

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

Docket No. 97I-198T

**IN THE MATTER OF THE INVESTIGATION INTO U S WEST COMMUNICATIONS,
INC., COMPLIANCE WITH § 271(C) OF THE TELECOMMUNICATIONS ACT OF
1996**

**QWEST CORPORATION'S COMMENTS DEMONSTRATING
SATISFACTION OF THE FCC'S SECTION 271
CHANGE MANAGEMENT EVALUATION CRITERIA**

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Pursuant to the Colorado Public Utilities Commission's ("Commission") April 23, 2002 Order Granting, in Part, and Denying in Part, Qwest's Motion to Schedule Dates for Full Commission Proceedings on OSS, Public Interest, Section 272 and Track A and Procedural Order, Order Setting Procedural Schedule, and Order Setting Commission En Banc Workshop Dates, Qwest Corporation ("Qwest") submits these Comments Demonstrating Satisfaction of the FCC's Section 271 Change Management Evaluation Criteria.

INTRODUCTION

In evaluating RBOC change management plans under Checklist Item 2 of Section 271, the Federal Communications Commission ("FCC") has relied on the following factors: (1) that information relating to the change management process is clearly organized and readily accessible to competing carriers; (2) that competing carriers had substantial input in the design and continued operation of the change management process; (3) that the change management plan defines a procedure for the timely resolution of change management disputes; (4) the availability of a stable testing environment that mirrors production; and (5) the efficacy of the

documentation the RBOC makes available for the purpose of building an electronic gateway.¹

The FCC has also examined two additional factors: whether an RBOC has demonstrated a "pattern of compliance" with its own change management plan and whether it has provided adequate technical assistance to CLECs in using the RBOC's OSS.²

Qwest's Wholesale Change Management Process ("CMP")³ clearly meets the standards set by the FCC for change management. As discussed below, the core provisions of Qwest's CMP have been implemented for more than five months, during which Qwest has compiled an impressive overall compliance rate that exceeds 98%. Further, Qwest has responded to and addressed all significant issues raised in the third party test concerning Qwest's CMP.

Qwest has described its Wholesale CMP in detail in the following previous filings: (1) Qwest Corporation's Comments Demonstrating Satisfaction with the Requirements of Section 271, dated November 30, 2001; (2) Qwest's Report Regarding Change Management Issues, dated February 8, 2002; (3) Qwest's Brief Regarding Change Management, dated April 8, 2002; and (4) periodic status reports regarding the redesign effort. Qwest will not repeat those discussions in this filing, but incorporates them by reference as if fully set forth herein.

As demonstrated below, Qwest's current change management process satisfies each of these factors. It therefore meets the requirements of Section 271 because it provides

¹ Joint Application by SBC Communications Inc., Southwestern Bell Telephone Company, and Southwestern Bell Communications Services, Inc. d/b/a Southwestern Bell Long Distance Pursuant to Section 271 of the Telecommunications Act of 1996 To Provide In-Region, InterLATA Services in Arkansas and Missouri, CC Docket No. 01-194, Memorandum Opinion and Order, FCC 01-338 (rel. Nov. 16, 2001) ("Arkansas/Missouri 271 Order"), Appendix D, at ¶ 42, citing Bell Atlantic New York Order, 15 FCC Rcd at 4002-004 (footnotes omitted).

² *Arkansas/Missouri 271 Order*, 16 FCC Rcd at 20865 (App. D, at ¶ 40); *see Massachusetts 271 Order*, at ¶ 103, citing *Texas 271 Order*, 15 FCC Rcd at 18404, ¶ 108.

³ Qwest's Wholesale Change Management Process Document ("Wholesale CMP") is attached as Exhibit A, and can also be found at the following URL: <http://www.qwest.com/wholesale/cmp/whatiscmp.html>.

nondiscriminatory access to OSS and provides competitors with a meaningful opportunity to compete.⁴

I. INFORMATION REGARDING QWEST'S CMP IS CLEARLY ORGANIZED AND READILY ACCESSIBLE TO CLECS.

As fully discussed in its prior filings, Qwest provides easily accessible and well-organized information regarding its change management process on its wholesale web site.⁵ Qwest's web site sets forth the current change management process,⁶ including the method for proposing and processing CLEC-originated and Qwest-originated OSS interface change requests ("CRs") and product and process changes.

KPMG specifically found that Qwest satisfactorily distributes documentation to CLECs.⁷ KPMG found that Qwest uses email and the wholesale web site to distribute documentation regarding proposed changes to CLECs, including information about open CRs, Qwest's response to escalated CRs, software release notes, and process document releases and updates. Interactive CR Status Reports containing information about existing systems and product/process CRs are available on the CMP web site and included in the monthly CMP distribution package. In addition, information about ongoing escalations is available on the CMP web site. During testing, KPMG identified several issues relating to Qwest's notifications to

⁴ See *Arkansas/Missouri 271 Order*, Appendix D, at ¶ 40.

⁵ The Qwest change management web site can be found at the following URL: <http://www.qwest.com/wholesale/cmp/index.html>.

⁶ See Wholesale CMP, which can be found at the following URL: <http://www.qwest.com/wholesale/cmp/whatiscmp.html>

⁷ Qwest Communications OSS Evaluation Draft Final Report, Version 1.0, submitted by KPMG Consulting, dated April 19, 2002 ("Draft Final Report"), Test 23, Table 23-2 (MTP criterion 23-6), p. 528. The Draft Final Report can be found at the following URL: http://www.nrri.ohio-state.edu/oss/master/kpmg_draft/final_report.htm.

CLECs. In response, Qwest implemented process changes that improved its process and satisfied all of KPMG's concerns regarding this criterion.

Further, the governing process for change management is contained in a single document -- the Wholesale CMP document. As discussed in the prior filings, this document contains the agreements reached through extensive collaborative negotiations between the CLEC community and Qwest. Through the redesign process, CLECs have had substantial input into the organization and clarification of change management related materials on the web site.

The joint CLEC-Qwest redesign team agreed that the agreements reached through the redesign effort would remain in draft form, subject only to a final review of the document as a whole and changes necessary to ensure that the document reflects a cohesive and integrated whole. However, the fact that a final review will occur in no way detracts from the fact that CLECs and Qwest reached agreement regarding the processes and Qwest has implemented those agreements. Indeed, Qwest has conducted its wholesale business pursuant to the Wholesale CMP for several months.

Moreover, the result of the redesign process is a CMP that goes well beyond what has been done by any other BOC in successful applications for 271 authority.

As Qwest fully discussed in its prior filings, in the redesign process, Qwest and the CLECs identified, discussed, and resolved the most important issues relating to processes to be documented in Qwest's CMP. The redesign team reached agreement in principle regarding all twelve of the more important category "1" issues and on eight of the ten less significant category "0" issues.⁸ The CLECs have described these agreements as vague, high level agreements that

⁸ Affidavit of Judith M. Schultz in Support of Qwest's Comments Demonstrating Satisfaction of the FCC's Section 271 Change Management Evaluation Criteria ("Schultz Affidavit"), attached as Exhibit A, at ¶ 3.

will be memorialized at a later time. Contrary to this characterization, detailed proposals have been developed for all of the agreements except a single issue.⁹ This single issue relates to provisions for the exception process, upon which the redesign team has agreed in principle. The team agreed that this issue would not be a controversial issue.

Further, the only two issues on which the team did not reach agreement in principle do not relate to language that will be incorporated into the CMP document.¹⁰ Covad Issue #3 relates to how Qwest identifies retail changes that may impact CLECs. The redesign team has discussed this issue at length and reviewed Qwest's documented processes. Indeed, the Joint CLECs admit in their brief that they believe that Qwest has implemented "adequate processes to ensure timely and adequate notification to wholesale customers of retail changes that impact them as well as to ensure parity between Qwest's retail and wholesale customers."¹¹ The only other issue, raised by WorldCom, relates to how Qwest will prove that it has implemented the changes it has agreed to make. Neither of these issues has any impact on the sufficiency of Qwest's CMP document.

In its Draft Final Report, KPMG listed "Unable to Determine" as the result for its evaluation of whether Qwest's change management process is in place and documented, stating that the Wholesale CMP does not include all elements KPMG believes are essential.¹² In support of this claim, KPMG points only to Exception 3094, which, as more fully discussed in section IV.C.1 below, relates to the fact that KPMG was unable to observe Qwest's adherence to the new

⁹ Schultz Affidavit, ¶ 4-5.

¹⁰ Schultz Affidavit, ¶ 5.

¹¹ Joint CLEC Brief Regarding Qwest's Change Management Process ("Joint CLEC Brief") submitted by AT&T Communications of the Mountain States, Inc., TCG Colorado, Covad Communications Company, and WorldCom, Inc., dated April 8, 2002, at 15.

¹² Draft Final Report, Test 23, Table 23-2 (MTP criteria 23-2).

Qwest-initiated product/process change process in practice. Setting aside KPMG's concern regarding its ability to observe the new process, the redesign team agreed to the detailed process for Qwest-initiated product/process changes and that process is set forth in section 5.4 of the Wholesale CMP. Thus, this process clearly is documented. Further, Qwest's Wholesale CMP includes -- and Qwest has implemented -- specific provisions that address all of the components of the Ordering and Billing Forum's ("OBF") Issue 2233 draft document regarding change management, with the exception of a single component -- training. No CLEC has ever raised any issue regarding including a provision regarding training as a significant issue to be addressed. Indeed, the OBF's provision consists of a single sentence providing that all changes to interfaces will be incorporated into available customer training programs. This minor, non-controversial issue does not affect Qwest's compliance with the FCC's evaluation criteria. Clearly, Qwest's comprehensive Wholesale CMP, which has been implemented and is in effect today, contains all essential components -- the process is in place and documented.

The bottom line is that the CLECs enjoy substantial benefits from Qwest's implementation of the redesigned CMP. The fact that minor changes may be made to the CMP through the final review process by the redesign team does not affect Qwest's compliance with the implemented process.

II. CLECS HAVE SUBSTANTIAL INPUT IN THE DESIGN AND CONTINUED OPERATION OF QWEST'S CMP.

There can be no legitimate question that CLECs have had -- and will continue to have -- substantial opportunities for meaningful input into the design and operation of Qwest's change management process. As set forth in Qwest's prior filings, Qwest and the CLECs have met regularly, for more than 38 days since July 2001, to collaboratively redesign Qwest's change management procedures. The schedules, agendas, and minutes of the CMP and CMP redesign

meetings are posted on the Qwest CMP web site. Moreover, Qwest has regularly filed status reports on the progress of the redesign process beginning in October 2001, which include the documents discussed and the minutes from the redesign meetings.

Further, the CMP provides CLECs with substantial opportunities for input into the continued operation of the change management process. Qwest and CLECs jointly participate in the CMP forum for managing changes related to Qwest's OSS interfaces, products, and processes throughout the lifecycle of a CLEC- or Qwest-initiated change.

Indeed, in its Draft Final Report, KPMG specifically found that Qwest's CMP includes procedures for allowing input from all interested parties.¹³ Specifically, KPMG found that Qwest and CLECs attend monthly CMP meetings to discuss proposed changes and exchange information about change status. Qwest also conducts additional meetings to discuss specific topics or issues. CLECs may provide input through email directly to Qwest, or share comments at CMP meetings.

KPMG further found that, beginning on July 11, 2001, Qwest and CLECs have held bi-weekly, collaborative CMP redesign sessions to address CLEC concerns regarding the Qwest change management process. During those sessions, Qwest and CLECs agreed to processes for Qwest -initiated, CLEC-impacting systems and product/process changes. The parties also agreed that both Qwest and CLECs may use the escalation and dispute resolution process to address issues. KPMG further found that Qwest had responded to issues raised during testing by implementing improvements to existing notification processes and addressing remaining issues in the redesign meetings.

¹³ Draft Final Report, Test 23, Table 23-2 (MTP criterion 23-4), p. 593.

Thus, Qwest's current change management process provides for substantial CLEC input into both the design and operation of the process.

III. QWEST'S CMP DEFINES A PROCEDURE FOR THE TIMELY RESOLUTION OF CHANGE MANAGEMENT DISPUTES.

Another factor the FCC examines in its 271 evaluation is an RBOC's procedures for escalation and resolution of disputes between the CLEC and the RBOC regarding OSS issues. As noted in its prior filings, Qwest has implemented the escalation and dispute resolution procedures Qwest and the CLECs jointly developed through the redesign process. The procedures are set forth in the Wholesale CMP.¹⁴ As of April 25, 2002, the escalation procedures have been invoked on one occasion with regard to systems changes, and on five occasions with regard to product and process changes. The dispute resolution procedures have not yet been invoked as of April 25, 2002.

Further, as noted in prior filings, Qwest and the CLECs have also agreed to procedures for impasse resolution that apply to the redesign effort. Because the parties have enjoyed much success in negotiating solutions in the framework of the redesign sessions, only one issue reached impasse in the redesign process, as of April 25, 2002. That issue was resolved by this Commission and Qwest has committed to abiding by that resolution in all states. Further, as previously reported, the redesign team has already identified, discussed, and resolved the most important and most contentious issues for the express purpose of determining whether any additional impasse issues are likely. No impasse issues were identified; indeed, the parties reached agreement in principle on all of the most contentious issues.

¹⁴ Wholesale CMP, Sections 14 and 15.

Nonetheless, the parties have agreed to dispute resolution options that will apply if an issue reaches impasse in the redesign effort. Thus, even though the parties have already identified and resolved the most contentious issues, the procedures already in place ensure that the redesign process will conclude successfully and with a collaborative result, rather than one dictated by Qwest.

IV. THE EVIDENCE DEMONSTRATES THAT QWEST HAS ESTABLISHED A PATTERN OF COMPLIANCE WITH ITS CMP.

The FCC also evaluates whether the RBOC has demonstrated a pattern of compliance with its change management plan. As set forth below, all of the core provisions of Qwest's redesigned CMP has been implemented for more than five months. The evidence establishes that Qwest has compiled a strong record of compliance with the redesigned CMP.

A. The Core Provisions of Qwest's CMP have been Implemented for More than Five Months.

Significantly, most of the substantive provisions of the redesigned CMP have been in place for more than five months. The following core provisions have been implemented for more than five months: scope, types of changes, CR processing, introduction/change/retirement of OSS interfaces, prioritization, SATE, and the escalation and dispute processes. The Affidavit of Judith M. Schultz in Support of Qwest's Comments Demonstrating Satisfaction of the FCC's Section 271 Change Management Evaluation Criteria, attached as Exhibit B ("Schultz Affidavit"), sets forth substantial, detailed evidence that Qwest is complying with its redesigned CMP. The information set forth in sections IV.A. and IV.B. is derived from Attachment 2 to the Schultz Affidavit.

While certain issues relating to these core provisions were decided more recently, the recent agreements relate primarily to issues that expand Qwest's CMP beyond what any other

RBOC offers -- and beyond the parameters of the FCC's section 271 evaluation. For example, the recent impasse resolution regarding the definition of a Regulatory Change restricted the Regulatory Change definition and expanded the Qwest Originated Change definition to allow CLECs to prioritize changes that every other RBOC treats as Regulatory Changes. The FCC has approved several other RBOC change management processes that provide CLECs virtually no input, but that allow the RBOC total discretion to designate changes as regulatory and to determine how to implement such changes. Similarly, the issues KPMG identified as still being discussed in the redesign process only expand Qwest's CMP.¹⁵ For example, KPMG notes that the redesign team has not finalized the criteria for determining the method by which Regulatory Changes are implemented. No other RBOC allows CLECs to participate in designating changes as Regulatory Changes or in determining how such a change will be implemented. KPMG also points to the process that allows CLECs to postpone a Qwest-initiated product/process change. As previously noted, the FCC has never required an RBOC to have a change management process in place for product/process changes. Qwest has not only agreed to and implemented such a process, but also has agreed in principle to a process that will allow CLECs to postpone Qwest's implementation of product/process changes. Again, this process far exceeds the FCC's evaluation criteria. In addition, KPMG points to the Special Change Request Process, which allows a CLEC or Qwest to fund the development and implementation of a change that might not otherwise be included in a release. Again, the FCC has never required another RBOC to include such a provision in its change management process. Moreover, it is important to note that, while the redesign team has not reached final agreement on the details of these processes, Qwest and

¹⁵ Draft Final Report, Test 23, Table 23-2 (MTP criterion 23-3), p. 529.

the CLECs have reached agreement in principle on these issues and have discussed -- and reached agreement upon substantial portions of -- detailed language relating to them.

Thus, the fact that some changes may have occurred fairly recently or have not yet been finalized has no impact on the evaluation of Qwest's CMP for section 271 purposes. Regardless of such issues, Qwest's core redesigned CMP has been in place for more than five months.

B. Qwest has met More than 98% of its Commitments under the Redesigned CMP.

Qwest tracks its compliance with various milestones set forth in the process. To date, Qwest has amassed an impressive compliance rate with the CMP:

- In processing CRs, Qwest has met more than 98% of its commitments.
- In introducing a new GUI, Qwest has met 100% of the milestones reached thus far.
- In changing an application-to-application interface, Qwest has met 100% of the milestones reached thus far.
- In changing a graphical user interface ("GUI"), Qwest has met 100% of the milestones reached thus far.
- In processing escalations, Qwest has met more than 98% percent of its commitments.

