QPAPs have many differences, and there is some value in eliminating these differences because the differences add to the complexity of Qwest's PAP administration and tend to make it difficult for a CLEC operating in several states to understand the different PAP rules. Nevertheless, Liberty does not recommend moving to a single uniform PAP across the Qwest operating region. The differences evolved through specific proceedings in each state and were justified by the evidence provided in those proceedings. In addition, the changes would require work on Qwest's part. The PAPs are working well as they are, and because moving to a uniform PAP would not have a major impact on results, Liberty believes the cost of making such a change outweigh its benefits.

Liberty examined other methods to simplify the PAPs, and also concluded that the costs of making the changes outweighed the benefits.

V. Summary of Conclusions and Recommendations

Liberty concludes that the PAPs are still serving a useful purpose in all the participating states. There continues to be a significant group of CLECs in the states that rely heavily on Qwest's wholesale services to conduct their business and with few realistic alternatives. These CLECs continue to provide significant competition for Qwest, particularly in such important parts of the market as broadband and business services. In addition, as Integra has pointed out, with the merger of AT&T and MCI with Regional Bell Operating Companies, their traditional strong advocacy for the interests of the CLEC community has significantly diminished. This enhances the need for strong PAPs to protect the interests of the CLECs.

Although Liberty concludes that the PAPs should be maintained, some changes should be made in the existing PAPs to simplify them and make them more targeted to the continuing and evolving needs of the competitive marketplace. Most of these changes continue a process of evolution of the PAPs since their inception to continue to tailor them to current needs. Liberty considered a number of different possible changes, including additional ways to simplify the PAPs. Some approaches, such as eliminating certain measure disaggregations could not be justified because they would tend to mask poor performance or might have the unwanted results of increasing the PAP complexity. Some simplification approaches were rejected because the potential benefits were minimal and would not justify the potential cost of their implementation. After considering the alternatives, Liberty developed the recommendations for PAP changes outlined below.The detai led applicability of these proposals in each of the 11 participating states is provided in Appendix C.

<u>The following recommendations apply to all the participating state PAPs.</u>

<u>Recommendation 1.</u> The Commissions should introduce a new aggregation mechanism to minimize low-volume tests in determining payments. Specifically, transactions for CLECs with low volumes should be aggregated with those of other CLECs, and, as necessary, aggregated over up to a three month period, for the purpose of determining non-conformance and calculating payments.

Liberty's analysis reveals that a large number of the tests performed to determine PAP penalty payments are based on CLEC transaction sample sizes which are very small. Such low-volume tests can introduce statistical errors, either biasing the results against Qwest or against the CLECs depending on the circumstances. Furthermore, the relative biases are not likely to be balanced. Liberty considered several structural changes to the PAPs which could have reduced the number of low-volume tests, but concluded that aggregation primarily over CLECs and secondarily over time would be the best way to avoid unnecessary complexity in the PAP mechanism.

In Liberty's proposal, payments with low-volume CLEC transactions would be determined through the following steps:

1. Aggregate transactions for all CLECs that have less than ten transactions in a month for any given sub-measure disaggregation.

2. If the outcome of this CLEC aggregation equals or exceeds ten transactions, use the aggregate result for these CLECs to calculate whether penalty payments are required.
3. Distribute any penalty payments to the aggregated CLECs based on each CLEC's relative share of the total number of misses.
4. If the aggregate total does not exceed ten transactions, then carry forward the aggregate result to the following two months until either the threshold of ten aggregate transactions is met or three months of results data have been used in an attempt to meet the minimum volume threshold.[76]
5. Start the process again after either of these criteria has been met.

A more complete description of the analysis behind this recommendation is in Section IV.B.

