

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**IN THE MATTER OF THE CONTINUED )  
COSTING AND PRICING OF UNBUNDLED ) Docket No. UT-003013  
NETWORK ELEMENTS, TRANSPORT, ) Part D  
TERMINATION, AND RESALE )**

**REBUTTAL  
TESTIMONY OF  
TERESA K. MILLION  
ON BEHALF OF  
QWEST CORPORATION**

**MARCH 7, 2002**

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**IDENTIFICATION OF WITNESS**

**Q. PLEASE STATE YOUR NAME, POSITION, EMPLOYER, AND BUSINESS ADDRESS.**

A. My name is Teresa K. Million. I am employed by Qwest Corporation (Qwest), as Director – Service Costs. My business address is 1801 California Street, Denver, CO.

**Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN THIS PROCEEDING?**

A. Yes.

**PURPOSE OF TESTIMONY**

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

A. The purpose of this testimony is to rebut the testimonies of Mr. David E. Griffith representing the Washington Utilities and Transportation Commission staff, Mr. Sidney L. Morrison, Mr. Timothy J. Gates, Mr. Don Price, and Mr. Roy Lathrop of WorldCom, Inc., and Dr. Richard Cabe on behalf of Covad Communications relating to Qwest’s cost studies filed in Part D of this docket. Also, in this filing, as discussed more specifically in my testimony below, I will be correcting certain rates and

1 withdrawing others, therefore, I provide Exhibit TKM-55 as a replacement for Exhibits  
2 TKM-28 and TKM-51 filed earlier in Part D of this proceeding.  
3

4 **TESTIMONY OF MR. GRIFFITH**

5 **Q. MR. GRIFFITH STATES THAT QWEST SHOULD INCLUDE THE COST**  
6 **OF THE REGENERATOR CARD IN THE RECURRING CHARGE FOR**  
7 **CHANNEL REGENERATION. DO YOU AGREE?**

8 A. Yes. As Mr. Griffith points out regenerator cards are reusable, whether it is the  
9 CLECs or Qwest that will be reusing the cards. The reason that Qwest developed a  
10 nonrecurring cost for regenerator cards is because the FCC has stated that “[t]o the  
11 extent that the equipment needed...is dedicated to a particular interconnector, we  
12 believe that requiring that interconnector to pay the full cost of the equipment up front is  
13 reasonable because LECs should not be forced to underwrite the risk of investing in  
14 equipment dedicated to the interconnector’s use, regardless of whether the equipment is  
15 reusable.”<sup>1</sup> Regenerator cards, when in use are clearly dedicated to the particular  
16 CLEC using them. However, Mr. Griffith is also correct that Qwest’s cost study does  
17 not provide for a pro rata refund of the regenerator card. This is due to the fact that  
18 without more experience, or forecasts of anticipated use provided by the CLECs, it

1 would be impossible for Qwest to project the length of time that the equipment will be  
2 used by an interconnector. Nevertheless, because of Mr. Griffith's argument regarding  
3 the reusability of regenerator cards, Qwest agrees to withdraw the nonrecurring charge  
4 for the card and instead include it in the recurring cost for channel regeneration. This  
5 results in the recurring cost for optional DS1 Regeneration changing from \$1.70 to  
6 \$9.88, and for DS3 Regeneration changing from \$5.09 to \$36.00. The cost study that  
7 produces these results is attached as Exhibit TKM-56, Study ID #6189.  
8

9 **TESTIMONY OF MR. MORRISON**

10 **Q. WHAT SPECIFIC CRITICISMS DOES MR. MORRISON MAKE OF THE**  
11 **CALCULATION OF QWEST'S NONRECURRING CHARGES?**

12 A. On page 25 of his testimony Mr. Morrison states that the amount of time spent by  
13 various departments and technicians are excessive and that Qwest's estimates are used  
14 to intentionally "drive up the total NRC times and consequently the NRC charges."  
15 This appears to be in direct conflict with his testimony on page 23 where he admits he is  
16 "certain that the time and fallout estimates [in Qwest's NRC study] are consistent with  
17 the individual SMEs experience...." It is inconsistent for Mr. Morrison to suggest that  
18 Qwest is intentionally padding its time estimates since, at the same time, he says he

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<sup>1</sup> *In the Matter of Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection Through Physical Collocation for Special Access and Switched Transport, FCC 97-208, CC Docket No.*

1 believes that those estimates are consistent with SME experience. Nevertheless, he  
2 recommends removing individual activities associated with what he terms validation  
3 work items that he says are unnecessary and redundant in nature. This recommendation  
4 fails to account for the fact that Qwest's cost studies reflect the amount of  
5 mechanization that exists in its downstream or "back office" systems. The validation  
6 work items, as well as other manual work items included in Qwest's NRC studies,  
7 represent the activities that Qwest performs assuming forward-looking mechanized  
8 processes. Nonetheless, Mr. Morrison would have the Commission assume the  
9 existence of hypothetical systems that go well beyond the level of mechanization that is  
10 available in Qwest's systems or any ILEC's systems for that matter. The FCC simply  
11 does not require Qwest to provide capabilities to the CLECs beyond what Qwest is  
12 able to do for itself in the real world with respect to its OSS.