More detail regarding Qwest's implementation and compliance with the redesigned process is set forth below.

Section 1--Introduction and Scope. Qwest implemented the expanded scope more than six months ago. Between October 3, 2001 and March 26, 2002, Qwest has processed

154 new OSS interface CRs and 43 new product and process CRs. Qwest has rejected only a single process CR because it did not properly fall within the scope of the redesigned CMP. The CR requested a change to the method by which one of Qwest's performance indicator definitions ("PIDs") is measured. The redesign team subsequently agreed that changes to relating to PIDs and how they are measured are not within the scope of CMP.

Section 2 -- Managing the Change Management Process. The redesigned provisions have been in place for more than seven months. In fact, many of the requirements specified in this section have been in place for much longer. For example, CMP Managers have been in place since the inception of CMP in 1999. Qwest has modified the processes as agreements were reached by the redesign team. For example, CR Project Managers have been in place and fulfilling the roles and responsibilities described in this section since August 2001. Escalation/Dispute Resolution Managers have been in place and fulfilling the roles and responsibilities described in this section since September 2001.

Indeed, in its Draft Final Report, KPMG found that Qwest's CMP satisfactorily defines change management process responsibilities and activities.¹⁶ KPMG found that the CMP defines and describes the roles, responsibilities, and activities of the Qwest change management staff, other relevant Qwest employees, and CLEC representatives who participate in CMP. Specifically, KPMG further found that Qwest internal methods and procedures documentation contains information about the roles and responsibilities of the change management staff and relevant Qwest information technologies, product, and process groups. Further, the draft CMP document specifies that CLECs designate representatives as their respective points-of-contact

¹⁶ Draft Final Report, Test 23, Table 23-2 (MTP criterion 23-1), p. 528.

("POCs"). The POCs are responsible for submitting CRs, attending relevant CMP meetings, participating in the prioritization process, commenting on Qwest process documents, and providing feedback about proposed changes and CMP issues in accordance with specified processes and intervals. Finally, KPMG found that the draft CMP document is accessible on the Qwest CMP Web site, at which a Web-based POC update form and current POC information may be found.

Section 3 -- Meetings. The redesigned provisions have been in place for more than six months. In fact, many of the requirements specified in this section have been in place for much longer. For example, Qwest has conducted at least one CMP monthly meeting per month and provided meeting materials, referred to as distribution packages, since the inception of CMP in 1999. In October 2001, CMP monthly meetings were extended to two full day sessions at the request of the CLEC participants. An improved distribution package format was introduced in September 2001 for the product/process CMP meetings and in October 2001 for the systems CMP meetings. Qwest has recorded meeting minutes since August 15, 2001 for product/process CMP meetings, and since September 19, 2001 for systems CMP meetings. In addition, Qwest has made a number of improvements to its CMP web site as a result of the redesign effort.

Qwest also has met its obligations to (1) track and document the status of change requests; (2) hold regular CMP meetings; (3) provide meeting materials in advance of the meetings; and (4) record meeting discussion, action items, and issues. This information may be found on Qwest's CMP web site.¹⁷

¹⁷ See, e.g., <http://www.qwest.com/wholesale/cmp/changerequest.html> (linking to status of change requests); <http://www.qwest.com/wholesale/cmp/calendar.html> (linking to CMP calendars, meeting materials, and minutes).

Section 4 -- Types of Change. While the redesigned provisions have been in place for more than seven months, it is important to note that CLECs have had the ability to submit CRs since the inception of Qwest's CMP in 1999.¹⁸ Indeed, between January 1, 2000 and September 30, 2002 Qwest processed and closed 68 OSS Interface CRs. The redesigned process provides for Regulatory, Industry Guideline, CLEC Originated, and Qwest Originated CRs. Qwest has processed CRs in all of these categories.

Section 5 -- Change Request Initiation Process. Qwest has complied with the redesigned process for over five months. Qwest processed 103 new OSS Interface CRs in accordance with the redesigned process between November 1, 2001 and March 26, 2002. Qwest tracks nine milestones for each such CR. For the time period specified, Qwest is responsible for missing only five out of a possible 599 milestones. This equates to an average compliance rate of more than 99%. During that same period, Qwest processed 36 new product/process CRs in accordance with the redesigned process. Qwest tracks nine milestones for each such CR. For the specified time period specified above, Qwest is responsible for missing only seven out of a possible 231 milestones. This equates to an average compliance rate of 97%. Thus, Qwest's overall compliance rate for these 830 CRs exceeds 98%.

Section 6 -- OSS Interface Release Calendar. Qwest has complied with the improved OSS Interface Release for over five months. Qwest already provided a calendar that set forth OSS release information. The redesigned process included additional customer-facing system information. The revised OSS Interface Release Calendar was posted on the web in November 2001. Quarterly updates were posted on the web in January 2002 and April 2002.

¹⁸ The redesign team reached impasse regarding an issue relating to the definition of Regulatory CRs. As discussed in Qwest's Brief regarding Change Management, that issue has been resolved. However, the redesign

Section 7 -- Introduction of a New OSS Interface. The redesigned process for the introduction of a new OSS interfaces -- both application-to-application interfaces and GUIs -- has been in place for more than five months. Qwest has not introduced a new application-to-application OSS interface since agreement was reached. However, Qwest introduced a new GUI called FORCAST on March 8, 2002. There are six milestones Qwest tracks with the introduction of a new GUI. Qwest has complied with 100% of the five milestones that have already occurred with the introduction of FORCAST. The sixth milestone is the actual implementation date, which has not yet arrived.

Section 8 -- Change to Existing OSS Interfaces. The redesigned process incorporated many requirements that Qwest had already implemented for some time. For example, for more than two years, Qwest has implemented not more than three major IMA releases and three IMA point releases within a calendar year, spaced at least three months apart. Similarly, Qwest has provided versioning -- pursuant to which Qwest supported the previous major IMA release for six months after the subsequent major IMA EDI release has been implemented -- for more than two years.

More specifically, the process for changes to application-to-application interfaces pursuant to Section 8.1 has been in place for more than five months. Qwest introduced changes to an existing OSS application-to-application interface (IMA) on April 4, 2001. Qwest tracks six milestones for such changes. Qwest has complied with 100% of the first two milestones.¹⁹ The remaining four milestones have not yet occurred.

team had reached agreement on the other aspects of the Regulatory Change definition and the impasse resolution did not change the language contained in the definition.

¹⁹ Schultz Affidavit, ¶ 6.

Similarly, the process for changes to GUIs pursuant to Section 8.2 has been in place for more than five months. Qwest introduced changes to an existing GUI, the Customer Electronic Maintenance and Repair ("CEMR"), on April 7, 2001. Qwest tracks four milestones for such changes. Qwest has complied with 100% of the first three milestones. The remaining milestone has not yet occurred.

Qwest has implemented a performance indicator, PO-16, to measure the timeliness of release notifications for specified OSS interfaces.²⁰ Results for PO-16 have been reported for November 2001 through March 2002. Qwest met the benchmark for all but one month.²¹

Section 9 -- Retirement of Existing OSS Interfaces. The redesigned process for the retirement of an existing OSS interfaces has been in place for more than five months.

However, Qwest has not retired any OSS interfaces since agreement was reached.

Section 10 -- Prioritization. Much of the redesigned prioritization process has been in effect for more than eight months. Beginning in August 2001, CLECs began prioritizing Qwest Originated CRs. In August 2001, and again in October/November 2001, CLECs and Qwest jointly prioritized CLEC-Originated CRs and Qwest-Originated CRs for the IMA 10.0 Release. In February 2002, CLECs and Qwest jointly prioritized CLEC-Originated CRs, Qwest-Originated CRs, and Industry Guideline CRs for the IMA 11.0 Release. At that time, there were

²⁰ See also discussion of PO-16 in section VI.B, below.

²¹ See Colorado Commercial Performance Results at 66 (PO-16), available at <http://www.qwest.com/wholesale/results/roc.html>. PO-16 measures the timeliness of release notifications based on the intervals set forth in the Wholesale CMP. The redesign team agreed that the intervals for release notifications would apply beginning with the IMA 10.0 release. Thus, Qwest met the benchmark in all but one month even though the intervals only recently took effect with the April 4, 2002 release of the draft technical specifications for IMA Release 10.0.

only nine outstanding CLEC-initiated IMA CRs. Thus, CLECs have been able to prioritize Industry Guideline CRs, in addition to Qwest Originated and CLEC Originated CRs.

Section 11 -- Application-to-Application Interface Testing. SATE has been available to the CLECs since August 2001 and was used by CLECs to migrate their systems to the IMA 8.0 Release and later releases. Specifically, ten CLECs – five individually and an additional five through a service bureau -- have tested in SATE and are now in production.²²

Section 12 -- Production Support. Qwest has complied with the redesigned process for more than two months. Between February 2, 2002 and April 15, 2002, there were three planned outages. In each instance, Qwest met the specified notification intervals. Further, it has been Qwest's practice for some time to conduct post-deployment meetings, as it did to review the recent IMA 9.01 Release. Between February 1, 2002 and March 31, 2002 Qwest processed no trouble tickets with a severity level of 1, eleven tickets with a severity level of 2, 496 tickets with a severity level of 3, and three tickets with a severity level of 4.

Section 14 -- Escalation Process. Qwest has complied with the redesigned escalation process for over five months. Between November 16 and March 26, Qwest processed one OSS Interface escalation and four product/process escalations in accordance with the redesigned process. Qwest tracks eight milestones for each escalation. Qwest is responsible for missing one out of a possible 40 milestones. This equates to an average compliance rate of 98%.

Section 15 -- Dispute Resolution. The redesigned dispute resolution process has been in place for over five months. However, the process has not been invoked since agreement on the process was reached.

²² Affidavit of Lynn V. Notarianni in Support of Qwest's Comments Demonstrating Satisfaction of the FCC's Section 271 Change Management Evaluation Criteria ("Notarianni Affidavit"), attached as Exhibit C, ¶ 4.

Product Catalogs and Technical Publications. In compliance with its commitments during section 271 workshops, Qwest has also substantially revised or created 231 product catalogs ("PCATs") and 27 technical publications ("TechPubs").²³ Qwest notified CLECs of the opportunity for CLECs to provide comments or feedback regarding all of these PCATs and TechPubs. Moreover, as set forth in the Affidavit of Robert J. Hubbard in Support of Qwest's Comments Demonstrating Satisfaction of the FCC's Section 271 Change Management Evaluation Criteria ("Hubbard Affidavit"), attached as Exhibit D, the TechPubs listed by the Joint CLECs in their brief are consistent the SGAT, with only a single exception.²⁴ That exception relates to Technical Publication 77391, UNE Switching, issue E. In accordance with the redesigned CMP, Qwest posted Technical Publication 77391 to the TechPub review web site to allow CLECs to review and comment the Qwest proposed changes on December 28, 2001. In response to this posting, AT&T submitted comments suggesting several changes. Qwest agreed to incorporate two changes based on AT&T's comments. Thus, this single exception demonstrates that Qwest's process for managing changes to its TechPubs, and receiving CLEC comments regarding those changes, is functioning properly.

C. Qwest has Adequately Addressed All Significant Third Party Test Issues.

During the Regional Oversight Committee's OSS Test, the test vendors issued "Exceptions" when they encountered situations that could result in negative findings in their final reports. The ROC established a process for resolution of Exceptions, which provided that Qwest would respond to an Exception and the test vendor considered Qwest's response. CLECs were

²³ Schultz Affidavit, ¶ 8.

provided an opportunity to comment, and public calls were held to discuss open Exceptions. In appropriate circumstances, Qwest implemented revised processes or systems modifications to address the issues raised in an Exception. When appropriate, the test vendor evaluated the new process or conducted additional testing. Where the test vendor was satisfied that the issues it raised were resolved, it closed the Exception in a “resolved” status.

When the ROC OSS Test was established, the parties agreed that Qwest had the option to close any Exception in an “unresolved” status when it determined that further testing would not be productive. The test vendors will include discussions of closed/unresolved Exceptions in their final reports.

During the testing, the vendors issued a total of 256 Exceptions relating to all areas of testing. Qwest made numerous systems and process changes to resolve the vast majority of Exceptions. Virtually all of the Exceptions are now closed. The test vendors closed 247 of the Exceptions in a resolved status. Qwest elected the closed/unresolved status for only nine Exceptions. The Joint CLECs broadly claim that one closed/unresolved Exception, Exceptions 3094, and two Exceptions that KPMG closed in an inconclusive status, Exceptions 3110 and 3111, indicate that there are problems with Qwest's current CMP. Contrary to the Joint CLECs' vague claim, however, these Exceptions do not preclude Qwest from complying with the FCC's evaluation criteria.

²⁴ See Affidavit of Robert J. Hubbard in Support of Qwest's Comments Demonstrating Satisfaction of the FCC's Section 271 Change Management Evaluation Criteria ("Hubbard Affidavit"), attached as Exhibit C at ¶¶ 13-15.

1. Exception 3094

This exception relates to the product/process provisions of Qwest's CMP. In this exception, KPMG contended that Qwest did not adhere to its change management process in notifying CLECs about a particular proposed change.²⁵

As an initial matter, it is important to note that the FCC has focused solely on OSS systems -- not product or process -- change management processes in its section 271 orders. Verizon has no formal change management process for product or process issues, yet it has received several 271 approvals. SBC has a forum for process issues, known as the CLEC User Forum, but the FCC has not even mentioned that forum in its discussion of SBC's change management process.

Exception 3094 resulted from uncertainty that arose during the initial discussions of product and process issues in the redesign effort. The confusion that resulted in this Exception related to a previous interim process for product/process changes that Qwest and CLECs developed during the early redesign sessions. The uncertainty relating to those issues has been resolved by the redesign team's agreement on a detailed process for product/process changes. As fully described in Qwest's Brief regarding Change Management, Qwest has implemented the agreed-upon process.²⁶ However, KPMG was unwilling to close this Exception in a resolved status because it was unable to evaluate the new process in practice.

²⁵ KPMG Disposition Report for Exception 3094, issued April 4, 2002 ("E3094 Disposition Report"), attached as Exhibit E.

²⁶ The Interim Qwest-Initiated Product/Process Change Process is set forth on Qwest's web site at <http://www.Qwest.com/wholesale/CMP/whatiscmp.html>. The redesign team expects to reach final agreement regarding the few remaining issues on April 6, 2002, after which the interim process will be incorporated into the Wholesale CMP document.

The initial confusion surrounding the process that gave rise to this Exception has been eliminated by the detailed agreement reached through the redesign process. Because the new product/process procedures apply to all Qwest-initiated changes, there should be no future confusion relating to the appropriate process that applies to a particular change. Moreover, with the implementation of the interim process, Qwest's CMP provisions for product/process changes is more complete and comprehensive than any other CMP in the country.

Finally, the unresolved status of this Exception does not affect the Commission's evaluation of Qwest's CMP for section 271 purposes because the FCC has not required an RBOC to establish a change management process for product/process.

2. Exception 3110

In Exception 3110, KPMG expressed concern that Qwest's CMP managers do not employ a centralized mechanism to track and ensure that documentation release intervals are followed for upcoming software releases. In its Disposition Report regarding this Exception, KPMG stated that it had "reviewed Qwest internal process documents and verified that software and product/process documentation teams have procedures to prepare documents and distribute them in accordance with the intervals specified in the *Master Redlined CLEC-Qwest CMP Redesign Framework*."²⁷ Thus, KPMG was satisfied that Qwest had implemented procedures to ensure that it complies with its release notification intervals. However, because KPMG had not observed adherence to the documented process for notification interval management, KPMG recommended that Exception 3110 be closed as inconclusive. As noted above, Qwest has an overall 98% compliance rate on its CMP obligations. More to the point, Qwest has adhered to

²⁷ KPMG Disposition Report for Exception 3110, issued April 2, 2002 ("E3110 Disposition Report"), attached as Exhibit F.

100% of the OSS interface release documentation interval notification milestones it has reached thus far. Qwest's record of compliance, coupled with its success in adhering to the very notification intervals that are the subject of the Exception, demonstrate that Qwest's tracking and verification procedures are adequate.

3. Exception 3111

Exception 3111 relates to Qwest's process for prioritizing and packaging CRs for major IMA releases. In its Disposition Report, KPMG noted that it had "verif[ied] that Qwest had adequately addressed each of the five issues raised in the Exception through documentation modifications and enhancements to the process."²⁸ KPMG observed the prioritizing and packaging process for IMA Releases 10.0 and 11.0. However, because it observed portions of the processes for each release, KPMG believed that Qwest did not comply with the CMP processes because Regulatory Changes were not prioritized for IMA Release 10.0, Qwest did not provide CLECs with total capacity information prior to the prioritization votes on IMA 10.0, and that Qwest did not participate in the prioritization process for IMA 10.0. In its responses to this Exception, Qwest addressed all three of these issues.

First, there were Regulatory CRs in both the IMA 10.0 and 11.0 Releases that were subject to the prioritization process as defined for Regulatory CRs, which included "above the line" treatment -- meaning that Regulatory CRs appeared at the top of the list of CRs to which resources are assigned. In addition, both the IMA 10.0 and 11.0 Releases included ordinary normal CRs that were subjected to the prioritization process as ranked CRs -- meaning

²⁸ KPMG Disposition Report for Exception 3111, issued April 2, 2002 ("E3111 Disposition Report"), attached as Exhibit G.

that those CRs were ranked below the Regulatory CRs. Thus, KPMG had ample opportunity to review the prioritization process for both types of CRs.