<u>Recommendation 2</u>. *The Commissions should eliminate the following PID measures (in addition to those included in the 2007 Stipulation recommendations) from consideration for PAP payments for those states that use them, and place them on the list of measures subject to the Reinstatement/Removal Process:*

- *PO-9* *Timely Jeopardy Notices*
- *PO-19* *SATE Accuracy*
- *PO-20* *Manual Service Order Accuracy*
- *CP-1* *Collocation Completion interval*
- *CP-2* *Collocations Completed within Scheduled Intervals*
- *CP-4* *Collocation Feasibility Study Commitments Met.*

This recommendation continues a process started with the CPAP Three-Year Review and 2007 Stipulation recommendations of simplifying the PAPs and focusing them on the measures which continue to assess those Qwest wholesale functions with the highest importance to a large class of CLECs. A precondition for this recommendation is the introduction of the Reinstatement/Removal Process into the PAP, as recommended in the 2007 Stipulation. Liberty also reviewed the measures recommended in the 2007 Stipulation for removal from the PAP but subject to the Reinstatement/Removal Process, and found that the rationale for this treatment is still valid. Because Montana has not yet adopted these recommendations, Liberty believes Montana should adopt the 2007 Stipulation recommendations, as noted below in a separate recommendation.

Liberty chose the additional measures for PAP removal (PO-9, PO-19, PO-20, CP-1, CP-2, and CP-4) based on the relatively small contribution to the PAP payments in all the states, the small measured CLEC volumes, and the limited impact their removal would have on the CLECs' ability to serve their end-user customers. Liberty considered other measures for removal based

[76] Liberty recommends treating aggregation across months as if it were a single month for payment escalation purposes.

on relatively low recent payments but rejected their inclusion in the list of measure for removal, largely because of the potential negative impact on the CLECs and their customers.

A more complete description of the analysis behind this recommendation is in Section IV.C.

Recommendation 3. *The Commissions should make the following additional changes to certain PID measures in the PAPs:*

- *For OP-5 (New Service Quality), use sub-measure OP-5T instead of sub-measures OP-5A and OP-5B.*
- *Replace the current retail analog of "retail ISDN-BRI designed" with some other retail product or with a benchmark.*

The change for OP-5 has the advantage of avoiding unnecessarily disaggregating the orders examined for new service quality into two classifications, whether troubles were repair center trouble reports (OP-5A) or provisioning trouble reports (OP-5B). Combining these two classifications in OP-5T helps minimize the low-volume tests mentioned in Recommendation 1. The standard for OP-5T would be the same parity standards that are used for the OP-5A measures, as explained in Section IV-C-4.

Liberty observed that a number of wholesale products use retail ISDN-BRI designed as the retail analogue. This occurs in the following measures:

- OP-3 – "Installation Commitments Met"
  ISDN Capable Loop
- OP-4 – "Installation Interval"
  ISDN Capable Loop
- OP-5A – "New Service Quality"
  Non-Loaded 2-Wire Loop
  ADSL Qualified Loop
  ISDN Capable Loop
- OP-6 – "Delayed Days"
  Non-Loaded 2-Wire Loop
  XDSLI Capable Loop
  ADSL Capable Loop
  ISDN Capable Loop
- OP-15 – "Interval for Pending Orders Delayed Past Due Date"
  Non-Loaded 2-Wire Loop
  ADSL Qualified Loop
  ISDN Capable Loop

However, retail ISDN-BRI designed frequently has an insufficient number of order transactions to use in the conformance tests to determine payments. As a result, for the wholesale products using this retail analogue, it is often impossible for the tests to fail and a payment to be made.

Liberty recommends that a Qwest-CLEC collaborative determine the appropriate alternative standard to retail ISDN-BRI designed for the measures and wholesale products listed above.

A more complete description of the analysis behind this recommendation is in Section IV.C.