13 Mr. Morrison implies with his criticisms that the reason for the manual activities included  
14 in Qwest's nonrecurring charges is that its systems are antiquated. This could not be  
15 farther from the truth. Qwest spends many hundreds of millions of dollars each year  
16 updating, improving and maintaining its systems. The fact is that Qwest and the other  
17 ILECs have some of the most sophisticated, state-of-the-art systems in the world.  
18 Those systems provide tracking, inventory management, provisioning and billing  
19 capabilities for billions of dollars worth of assets. This is the reason that the FCC  
20 declared OSS to be a UNE, and determined that CLEC access to the ILECs' ordering

1 systems is essential to the success of competition. The FCC recognized that if the  
2 CLECs were to have to purchase their own systems to duplicate only the functions  
3 performed by the ILECs' existing OSS, all but the largest of CLECs (e.g., AT&T,  
4 WorldCom, Sprint) would be unable to establish financially viable businesses. The  
5 suggestion that more state-of-the-art mechanization exists than is reflected in Qwest's  
6 nonrecurring studies is pure fantasy. The CLECs have yet to provide Commissions with  
7 the name of a vendor or a viable system available today that could improve upon  
8 Qwest's own forward-looking systems. As explained in Mr. Craig's testimony, when  
9 pressed on this issue in a data request, Mr. Morrison provided an example of  
10 technology (the Smart MDF) that has little practical application in the outside plant  
11 network, and none in central offices like those encountered in an ILEC's network.  
12 Qwest's NRC studies are based on Qwest's forward-looking OSS and reflect only the  
13 manual processes that Qwest must perform in conjunction with those systems on a  
14 forward-looking basis.

15

16 **Q. CAN YOU GIVE AN EXAMPLE OF THE LEVELS OF MECHANIZATION**  
17 **AND FLOW-THROUGH THAT ARE CURRENTLY REFLECTED IN**  
18 **QWEST'S NONRECURRING COSTS?**

19 A. Yes. Qwest's nonrecurring study for the Customer Transfer Charge (CTC) and UNE-  
20 P POTS (mechanized), assumes that 99% of orders will be submitted electronically by

1 the CLECs to the Interconnect Service Center (ISC) and 1% will be submitted  
2 manually. This, in spite of the fact that Qwest still receives many times that percentage  
3 of orders from CLECs in Washington via facsimile. Qwest's study also assumes that of  
4 those orders received electronically, 95% will flow-through the ISC without the need  
5 for manual intervention. This means that for a function such as "Type change of service  
6 provider" that takes an average of 10 minutes to perform, the study assumes that 99%  
7 of the time orders will be submitted electronically, and this function will be handled  
8 manually 5% of the time because of fallout. Ms. Albersheim explains in her testimony  
9 what constitutes fallout. This equates to half of a minute ( $10 * .99 * .05$ ) of processing  
10 time included in the study for this function when the order is submitted electronically.  
11 The remaining 1% of orders estimated to be submitted via facsimile and will be  
12 processed manually. For manual orders an additional tenth of a minute ( $10 * .01$ ) is  
13 included in the study. Thus, the total time included in the CTC and UNE-P POTS  
14 (mechanized) studies for this function is six-tenths of a minute.

15

16 **Q. MR. MORRISON DISCUSSES FALLOUT WITH RESPECT TO QWEST'S**  
17 **NONRECURRING STUDIES, DO YOU AGREE WITH HIS ANALYSIS?**

18 A. No. Mr. Morrison provides an analysis of two ways that fallout rates could be applied  
19 in a study. One he says, is to apply the fallout rate at the level of work steps, the other  
20 is to apply the rate once to the entire process. He gives a mathematical example that he



1 says results in 100 additional work item computations the way that Qwest reflects  
2 fallout in its studies, versus 10 additional computations when applied the “correct” way.  
3 The problem with Mr. Morrison’s theory and mathematical example is that it provides a  
4 comparison of the proverbial “apples to oranges” type. What Mr. Morrison’s example  
5 proves is that if you apply the fallout rate differently from one study to another, you get a  
6 different result. In one case he is applying a hypothetical 10% fallout rate to each work  
7 step in each order, and in the other he is applying the 10% rate once to each order.  
8 These are two entirely different approaches; individual work steps and orders do not  
9 share a common denominator. A valid analysis would be to apply fallout rates  
10 individually to the number of minutes in each work step in each order, and compare that  
11 to applying the weighted-average fallout rate once to the total number of minutes in each  
12 order. This approach places the items being compared on the same basis and allows  
13 for a meaningful analysis. The result of such an “apples to apples” comparison is that  
14 each method produces the same amount of fallout in minutes.

15

16 **Q. WHAT DO YOU BELIEVE ARE THE REAL ISSUES REGARDING**  
17 **FALLOUT TO BE ADDRESSED BY THIS COMMISSION?**

18 A. Mr. Morrison’s analysis conceals the real issues to be addressed by this Commission  
19 with regard to fallout. That is, whether it is more appropriate to estimate an average  
20 fallout rate that is applied once to the total minutes of processing time for each order, or

1 to provide individual fallout rates for the work steps performed for each order. Qwest  
2 believes that it is a better and more accurate approach to apply fallout rates individually  
3 to work steps for two reasons. First, fallout rates, as well as mechanization rates, vary  
4 from one work activity to another because of the involvement of different systems and  
5 different process flows in each step. In other words, the activities and process flows  
6 that take place in the Interconnect Service Center are entirely different and unrelated to  
7 the activities in the Loop Provisioning Center, except to the extent that one “hands off”  
8 to the other in the overall process of provisioning a loop. Assuming an overall fallout  
9 rate may make for a simpler study, however it ignores the fact that over time process  
10 improvements may occur in one center and should be reflected in the NRC study, but  
11 may have no impact on other centers or processes. Qwest’s approach provides a more  
12 accurate and effective way to reflect forward-looking process improvements in its  
13 nonrecurring charges.