The fact that Qwest and the CLECs were at impasse over whether PID/PAP related CRs should be treated as Regulatory CRs or as normal CRs during the prioritization process for the IMA 10.0 and 11.0 Release did not affect KPMG's ability to evaluate Qwest's adherence to the prioritization process. The resolution of this issue did not change the prioritization process itself, but simply determined which path ("above the line" or ranked) an individual CR will take through the process. KPMG has already observed both paths.

Second, Qwest provided the CLECs with the total capacity of the IMA 11.0 Release prior to the packaging. Thus, KPMG was able to observe Qwest's adherence to the process in that respect.

Third, Qwest demonstrated that it did participate in the prioritization process for IMA 10.0.

Thus, the issues KPMG raised did not prevent KPMG from observing Qwest's adherence to the various aspects of the prioritization and packaging process. However, because KPMG had not observed Qwest's adherence to the complete end-to-end prioritization and packaging process for a single major system release, KPMG recommended that this Exception be closed as inconclusive. KPMG has already observed Qwest's adherence to each phase of the prioritization and packaging processes for major system releases that were in place and agreed to via CMP at the time of executing the process. These observations demonstrated Qwest's compliance with the process. No further showing is necessary.

D. Qwest is Adhering to the Procedural Safeguards Contained in the Redesigned CMP.

The evidence set forth above establishes that Qwest is adhering to its redesigned CMP. CLECs have raised only four situations in which they claim Qwest failed to adhere to its established processes.²⁹ Of these, two do not involve any deviation from Qwest's established CMP and one is not supported by the facts. Thus, the Joint CLECs could only point to a single instance where Qwest did not meet its obligations under the CMP. This single instance provides little support to the CLECs' claims because it arose outside of the ordinary CMP processes. This scant showing is consistent with the evidence that, as discussed above, establishes that Qwest's overall compliance rate exceeds 98%.

1. Qwest Adheres to its Notification Provisions.

In an odd twist, the Joint CLECs attack Qwest's compliance record by attempting to recast Qwest's actual compliance with the CMP's production support provisions as a failure to comply with the product/process provisions. Not surprisingly, this attempt falls short.

Exhibit I to the Joint CLEC Brief is an "Event Notification" dated April 4, 2002. The CLECs claim that this notification failed to comply with the Qwest-initiated product/process change process, which Qwest agreed to implement for new product/process changes initiated on or after April 1, 2002, by changing NC/NCI codes without notice, i.e., effective immediately. This claim is misguided because the Event Notification neither changed NC/NCI codes, nor was it effective immediately.

This Event Notification was plainly sent in accordance with the CMP's production support provisions. The Event Notification indicates that it is a closure notification and that the

²⁹ See Joint CLEC Brief.

initial notification was sent on March 4, 2002. The March 4, 2002 notification, which is attached to the Schultz Affidavit,³⁰ states:

Qwest has discovered several outdated NC/NCI Code combinations in the IMA NC Code Validation database. Effective April 4, 2002, these code combinations will no longer be considered valid and the code sets as documented in Technical Publication 77384 will be required.

Thus, in the March 4, 2002 Event Notification, Qwest notified the CLECs that it had discovered a problem. This notice did not purport to change any NC/NCI codes, but simply advised that outdated codes that do not appear in the relevant TechPub would no longer be considered valid. Because this was not a notice that changed the NC/NCI codes, but only identified NC/NCI codes that were invalid, the product/process change provisions cited by the Joint CLECs do not apply.

A cursory review of the Joint CLECs' Exhibit I plainly indicates that it is an Event Notification pursuant to Section 12, Production Support, of the Wholesale CMP, which describe such notifications in detail. Indeed, the words "Event Notification" appear in large, bold letters across the top of the notice. The Event Notification also states that it was sent to advise that Qwest had experienced trouble with specified systems, contains a Ticket Number, and identifies the Ticket Severity as 3, all in accordance with Sections 12.4 and 12.5 of the CMP relating to production support trouble tickets and event notifications.

Moreover, the April 4, 2002 Event Notification clearly references the initial notification and indicates that it is a closure of that initial notification. And, contrary to the Joint CLECs' claim that the Event Notification was effective immediately, the April 4, 2002 Event

³⁰ See Schultz Affidavit at ¶ 7 and Attachment 3.

Notification was actually issued 31 days after the initial notification -- thus providing CLECs the 31 calendar day notification they complained that they did not receive.

The April 4, 2002 Event Notification represents Qwest's adherence to the CMP's production support provisions. The Commission should reject the Joint CLECs' attempt to recast Qwest's compliance as noncompliance.

2. The Facts Show that Qwest has Provisioned ISDN Loops for CLECs where Integrated Pair Gain is Present.

Qwest developed a checklist that is reviewed when changes are made to Qwest's retail products, processes, center operations, or systems to determine whether any action is necessary to maintain retail and wholesale parity. Qwest discussed the checklist and associated methods and procedures with the CLECs during a redesign meeting and the CLECs agreed the process was adequate. Indeed, the Joint CLECs concede that Qwest has implemented "adequate processes to ensure timely and adequate notification to wholesale customers of retail changes that impact[] them as well as to ensure parity between Qwest's retail and wholesale customers."⁶¹

In their brief, the Joint CLECs now claim that Qwest has not adhered to the process, claiming that Qwest failed to notify its wholesale customers of a "change in retail product and process" relating to the availability of ISDN loops on which there is integrated pair gain ("IPG").³² As set forth below, there was no change in Qwest's retail product or process. Qwest has continuously provisioned such loops for CLECs for more than three years.

The Joint CLECs' claim is supported solely by the Affidavit of Sheila Hoffman, a Covad employee. Covad claims that, in March 2000, Qwest informed Covad that Qwest could not provision ISDN loops where there was IPG on the loop. As a result, Covad claims that it

³¹ Joint CLEC Brief at 15.

decided not to place orders for ISDN loops with IPG. Covad claims that it only recently learned that Qwest could provision ISDN loops when IPG is present and had been provisioning such loops for its retail customers. The facts -- and Covad's order history -- tell a very different story.

First, there is no basis for the claim that Qwest could not provision ISDN loops when IPG is present. While Qwest initially experienced difficulties with the provisioning of loops for DSL services, Qwest's Held Order group worked directly with the CLECs, *including Covad*, throughout 2000 to implement alternative solutions. In fact, Qwest met with Covad regarding this issue in February and April 2000.³³ Covad clearly knew that Qwest could provision ISDN capable loops with IPG.

More importantly, the lynchpin of this claim is Covad's contention that it decided not to place orders for ISDN loops where IPG was present because it believed that Qwest could not provision such a loop. Contrary to this claim, Covad has in fact placed orders for and Qwest has provisioned such loops for Covad. Moreover, Qwest began provisioning ISDN loops for Covad where IPG was present in early 1999 and continues to do so through the present time. Indeed, over 20% of Covad's ISDN loops in service in Colorado use the ISDN INA di-group solution.³⁴ Thus, contrary to the statements in Ms. Hoffman's affidavit, Covad has ordered and Qwest has provisioned ISDN loops where IPG is present continuously for more than three years.³⁵

Thus, Covad's own order history establishes that there was no "change" in Qwest's provisioning ISDN loops where IPG is present. Indeed, the discussions during the workshops

³² In this context, IPG also refers to integrated digital loop carrier ("IDLC"). *See* Hubbard Affidavit at ¶ 2.

³³ Hubbard Affidavit at ¶ 4.

³⁴ Hubbard Affidavit at ¶ 6.

established that Qwest employs the same eleven-point process to assign facilities for wholesale and retail.³⁶ Consequently, no notification to CLECs relating to the availability of ISDN loops with IPG was required or appropriate. The Joint CLECs' claim to the contrary has no merit.

New Edge has raised a similar issue, claiming that Qwest has violated its obligation to provide nondiscriminatory access to unbundled network elements.³⁷ Qwest will respond separately to New Edge's letter. However, even if one assumes for the purposes of evaluating Qwest's CMP that New Edge's claims are true, those claims would indicate a possible miscommunication between Qwest and a CLEC, rather than a process issue relating to Qwest's CMP. Further, Qwest's history of provisioning ISDN loops for CLECs where IPG is present establishes that Qwest is not discriminating against CLECs. As an initial matter, Qwest has in fact provisioned ISDN loops with IPG for CLECs in Colorado, *including New Edge*, that were in service as of March 2002.³⁸ In fact, the number of such loops Qwest has provisioned for CLECs has steadily increased -- in fact, doubled since August 2000 -- indicating that CLECs have ordered these loops in increasing numbers over the last year and a half. Moreover, as of March 2002, while there were more than 3200 ISDN loops in service in Colorado for CLECs, including 716 such loops where IPG is present, there were a *total* of only 22 IDSL loops -- regardless of the existence of IPG -- in service for Qwest's own retail customers.³⁹ Even assuming that every one of those 22 loops were provisioned with IPG, there were more than 32 times more such loops in service for CLECs than for Qwest's own retail customers. These facts plainly establish

³⁵ Hubbard Affidavit at ¶ 5.

³⁶ Hubbard Affidavit at ¶ 11.

³⁷ Letter from Penny H. Bewick of New Edge to Commission Chairman Gifford, dated April 11, 2002.

³⁸ Hubbard Affidavit at ¶ 6.

³⁹ Hubbard Affidavit at ¶ 6-7.

that Qwest has not violated its obligation to provide nondiscriminatory access to ISDN loops where IPG is present.

3. Qwest is Working with CLECs through the CMP to Address the Issues Relating to its Preferred Local Carrier Freeze.

The Joint CLECs concede that changes in processes will not always occur seamlessly and without impacts to CLECs. Nonetheless, they point to one particular issue in an attempt to discredit Qwest's CMP. Rather than support their claims, however, the Joint CLECs' contentions regarding Qwest's Local Service Freeze ("LEFV") actually establish that Qwest's CMP is working properly to address AT&T's issues.

Qwest's LEFV removal process has been in place for many months. The process provided that a CLEC can submit a local service request ("LSR") to convert a Qwest retail customer to a CLEC customer the day after the customer removed its LEFV. In late February 2002, AT&T began experiencing problems with the process. Qwest now believes that the problems AT&T experience may have been due in part to customer confusion in requesting to remove a "PIC" freeze, rather than the Local Service Freeze, and to a backlog of orders to add a local freeze that were worked by Qwest's vendor during mid-February.

Regardless of the nature of the problems, however, AT&T's own recitation of the events establishes that Qwest worked with AT&T both in and outside of the CMP forum to address AT&T's issues.⁴⁰ The following brief chronology of events summarizes how AT&T's change request ("CR") regarding the process for removing the LEFV from Qwest residential accounts has been processed through CMP.⁴¹

⁴⁰ See Joint CLEC Brief, Exhibit E and attachments.

⁴¹ In addition to the events listed, Qwest has responded to various oral and written inquiries from AT&T regarding the LEFV issue submitted in through the CMP and on a business-to-business basis.

- March 8, 2002 -- AT&T submitted a CR regarding the process for removing the LEFV from Qwest residential accounts.
- March 18, 2002 -- Qwest held a clarification call with AT&T to discuss the CR. Section 5.3 of the Wholesale CMP requires this call to be held within eight business days after receiving the CR. In this case, Qwest held the clarification call on the sixth business day after AT&T submitted the CR.
- March 20, 2002 -- At the March 20, 2002 monthly CMP meeting, AT&T presented the CR as a walk-on item because this CR was not submitted three weeks before that meeting, as required by Section 5.3 of the Wholesale CMP. Otherwise, under the agreed process, the CR would not have been discussed until the April 17, 2002 monthly meeting. At the March 20, 2002, AT&T also requested that this CR be processed under the exception process, which refers to a process by which any request for a deviation from the normal process is requested. The CLEC community agreed that this CR could be processed as an exception to normal procedures. Exception processing does not specify particular timeframes, but allows the parties to determine the appropriate course of action on a case-by-case basis.

-- On March 20, 2002, Qwest established a toll-free number for AT&T and its customers to call to remove the LEFV to address AT&T's concern that multiple calls were required to remove the LEFV. This number is still in effect and can be used by all CLECs and their customers.

- March 22, 2002 -- Qwest established a process that allowed CLECs to include the removal order number on their LSRs to allow those LSRs to be processed on the same day the LEFV was removed, rather than the next day.
- March 26, 2002 -- Qwest held a general clarification call with CLECs regarding AT&T's CR. On this call, AT&T requested that the toll-free number be maintained and that Qwest appoint a point of contact to deal with LEFV removal issues.
- On April 4, 2002, Qwest held a follow-up call with CLECs regarding this issue.

Thus, through the existing CMP procedures, Qwest quickly responded to AT&T's most pressing concerns by establishing a toll-free number for LEFV removal and a process by which the CLEC can include the removal order number on its LSR so the LSR can be processed the same day the LEFV is removed. In addition, Qwest established a point of contact for LEFV escalations. While the parties continue to work through all of AT&T's concerns relating to this issue, the existing CMP procedures were adequate to quickly address AT&T's most immediate concerns.

4. Qwest has Observed the CMP Production Support Process.

The Joint CLECs have identified a single circumstance in which Qwest failed to notify the CLECs of changes made in conjunction with the Arizona third party OSS test. The third party tester in Arizona identified issues relating to the information Qwest sends to CLECs in the daily usage feed ("DUF"). Under normal circumstances, a CLEC would contact Qwest's help desk and open a trouble ticket to report such issues. However, because the issues arose during the third party test, the tester notified Qwest of the issues through the incident work order

process established for purposes of the OSS test. While the closure of the trouble ticket would ordinarily trigger Qwest's issuance of a production support notification, these DUF issues arose during the third party test, outside of the normal CMP process. Accordingly, the production support notification was not triggered.

It is important to note that, despite this isolated occurrence, Qwest has complied with more than 98% compliance rate for its production support obligations. This occurrence is one of the few that fall within the remaining less than 2%.

V. QWEST ADEQUATELY ASSISTS COMPETITORS IN IMPLEMENTING AND USING QWEST'S OSS.

As part of its change management analysis, the FCC evaluates whether the BOC "is adequately assisting competing carriers to understand how to implement and use all of the OSS functions available to them."⁴² The adequacy of Qwest's technical assistance is borne out by the commercial data, which show that Qwest resolves gateway outages and responds to CLEC calls placed to its help desks in a timely manner. The Third Party Test results also support the conclusion that Qwest adequately assists CLECs in their use of available OSS functions.

A. Qwest's Technical Assistance for CLECs

Qwest offers CLECs an extensive array of training and assistance with respect to its OSS. One of the most useful sources of information for CLECs is the Qwest Wholesale Website.⁴³ In part in response to the experience of the Section 271 workshops and the Third Party Test, Qwest committed to a complete content enhancement of its Wholesale Website. Beginning in the second quarter of 2001, Qwest expanded its existing documentation and provided additional wholesale documentation via the website. The redesigned website provides CLECs with a one-stop shop for CLEC support materials, including information on establishing a wholesale relationship with Qwest, specific products and services through the Product Catalog ("PCAT"), and information on Qwest CLEC training programs.

Qwest has in place an extensive account establishment and account management program to assist CLECs in setting up and maintaining their relationships with Qwest. To

⁴² Arkansas/Missouri 271 Order, 16 FCC Rcd at 20865, App. D at ¶ 40, quoting Bell Atlantic New York 271 Order, 15 FCC Rcd at 3999-4000, ¶102.

⁴³ The Qwest Wholesale Website is available at <http://www.qwest.com/wholesale>.

establish a wholesale account with Qwest, CLECs are provided with a clearly delineated, step-by-step process that is designed to ensure that CLECs can get started as telecommunications providers in Qwest's region, remain well-informed of Qwest's processes, and have their questions answered quickly and efficiently.⁴⁴

Qwest also offers CLECs instructor-led classroom training on multiple OSS-related topics. Qwest expanded its course curriculum in February 2001. As a result of this redesigned training program, Qwest made available to CLECs approximately 20 different instructor-led training courses in multiple cities throughout Qwest's 14-state territory in 2001.⁴⁵ Over 1,000 CLEC employees, representing 198 different CLECs, have attended more than 180 classes covering approximately 20 different courses in 2001.⁴⁶ Qwest is maintaining a similar curriculum in 2002. Instructor-led training is available to CLECs on a wide variety of topics, encompassing product-specific courses, as well as process and system courses.

In addition to instructor-led classroom training, Qwest makes available numerous web-based interactive training programs and downloadable courses via the Wholesale Website. Qwest offers 35 web-based interactive training programs to CLECs. Qwest makes web-based training programs available to CLECs on a variety of products, as well as offering process and systems-based training courses.⁴⁷ Also via the Wholesale Website, Qwest makes available 25 additional downloadable courses that CLECs may access.⁴⁸

⁴⁴ This process can be found on the Wholesale Website at http://www.qwest.com/wholesale/clecs/clec_index.html.

⁴⁵ See Notarianni Affidavit, ¶ 3.

⁴⁶ Id.

⁴⁷ Information on Qwest's web-based training offerings can be found on the Wholesale Website at <http://www.qwest.com/wholesale/training/>.