Recommendation 4. The Commissions should eliminate the following low-volume products from the OP and MR measures in the PAPs:

- *Unbundled Digital Signaling Level 3 (DS-3) Loops*
- *Unbundled Dedicated Interoffice Transport (UDIT) – Above DS1*
- *Unbundled 4-Wire Non-Loaded Loops*
- *Loops with Conditioning (applies only to OP measures)*
- *Unbundled ISDN Capable Loops (applies to all states and measures except for MR measures in Arizona and Colorado)*
- *Line Sharing (already removed in Colorado).*

In addition to the low-volume products eliminated in the CPAP Three-Year Review and through the 2007 Stipulation recommendations, Liberty has identified these other products with transaction volumes that are too small to warrant continued inclusion in the PAP payments tests. These products would still continue to be monitored through the PID reports. As with Recommendation 2, this recommendation assumes that the products recommended for removal in the 2007 Stipulation have also been removed. Liberty reviewed the products in the 2007 Stipulation recommendation and agrees they should be removed. Because Montana has not yet adopted these 2007 Stipulation recommendations, Liberty believes Montana should adopt the 2007 Stipulation recommendations, as noted below in a separate recommendation.

The analysis supporting this proposal is described more fully in Section IV.D.

Recommendation 5. The Commissions should make the following additional changes to certain PID measures:

- *Limit MR-4 (All Troubles Cleared within 48 Hours) to service-affecting troubles*
- *Add a diagnostic sub-measure to OP-4 (Installation Interval) to measure performance on expedited orders*
- *Add a diagnostic sub-measure to MR-7 (Installation Interval) to measure chronic troubles*
- *Add a diagnostic sub-measure to OP-3 (Installation Appointments Met) to the percentage of coordinated appointments met.*

Some of these changes will make the reported results more meaningful. Others add sub-measures to monitor Qwest's service quality for activities that CLECs indicate are important to their business and are not monitored today. These new sub-measures would be diagnostic and allow evidence to be developed as to whether Qwest's performance for these activities warrants inclusion of the sub-measures in the PAP.

This recommendation is described more fully in Section IV.E.

Recommendation 6. *The Commissions should adopt provisions to assess Qwest for the cost of PAP administration functions, including independent auditor and audit costs and payment of other expenses incurred by the participating Commissions in the regional administration of the PAP, if the Special Funds created by the Tier 2 payments are insufficient for fund these functions.*

In order for the PAPs to be effective, the Commissions need to have resources for administering them. This includes funds for such activities as audits and special studies to support the regular reviews of the PAPs. Most, but not all, of the PAPs call for the Tier 2 Special Funds to be used for this purpose.[77] With the decline of Tier 2 payments, there is a possibility that the Special Funds established to fund these activities could soon be exhausted. The approach of assessing Qwest directly for such costs is already part of the CPAP provisions in certain circumstances. This approach should be applied more broadly. In cases where there are no provisions for PAP administration funding, Liberty recommends adopting the necessary provisions.

The following recommendation applies to all participating states except Colorado and Utah.

Recommendation 7. *The Commissions should adopt changes in the PAPs and PID to recognize Qwest's replacement of the Electronic Data Interchange (EDI) interface by the Extensible Mark-up Language (XML) interface.*

Most state PAPs still involve monitoring and PAP payments based on use of the EDI interface for ordering and pre-ordering. Qwest has now phased out use of this interface and replaced it with an XML interface. This means that the PAPs no longer have the ability to generate payments based on failures of Qwest to provide ordering and pre-ordering through an e-bonded interface. This involves replacement of the language in PID document Version 9.0 related to these interfaces with the language introduced in Version 9.1. In PID Version 9.1, GA-2, which measured the availability of EDI, has been dropped and replaced with GA-8, which measures the availability of the XML database. Version 9.1 also replaces the EDI interface with the XML interface in the following measures:

- PO-1 – "Pre-Order/Order Response Time"
- PO-2 – "Electronic Flow-through"
- PO-3 – "LSR Rejection Notice Interval"
- PO-4 – "LSRs Rejected"
- PO-5 – "FOCs On Time"

[77] This is usually specified in paragraph 11.3 of the PAP.

- PO-6 – "Work Completion Notification Timeliness"
- PO-7 – "Billing Completion Notification Timeliness"
- PO-16 – "Timely Release Notifications"
- PO-19 – "SATE Accuracy"
- PO-20 – "Manual Service Order Accuracy"

In addition, references to GA-2 need to be replaced by GA-8 and other references to EDI need to be changed in the PAP.