14  
15 Second, the time estimates and probabilities that Qwest uses in its NRC study are  
16 provided by the subject matter experts (SMEs) for each of the centers or work  
17 processes. These people have responsibility for the processes based on their often  
18 considerable experience, they work day to day in the centers where the work steps are  
19 performed, and they are involved in evaluating and implementing process and system  
20 improvements in their groups. By assigning fallout and mechanization probabilities at

1 work-step levels, Qwest is able to provide a more accurate estimate of the activities  
2 associated with each process or work center. Developing an overall fallout rate would  
3 require assembling the inputs from each of the individual SMEs and calculating a  
4 weighted average to apply across all work steps and centers. This approach would not  
5 allow the Commission to evaluate or judge the efficiencies reflected in Qwest's NRC  
6 studies in any kind of detail.

7

8 **Q. DOES MR. MORRISON TAKE ISSUE WITH OTHER ASPECTS OF**  
9 **QWEST'S NONRECURRING STUDIES?**

10 A. Yes. Mr. Morrison takes issue with certain activities that he believes are unnecessary in  
11 Qwest's studies. He states, without substantiation, that Qwest overstates the times  
12 necessary to perform certain functions and that some of the activities reflected in  
13 Qwest's nonrecurring studies are duplicative of activities already performed. For  
14 example, he claims that the activities listed in the studies for Service Delivery  
15 Implementor for circuit testing are overstated and should be adjusted to ten minutes.  
16 Mr. Morrison provides no support for such an adjustment, other than that he evidently  
17 thinks it should take less time than Qwest's experience suggests. Qwest believes that  
18 absent a valid reason for adjustments to its individually proposed times, Qwest's times  
19 are more likely to be representative because they are based on the experience of  
20 experts who currently perform or have responsibility for the tasks being measured. This

1 is more appropriate than relying on an unsubstantiated opinion that “testing of circuits  
2 goes rapidly.” Although, Mr. Morrison would like to convince the Commissions that  
3 the time estimates provided by Qwest’s experts (who currently perform the tasks being  
4 studied, and are aware of the improvements that Qwest expects to achieve in the near  
5 future) are not to be relied on, he has provided no evidence that his time estimates are  
6 more reliable. Qwest is able to provide detailed backup that includes the estimates for  
7 each task of the time and probability of occurrence for every nonrecurring charge. In  
8 many cases this backup includes the name of the person or persons providing the  
9 estimate, performing the work or supervising the people who perform the work.

10  
11 Mr. Morrison also states that the intra-company calls work item that the Service  
12 Delivery Implementor performs is unnecessary. The Service Delivery Implementor has  
13 overall control responsibility for service provisioning, maintaining and testing of designed  
14 services and coordinates work activities of other centers/technicians throughout the  
15 entire timeline of service order provisioning. The Implementor is in contact with all  
16 work groups, as necessary, along the critical date path of the order. The times  
17 estimated for the Implementor include anticipated process efficiencies and  
18 mechanization for a 12 to 18 month horizon, and are based on averages for particular  
19 functions. The time estimates do not include problems encountered during the process  
20 (e.g., system downtime or resolution of internal translations or programming problems),

1 supplements to the initial order, or maintenance and repair times. Thus the estimate of  
2 five minutes per installation to perform intra-company calls is appropriate and is not  
3 excessive.

4  
5 Another activity “Verify LNO (Local Network Operation) Completion” listed under  
6 Service Delivery Implementor is an abbreviated reference for a number of work  
7 activities performed by the Implementor throughout the service establishment process.  
8 These activities include checking to see that due dates have been met and updating the  
9 order information for jeopardy status if due dates cannot be met. This entails  
10 investigation to determine reasons for problems if work cannot be completed, including  
11 verification that the CLEC is ready on its end of the process. This does not mean that  
12 Qwest includes the time necessary to resolve any problems in its time estimates. In  
13 addition, when coordinated or “hot” cuts have been requested by the CLEC the  
14 Implementor contacts the CLEC to receive an “OK” to begin work.

15  
16 It would be inappropriate for this Commission to require Qwest to perform all of the  
17 activities necessary to provision CLEC requests for UNEs, then follow Mr. Morrison’s  
18 recommendation to simply eliminate those activities from the NRC study on the basis of  
19 his conjecture about what constitutes a forward-looking process. The result, in the real  
20 world, is that Qwest is expected to perform work activities on its existing network in

1 order to accommodate the CLECs. At the same time the CLECs expect Qwest to  
2 assume away the cost for those activities based on hypothetical systems and processes  
3 that do not exist. These types of assumptions in a nonrecurring cost model merely shift  
4 the recovery of costs away from the CLECs and on to Qwest and its retail customers.  
5

6 **Q. YOU SAID THE TIMES ESTIMATED IN QWEST'S NONRECURRING**  
7 **STUDIES REPRESENT AVERAGES FOR PARTICULAR ACTIVITIES,**  
8 **DO THOSE AVERAGES INCLUDE THE PROBLEMS QWEST MAY**  
9 **ENCOUNTER IN PERFORMING THE ACTIVITY?**