⁴⁸ Further information on the downloadable courses may be found on the Wholesale Website at <http://www.qwest.com/wholesale/training/>.

Qwest provides CLECs with a wide array of reference materials and Job Aids – most available via the Wholesale Website and in a downloadable format. Qwest updates and revises its reference materials on an ongoing basis to reflect new system releases or product updates. These reference materials include the following:

- IMA-GUI Connection Guide
- IMA-GUI CLEC Administration Guide
- IMA-GUI Users Guide
- IMA-EDI Implementation Guide
- IMA-EDI Disclosure Document
- Product Catalog ("PCAT")
- CEMR Users Guide

To provide ongoing support to CLECs in their business operations, Qwest maintains two Help Desks to respond quickly and efficiently to CLEC inquiries. The first is a systems Help Desk, the IT Wholesale Systems Help Desk ("WSHD"), the purpose of which is to assist CLECs with service-related OSS questions, such as connectivity, digital certificates, password resets, outputs and system troubles. The second is a process Help Desk, the Interconnect Service Center ("ISC") Call Center, the purpose of which is to assist CLECs with process-related questions and functional issues, such as support related to LSR processing and help with investigating order status.⁴⁹

⁴⁹ See Draft Final Report, Test 24.7, § 2.0, p. 620 (WSHD); *id.* at Test 24.8, § 1.0, p. 24.8-A-1 (ISC).

B. Commercial Data

The commercial performance results support the conclusion that Qwest adequately assists CLECs in the use of available OSS functions. Qwest has met or exceeded the three PIDs for the past four months that are relevant to technical assistance.⁵⁰ PID GA-7 evaluates the "timeliness of resolution of gateway of system outages attributable to software releases for specified OSS interfaces."⁵¹ PID OP-2 evaluates the timeliness with which Qwest responds to CLEC calls placed to the ISC Call Center.⁵² PID MR-2 "evaluates Customer access to Qwest's interconnection and/or Retail Repair Center(s), focusing on the number of calls answered within 20 seconds."⁵³ In fact, Qwest has met or exceeded GA-7 for each of the past five months,⁵⁴ and met or exceeded PIDs OP-2 and MR-2 for each of the past 12 months.⁵⁵

C. Third Party Test Results

The ROC Third Party Test also evaluated Qwest's CLEC support programs, in whole or in part, in several evaluations: (1) several tests contained within the Qwest CLEC Support Processes and Procedures Review (Test 24); (2) an Evaluation of Qwest's Order and Transaction Creation Documentation and Maintenance (Test 10); (3) a P-CLEC OSS Interface Evaluation (Test 12-B); (4) a P-CLEC Account Management Evaluation (Test 12-C); (5) a POP Manual Order Processing Evaluation (Test 12.8); (6) a M&R Work Center Support Evaluation

⁵⁰ See Colorado Commercial Performance Results at 31 (GA -7); 68 (OP-2); 206 (MR-2).

⁵¹ See ROC 271 Working PID Version 4.0, October 22, 2001, at 6 (GA -7).

⁵² See id. at 27 (OP-2).

⁵³ See id. at 42 (MR-2).

⁵⁴ See Colorado Commercial Performance Results at 31 (GA -7).

⁵⁵ Id. at 68 (OP-2); 206 (MR-2).

(Test 18.7); (7) an End-to-End M&R Process Evaluation (Test 18.8); and (8) a Daily Usage Feed Returns, Production and Distribution Process Evaluation (Test 19.6). As explained more fully below, Qwest successfully passed these tests with regard to technical support functions as reflected in the *Draft Final Report*.

In Test 24, the Qwest CLEC Support Processes and Procedures Review, KPMG evaluated all facets of the systems, processes and documentation provided by Qwest for the establishment and maintenance of business relationships with Qwest.⁵⁶ KPMG evaluated the following five⁵⁷ areas of support that Qwest provides to CLECs:

- Account Establishment & Management
- CLEC Training
- Interface Development
- Wholesale Systems Help Desk Support
- Interconnect Service Center (ISC) Support

The Account Establishment & Management Review ("AE&M Review") evaluated Qwest's methods and procedures, processes and practices for establishing and managing CLEC account relationships.⁵⁸ The object of the AE&M Review was to determine the adequacy and completeness of Qwest's account management procedures.⁵⁹

⁵⁶ See Qwest OSS Evaluation Project, Master Test Plan, Version 5.2, April 9, 2002, at Section 24, p. 110, available at <http://www.nrri.ohio-state.edu/oss/master/master.htm>.

⁵⁷ Test 24 included three additional reviews that are not discussed herein because they are outside the scope of technical assistance: Test 24.4 (CLEC Forecasting Review); Test 24.9 (Network Surveillance & Outage Support Review); and Test 24.10 (ISC/Billing and Collection Center Support Review).

⁵⁸ See Draft Final Report, Test 24.3, §1.0, p. 545.

⁵⁹ Id.

In its *Draft Final Report*, KPMG concluded that Qwest's account establishment and management processes meet the needs of the CLEC community.⁶⁰ Specifically, KPMG found that account establishment and management responsibilities and activities are defined; account management staff is organized to provide account coverage; instructions for contacting account managers are defined and published; and procedures for escalating critical and unresolved customer issues are defined and adhered to.⁶¹ Of 11 evaluation criteria, HP concluded that Qwest had satisfied 10 criteria in the Draft Final Report.⁶² One criterion resulted in an unable to determine finding, but as noted in the *Draft Final Report*, this and all other exceptions and observations were closed satisfied prior to the issuance of the *Draft Final Report*.⁶³ Further details on the results of the AE&M Review can be found in Section 24.3 of the *Draft Final Report*.

The CLEC Training Review ("CLEC TR") evaluated Qwest's training practices and documentation for CLECs engaged in establishing and maintaining a business relationship with Qwest.⁶⁴ The objective of the CLEC TR was to determine the existence and functionality of Qwest's procedures for developing, announcing, conducting and monitoring its CLEC training programs.⁶⁵

⁶⁰ See Draft Final Report, Test 24.3, Table 24.3-2, p. 548.

⁶¹ Id.

⁶² Id.

⁶³ Id.

⁶⁴ See Draft Final Report, Test 24.5, § 2.0, p. 568.

⁶⁵ Id.

The results of the CLEC TR appear in Table 24.5-2 of the *Draft Final Report*. As noted in that table, Qwest satisfied every component of the examination.⁶⁶ Specifically, KPMG found that training process responsibilities and the scope of the training process are defined and documented, and that the essential elements of the training process are in place and documented.⁶⁷ KPMG also found that Qwest's training offerings are scalable in response to additional demand, and that training process performance metrics are defined and measured.⁶⁸ Of 10 evaluation criteria, HP concluded that Qwest had satisfied all 10 criteria in the Draft Final Report.⁶⁹ Within this test, every exception and observation noted by KPMG was closed satisfied prior to the issuance of the *Draft Final Report*.

The Wholesale Systems Help Desk Review ("WSHD Review") evaluated Qwest's IMA help desk functions that provide technical support for Qwest's OSS interfaces and for other systems-related issues.⁷⁰ The object of the WSHD Review was to determine the adequacy, completeness, and consistency of WSHD processes and whether WSHD procedures are followed by Qwest personnel.⁷¹

In its *Draft Final Report*, KPMG concluded that Qwest's WSHD and its procedures meet the needs of the CLEC community.⁷² Specifically, KPMG found that WSHD responsibilities and activities are defined and documented; customers can initiate the trouble ticket process and access the status of a trouble ticket; and customer escalation procedures are

⁶⁶ See Draft Final Report, Test 24.5, Table 24.5-2, p. 570.

⁶⁷ Id.

⁶⁸ Id.

⁶⁹ Id.

⁷⁰ See Draft Final Report, Test 24.7, § 1.0, p. 620.

⁷¹ Id.

defined and documented.⁷³ Of 13 evaluation criteria, HP concluded that Qwest had satisfied all 13 criteria in the Draft Final Report.⁷⁴ Within this test, every exception and observation noted by KPMG was closed satisfied prior to the issuance of the *Draft Final Report*. Further details on the results of the WSHD Review can be found in Section 24.7 of the *Draft Final Report*.

The Interconnect Service Center Support Review ("ISCS Review") evaluated Qwest's service center processes developed by Qwest to support resellers and CLECs with OSS-related questions, escalations, problems and issues.⁷⁵ As it relates to the ISC Call Center, the object of the ISCS Review was to determine the completeness and consistency of ISC processes and responses, determine whether the escalation procedure is documented and known to ISC representatives and management, and determine the accuracy and completeness of procedures for measuring ISC performance.⁷⁶

In its *Draft Final Report*, both HP and KPMG concluded that Qwest's ISC and its procedures meet the needs of the CLEC community.⁷⁷ Specifically, HP was able to reach the ISC Call Center and obtain complete and accurate information when HP required assistance with transaction processing or interpretation of information.⁷⁸ KPMG found that ISC support processes are documented, followed, and meet the needs of the CLEC community.⁷⁹ Of two applicable evaluation criteria contained within the evaluation, HP concluded that Qwest had

⁷² See Draft Final Report, Test 24.7, Table 24.7-4, p. 627.

⁷³ Id.

⁷⁴ Id.

⁷⁵ See Draft Final Report, Test 24.8, § 1.0, p.24.8-A-1.

⁷⁶ Id.

⁷⁷ See Draft Final Report, Test 24.8, Table 24.8-1.4 (MTP criteria 24.8-1-1 to 24.8-1-3), p. 24.8-A-6; id. at Table 24.8-4 (MTP criteria 24.8-1 to 24.8-12), p. 645.

⁷⁸ Id.

satisfied both criteria in the *Draft Final Report*.⁸⁰ Similarly, KPMG concluded that Qwest had satisfied all 12 test criteria.⁸¹ Within this test, every exception and observation noted by HP or KPMG was closed satisfied prior to the issuance of the *Draft Final Report*. Further details on the results of the ISCS Review can be found in Tables 24.8-1.4 and 24.8-4 of the *Draft Final Report*.

In the Evaluation of Qwest's Order and Transaction Creation Documentation and Maintenance, HP examined "the guidelines and business rule documentation available to the CLEC community to instruct them on how to prepare the forms and other documents required to submit orders and other transactions to Qwest's OSS."⁸² In the *Draft Final Report*, HP concluded that Qwest's guidelines and business rules documentation, including Qwest training materials, meet the needs of the CLEC community.⁸³ Specifically, HP found that Qwest's training and other documentation are readily available to the CLEC community, comprehensive in their nature, and are accurate and consistent with other materials provided to the CLEC community.⁸⁴ Of 107 evaluation criteria, HP concluded that Qwest had satisfied all 107 criteria in the *Draft Final Report*.⁸⁵ The criteria applicable to technical assistance are contained within Table 10-1.26 of the *Draft Final Report*. Within this test, every exception and observation noted by HP was closed satisfied prior to the issuance of the *Draft Final Report*.

79 See *Draft Final Report*, Test 24.8, Table 24.8-4 (MTP criteria 24.8-1 to 24.8-12), p. 645.

80 See *Draft Final Report*, Test 24.8, Table 24.8-1.4 (MTP criteria 24.8-1-1 to 24.8-1-3), p. 24.8-A-6.

81 See *id.* at Table 24.8-4 (MTP criteria 24.8-1 to 24.8-12), p. 645.

82 *Draft Final Report*, Test 10, § 1.0, p. 10-A-1.

83 *Id.* at Table 10-1.26, p. 10-A-35.

84 *Id.*

85 *Id.*

The P-CLEC Interface Evaluation "analyzed [HP's] ability to establish interface connectivity with Qwest to carry out various wholesale activities."⁸⁶ During this evaluation, HP examined the documentation and support processes that Qwest makes available to support its interfaces, including IMA-EDI, billing, and M&R interfaces. In general, HP's findings relating to the documentation and support processes of Qwest were favorable. Further information on HP's findings can be found in Test 12-B of the *Draft Final Report*.

In the P-CLEC Account Management Evaluation, HP evaluated "all aspects of the Qwest CLEC account relationship that arose during [HP's] execution of its planned testing activities."⁸⁷ The purpose of this evaluation was to ensure that Qwest's Wholesale account establishment and management processes allows CLECs to compete within Qwest's local service territory.⁸⁸

As noted in the *Draft Final Report*, HP found that Qwest's account establishment and management processes meet the needs of the CLEC community.⁸⁹ Specifically, HP "found the overall relationship with its Qwest Account Team to be positive,"⁹⁰ and that "Qwest's published Account/Service Management guidelines, in conjunction with the approach Qwest takes to address the needs of CLECs, on a case-by-case basis for issues, special requests, escalations and other issues, was sufficient to meet [HP's] needs."⁹¹ During the course of Test 12-C, HP cited a few deficiencies relating to the account establishment process and the quality of

⁸⁶ Draft Final Report, Test 12-B, § 1.0, p. 12-B-1.

⁸⁷ Draft Final Report, Test 12-C, § 1.0, p. 12-C-1.

⁸⁸ Id.

⁸⁹ Id. at § 3.1, p. 12-C-4.

⁹⁰ Id. at § 3.1.1, p. 12-C-4.

⁹¹ Id. at § 3.1.3, p. 12-C-5.

input provided by Qwest subject matter experts, but noted in the *Draft Final Report* that all observations and exceptions were subsequently closed satisfied.⁹²

In the POP Manual Order Processing Evaluation, KPMG conducted "an operational analysis of Qwest's manual order handling processes at the Interconnect Service Centers (ISCs) that serve [CLECs]."⁹³ As noted in the *Draft Final Report*, KPMG found that Qwest's manual order handling processes at the ISC meet the needs of the CLEC community. Of 10 evaluation criteria, KPMG concluded that Qwest had satisfied all 10 criteria in the *Draft Final Report*.⁹⁴ Further information on KPMG's findings can be found in Test 12.8 of the *Draft Final Report*.

The M&R Work Center Support Evaluation ("M&RWCSE") was a comprehensive operational analysis of the work center processes developed by Qwest to respond to CLEC questions, problems and issues pertaining to wholesale trouble reporting and repair operations.⁹⁵ The object of the M&RWCSE was to evaluate Qwest's M&R work center support operations and its adherence to common procedures.⁹⁶ As noted in the *Draft Final Report*, Qwest satisfied all 19 components of the M&RWCSE.⁹⁷ Results for the criteria relevant to technical assistance appear within Table 18.7-2 of the *Draft Final Report*.

⁹² See Draft Final Report at Appendix A.

⁹³ Draft Final Report, Test 12.8, § 1.0, p. 135.

⁹⁴ Draft Final Report, Test 12.8, Table 12.8-3 (MTP criteria 12.8-6 and 12.8-9), p. 148.

⁹⁵ See Draft Final Report, Test 18.7, § 1.0, p. 364.

⁹⁶ Id.

⁹⁷ Id. at Table 18.7-2 (MTP criteria 18.7-1-1 to 18.7-8-4, p. 371).

The End-to-End M&R Process Evaluation measured the functional equivalence of Qwest's M&R processing for wholesale and retail trouble reports.⁹⁸ Through this evaluation, KPMG evaluated the entirety of support provided to CLECs via two M&R help desks, the Account Maintenance Service Center ("AMSC") and the Repair Call Handling Centers ("RCHCs").⁹⁹ Qwest satisfied all 13 components of this evaluation.¹⁰⁰ Results for the criteria relevant to technical assistance appear within Table 18.8-2 of the *Draft Final Report*.

The Daily Usage Feed Returns, Production and Distribution Evaluation was an "operational analysis of the processes and related documentation used by Qwest to create and transmit the DUF files, accept DUF returns, and investigate potential errors."¹⁰¹ With regard to technical assistance, KPMG found that CLECs are provided with sufficient contacts for DUF production and distribution issues and that Qwest's DUF documentation is adequate to meet the needs of the CLEC community.¹⁰² In addition, KPMG found that changes to DUF interface specifications are subject to change management techniques.¹⁰³ Results for the criteria relevant to technical assistance appear within Table 19.6-2 of the *Draft Final Report*.

VI. QWEST'S EDI DOCUMENTATION ENABLES COMPETITORS TO SUCCESSFULLY BUILD AN ELECTRONIC GATEWAY.

As part of its CMP analysis, the FCC evaluates the "efficacy of the documentation [a BOC] makes available for the purpose of building an electronic gateway."¹⁰⁴ Specifically, the

⁹⁸ See Draft Final Report, Test 18.8, § 1.0, p. 395.

⁹⁹ See Draft Final Report, Test 18.8, § 2.0, p. 395.

¹⁰⁰ Id. at Table 18.8-2 (MTP criteria 18.8-1-1 to 18.8-3-4), p. 399.

¹⁰¹ Draft Final Report, Test 19.6, § 1.0, p. 430.

¹⁰² See Draft Final Report, Test 19.6, Table 19.6-2, p. 433.

¹⁰³ Id. at Table 19.6-2 (MTP criterion 19.6-1-10), p. 440.

¹⁰⁴ Arkansas/Missouri 271 Order, 16 FCC Rcd at 20865, App. D at ¶ 40.