The Colorado and Utah Commissions have already adopted these changes.

<u>The following two recommendations apply only to Colorado.</u>

<u>Recommendation 8.</u> The Colorado Public Utilities Commission should restore the Tier 1B, Tier 1C, and Tier 2 mechanisms to the CPAP, subject to the changes required by Liberty's other recommendations.

The current version of the CPAP has implemented a sunset provision which automatically eliminates the Tier 1B, Tier 1C, and Tier 2 mechanisms after six years. Although there are a number of aspects of this change which are consistent with Liberty's generally applicable recommendations above, there are some products and measures eliminated through this change which Liberty still considers to be important for inclusion in the CPAP. In particular, many of the Tier 1B and 1C measures have been removed from the Colorado Reinstatement Process list. The list went from 16 measures that could be reinstated if Qwest's performance was not in conformance with the established standard for three consecutive months to only five remaining measures. Eleven measures have essentially been removed from the PAP forever by this change. Additionally, all billing measures and all regionally measured measurements (*e.g.*, all GA measures, PO-1, etc) have been removed from the PAP.

<u>Recommendation 9.</u> The Colorado Public Utilities Commission should make the following additional changes to the CPAP:

- *Restore the Unbundled ADSL-Capable Loop product*
- *Eliminate the UNE-P products.*

After the Three-Year Review, the Colorado Commission eliminated Unbundled ADSL-Capable Loop as a product. At the time of the Three-Year Review, the order volume for this product was very small. However, since that time, there has been a significant increase in the volumes for this product. It has become an important product for certain CLECs to provide broadband service. Therefore, Liberty recommends restoring this product to the CPAP.

UNE-P was delisted as a UNE by the FCC in the TRO and TRRO decisions. The UNE-P products (UNE-P POTS, UNE-P Centrex, and UNE-P Centrex 21) were eliminated in those QPAPs that have adopted the 2007 Stipulation recommendations. However, they were not eliminated in the CPAP. Because these products are now obsolete for PAP purposes, Liberty recommends that they be removed from the CPAP.

The following recommendation applies to Montana only.

Recommendation 10. The Montana Public Service Commission should adopt the recommendations of the 2007 Stipulation.

Liberty has reviewed the recommendations of the 2007 Stipulation and finds them to be appropriate. All participating Commissions except Montana's have adopted most of these recommendations. Of particular relevance are the following recommendations:

- Introduction of the Reinstatement/Removal Process with application to the following measures (for Montana):
  - GA-3 Gateway Availability EB-TA
  - GA-4 System Availability EXACT
  - GA-7 Timely Outage Resolution Following Software Releases
  - PO-3 LSR Rejection Notice Interval
  - PO-5D FOCs On Time (ASRs for LIS Trunks)
  - PO-7 Billing Completion Notification Timeliness
  - PO-8 Jeopardy Notice Interval
  - PO-16 Timely Release Notifications
  - OP-17 Timeliness of Disconnects Associated with LNP Orders
  - MR-11 LNP Trouble Reports Cleared within25 Hours
  - BI-4 Billing Completeness
  - NI-1 Trunk Blocking
  - NP-1 NXX Code Activation
- Elimination of the following low-volume products from consideration in determining PAP payments but continue to report them in the PID reports:
  - Resale Centrex
  - Resale Centrex 21
  - Resale Frame Relay
  - Resale Private Branch eXchange (PBX) (non-designed and designed)
  - Resale ISDN-BRI (non-designed and designed)
  - Resale ISDN Primary Rate Interface (PRI) (non-designed and designed)
  - Resale Digital Signaling Level 0 (DS0) (non-designed and designed)
  - Resale DSL (designed)
  - Sub-Loop Unbundling (except in Colorado)
  - UNE-P POTS
  - UNE-P Centrex

  - UNE-P Centrex 21
  - E911/911 Trunks
- Introduction of the One Allowable Miss Mechanism for low-volume benchmark and non-interval parity measures