10 A. No. The times reflected in Qwest's nonrecurring studies assume perfect service orders,  
11 with the exception of the fallout or flow through percentages for certain activities, and  
12 do not include problems encountered during the work activities. This means that the  
13 times documented do not reflect times expected to be spent when an order is  
14 supplemented or changed due to redesign issues. Nor do they reflect problems or  
15 trouble at test, with systems or with the customer. System downtimes or times spent  
16 resolving internal order flow problems are also not included in the time estimates.  
17 Finally, the time estimates do not include any maintenance or repair times.  
18

19 **Q. CAN YOU GIVE A SPECIFIC EXAMPLE OF CERTAIN TASKS THAT**  
20 **ARE INCLUDED IN QWEST'S TIME ESTIMATES FOR A**

1           **PARTICULAR FUNCTION CONTAINED IN ITS NONRECURRING**  
2           **STUDIES THAT THE CLECS HAVE TAKEN ISSUE WITH?**

3           A.     Yes. The CLECs have consistently criticized Qwest’s time estimates for the activities  
4           associated with the nonrecurring charges for access to poles, ducts, conduits, and  
5           rights-of-way. For example, Qwest estimates the time necessary, on average, to  
6           perform “Field verification – Manholes per manhole” to be 90 minutes. When Qwest  
7           enters a manhole to conduct a field verification it may take 30 minutes just to pump  
8           water out of the manhole, or it may take 8 hours, depending on the location and  
9           conditions at the particular manhole. In Qwest’s experience, across its 14 in-region  
10          states, manholes are rarely dry, and frequently take more than 30 minutes to pump. In  
11          Seattle, which is at sea level, and in the Arizona desert during monsoon season, it is not  
12          unusual for this task to take 8 hours or more. This represents just one of the tasks  
13          included in this function. Nevertheless, Qwest estimates that, on average, it will take a  
14          network technician 90 minutes in total to not only pump water from the manhole, but  
15          also to load the truck, travel to the location, set up appropriate traffic protection around  
16          the area, ventilate and test the manhole, enter the manhole, and tear the site down once  
17          a field verification is complete. The 90 minutes is an estimate of the *average* time, thus  
18          the *average* cost, that Qwest is likely to incur for this particular function at any given  
19          manhole, under any given circumstance, in any given state.

1 **Q. ARE THERE EXAMPLES WHERE THE CLECS HAVE TAKEN ISSUE**  
2 **WITH QWEST'S NONRECURRING COSTS AND HAVE CAUSED**  
3 **QWEST TO REEVALUATE THE TIME ESTIMATES IN ITS STUDY?**

4 A. Yes. In the case of the NRCs associated with access to poles, ducts, conduits, and  
5 rights-of-way Qwest's discussion with CLECs during the Part B hearings caused  
6 Qwest to reevaluate the time estimates in its study. As a result, Qwest convened a team  
7 of experts to review the estimates contained in the NRC study, make adjustments to the  
8 estimates based on current forward-looking assumptions, and submit new NRCs for  
9 these elements in Part D of this proceeding.

10  
11 As the Commission is well aware, cost studies when filed represent costs at a snapshot  
12 in time, while the updating of those costs, and the assumptions they are based on, is part  
13 of a dynamic and ongoing process. That process is effected by new products, new  
14 technologies, changes to product definitions, changes in what the CLECs want, and  
15 changes to business processes to name a few. Because of the dynamic nature of the  
16 process, Qwest's cost analysts periodically conducts reviews of the estimates contained  
17 in their studies with the SMEs who provide them. However, it is impossible for cost  
18 studies that are filed at a moment in time to always reflect every new development, this  
19 is especially true considering the hundreds of nonrecurring elements the cost analysts



1 must keep track of. Nevertheless, Qwest makes every effort to have every study filed  
2 reflect the most updated, forward-looking information available.

3  
4 In this proceeding, Qwest has withdrawn its Trunk Nonrecurring Charges (elements  
5 7.5.1 through 7.5.4 in Exhibit TKM-28) as a result of discussions between the cost  
6 analyst and SMEs that took place after these rates were initially filed. Qwest is also  
7 withdrawing pages 30 to 51 contained in the NRC study detail in Exhibit TKM-29,  
8 Study ID #5923. Similar to the process described above, Qwest is reviewing these  
9 elements and will submit new studies for them in a later phase of the cost docket.

10

11 **Q. ARE THERE ANY OTHER CHANGES TO QWEST'S NONRECURRING**  
12 **COST STUDY THAT SHOULD BE ADDRESSED?**

13 A. Yes. As discussed in Mr. Easton's rebuttal testimony, Qwest will withdraw its request  
14 for the MTE nonrecurring charges related to Intra-Building Cable (elements listed under  
15 section 9.3.3 in Exhibit TKM-28). Qwest is also withdrawing pages 491 to 509  
16 contained in the NRC study detail in Exhibit TKM-29, Study ID #5923.

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**TESTIMONY OF MR. GATES**

**Q. MR. GATES RECOMMENDS THAT THE COMMISSION REQUIRE QWEST TO PROVIDE TELRIC COST STUDIES IN SUPPORT OF ITS BRANDING RATES? DO YOU AGREE?**

A. No. As indicated by Mr. Gates, it is Qwest's position that because Qwest provides access to customized routing and because operator services (OS) and directory assistance (DA) are competitive services, the FCC's UNE Remand Order exempts OS and DA from TELRIC pricing as a UNE. This exemption extends, as well, to call branding for those services. If the FCC determines, as it has in the case of OS and DA, that TELRIC pricing is not required the ILECs are free to establish market pricing for a service. Therefore, Qwest has submitted a market rate for the call branding and set-up associated with OS and DA in its SGAT. Establishing a non-TELRIC based rate for call branding is entirely appropriate under the FCC's rules.