FCC has required BOCs to make available "sufficiently detailed interface design specifications to enable competing carriers to modify or design their systems in a manner that will enable them to communicate with the [BOC's] systems and any relevant interfaces."¹⁰⁵ The efficacy of Qwest's EDI documentation is demonstrated by commercial data, which show that 29 CLECs (excluding two pseudo-CLECs) have been able to construct and use EDI interfaces. The Third Party Test results also support the conclusion that Qwest's EDI documentation provides CLECs with sufficiently detailed interface design specifications.

A. EDI Documentation Provided to CLECs

Qwest provides CLECs with assistance in developing an EDI interface in the following ways: (1) providing CLECs with a well-documented EDI implementation process and individually working with CLECs via a CLEC-specific IMA-EDI development team; (2) making available detailed interface design specifications and other documentation; and (3) working collectively with CLECs on EDI development through the change management process.

Qwest provides a well-documented process to assist CLECs in their implementation of EDI interfaces through the IMA-EDI Implementation Guidelines, which is attached as Exhibit H and available online.¹⁰⁶ This guide outlines the various responsibilities, goals and objectives of the CLEC and Qwest for implementing electronic communications for pre-ordering, ordering and post-ordering via the IMA-EDI interface. This document provides a general overview of the IMA-EDI Implementation Process, including discussions on the various stages of the process as well as technical information that will aid CLECs in their

¹⁰⁵ Texas 271 Order, 15 FCC Rcd at 18411 (¶ 119).

¹⁰⁶ See <http://www.qwest.com/wholesale/ima/edi/document.html>.

implementation activities. The IMA-EDI Implementation Guidelines provide detailed information on the following topics:

- Initial communications between the CLEC and Qwest
- Requirements review
- Establishing a dedicated circuit
- Scenario summary and template development
- Firewall and Interactive Agent to Interactive Agent testing
- Progression testing phase
- Controlled production phase
- Production
- IMA Data Conversion¹⁰⁷

To aid in the CLEC EDI implementation process, Qwest makes a CLEC-specific IMA-EDI Implementation Team available to CLECs who are planning to use the application-to-application interface. The IMA-EDI Implementation Team for each CLEC is composed of a project manager, technical support engineer, and a business analyst. The IMA-EDI Implementation Team also provides technical assistance to CLECs by answering business and interface-related questions. During implementation, all CLEC issues are tracked and reviewed on a weekly basis to ensure closure and to assist the CLEC in completing their EDI implementation.¹⁰⁸

Other than the IMA-EDI Implementation Guidelines, discussed above, Qwest makes available detailed interface design specifications and other documentation that aid CLECs

¹⁰⁷ See id.

¹⁰⁸ See id.

in constructing an EDI interface. Qwest provides CLECs with the following EDI-related documents:

- IMA-EDI Disclosure Document: This document assists CLECs in understanding and successfully managing the process of implementing EDI trading capabilities between their organization and Qwest.
- SATE Data Document: This document provides CLECs with data for use in the stand-alone test environment ("SATE"). An updated SATE Data Document is developed for and accompanies each SATE release.
- SATE VICKI Path Document: This document provides CLECs with the information needed to trigger specific automated post-order responses using SATE.
- IMA-EDI Corrective Procedures and Error Codes: This document provides CLECs with information regarding corrective procedures to be used in EDI and also a listing of relevant error codes.
- IMA-EDI FBDL Corrective Procedures and Confirmation/Error Codes: This document provides CLECs with information regarding corrective procedures to be used with the Facilities Based Directory Listing (FBDL) product in EDI and also a listing of relevant error codes.
- IMA-EDI Corrective Procedures and Confirmation/Error Codes: This document provides CLECs with information regarding corrective procedures to be used in EDI and also a listing of relevant error codes.

- IMA Errors List: This document provides a list of all IMA generated errors.
- Frequently Asked Questions: This document provides CLECs with answers to some commonly asked questions relating to EDI and SATE.
- Populated EDI X12 Mapping Examples: This document provides the CLECs with the opportunity to view populated IMA EDI X12 mapping examples for IMA EDI Pre-Order and Order transactions currently supported in the Stand Alone Test Environment (SATE).

Among those documents listed above, the principal IMA-EDI documents are the EDI Implementation Guidelines and the IMA-EDI Disclosure Document, which also is attached as Exhibit I and available online.¹⁰⁹ The Disclosure Document provides CLECs with the technical specifications necessary to modify or design their systems in order to communicate with Qwest's systems, including technical EDI specifications for the release. These technical specifications include EDI Mapping Examples and Data Dictionaries. To further aid CLECs in their use of the Disclosure Document and to ensure that CLECs complete all required fields correctly when ordering a particular service through EDI, Qwest provides CLECs with Developer Worksheets through the Disclosure Document. Developer Worksheets contain specific instructions for completing the EDI fields. The Disclosure Document also includes several informative appendices, such as a summary of changes between releases, an explanation of the transaction flow for LSRs, and a chart showing the valid conversions between products.

¹⁰⁹ See <http://www.qwest.com/wholesale/ima/edi/document.html>.

The SATE Data Document and the SATE VICKI Path Document are discussed in further detail below in the section that addresses SATE.

Through the change management process, CLECs have an active role in Qwest's continuing development of its OSS interfaces and related documentation. As part of CMP, CLECs can submit change requests to alter Qwest EDI documentation, add additional features to IMA-EDI, or supplement its functionality.¹¹⁰ In addition, during the CLEC/Qwest CMP redesign process, Qwest and CLECs agreed to procedures including advance notice of new releases, timeframes for issuance of documentation prior to implementation, opportunity for CLEC input into documentation, and prescribed content of documentation.¹¹¹

B. Commercial Data

The FCC has previously evaluated the efficacy of a BOC's EDI documentation by considering the total number of CLECs who have successfully implemented EDI interfaces.¹¹² As of April 24, 2002, a total of 29 CLECs have been certified to use Qwest's EDI and three CLECs are in the process of EDI certification.¹¹³ The volume of transactions submitted via EDI provide additional evidence of the efficacy of Qwest's EDI documentation. For instance, from April 1, 2001 to March 31, 2002, Qwest processed approximately 957,000 pre-order transactions via EDI for 17 individual CLECs.¹¹⁴ Similarly, from April 1, 2001 to April 14, 2002, Qwest

¹¹⁰ See Wholesale CMP, § 2 (Exhibit D). For example, CR SCR122701-1 resulted in a new document, 9.0 Populated EDI X12 Mapping Examples. This document was published on March 8, 2002 and is described above.

¹¹¹ See Wholesale CMP, § 4.

¹¹² See, e.g., *Texas 271 Order*, 15 FCC Rcd at 18411 (¶ 119); *Massachusetts 271 Order*, 16 FCC Rcd at 9049-50 (¶ 112).

¹¹³ See Notarianni Affidavit at ¶ 4.

¹¹⁴ Id. at ¶ 7.

processed approximately 586,000 order transactions via EDI for 22 individual CLECs.¹¹⁵ In addition, the fact that two CLECs were able to construct EDI interfaces and certify products within 107 days of contacting Qwest is also evidence of the efficacy of Qwest's EDI documentation.¹¹⁶

The ROC TAG also has developed a performance indicator (PO-16) to measure the timeliness of Qwest's release notifications for specified OSS interfaces, including EDI.¹¹⁷ A close analysis of Qwest's performance for PO-16 demonstrates the efficacy of Qwest's EDI documentation. In December, 2001, Qwest did not release any notifications, which resulted in no applicable data under PO-16 for that reporting period. In January, 2002, Qwest released one timely notification out of three total notifications.¹¹⁸ However, the two untimely notifications concerned non-EDI documentation; the timely notification addressed final technical specifications for an IMA-EDI release.¹¹⁹ In February and March, 2002, only one release occurred during each month, and therefore Qwest was deemed to meet the PID even if it missed the notification date.¹²⁰ During April, 2002, Qwest's records indicate that it has released three

¹¹⁵ Id. at ¶ 7.

¹¹⁶ Id. at ¶ 5. *See Texas 271 Order*, 15 FCC Rcd at 18414 (¶ 124) (holding that the fact that one CLEC was able to test and go into production quickly in EDI was good evidence of the efficacy of the BOC's EDI documentation).

¹¹⁷ On April 16, 2002, Qwest proposed to the TAG slight revisions to the PO-16 measurement. These refinements preserve the intent of the PID, as originally accepted by the parties, while updating and clarifying certain elements of its language, so as to be more clearly in alignment with CMP developments. *See* E-mail from Michael Williams, Qwest Communications, to ROC TAG, Re: PO-16 Software Release Timeliness – PID Updates Proposed (dated April 16, 2002), which is attached as Exhibit K.

¹¹⁸ *See* Colorado Commercial Performance Results at 66 (PO-16).

¹¹⁹ *See* Notarianni Affidavit, ¶ 8.

¹²⁰ If ten or fewer notifications are released during any reporting period, then Qwest and CLECs have agreed that a single miss is viewed as meeting the PID. *See* ROC PID Version 4.0 at 25 (PO-16), available at <http://www.qwest.com/wholesale/results/roc.html>.

timely notifications out of three total notifications.¹²¹ Qwest therefore believes that collectively the PO-16 data support a conclusion that Qwest provides CLECs with efficacious EDI documentation, especially if viewed in connection with the other strong commercial data.

C. Third Party Test Results

The results of the Third Party Test also confirm that Qwest has satisfied this aspect of the FCC's 271 requirements. The Third Party Test evaluated the efficacy of Qwest's documentation in three reviews: (1) the Order and Transaction Creation Documentation Evaluation (Test 10); (2) the P-CLEC OSS Interface Evaluation (Test 12-B); and (3) the OSS Interface Development Review (Test 24.6). As described more fully below, Qwest has satisfied all of these tests.

The Order and Transaction Creation Documentation Evaluation was a "comprehensive review of the public documentation that Qwest provides to the CLEC community to assist in the preparation and submission of transactions."¹²² As part of this review, HP examined three types of IMA-EDI documentation: (1) the IMA-EDI Disclosure Document, (2) the IMA-EDI Implementation Guidelines, and (3) IMA Release Certification/Recertification Notices.¹²³

In the *Draft Final Report*, HP concluded that Qwest's IMA-EDI documentation meet the needs of the CLEC community.¹²⁴ Specifically, HP found that IMA Disclosure documentation and the EDI Implementation Guidelines are readily available to CLECs, are

¹²¹ See Notarianni Affidavit, ¶ 9. Qwest has not yet reported its PID data for April.

¹²² Draft Final Report, Test 10, § 1.0, p. 10-A-1.

¹²³ Id. at Section 10.2.1.1.

¹²⁴ See Draft Final Report, Test 10, Table 10-1.26, p. 10-A-35.

comprehensive in their detail, and can be easily understood by the intended audience.¹²⁵ Of 107 applicable evaluation criteria, HP concluded that Qwest had satisfied all 107 criteria in the Draft Final Report.¹²⁶ Within this test, every exception and observation noted by HP was closed satisfied prior to the issuance of the *Draft Final Report*. Further details on the results of the OSS ID Review can be found in Table 10-1.26 of the *Draft Final Report*.¹²⁷

The P-CLEC OSS Interface Evaluation analyzed HP's "ability to establish interface connectivity with Qwest to carry out various wholesale activities."¹²⁸ This evaluation covered HP's activities for the IMA-EDI implementation and release migration processes, billing data and the M&R implementation process. As noted in the *Draft Final Report*, HP successfully migrated to and conducted certification activities in three IMA-EDI Releases (6.0, 7.0, and 8.0) as part of this evaluation using Qwest's documentation and EDI Implementation Team.¹²⁹ During this test, HP certified 13 pre-order transactions, 16 order transactions, and five post-order transactions.¹³⁰

The OSS Interface Development Review ("OSS ID Review") evaluated Qwest's documentation, specifications and support provided to CLECs in developing, providing, and maintaining OSS interfaces.¹³¹ The object of the OSS ID Review was to determine the

125 Id.

126 Id.

127 Id.

128 See Draft Final Report, Test 12-B, § 1.0, p. 12-B-1.

129 Id. at § 3.0, p. 12-B-10.

130 Id. at Table 12-B-1.1, p. 12-B-10.

131 See Draft Final Report, Test 24.6, § 1.0, p. 576.

adequacy, consistency and completeness of Qwest's specifications, documentation and technical assistance provided to the CLECs to develop their interfaces.¹³²

In its *Draft Final Report*, KPMG concluded that Qwest had satisfied 46 of 48 evaluation criteria for Test 24.6.¹³³ Specifically, KPMG found that Qwest has a documented methodology for interface development; makes available to customers interface specifications that define applicable business rules, data formats/definitions, and transmission protocols; and has integrated procedures for updating interface specifications with formal change management procedures involving customers.¹³⁴ The two evaluation criteria that Qwest has not yet satisfied relate to SATE, and will be discussed below.¹³⁵ Further details on the results of the OSS ID Review can be found in Test 24.6 of the *Draft Final Report*.

VII. QWEST MAKES AVAILABLE A STABLE TESTING ENVIRONMENT THAT MIRRORS PRODUCTION.

One of the factors that the FCC has identified as part of its Section 271 change management review is whether a BOC has implemented a stable test environment that mirrors the production environment.¹³⁶ According to the FCC, the availability of such an environment is evidence that the BOC provides competitors nondiscriminatory access to its OSS.¹³⁷ As part of the end-to-end interface testing process, Qwest provides two alternative testing environments to

¹³² Id.

¹³³ See Draft Final Report, Test 24.6, Table 24.6-2.1, p. 588.

¹³⁴ Id.

¹³⁵ Id.

¹³⁶ See Application by Verizon New England Inc., et al., for Authorization to Provide In-Region, InterLATA Services in Rhode Island, FCC 02-63, released February 22, 2002, ____ FCC Rcd ____ (2002), App. D at ¶ 42 ("Rhode Island 271 Order").

¹³⁷ See *New York 271 Order*, 15 FCC Rcd at 4010 (¶ 121); Application by SBC Communications Inc., et al., for Authorization to Provide In-Region, InterLATA Services in Texas, 15 FCC Rcd 18354, 18419 (¶ 133 n.355) (2000) ("Texas 271 Order").

CLECs, each of which is a "stable test environment that mirrors production."¹³⁸ One is Qwest's stand-alone test environment ("SATE"), and the other is Qwest's Interoperability environment. CLECs may test in either or both, as they choose.

A. EDI Interface Testing

Before discussing the Interoperability environment and SATE in detail, we first provide the Commission with an overview of the interface testing process. We note that the technical assistance and EDI documentation Qwest provides to CLECs, which is discussed in Sections V and VI above, are an integral part of the interface testing process.

1. Overview

Qwest aids CLECs in developing and certifying their EDI interfaces and migrating to new EDI releases. Before a CLEC may interface with Qwest's EDI, the CLEC must complete a certification process that demonstrates that its EDI is capable of effectively interacting with Qwest's EDI. This certification process consists of three stages: (1) establishing connectivity; (2) progression testing; and (3) controlled production.¹³⁹ Each stage is discussed below. As noted in the "Overview," whether a CLEC chooses to test in the interoperability environment or in SATE or both, the CLEC must also do connectivity testing beforehand and controlled production after, in order to obtain certification that its EDI interface is production-ready.

¹³⁸ See *Arkansas/Missouri 271 Order*, 16 FCC Rcd at 20865, App. D. at ¶ 40.

¹³⁹ See Draft Final Report, Test 24.6, § 2.1.1.1, p. 577. See generally "Overview of Interface Testing," Attachment B to the Notarianni Affidavit. As noted below, the IMA-EDI Implementation Team is principally responsible for working with CLECs during this certification process.

Establishing Connectivity. To establish connectivity, Qwest and the CLEC verify that they are able to pass transactional information to each other over a dedicated connection.¹⁴⁰ The purpose of this initial stage is to verify the physical network lines are properly connected and that data can be transmitted using the defined network protocol.

*Progression Testing.*¹⁴¹ After a CLEC has established connectivity with Qwest, the CLEC progresses to the next stage. In this stage of testing, CLECs submit test transactions to Qwest via the EDI interface to determine whether they receive appropriate responses from Qwest's systems. Qwest provides two distinct environments for testing: Interoperability and SATE.¹⁴² CLECs can choose to test in the Interoperability environment, SATE, or both; testing in these environments is not mutually exclusive. These two environments are discussed in more detail below.

Controlled Production. After successfully completing the initial stages of the EDI certification process (establishing connectivity and progression testing), CLECs must complete Controlled Production ("CP") before being fully certified for EDI use. Controlled Production serves as a final check to ensure that a CLEC's EDI interface functions as designed in the production environment, prior to the CLEC submitting full-scale production volumes.¹⁴³ This stage is really a controlled test in the production environment prior to the free flow of transactions. It also affords both Qwest and the CLEC the assurance that all necessary production connectivity and environment activities have been successfully completed on both

¹⁴⁰ See Draft Final Report, Test 24.6, § 2.1.1.1, p. 577.

¹⁴¹ Progression testing permits a CLEC to test the functioning of its interface for a new release. Regression testing, by contrast, is selective retesting of a system or component to verify that modifications have not caused unintended effects and that the system or component still complies with its specified requirements. Regression testing is not a separate testing activity; rather it is ongoing and grows with every release.

¹⁴² See Draft Final Report, Test 24.6, § 2.1.1.4, p. 580.

sides of the gateway. During CP, CLECs submit requests to the Qwest production environment for provisioning as real production orders. Therefore, CP requires the use of valid account and order data. Qwest considers all CP orders to be live orders that are processed through provisioning and billing. This allows the CLEC to have Qwest's assistance in monitoring their first production transactions through all provisioning and billing systems. Any question or issues the CLECs may have can be addressed jointly and immediately. After meeting specified exit criteria, the CLEC will be certified to submit transactions in an unrestricted manner via EDI to the production environment.

2. The Interoperability Environment

Qwest established its first CLEC test environment in 1997, which subsequently evolved into the Interoperability environment in 1998. To date, 26 individual CLECs have tested in the Interoperability environment and subsequently have gone into production.¹⁴⁴ When a CLEC tests in the Interoperability environment, it submits IMA data transactions through EDI to Qwest's Interoperability environment. This environment uses a copy of the production IMA EDI software, thereby providing a production-like environment in which CLECs may test. A general description of the Interoperability environment is set forth in the attached "Overview of Interface Testing."¹⁴⁵ The IMA Implementation Guide document provides a greater level of detail on testing in the Interoperability environment.¹⁴⁶ The following description relies on these documents.

143 *See* Draft Final Report, Test 24.6, § 2.1.1.1, p. 577.

144 Notarianni Affidavit at ¶ 4.

145 Notarianni Affidavit, Attachment B.

146 *See* Exhibit H.

The Interoperability environment validates transactions against actual production data using real production legacy systems to validate the data for pre-order and order transactions, including validation of account data. These transactions are then submitted by the system into a test database that is a copy of the production IMA database, yet is physically separate from production. Because these transactions are not sent to the production databases, post-order transactions in the Interoperability environment are manually generated. Each of the transaction types for pre-order, order and post-order activities that is supported by the production IMA release is likewise supported in the Interoperability environment.

The Interoperability environment supports all of the releases that are maintained in production, providing CLECs with the ability to test different versions of IMA releases at the same time. New versions of IMA are released in the Interoperability environment approximately 30 calendar days prior to their release in production unless that release is deemed to be in "red testing status."¹⁴⁷ Red testing status indicates that the release's system testing effort has discovered significant issues that place the release in jeopardy. Additionally, Qwest supports releases of IMA in the Interoperability environment for an extended testing period. Each release is available to CLECs for six months after the next subsequent major IMA-EDI release is made available in production.

To aid CLECs in their implementation of IMA in the Interoperability environment, Qwest makes available a CLEC-specific IMA-EDI Implementation Team.¹⁴⁸ The IMA-EDI Implementation Team works directly with a CLEC's EDI team during the testing and certification of the CLEC's interface software. As described above, the IMA-EDI

¹⁴⁷ See Draft Final Report, Test 24.6, § 2.1.1.4, p. 580.

¹⁴⁸ See Draft Final Report, Test 24.6, § 2.1.1.4, p. 581.

Implementation Team for each CLEC is composed of a project manager, technical support engineer and a business analyst. The 9.0 version of the IMA-EDI Implementation Guide document includes a staffing plan appendix that details Qwest's implementation organization, including organization structure, roles and responsibilities, as well as process flow diagrams.¹⁴⁹

In addition to a CLEC-specific implementation team, Qwest provides CLECs with the IMA-EDI Implementation Guide document to aid in their use of the Interoperability environment. The IMA-EDI Disclosure Document is also provided to CLECs to assist with the development of their EDI interfaces. Both documents are discussed more fully above in Section VI (A).

As with other interface systems, Qwest provides CLECs with the opportunity to submit CMP Change Requests for the Interoperability environment. Interoperability CRs are managed by CMP in the same manner as IMA-EDI Production CRs.

3. The Stand-Alone Test Environment (SATE)

Qwest implemented SATE on August 1, 2001, as an alternative testing environment to the interoperability environment.¹⁵⁰ Testing in the SATE environment can be performed in place of, or in addition to, conventional testing in the Interoperability environment, for both initial certification that CLEC systems will interface with Qwest's IMA-EDI systems and for subsequent testing of new releases of IMA-EDI software.

SATE provides a CLEC with the ability to learn how Qwest's IMA-EDI functions work and the ability to test its interface in a test environment that returns pre-defined test

¹⁴⁹ See IMA-EDI Implementation Guide, Exhibit H, which is also available at <http://www.qwest.com/wholesale/ima/edi/document.html>.

¹⁵⁰ See Draft Final Report, Test 24.6, § 2.1.1.4, p. 580.

scenarios that mimic production responses. Qwest provides the account data and scenario information (test decks) to users through the IMA-EDI Data Document for SATE.¹⁵¹ Scenario submissions do not leave SATE during testing. By providing CLECs with a self-contained, production-like environment for sending transactions, CLECs have the opportunity to experience an environment that acts like production IMA-EDI without interfacing with the actual production environment. SATE uses test account data and requests that are subjected to the same IMA-EDI edits as those used in production.¹⁵² SATE also permits CLECs to perform "regression testing," in which a CLEC determines whether systems changes on its end will affect its ability to interface via EDI with Qwest.

Qwest makes available in SATE the same support teams to CLECs to assist in testing and certifying CLEC interface software as it does in the Interoperability environment. Qwest's IMA-EDI Implementation Team works directly with CLECs using SATE. In addition, a SATE Users' Group meets regularly under the aegis of the Change Management Forum to discuss SATE-related issues and to recommend changes to SATE as appropriate. Qwest also provides CLECs with the IMA-EDI Implementation Guide and other documentation to aid in the utilization of SATE.¹⁵³ Beginning with version 9.0, the IMA-EDI Implementation Guide has included a staffing plan which details Qwest's CLEC testing organizational structure and the roles and responsibilities of all resources that directly support SATE, as well as diagrams that describe the process flows of SATE.¹⁵⁴

¹⁵¹ CLECs may also request additions or changes to the test decks. Qwest generally is able to meet such requests within two weeks of approval.

¹⁵² IMA (GUI and EDI) edits ensure that LSRs are populated in accordance with Qwest business rules as well as with the correct data characteristics and field length.

¹⁵³ See <http://www.qwest.com/wholesale/ima/edi/document.html>.

¹⁵⁴ See <http://www.qwest.com/wholesale/ima/edi/document.html>.

Qwest built SATE to provide products and transactions that were currently being ordered by CLECs through IMA-EDI.¹⁵⁵ Qwest continues to monitor the products that CLECs express interest in and has created CMP CRs to add products to SATE.¹⁵⁶ In addition, to ensure that CLECs have the functionality available in SATE that they require, CLECs may request through the change management process that Qwest include additional products and functionality in its suite of SATE transactions.¹⁵⁷ SATE CRs are managed by CMP in the same manner that IMA-EDI CRs are managed. A SATE Users' Group was formed in November 2001 as part of the CMP Forum, to give Qwest and CLECs an opportunity to communicate their current plans and needs, respectively, as well as to jointly present a list of change requests to CMP that ensures that future SATE enhancements meet the needs of CLECs.¹⁵⁸

As a further enhancement to SATE, Qwest has provided automated post-order responses in SATE since Release 9.0 (January 26, 2002), through the Virtual Interconnect Center Knowledge Initiator ("VICKI"). VICKI is described in detail in the attached "White Paper on the Virtual Interconnect Center Knowledge Initiator."¹⁵⁹ This new functionality provides CLECs with the ability to experience the behavior of IMA-EDI consistent with production timing of

¹⁵⁵ See Notarianni Affidavit, ¶ 11. The list of products can be found in the IMA-EDI Implementation Guide, which is available at <http://www.qwest.com/wholesale/ima/edi/document.html>. KPMG's closed unresolved Exception 3095, which questions whether products ordered through GUI interfaces should be included in SATE, is addressed below, in the third party test section.

¹⁵⁶ Notarianni Affidavit, ¶ 11.

¹⁵⁷ See EDI Implementation Guide, Exhibit H, available at <http://www.qwest.com/wholesale/ima/edi/document.html>. The process states that "additional functionality can be agreed upon and added in later releases. Requests for transactions not currently supported may be requested via CMP." See *id.*

¹⁵⁸ See SATE Users' Group Meeting Minutes, November 13, 2001 (Exhibit L). The Users' Group has within its scope all EDI interface testing issues. See *id.* In addition to the SATE Users' Group, Qwest and individual CLECs can request changes to test environments.

¹⁵⁹ "White Paper on the Stand Alone Test Environment (SATE) Virtual Interconnect Center Knowledge Initiator," Dec. 7, 2001, Version 1.00 ("VICKI White Paper") (Exhibit M).

post-order transactions.¹⁶⁰ It also ensures that CLECs receive automated responses consistent with those received in production.¹⁶¹

Although CLECs currently use SATE with success, SATE will continue to be enhanced in the coming months. For instance, despite the FCC's view that a BOC's test environment is not required to test flow-through,¹⁶² Qwest is in the process of implementing flow-through for all products in SATE that are flow-through eligible. Adding flow-through to SATE gives a CLEC the capability of testing whether a given local service request would flow through if had been sent to production.¹⁶³ Flow-through components for POTS and UNE-P were added to the Western Region (Oregon and Washington) on February 25, 2002.¹⁶⁴ The implementation of flow-through should be completed throughout the entire Qwest territory by mid-May 2002.¹⁶⁵ Once the transition to flow-through is complete, a CLEC will have the option of (1) sending its SATE transaction to a copy of the production service order processor, where only flow-through eligible LSRs will successfully flow, or (2) receiving a specified test scenario response.¹⁶⁶

¹⁶⁰ VICKI is a tool that Qwest provides in the SATE environment to automatically generate valid production order and post-order responses to CLEC-generated test transactions. This further strengthens the CLEC's ability to test their EDI interface in a stand-alone fashion, with reduced requirements for CLEC/Qwest interaction. See VICKI White Paper (Exhibit M).

¹⁶¹ Those post-order transactions that currently are done manually by an Interconnect Service Center ("ISC") representative in production are not automated in SATE. Those transactions are completed manually in SATE, as they are in production by ISC representatives.

¹⁶² See *Texas 271 Order*, 15 FCC Rcd at 18421 (¶ 138).

¹⁶³ Testing using flow-through is described in more detail in Qwest's "White Paper on Flow Through in the Stand Alone Test Environment," January 3, 2002, Version 1.00 ("Flow Through White Paper") (Exhibit T).

¹⁶⁴ See *Flow Through White Paper*, Exhibit T.

¹⁶⁵ *Id.*

¹⁶⁶ *Id.* Unlike BellSouth's CLEC Application Verification Environment, SATE will utilize distinct service order processors for SATE to avoid confusing test and production data. See *Evaluation of the Department of Justice Comments on BellSouth Georgia/Louisiana 271 Application*, CC Docket No. 01-277, filed Nov. 6, 2001, at 34.

4. Comparison of the Interoperability Environment with SATE

SATE is distinct from the Interoperability environment in several respects. The "Overview of Interface Testing" provides an explanation of those differences.¹⁶⁷ These differences also are described briefly below.

First, the Interoperability test environment uses real customer account data and uses production systems for preorder and LSR validation prior to the submittal of the LSR. In contrast, SATE utilizes test data provided by Qwest that is physically separate from production systems. CLECs are provided with customer accounts to perform testing in SATE. In addition, the SATE environment returns predefined responses. This permits CLECs to test scenarios to learn Qwest's response utilizing a Qwest-provided test deck and accounts.¹⁶⁸

Second, effective January 26, 2002, SATE permits CLECs to receive automated post-order responses through VICKI, as described above. This functionality provides CLECs with the ability to experience the behavior of IMA consistent with production timing of post-order transactions. Those CLECs who test in the Interoperability environment receive EDI messages generated by Qwest personnel.

Third, with the full implementation of flow-through in SATE in May, 2002, CLECs will have the option of testing the ability of their orders to flow through to a copy of the production service order processor. This capability is not present in the Interoperability

¹⁶⁷ Attachment B to the Notarianni Affidavit. *See also* Draft Final Report, Test 24.6, §2.1.1.4, p. 580.

¹⁶⁸ CLECs may request additional predefined responses for existing SATE products and functionality through the IMA-EDI Implementation Team using the SATE Data Request form. This form is available on the Qwest Wholesale Website at <http://www.qwest.com/wholesale/ima/edi/document.html>. Pursuant to procedures set forth in the IMA-EDI Implementation Guide, once the request has been reviewed and approved, Qwest will load the data into SATE within ten business days. *See* IMA-EDI Implementation Guide, Exhibit H at 39.

environment. Qwest has chosen to implement flow-through capability in SATE even though the FCC does not require this under Section 271.¹⁶⁹

In evaluating Qwest's satisfaction of the Section 271 criteria for interface testing, it is important for the Commission to examine the full picture of Qwest's testing opportunities. SATE and the Interoperability environment both are successful testing environments, each of which independently meets the FCC's criteria. But they also offer CLECs different options for testing.

B. Stable Test Environment that Mirrors Production.

Qwest's Interoperability environments and SATE each independently satisfy the FCC's requirements that BOCs make available a "stable testing environment that mirrors production."¹⁷⁰

Stability of the Test Environment. The FCC has defined a "stable testing environment" as "one in which the BOC makes no changes to the proposed release during the test period."¹⁷¹ First, both the Interoperability environment and SATE are stable because Qwest has undertaken to make no changes (other than bug fixes) during the 30-day period prior to implementation of a major release. Effective with the release of IMA-EDI 9.0 in February 2002, this is now true for SATE as well as for Interoperability. This requirement has been incorporated into Qwest's change management procedures in the section titled "Change to Existing OSS Interfaces."^{172/} If a serious code issue is found during the 30-day window, however, Qwest will

¹⁶⁹ See *Texas 271 Order*, 15 FCC Rcd at 18421 (¶ 138).

¹⁷⁰ See *Rhode Island 271 Order*, App. D. at ¶ 42.

¹⁷¹ See *Massachusetts 271 Order*, 16 FCC Rcd at 9048 (¶ 109).

¹⁷² See Wholesale CMP, § 5.1.8.

implement the bug (emergency) fix. The implementation of bug fixes allows CLECs to test with the fixed code prior to the production deployment and therefore increases the stability of the test environment. KPMG found that Qwest made available both testing environments to CLECs "approximately 30 calendar days prior to production deployment of a new version of IMA."^{173/}

Qwest also makes the both the Interoperability environment and SATE available to CLECs for an extended testing period. They are available to CLECs approximately 30 days prior to and six months after each major IMA-EDI release.¹⁷⁴ This practice, known as "versioning," allows CLECs to remain using a prior release even after implementation of a new release, to give them time to decide when to migrate to the new release. Thus, beginning with the release of EDI 9.0 in February 2002, CLECs will be able to test in both Interoperability and in SATE for any one of three releases (7.0, 8.0, and 9.0) at the same time.¹⁷⁵ (In the Interoperability environment, versioning had already been possible).¹⁷⁶ The FCC has approved of versioning because it "ensures that system changes and enhancements do not adversely affect a carrier's ability to access the BOC's OSS."¹⁷⁷

Mirroring the Production Environment. Both the Interoperability environment and SATE satisfy the FCC's requirement that the interface testing environment mirror the

¹⁷³ Draft Final Report, Test 24.6, § 2.1.1.4, p. 580.

¹⁷⁴ See Draft Final Report, Test 24.6, § 2.1.1.4, p. 580. SATE is available for testing of both major EDI releases and point releases, but the 30-day stable testing period prior to release is available only for major releases. This is consistent with the FCC's requirements and with the CMP redesign procedures agreed to by CLECs and Qwest. See, e.g., *Massachusetts 271 Order*, 16 FCC Rcd at 9016 (¶ 111).

¹⁷⁵ See OSS Calendar, which can be found on the Qwest Wholesale Website, available at <http://www.qwest.com/wholesale/cmp/osscalendar.html>.

¹⁷⁶ See IMA-EDI Implementation Guide, Exhibit H, available at <http://www.qwest.com/wholesale/ima/edi/document.html>.

¹⁷⁷ Application of Verizon New England Inc., et al., for Authorization to Provide In-Region, InterLATA Services in Massachusetts, 16 FCC Rcd 8988 (2001) at ¶ 107, quoting *Texas 271 Order*, 15 FCC Rcd at 18408, ¶ 115.

production environment. The FCC has held that in order to satisfy its "mirroring production" standard, a BOC need not provide a testing environment that is "identical to its production environment."¹⁷⁸ Rather, it is sufficient for a BOC to show that "the testing and production environments perform the same key functions."¹⁷⁹

The Interoperability environment by definition mirrors the production environment. The Interoperability test environment uses a copy of the EDI software used in production, uses real production pre-order and order databases to validate and accept the LSR, and provides EDI responses generated by Qwest personnel that mirror production responses.¹⁸⁰ SATE also mirrors production because it allows CLECs to run transactions that generate the same responses as in production without actually using production data or production systems. Qwest provides CLECs with test decks of predefined responses to test in SATE, and those responses mirror production. Transactions submitted by CLECs through SATE use the same IMA-EDI software that is used in production, as well as the same CLEC EDI software. All known differences between production and SATE are documented on an on-going basis.¹⁸¹ If the implementation of IMA-EDI functionality into SATE causes the system behavior to differ from production, Qwest will likewise document this information.^{182/} Transactions between Qwest and CLECs submitted through SATE therefore operate almost identically to those submitted

¹⁷⁸ *Texas 271 Order*, ¶ 138.