**Q. HOW HAS QWEST ESTABLISHED THE \$10,500 RATE FOR CALL BRANDING?**

A. The \$10,500 rate for call branding is the result of a retail study based primarily on the charges Qwest incurs with an outside vendor each time a CLEC requests the service. Qwest has not provided this study or the attendant documentation in this proceeding

1 because it considered this service to be the subject of market, rather than TELRIC,  
2 pricing.

3

4

**TESTIMONY OF MR. PRICE**

5 **Q.**

6

7

8

**MR. PRICE SPENDS THE FIRST SEVERAL PAGES OF HIS  
TESTIMONY COMPLAINING ABOUT HIS INABILITY TO  
UNDERSTAND THE APPLICATION OF QWESTS RATES. PLEASE  
COMMENT.**

9 **A.**

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This is Part D of Docket No. UT-003013, a docket that has been going on for more  
that two years. Qwest presents its cost results here in Part D in my Exhibit TKM-28,  
as replaced by Exhibit TKM-55, in a format that mirrors the Exhibit A to the  
Washington SGAT. This is similar to the way results have been presented in other  
phases of this docket. Qwest believes that it has done a good job of labeling the  
elements in Exhibit TKM-28, replaced by Exhibit TKM-55, to reflect the rates on a  
per-unit basis. Not once have any of the comments from Intervenors led Qwest to  
believe that they are unable to determine how these rates apply. Nor has the  
Commission indicated that it is unclear about how Qwest's UNE rates apply.  
Therefore, it is surprising that Mr. Price, at this late stage of the proceeding, is suddenly  
complaining that he is unable to understand the application of Qwest's rates. As to the  
terms and conditions determined in the SGAT docket, it is my understanding that

1 WorldCom has been an active participant in those proceedings, as well, and has had  
2 ample opportunity to “weigh in” on the issues. Evidently Mr. Price is concerned that  
3 this Commission may not be able to consider these two dockets separately and still  
4 remain focused on the overall objective of establishing UNE pricing.

5  
6 **Q. MR. PRICE DISCUSSES REMOTE TERMINAL COLLOCATION IN**  
7 **TERMS OF AN IMPAIRMENT TO THE CLEC, IS HE CORRECT?**

8 A. No. Mr. Price fails to mention that to the extent that an ILEC, such as Qwest, has  
9 deployed fiber feeder in its network it faces the same issues as the CLECs in having to  
10 place equipment at multiple remote locations in order to provide xDSL services to end  
11 user customers. In addition, he completely misinterprets the FCC’s discussion on this  
12 issue. Mr. Hubbard’s testimony, on page 28, specifies the circumstances in which  
13 Qwest has an obligation to offer unbundled packet switching. Basically, the FCC  
14 concluded that to the extent an ILEC places that equipment (i.e., a digital subscriber line  
15 access multiplexer, DSLAM) at a remote location, it must also provide space at that  
16 location for CLECs to place their own equipment. The FCC went on to say that if no  
17 space was available to the CLEC *at a location where the ILEC had deployed a*  
18 *DSLAM*, and no spare copper line was available, then and only then, the ILEC would  
19 be required to provide the CLEC with unbundled packet switching. The FCC came to  
20 this conclusion because it recognized that xDSL is an emerging competitive service in

1 which ILECs have little or no advantage over CLECs, and face competition from the  
2 unregulated cable industry, as well.

3  
4 The equipment necessary to provide such services does not exist in the incumbent's  
5 current network. It requires substantial investments in new technology to provide xDSL  
6 services, investments that the FCC reasoned the CLECs could make just as easily as  
7 the ILECs. Mr. Price appears to argue that because the cost of deploying DSLAMs at  
8 remote locations is high it is unreasonable to expect the CLECs to do so. Thus, under  
9 Mr. Price's argument, Qwest should bear the risk and burden of deploying this high  
10 cost equipment, and the CLECs should be allowed to pay for access to customers one  
11 line at a time through unbundled packet switching, effectively avoiding all risk. The  
12 FCC refused to reach the same conclusion.

13

14 **Q. MR. PRICE PROVIDES AN EXAMPLE OF THE NONRECURRING**  
15 **COST AT THE REMOTE LOCATION FOR THE CLEC TO SERVE 3200**  
16 **CUSTOMERS OUT OF A HYPOTHETICAL CENTRAL OFFICE. IS HIS**  
17 **EXAMPLE CORRECT?**

18 A. No. Mr. Price's hypothetical is both incorrect and misleading. First, it implies that  
19 Qwest would be placing DSLAMs at 16 remote locations out of any given central  
20 office, creating a ubiquitous xDSL network. Also, Mr. Price assumes that each remote

1 will serve four FDIs, however, Qwest's architecture assumes that each remote will be  
2 located next to, and serve, a single FDI. Mr. Price's numbers, as explained by Mr.  
3 Hubbard, are based on SBC's architecture. The reality is that Qwest has established  
4 very few DSLAMs at the remote locations, far fewer than originally anticipated, and  
5 then only places them selectively when internally conducted business analyses support  
6 deployment. If a CLEC *chooses* to place DSLAMs at all of the remote locations out of  
7 a central office, presumably it would do so because its own business case supported  
8 such a plan. Mr. Price does not suggest or provide any analysis that Qwest's costs for  
9 FDIs and space are less than the amounts proposed in Exhibit TKM-28, replaced by  
10 Exhibit TKM-55. In point of fact, Qwest faces higher costs than the CLECs when it  
11 deploys DSLAMs remotely because Qwest's cost studies assume that the CLECs will  
12 bear about 15% of the space costs at the location and Qwest will bear the remaining  
13 85%.<sup>2</sup> At the same time, as discussed above, Qwest faces the same competitive  
14 pressures in this market as the CLECs.