¹⁷⁹ *Id.*

¹⁸⁰ *See generally* "Overview of Interface Testing," Attachment B to the Notarianni Affidavit.

¹⁸¹ KPMG, in the ROC third party test, and Hewlett Packard, in the Arizona third party test, both initially challenged the comparison of errors generated in SATE with the errors generated in the production environment. This issue is discussed in the third party test section, below.

¹⁸² While SATE mirrors production, it is not a complete replica of the production environment. Because of the nature of the test environment, some differences arise. For details on the differences between SATE and production, see the Overview section of the IMA-EDI SATE Data Document, Exhibit J, which can also be found on the Qwest Wholesale Website at <http://www.qwest.com/wholesale/ima/edi/document.html>.

through the actual pre-ordering, ordering and post-ordering processes.^{183/} This enables CLECs to, in effect, run transactions with Qwest without using their own account data. CLECs also can use SATE to evaluate products they are considering offering to determine whether they can do so effectively through their IMA-EDI interfaces. To further enhance SATE, Qwest now provides automated post-order responses (since January 26, 2002), and it has begun implementing test flow-through components, even though the FCC has not required this capability under Section 271.¹⁸⁴

C. Commercial Data

Commercial results support these conclusions. To date, five individual CLECs, as well as five others through a service bureau,¹⁸⁵ have successfully completed testing using SATE and have achieved production status for EDI implementation of pre-ordering capabilities.¹⁸⁶ In approving SBC's 271 application in Texas, the FCC found it compelling evidence of the adequacy of SBC's new test environment that three carriers had used it to achieve production status, with two carriers using it for a new release.¹⁸⁷ Here, the commercial data is even stronger. As noted above, a total of ten carriers have achieved production status after testing through SATE (individually or through a service bureau).

¹⁸³ The structure of data in SATE mirrors the structure of production data, but the actual content of SATE data is not identical to the content of any instance of production data. SATE does not contain production data so that a CLEC can easily test any production scenario without concern for any privacy issues. While the responses may occasionally differ between production and SATE, the test environment utilizes the same processing logic as the production system. As a result, the structure of the response should mirror production.

¹⁸⁴ See *Texas 271 Order*, 15 FCC Rcd at 18421 (¶ 138).

¹⁸⁵ Several CLECs interested in testing their EDI interfaces are represented by service bureaus. A service bureau is a company that provides a variety of outsourced services to CLECs, including, but not limited to, establishing and maintaining connectivity between BOCs and CLECs, administering databases and managing associated hardware, as well as producing and transmitting EDI transactions.

¹⁸⁶ See Notarianni Affidavit at ¶ 4.

There is one PID that is relevant to SATE (PO-19). This SATE PID "evaluates Qwest's ability to provide accurate production-like tests to CLECs for testing both new releases and between releases in the SATE environment."¹⁸⁸ Specifically, PO-19 measures the percentage of SATE test transactions that are successfully completed for a software release or mid-release performance test based upon the transactions reported in the Qwest SATE Document. In a January meeting, the ROC TAG agreed that a 95% benchmark would apply to PO-19 beginning in March.¹⁸⁹ As reflected in the commercial performance results, Qwest met the 95% standard in Colorado for March.¹⁹⁰ For the three months prior to March, Qwest also met or came close to meeting this 95 percent standard. For the four month period between December 2001 and February 2002, Qwest successfully executed 98.73, 94.57, 95.38, and 97.10 percent of test transactions within SATE.¹⁹¹ Thus, Qwest either met the current benchmark or fell only a fraction of a percentage point short of it during the past four months.¹⁹²

Although Qwest has negotiated the current PO-19 PID with the CLECs, Qwest is currently proposing a modification to PO-19 based on feedback from AT&T in the most recent Arizona OSS Test workshop. This modification would include a sub-measure to execute the same transactions in production and in SATE, to further measure the extent to which SAT

¹⁸⁷ See *Texas 271 Order*, ¶ 134.

¹⁸⁸ ROC PID Version 4.0 at 26 (PO-19), available at <http://www.qwest.com/wholesale/results/roc.html>.

¹⁸⁹ See ROC Steering Committee, "Impasse Issue on Benchmark for PO-19 SATE Accuracy," January 28, 2002, Exhibit N.

¹⁹⁰ See Colorado Commercial Performance Results at 67 (PO-19), which can be found at www.qwest.com/wholesale/results/roc.html.

¹⁹¹ See Colorado Commercial Performance Results at 67 (PO-19), which can be found at www.qwest.com/wholesale/results/roc.html.

¹⁹² The Joint CLECs refer to HP performance data listed without citation, but Qwest assumes that the data are taken from the *HP 9.0 Report*, *supra*, at 24. Joint CLEC Brief at 22. The Joint CLECs neglect to mention HP's conclusion that SATE was adequate to permit CLECs to test new releases, or that Qwest had met, or came very close to meeting, the 95 percent benchmark established for PO-19 by the ROC.

mirrors production. Once Qwest has provided initial results for this updated PID, AT&T has requested that HP (or another vendor) evaluate the execution and the results. Although we do not yet have the transcript available, in the Arizona workshop last week, the Arizona Corporation Commission Staff indicated that this update and subsequent evaluation would be outside of the Arizona 271 proceeding.

Commercial data also support the conclusion that the Interoperability test environment provides an effective means for CLECs to test and certify their EDI interfaces. To date, 26 CLECs have successfully tested through Interoperability and achieved production status.¹⁹³ There is no PID to measure the ability of test transactions in the Interoperability environment to mirror production. As discussed above, however, because test transactions go directly to legacy production databases, they will match the production responses.

D. Third Party Test Results

1. KPMG/HP Draft Report for ROC States Third Party Test

KPMG evaluated Qwest's SATE in Test 24.6, the OSS Interface Development Review Test.¹⁹⁴ KPMG found that Qwest had satisfied the vast majority of the test criteria related to interface development.¹⁹⁵ Of the 23 separate test criteria evaluated, KPMG found that 21 were satisfied. Many of these are directly related to EDI interface testing. KPMG found, for example, that (1) "Qwest has a documented methodology for conducting carrier-to-carrier testing with customers seeking to interconnect;" (2) "Carrier-to-carrier test environments are available

¹⁹³ Notarianni Affidavit at ¶ 4.

¹⁹⁴ Draft Final Report, Test 24.6 (p. 576).

¹⁹⁵ Draft Final Report, Test 24. 6, Table 24.6-2-1, p. 588.

and segregated from Qwest production and development environments;" (3) On call customer support for interface testing is provided; (4) Carriers are provided with documented specification for active test environments; (5) "Active test environments are subject to version control, and carriers are notified before changes are made to active test environments;" (6) Procedures are defined to log software 'bugs,' errors, and omissions in specifications and other issues discovered during carrier-to-carrier testing."¹⁹⁶

Many other criteria found satisfied in Test 24.6 are also closely related to the adequacy of EDI interface testing. As one example, "methods and procedures are defined for ensuring that changes found during all phases of testing are incorporated into instances of software code."¹⁹⁷

The only EDI interface test criterion that KPMG found "unsatisfied" is whether "a functional test environment is made available to customers for all supported interfaces."¹⁹⁸ KPMG identified the following issues as remaining at the close of its testing, which resulted in two closed unresolved exceptions.¹⁹⁹ First, it noted that "SATE transactions are manually generated, and that the environment does not support flow-through transactions."²⁰⁰ Qwest has addressed both of these issues, through the implementation of automated responses (VICKI) in January 2002 and through the implementation of flow-through capability, which will be

¹⁹⁶ Draft Final Report, Test 24.6, Table 24.6-2-1, (MTP criteria 24.6-1-7, 24.6-1-9 to 24.6-1-13), pp. 591-92, 594-97.

¹⁹⁷ Draft Final Report, Test 24.6, Table 24.6-2-1 (MTP criterion 24.6-1-18), p. 600.

¹⁹⁸ Draft Final Report, Test 24.6, Table 24.6-2-1 (MTP criterion 24.6-1-8), pp. 592-94. The other test criterion that KPMG found unsatisfied is related to testing of the maintenance and repair electronic interface (EB-TA). We discuss this issue below, in connection with closed unresolved Exception 3109. As discussed below, this is not a Section 271 issue.

¹⁹⁹ These SATE-related closed unresolved exceptions, E3077 and E3095 are discussed in detail in Section VII(D)(3) below.

²⁰⁰ Draft Final Report, Test 24.6, Table 24.6-2-1 (MTP criterion 24.6-1-8), pp. 592-94.

complete by May 20 (before the issuance of the Final Report). Moreover, as discussed below, the FCC does not even require flow-through capability under Section 271.²⁰¹ Second, KPMG raised concerns about "the process for adding new IMA products for testing as well as adding existing products not currently supported in SATE."²⁰² These concerns have been fully addressed by Qwest's redesigned change management process, which permits CLECs and Qwest to submit and to jointly prioritize change requests to add functionality and new products to SATE. As discussed in more detail below, all but two such CRs have been given a low priority.²⁰³

KPMG did not evaluate the Interoperability testing environment, although it did evaluate and reach positive conclusions on Qwest's technical support and EDI documentation.²⁰⁴ KPMG initially opened an exception on the Interoperability environment, but closed it on the basis of Qwest's decision to develop SATE.²⁰⁵ It stated that "[b]y asserting that CLECs may use a combination of the environments for EDI implementation, KPMG Consulting believes that each of the issues raised in this Exception is addressed by SATE functionality and its proposed enhancements."²⁰⁶ KPMG also found that Qwest's documentation was adequate to help CLECs

²⁰¹ See *Texas 271 Order*, 15 FCC Rcd at 18421 (¶ 138).

²⁰² Draft Final Report, Test 24.6, Table 24.6-2-1 (MTP criterion 24.6-1-8), pp. 592-94.

²⁰³ Section VII(D)(3), below. See Notarianni Affidavit, ¶ 11.

²⁰⁴ See Sections V and VI, *supra*.

²⁰⁵ KPMG identified three issues with Interoperability: (1) no end-to-end testing to provisioning and billing systems; (2) no flow-through capability; and (3) the need to use valid production account data for test transactions. See KPMG Disposition Report for Exception 3029, issued March 14, 2002, ("E3029 Disposition Report"), (Exhibit Y) at 1; see also Draft Final Report, Test 24.6, Table 24.6-2-1, (MTP criterion 24.6-1-8), p. 592. The availability of SATE addresses the second two issues. The first (as well as the second) are unrelated to FCC Section 271 requirements, as discussed below.

²⁰⁶ E3029 Disposition Report, Exhibit Y, at 3.

understand the combined test environment (Interoperability and SATE).²⁰⁷ HP, the pseudo-CLEC in the ROC test, tested the Interoperability environment. The resulted exceptions were all closed resolved.²⁰⁸

HP also evaluated Qwest's interface testing program in Test 12-B, the P-CLEC OSS Interface Evaluation.²⁰⁹ HP's evaluation was limited to the adequacy of Qwest's documentation for supporting Qwest's interface testing process utilizing Interoperability testing. HP was satisfied with Qwest's performance. It is also significant that HP successfully conducted certification and migration activities for releases 6.0, 7.0 and 8.0 for a number of functionalities.²¹⁰ HP also tested SATE in the Arizona third party test, and found it adequate, as we discuss in the next section.

2. HP's Evaluation for Arizona Third Party Test

Hewlett-Packard's ("HP's") comprehensive evaluation of SATE in Arizona²¹¹ provides additional support for the conclusion that SATE is adequate to meet the Section 271 requirements. The purpose of HP's evaluation was to "determine whether the SATE provides an adequate means of testing and support to CLECs seeking to compete in the Arizona

²⁰⁷ *Id.*; see also Draft Final Report, Test 24.6, Table 24.6-2-1, (MTP criteria 24.6-1-1 to 24.6-1-2), p 588.

²⁰⁸ Draft Final Report, Test 24.6, Table 24.6-2-1, (MTP criterion 24.6-1-8), pp. 593-94.

²⁰⁹ Draft Final Report, § Test 12-B, § 1.0, p. 12-B-1.

²¹⁰ Draft Final Report, Test 12-B, § 3.1.1 and Table 12B-1.1, p. 12-B-10.

²¹¹ The Joint CLECs refer to this evaluation in their April 8 filing. They claim without citation or support that "HP failed to record all errors" during its testing. Joint CLEC Brief at 22. The CLECs also claim that "eight releases" were made in SATE 9.0 and that "eight known problems" identified by HP are still unresolved. *Id.* at 24. Qwest is unable to respond to these claims because they are made without citations, data, identifying information, or other support. The Commission therefore should disregard these claims.

Marketplace."²¹² After completing this comprehensive evaluation, HP concluded "SATE is adequate to support Qwest CLEC Testing in the State of Arizona, given the current level of CLEC usage."²¹³ In that report, HP also offered a list of recommended actions for the future.²¹⁴ In a December 31, 2001, response, Qwest outlined its plans to address HP's recommendations.²¹⁵

HP's second evaluation was based on HP's recommendation #7 in the initial evaluation: "To ensure that the SATE is adequate for full release testing, HP recommends that IMA SATE release 9.0 be tested."²¹⁶ After completing this second evaluation, HP concluded, "the Qwest SATE is adequate to support New Release Testing by a CLEC."²¹⁷ Thus, the results of the Arizona pseudo-CLEC evaluation, under which HP was able to successfully test its EDI interface using SATE, confirm that SATE is a proven test environment that can be used with good results by CLECs.

²¹² Hewlett-Packard Company's SATE Summary Evaluation Report for Qwest IMA-EDI SATE, Final Release Version 2.0, December 21, 2001 ("HP SATE Summary Report") at § 1.1 (Exhibit P).

²¹³ *Id.*

²¹⁴ *Id.* at 8 (Section 2.1)

²¹⁵ Qwest's Response to HP's SATE Recommendations, ACC Docket No. T-00000A-97-0238, December 31, 2001 (Exhibit V). On February 14, 2002, HP filed a response to Qwest's filing, in which it indicated it would initiate a further review of SATE in connection with its evaluation of IMA 9.0. HP Comments on Qwest Response to Recommendations, February 14, 2002 (Exhibit W). The Arizona Corporation Commission did not provide for further written response from Qwest regarding the HP recommendations, but in Qwest's view, the HP recommendations have all been met or are in the process of being met.

²¹⁶ *Id.*

²¹⁷ Hewlett-Packard Company's SATE New Release Test Summary Report – 9.0 Transaction Test for Qwest IMA EDI SATE, Version 2.0, March 29, 2002 ("HP SATE New Release Test Summary Report") at § 2.1 (Exhibit Q).

3. KPMG's Closed Unresolved Exceptions Related to Interface Testing Do Not Present Section 271 Issues.

In this section we discuss the three closed unresolved KPMG exceptions that relate to interface testing (E3077, 3095, and 3109).²¹⁸ For the reasons given below, KPMG has articulated requirements that are not part of the FCC's requirements for Section 271 approval of Qwest's interface testing. In addition, most of KPMG's concerns have been addressed or will be shortly with enhancements to SATE.

a. Exception 3077

During its initial review of SATE, KPMG issued Exception 3077, identifying the following issues:

- SATE does not generate post-order responses in the same manner in which they are created in the production environment.
- Flow-through orders are not supported in SATE.
- The volume of order responses supported in SATE is restricted due to manual response handling.
- The data contained within the order responses is not consistent, and may not mirror the data that would be found in production responses.

We address each of KPMG's initial concerns in light of the disposition report it issued on April 15, 2002, when it closed the exception.²¹⁹

²¹⁸ Exception 3109 has to do with testing of an electronic interface for maintenance and repair. The FCC does not require BOCs to provide electronic interface for maintenance and repair, and its interface testing requirements apply only to preordering and ordering. *See* New York 271 Order, 15 FCC Rcd at 4069 (¶ 215) (EB-TA not required); Texas 271 Order, 15 FCC Rcd. at 18419 (¶ 132) (pre-order and ordering environments). Because it is a closed unresolved exception, however, we discuss it below.

²¹⁹ See KPMG Disposition Report for Exception 3077, issued April 15, 2002 ("E3077 Disposition Report"), attached as Exhibit R.

The first KPMG concern was that "SATE does not generate post-order responses in the same manner in which they are created in the production environment."

²²⁰ KPMG agreed that VICKI appears to have enhanced some aspects of EDI interface testing.²²¹ However, KPMG believed that VICKI had the following limitations:

- VICKI response times may not match production response times.
- VICKI response detail may not match production response detail.
- VICKI does not support "real world scenario testing."

As KPMG acknowledged in its Disposition Report, the first and second items have been addressed by April 15, 2002 modifications to VICKI supporting documentation.²²² The third KPMG concern noted above is that, in its view, SATE does not provide "real world scenario testing."²²³

KPMG's concerns about "real world scenario testing" should be largely addressed by Qwest's planned implementation of flow-through capability in SATE. We note, at the outset, that the FCC has not required that test environments have flow-through capability under Section 271.²²⁴ In any case, as discussed above, flow-through capability should be fully implemented throughout Qwest's region by mid-May.²²⁵ With flow-through, when a CLEC sends an LSR request to Qwest, the CLEC is asking what

²²⁰ E3077 Disposition Report at 1.

²²¹ E3077 Disposition Report at 3; KPMG Second Supplemental Recommendation on E3077 (April 3, 2002) at 13.