15  
16 Second, Mr. Price's hypothetical assumes that the CLEC will provide service to 3200  
17 customers. If, as Mr. Price says, a CLEC could capture 12.5 % to 25% of 400  
18 customers served by an FDI, then his calculation of cost is too low. The correct

---

<sup>2</sup> What this means is that assuming each competitor (including Qwest) expected to capture 25% of the addressable market, for 15% of the cost, the CLEC effectively has the ability to serve the same number of customers that Qwest does, but Qwest bears 85% of the cost.

1 calculation, using Qwest's remote deployment of DSLAMs, would assume between 50  
2 and 100 lines per FDI, and between 32 and 64 remote locations in order to serve 3200  
3 customers. These assumptions result in the following:

4 
$$\text{FDI cost} = (558.38 \text{ for } 25 \text{ lines} \times 4) \times 32 \text{ RTs} = \$71,472.64$$

5 
$$\text{Space cost} = (\$867.19/\text{SMU} \times 6 \text{ SMUs}) \times 32 \text{ RTs} = \$166,500.48$$

6 
$$\text{Total nonrecurring cost} = \$237,973.12$$

7 
$$\text{NRC cost per customer} = \$237,973.12/3200 = \$74.37$$

8 or

9 
$$\text{FDI cost} = (\$558.38 \text{ for } 25 \text{ lines} \times 2) \times 64 \text{ RTs} = \$71,472.64$$

10 
$$\text{Space cost} = (\$867.19/\text{SMU} \times 6 \text{ SMUs}) \times 64 = \$333,000.96$$

11 
$$\text{Total nonrecurring cost} = \$404,473.60$$

12 
$$\text{NRC cost per customer} = \$404,473.60/3200 = \$126.40.$$

13

14 In either case, Mr. Price's presentation of only the total cost does not tell the entire  
15 story. If these totals are converted to the nonrecurring start up cost per customer  
16 (sometimes referred to as an acquisition cost) of \$74.37 in the first scenario and  
17 \$126.40 in the second scenario, even at the higher total costs, the per customer cost for  
18 these elements is reasonable. Qwest's comparable nonrecurring TELRIC cost per  
19 customer for these elements, based on Qwest's 85% of the space costs, is \$253.82 in  
20 the first scenario and \$485.30 in the second scenario. It is difficult to understand how

1 the CLECs can argue that they are impaired when it comes to deploying DSLAMs at  
2 remote locations since Qwest's own nonrecurring TELRIC costs for these elements are  
3 many times higher on a per customer basis.

4

5 **Q. MR. PRICE CLAIMS THAT QWEST CAN EFFECTIVELY PREVENT**  
6 **COLLOCATION AT REMOTE TERMINALS LEAVING THE CLECS**  
7 **WITHOUT COMPETITIVE OPTIONS. IS HE CORRECT?**

8 A. No. The FCC rules address exactly those situations and provide an alternative for  
9 CLECs to compete through unbundled packet switching. In cases where Qwest has  
10 deployed a DSLAM at a remote location for its own use, and there is no space for a  
11 CLEC to deploy its own DSLAM and no spare copper loops available, Qwest must  
12 provide the CLEC with unbundled packet switching. Otherwise, if space is available at  
13 the remote location then the CLEC is free to deploy its own remote DSLAM.  
14 Nowhere in the FCC's rules is there a suggestion that an ILEC must deploy a DSLAM  
15 to accommodate a CLEC's needs if it has no plans of its own for a particular remote  
16 location. In addition, Mr. Price's argument about the lack of space at Qwest's remote  
17 locations is disingenuous. As discussed by Ms. Brohl during the Part B hearings, Qwest  
18 specifically consulted with the CLECs in the planning stages to obtain their inputs  
19 regarding the placement of facilities and sizing at remote locations for purposes of  
20 providing xDSL services. For Mr. Price, or any of the CLECs, to now suggest that



1 they were unaware of Qwest's plans for remote locations, and that they have been  
2 unable to secure space at those locations should be viewed by this Commission as an  
3 attempt to cloud the real issue.

4  
5 Mr. Price's argument on this matter is geared toward having this Commission put the  
6 entire cost burden of placing DSLAMs at remote locations on Qwest, while the CLECs  
7 are allowed to compete on a line-at-a-time basis through unbundled packet switching.  
8 The FCC was very clear in its analysis of this issue and only allows for that solution  
9 when the CLECs are unable to obtain space to place their own DSLAMs and compete  
10 head-to-head with the ILECs. In light of the fact that Qwest and the CLECs face  
11 another competitor who is providing this service via cable modem, namely the  
12 unregulated cable TV industry, it would be unfair for this Commission to allow the  
13 CLECs risk-free access to Qwest's network.

14

15 **TESTIMONY OF MR. LATHROP**

16 **Q. MR. LATHROP QUOTES YOUR TESTIMONY AT PAGE 16 AND SAYS**  
17 **THAT QWEST'S ENRC IS BASED ON CURRENT EXPERIENCE AND**  
18 **THEREFORE IS NOT FORWARD-LOOKING, IS HIS STATEMENT**  
19 **MISLEADING?**

1 A. Yes. In quoting my testimony, Mr. Lathrop has taken that sentence entirely out of  
2 context. He ignores my statement at page 14 that Qwest's use of previous,  
3 Commission-directed "reductions in order processing times reflect hypothetical  
4 efficiencies in order processing that Qwest does not currently experience, and that may  
5 never be achieved." He also chooses to ignore my testimony at the top of page 16  
6 stating that the estimates contained in the ENRC include changes in processing and  
7 provisioning that are anticipated by Qwest's subject matter experts. Finally, he fails to  
8 quote the two sentences following the selected quote in which I describe Qwest's  
9 nonrecurring studies as based on forward-looking costs Qwest is likely to incur  
10 considering "the actual processing and provisioning activities that are either in place  
11 today or scheduled to be implemented." Clearly, if Mr. Lathrop had reported all of my  
12 testimony on this point he would have been unable to conclude that Qwest did not apply  
13 a forward-looking analysis.

14

15 **Q. MR. LATHROP DISCUSSES QWEST'S FLAT CHARGE FOR DIRECT**  
16 **CONNECTION AND RECOMMENDS ADJUSTMENTS TO QWEST'S**  
17 **PROPOSED TIME ESTIMATES. DO YOU AGREE?**

18 A. No. As I stated in response to Mr. Morrison's testimony I believe that it would be  
19 inappropriate to adjust the times and probabilities proposed by Qwest's SMEs without  
20 some proof from the intervenors that the times they are proposing are based in fact. At

1 this point, Mr. Lathrop's adjustments are mere guesses. As he says on page 6 of his  
2 testimony, he is uncertain whether the engineering assumptions are based on the  
3 installation of cable racking and it is only *possible* that the costs are misstated. In fact,  
4 Qwest's SMEs were well aware of the assumptions regarding the installation of cable  
5 racking when they provided the engineering estimates because they also provided the  
6 assumptions about cable racking. Therefore, unless Mr. Lathrop can provide more than  
7 vague references to activities he *thinks* are overstated, it would be inappropriate to  
8 adjust Qwest's estimates.

9  
10 **Q. MR. LATHROP STATES ON PAGE 8 OF HIS TESTIMONY THAT THE**  
11 **CABLE RACKING COST ASSUMES THE CAPACITY OF CABLE**  
12 **RACKING IS ONLY THREE CABLES. IS HE CORRECT?**

13 A. No. Mr. Lathrop has misinterpreted a label in Qwest's cost study that perhaps Qwest  
14 should have made more clear. The label says "New Cable Racking/Cable Capacity"  
15 and it indicates a value of three. The assumption in the study is not intended to  
16 represent a capacity of only three cables, but that three collocators will share the  
17 capacity of the new dedicated cable racking that is installed (i.e., 20 feet of cable  
18 racking, 5% of the time = 1 foot of new racking). The capacity of the cable racking is  
19 not at issue because the CLEC pays for one-third of a dedicated rack and it can place  
20 as many cables in the cable racking as there is capacity for. In reality, it is more likely

1 that only two collocators will share the new dedicated cable racking which means that  
2 Qwest will bear the other one-third of the cost of that cable racking, although Qwest  
3 would likely have little use for cable racking running between two CLECs.

4

5 **Q. MR. LATHROP ARGUES THAT IF QWEST HAS PLACED**  
6 **COLLOCATORS IN AN EFFICIENT MANNER THERE WOULD BE NO**  
7 **NEED FOR THE ADDITIONAL CABLE RACKING INCLUDED IN**  
8 **QWEST'S FLAT CHARGE. IS HE CORRECT?**

9 A. No. First, it is important to note that Qwest's study assumes only one additional foot of  
10 cable racking per connection (i.e., 5% \* 20 feet = 1 foot). Second, the fact is that in  
11 some central offices, due to space limitations, existing equipment, the location of  
12 equipment on multiple floors, as well as the specific collocation needs of individual  
13 CLECs Qwest has been unable to place collocators adjacent to each other. For  
14 example, a CLEC making use of an entrance facility for microwave collocation might  
15 want to locate on an upper floor of a central office, while a collocator with an entrance  
16 facility from an underground cable route might want to be located on a lower floor. Mr.  
17 Hubbard discusses the placement of collocators in the central office in his testimony on  
18 pages 9 and 10.

19

1 It is misleading, once again, for Mr. Lathrop to suggest on page 11 of his testimony that  
2 Qwest has purposely located collocators “in the extreme corners of a collocation area.”  
3 Since it would be impossible for Qwest to predict which CLECs might wish to connect  
4 with which other CLECs, it would also be impossible to ensure that cable racking  
5 existed for every possible circumstance, especially in situations where CLECs are not  
6 located on the same floor. In addition, Mr. Lathrop argues that the costs for cable  
7 racking included in the collocation space construction charge should cover the cost for  
8 cable racking needed in this instance. Mr. Lathrop is incorrect. The cable racking  
9 included in collocation covers the cost of cable racking for power, entrance facilities and  
10 terminations, none of which contemplates direct connections between CLECs. Thus, it  
11 is not unreasonable to assume, on average, that one additional foot of cable racking is  
12 required for each connection. As for fiber connections, Qwest’s collocation model  
13 assumes no fiber cable racking, so in that case, it is reasonable to assume an additional  
14 nine feet of racking would be necessary.