²²² E3077 Disposition Report at 2.

²²³ E3077 Disposition Report at 3.

²²⁴ See *Texas 271 Order*, ¶ 138.

²²⁵ See SATE Flow-Through White Paper at 3 (Exhibit T).

would happen to this specific LSR if the telephone numbers, circuits, and facilities in SATE existed in Qwest's production environment and this specific LSR were sent to production. Flow-through will allow CLECs to test the exact message they would receive in production for an LSR. VICKI also allows CLECs to test message formats, messages, and maps for specific pre-determined test scenarios. To the extent VICKI is different from the production environment, this is an intended aspect of SATE's design.

226 VICKI allows CLECs to test specific desired responses to ensure that the CLEC can correctly process the Qwest response.²²⁷

Qwest believes that it has provided real world testing scenarios for CLECs through the introduction of SATE and its flow through capability. As noted above, the FCC does not require that the testing environment be "identical" to the production environment, but only that it provide "the same key functions."²²⁸ This SATE clearly does.

²²⁶ See E3077 Disposition Report at 2. See also Qwest Response to KPMG's Second Supplemental Recommendation on E3077 (April 8, 2002). There, in response to KPMG's assertion that "VICKI response detail may not match production response detail," Qwest undertook to clarify the discussion of this issue in the VICKI Path Document (Exhibit U). Qwest has added the following language to the VICKI Path Document:

Due to the complexities of certain responses, the detail data on these transactions may not match the detail received on a production response for a similar transaction. The structure of the EDI response will mirror production. FOCs are provided with varying quantities of service orders. Also, with respect to the Service and Equipment detail of a Completion notice, VICKI is built to allow a CLEC to understand the EDI Map structure and content of a Completion. It does not return a Service and Equipment section specific to the CLEC's test LSR. If a CLEC desires a specific detail data in the Service and Equipment section to be returned, they can request it be added to VICKI via the Data Request Process.

²²⁷ When desired responses are triggered by the CLEC for a specific LSR, the responses received may not be the same responses as those a similar production LSR would have received. This is purposeful and allows the CLEC to determine if it can process the response through their EDI system.

²²⁸ *Texas 271 Order*, ¶ 138.

A second KPMG concern is that "[f]low-through orders are not supported in SATE."²²⁹ As discussed above, Qwest has enhanced SATE to add a test flow-through system and test Service Order Processors ("SOPs"). The option to send the test LSR to the flow-through systems allows the CLEC to experience an immediate response once the flow-through order is successfully processed, or to receive a manual response if flow-through is not successful. As discussed above, flow-through implementation is scheduled to be completed on or before May 20, 2002. Because of the future implementation timeline of flow-through for additional products in other regions, however, KPMG closed this issue unresolved.²³⁰ Qwest fully expects to satisfactorily implement flow-through as planned.²³¹

A third KPMG concern was that the "volume of order responses supported in SATE is restricted due to manual response handling."²³² KPMG noted that limitations appeared to stem from the manual response generation required for SATE, and that with the implementation of VICKI, the resource requirements necessary to support SATE transactions were diminished. It therefore considered this aspect of E3077 to be resolved.²³³

The fourth KPMG concern was that the "data contained within the order responses is not consistent, and may not mirror the data that would be found in production responses."²³⁴ Qwest explained in its response to this exception that it documents all known

²²⁹ E3077 Disposition Report at 3.

²³⁰ See E3077 Disposition Report at 3.

²³¹ In the case of Southwestern Bell, the FCC concluded, based on the "totality of the evidence," that its testing environment was adequate, even though SWBT did not test flow-through or response times, and did not evaluate the ability of an order to post to billing. *Texas 271 Order*, ¶¶ 138.

²³² E3077 Disposition Report at 3.

²³³ E3077 Disposition Report at 4.

²³⁴ *Id.*

differences between IMA and SATE in the Overview section of the SATE Data Document.²³⁵ SATE contains all IMA-EDI generated errors that occur in production, as well as commonly triggered legacy system errors. Through the data request process, a CLEC can request that Qwest code any other legacy system errors into SATE. Additionally, Qwest has compared the errors generated from the legacy systems returned through Qwest's 8.0 production EDI interface over a 6-month period with the errors contained in SATE. Qwest has published this list and discussed it in the CMP forum.²³⁶ Beginning with IMA-EDI release 9.0, Qwest generated the IMA EDI Errors List twice per IMA-EDI release – with the initial availability of the new release and the deployment of that release in production. This showing is adequate under Section 271. The FCC does not require a BOC to provide a testing environment that is "identical to its production environment."²³⁷ Rather, it is sufficient for a BOC to show that "the testing and production environments perform the same key functions."²³⁸

The commercial data discussed above, Section VII(C), also strongly support the adequacy of SATE. The CLECs' experience during testing need not be flawless under Section 271, moreover. As the FCC concluded in approving Southwestern Bell's Section 271 application in Texas, while some problems arose during testing, they "did not significantly impede any carrier's ability to test adequately the release prior to implementation."²³⁹ Similarly, any issues identified by KPMG do not "significantly impede any carrier's ability to test" under SATE.

²³⁵ Qwest Response to KPMG Second Supplemental *Recommendation* on E3077 at 16.

²³⁶ See <http://www.qwest.com/wholesale/cmp>.

²³⁷ *Texas 271 Order*, ¶ 138.

²³⁸ *Id.*

²³⁹ *Id.*, ¶¶ 138, 134 & n.360. We also note that there was not even a third party test evaluation of the Texas testing environment, and the FCC approved it nonetheless.

In sum, given the commercial evidence here, which shows that CLECs have successfully used SATE, and given the limited nature of open issues remaining in this exception, the Commission can and should conclude that SATE meets the FCC's requirement that SATE mirror production.

b. Exception 3095

Exception 3095 also relates to SATE. In this exception, KPMG notes that there are resale products and UNEs that are supported by IMA-EDI that are not also supported by SATE.²⁴⁰

Qwest built SATE to support every resale product and UNE offering for which CLECs had built IMA-EDI interfaces. Certain other products therefore were not automatically included in SATE. Nothing in the FCC's prior Section 271 orders specifically requires a BOC to make a stand-alone test environment available for products that CLECs do not currently order via the EDI interfaces.

Through the CMP Redesign Process, CLECs and Qwest have agreed upon a process for CRs to be submitted to add products and make other changes to SATE.²⁴¹ Both CLECs and Qwest are free to submit CRs to add products or capabilities to SATE. Through the CMP process, Qwest and CLECs also jointly prioritize the SATE CRs for inclusion in future EDI releases.²⁴² In addition, a SATE Users' Group, composed of representatives of CLECs, Qwest, HP, and KPMG, meets monthly as part of the CMP Forum.²⁴³ It gives SATE users the

²⁴⁰ See KPMG Disposition Report for Exception 3095, issued April 11, 2002 ("E3095 Disposition Report"), attached as Exhibit S.

²⁴¹ See Wholesale CMP §§ 4, 5.

²⁴² Id., § 10.

²⁴³ See SATE Users' Group Meeting Minutes, November 13, 2001 (Exhibit L).

opportunity to provide regular feedback to Qwest and to work jointly with Qwest to develop new SATE CRs.

Pursuant to the CMP process, Qwest submitted CRs this winter to add the resale products and UNEs that are not currently supported by SATE.²⁴⁴ (At the time SATE was implemented, these products were ordered by CLECs through IMA-GUI interfaces, if they were ordered at all.) Also pursuant to the agreed-upon CMP prioritization process, Qwest and CLECs jointly prioritized these CRs. As described in the CMP prioritization rules, Qwest participated equally with each CLEC in voting on prioritization of these CRs.²⁴⁵ The timing of the addition of new products to SATE is not entirely within Qwest's control, since CLECs participate in the prioritization of SATE CRs under the CMP,. The outcome of the prioritization process was that all but two of the CRs to add additional products to SATE were prioritized toward the bottom of the list of CRs.²⁴⁶ Qwest will use the prioritized list to determine what functionality the 11.0 SATE release should include.

The fact that Qwest did not include in its initial rollout of SATE those products that CLECs were not ordering through Qwest's IMA-EDI interfaces is not an issue under Section 271. The FCC's standard for evaluating electronic interface testing – that the testing environment be "stable" and "mirror production" -- is fully satisfied by SATE, as shown above. SATE is available for those products that are ordered via electronic interfaces. It is not essential that it be available for every product offered by Qwest. The CLECs' decision not to assign a high priority to most of the CRs adding products to SATE is evidence of this.

²⁴⁴ Notarianni Affidavit, ¶ 11.

²⁴⁵ Wholesale CMP, § 10.

²⁴⁶ *Id.*

Again, the commercial data also demonstrate that SATE is adequate to permit CLECs to test EDI interfaces and achieve production status. As noted above, five individual CLECs have tested in SATE and achieved production status, as have five others through a service bureau that tested in SATE. In addition, 26 CLECs have successfully developed EDI interfaces with Qwest using the Interoperability testing environment.²⁴⁷ Thus, to the extent there might be a CLEC that would be interested in testing an EDI interface for a product that is not yet available in SATE, that CLEC may use the Interoperability testing environment to certify the EDI interface, and may pursue adding that product to SATE through the CMP process.

In sum, any remaining issues identified by KPMG in this exception have been adequately addressed through the efficacy of the CMP process and through Qwest's available interface testing options.

c. Exception 3109

This exception relates to Qwest's testing environment for CLECs that are building interfaces to its Mediated Access Electronic Bonding for Trouble Administration (MEDIACC EB-TA).²⁴⁸ EB-TA is Qwest's computer-to-computer maintenance and repair interface, and is used by both CLECs and Interexchange Carriers. EB-TA is offered as an alternative to Customer Electronic Maintenance and Repair ("CEMR"), an online system for maintenance and repair.

²⁴⁷ Notarianni Affidavit at ¶ 4.

²⁴⁸ KPMG Disposition Report for Exception 3109, issued March 19, 2002 ("E3109 Disposition Report"), attached as Exhibit X.

As an initial matter, the FCC has never required that BOCs provide CLECs with an electronic interface for maintenance and repair activities in order to obtain Section 271 approval. As the FCC has stated:

The FCC has in the past held that the provision of an integrated, computer-to-computer maintenance and repair interface is not required to satisfy the "substantial same time and manner" test, provided that the BOC otherwise demonstrates that it provides equivalent access to its maintenance and repair functions.²⁴⁹

Because access to an electronic interface for maintenance and repair is not required for Section 271, the test environment for EB-TA cannot be a Section 271 requirement. In addition, the FCC has not applied its "stable test environment that mirrors production" requirement beyond pre-ordering and ordering transactions.²⁵⁰ The closed unresolved status of this exception thus is not an issue under Section 271, and the Commission need not consider it in its Section 271 evaluation of Qwest.

We nevertheless address in this filing the issues raised by KPMG in this Exception, in order to provide the Commission with the full picture of interface testing for EB-TA, and because EB-TA was included within the scope of the OSS test. As discussed below, Qwest believes that the testing environment it provides is more than sufficient to enable CLECs successfully to test their electronic interface with Qwest's maintenance and repair functions prior to production. This conclusion is supported by the commercial data.²⁵¹

EB-TA is a robust, computer-to-computer interface that allow CLECs to submit, modify, and track repair tickets for resale, UNEs, and UNE-P for both designed and non-

²⁴⁹ See *New York 271 Order*, 15 FCC Rcd at 4069 (¶ 215).

²⁵⁰ See, e.g., *Kansas/Oklahoma 271 Order*, 16 FCC Rcd at 6319 (¶ 168).

²⁵¹ Notarianni Affidavit, ¶ 6.

designed services.²⁵² The interface, which is based on ANSI standard documents, was developed for interexchange carrier trouble tickets in 1996 and began supporting CLECs in 1997.²⁵³ To date, four CLECs have successfully built and tested to Qwest's EB-TA interface.²⁵⁴ The testing process is rigorous, and includes gateway to gateway testing, stack to stack testing, end to end system testing, and operational readiness testing. Qwest provides carriers with all necessary documentation and technical assistance.²⁵⁵ The testing environment permits CLECs to test all capabilities of production EB-TA.

KPMG tested several aspects of the EB-TA interface, and found it satisfactory in every respect other than that identified in E3109. It determined that CLECs were able to test all of the agreed-upon scenarios, and it did not have criticisms of the scope or functionality of the test environment. In Test 17, it examined the existence and expected behavior of the EB-TA interface by submitting trouble tickets through a CLEC's gateway. It compared the actual results with expected results. Qwest satisfied all criteria with 100 percent results and without the issuance of any observations or exceptions.²⁵⁶ In Test 24.6, with the sole exception of Criterion 24.6-2-9 (the issue in E3109), KPMG found that all test criteria were satisfied, including methodology, interface specifications, carrier-to-carrier testing, production interface support, and capacity management of the interface.²⁵⁷

252 See Draft Report, Test 17, § 2.1, p. 344. At a high level, the term "designed services" refers to POTS.

253 Notarianni Affidavit, ¶ 6.

254 *Id.*

255 A description of the MEDIACC--EB-TA implementation process is provided on the Qwest Wholesale Website at <http://qwest.com/wholesale/systems/mediacc-ebta.html>.

256 Draft Final Report, Test 17.3, Table 17-3 (MTP criteria 17-1-1 to 17-1-8), p. 352.

257 Draft Final Report, Test 24.6, Table 24.6-2.1, p. 588.

KPMG issued Exception 3109 because, during end-to-end EB-TA testing, test scenarios for non-designed services are processed by the Loop Maintenance Operating System ("LMOS") production mainframe.²⁵⁸ Apparently, in KPMG's view, the test environment for all components of the testing process should be physically separate from the production environment, with access provided to a duplicate of the LMOS production database.²⁵⁹ As noted above, however, the FCC has never established a Section 271 requirement that a test environment be physically separate from production or mirror production for functions other than preordering and ordering.²⁶⁰

There is no question that the EB-TA test environment provides CLECs with a true representation of how transactions will function and respond in Qwest's EB-TA production environment. In Qwest's experience, the fact that EB-TA testing uses the LMOS production applications is not detrimental or limiting, but rather it is advantageous to the CLEC, because it permits the full functionality of EB-TA to be tested. The EB-TA test environment encourages cooperative testing, provides interface test management controls, and provides a true representation of how transactions will function and respond in the production environment. As noted above, four CLECs have tested successfully using EB-TA, and the interface has been

²⁵⁸ See E3109 Disposition Report at 1. When a CLEC submits a repair ticket through EB-TA, the ticket is electronically generated and passed to one of two Qwest backend systems. It is passed to LMOS for non-designed tickets and to the Work Force Administration/Control (WFA/C) for designed tickets. See Draft Final Report, Test 24.6, Table 24-6-2-1 (MTP criterion 24.6-2-9), pp. 610-11. The tickets are then processed, as are all Qwest repair tickets, by LMOS and WFA and all attending statuses are electronically passed back to the CLEC through EB-TA.

²⁵⁹ KPMG also found the process of testing non-designed services cumbersome, due to the necessary manual intervention of the Qwest Tester. E3109 Disposition Report at 2-3. It cited an instance in which a CLEC had two of its test trouble reports pass by the Qwest Tester to the Qwest Production Screeners. See Draft Final Report, Test 24.6, Table 24.6-2-1, (MTP criterion 6-2-9), p. 611. The Screeners proceeded to call the CLEC's production operation center to obtain additional information and/or dispatch permission, and the trouble reports were cancelled. The production environment was not ultimately impacted. See KPMG Comments (2/21/02) on E3109 at 4. Moreover, as discussed above, Qwest believes there are advantages for CLECs in having access to production systems for testing, and the commercial data show that the EB-TA testing process works.

²⁶⁰ See, e.g., *Texas 271 Order*, 15 FCC Rcd. at 18419 (¶ 132).

utilized successfully by CLECs and interexchange carriers for six years.²⁶¹ For these reasons, Qwest satisfies the applicable Section 271 FCC test for CLEC access to maintenance and repair functions.

E. Conclusion

In sum, the interface testing process and testing environments provided to CLECs by Qwest fully satisfy Section 271. The commercial data, which show that numerous CLECs have tested EDI interfaces and gone to production using Qwest's interface testing process, including both the Interoperability environment and SATE, provide strong support for this conclusion. The ROC third party test results show that for the most part, Qwest has satisfied the test criteria. Those issues remaining unresolved in the third party test go to areas beyond that which the FCC has required to satisfy Section 271, and are not, in any event, significant enough to affect the conclusion that Qwest has met the checklist requirements under the FCC's applicable standards. And, as noted in previous sections, Qwest's technical assistance and EDI documentation are effective in enabling CLECs to build and EDI interface and test it through to production and after. The Commission therefore should conclude that Qwest has provided CLECs with a "stable test environment that mirrors production."²⁶²

CONCLUSION

In conclusion, for the reasons given above, Qwest's change management process fully satisfies each of the requirements of the FCC's Section 271 evaluation. Through its change

²⁶¹ Notarianni Affidavit, ¶ 6.

²⁶² *Rhode Island 271 Order*, App. D (¶ 42).

management process, and through its technical assistance, EDI documentation, and interface testing environments, Qwest provides nondiscriminatory access to its OSS and provides competitors with a meaningful opportunity to compete.

Dated this 26th day of April, 2002.

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