15

16 **Q. MR. LATHROP QUESTIONS THE APPROPRIATENESS OF THE**  
17 **DESIGN FUNCTION RELATED TO CLEC TO CLEC CROSS**  
18 **CONNECTIONS ON PAGE 16 OF HIS TESTIMONY. ARE HIS**  
19 **CONCERNS VALID?**

1 A. No. Regardless of the fact that CLECs submit a Design Layout Record (DLR) and  
2 provide the customer connecting facility assignment (CFA) for each end of the  
3 connection, Qwest must still access the Trunk Integrated Record Keeping System  
4 (TIRKS) to provide a design for the circuit. In addition, Mr. Lathrop states that he  
5 believes that circuit design for high capacity loops likely takes longer than for a CLEC  
6 to CLEC Cross Connect. Perhaps he is unaware that CLEC to CLEC Cross  
7 Connects are made up of high capacity circuits (i.e., DS3s and DS1s) based on the  
8 service rate level at which they terminate on the ICDF frame/bay.

9  
10 **Q. MR. LATHROP RECOMMENDS THAT THE COMMISSION REQUIRE**  
11 **QWEST TO DEVELOP SEPARATE COSTS FOR MANUAL VERSUS**  
12 **ELECTRONIC ORDERS AND ELIMINATES TIME ASSOCIATED WITH**  
13 **MANUAL ORDERS IN THE MEANTIME. IS THIS APPROPRIATE?**

14 A. No. Qwest still receives a significant number of access service requests (ASRs)  
15 manually from the CLECs. Therefore, since much of the processing of ASRs is  
16 conducted manually, Qwest has not seen a need to separate its NRC studies for  
17 elements submitted via ASRs between a manual and electronic cost. In addition, it  
18 would be highly inappropriate for the Commission to simply eliminate the real costs that  
19 Qwest incurs to process those manually submitted orders because there are CLECs  
20 that submit their orders electronically. In addition, even for those orders that are

1 processed electronically, there is a certain amount of fallout that occurs that will require  
2 manual handling of those orders, as well. Qwest's nonrecurring studies properly reflect  
3 the times and probabilities associated with processing orders under this variety of  
4 circumstances.

5  
6 **Q. MR. LATHROP ALSO ELIMINATES ALL TIMES IN QWEST**  
7 **NONRECURRING STUDIES ASSOCIATED WITH ACTIVITIES**  
8 **IDENTIFIED BY MR. MORRISON AS VALIDATION WORK ITEMS. IS**  
9 **HE CORRECT TO DO THIS?**

10 A. No. Mr. Lathrop assumes, incorrectly, that those activities are associated with  
11 validating Qwest's database information and resolving discrepancies. While some of  
12 the time for those activities is the result of reconciling information that may be  
13 unsynchronized due to timing differences in separate processes, much of the time is  
14 related to validation of CLEC provided data. Mr. Lathrop states that forward-looking  
15 OSS would automatically pass information from one system to another, entirely  
16 eliminating the need for such manual intervention. As I discussed above, in conjunction  
17 with Mr. Morrison's testimony, Qwest's systems are mostly state-of-the-art compared  
18 to many other industries and, as such, already reflect a great deal of mechanization and  
19 automated processing. Nevertheless, Mr. Lathrop is, once again, recommending that  
20 this Commission simply assume away activities and the resulting costs that Qwest will

1 actually incur on a forward-looking basis to process and provision UNE elements  
2 without providing concrete evidence that more advanced and efficient systems actually  
3 exist.

4  
5 Mr. Lathrop also discusses the functions “check contract on FOC” and “check  
6 contract or SIG (Service Interval Guide) on intervals” as being functions that could be  
7 performed together rather than being listed separately. He assumes that these  
8 descriptions mean that Qwest checks the contract multiple times for different pieces of  
9 information. Although, these have clearly been identified as two separate functions  
10 which have times associated with each, Mr. Lathrop is incorrect to suggest that  
11 combining these functions necessarily reduces the amount of time it takes to perform  
12 each.

13  
14 **Q. MR. LATHROP RECOMMENDS A NUMBER OF REDUCTIONS TO**  
15 **THE TIMES ESTIMATED FOR THE SPACE INQUIRY REPORT. ARE**  
16 **THEY APPROPRIATE?**

17 A. No. As discussed in Mr. Hubbard’s testimony at pages 11 to 13, the times contained  
18 in Qwest’s cost study for space inquiry report reflect a variety of activities that are  
19 necessary to produce a report of available space. These activities include accessing a  
20 number of databases to check for specific information, obtaining a drawing indicating



1 open areas that could be utilized for collocation, and finding out what measure Qwest  
2 has taken to make additional space available for collocation. The times in Qwest's  
3 studies reflect the SME's estimates regarding the average amount of time to perform  
4 each of these activities. Without more than speculation from Mr. Lathrop that it should  
5 take less time to perform these activities, it is inappropriate to make adjustments to  
6 Qwest's estimates provided by experienced SMEs.

7

8 **Q. MR. LATHROP ALSO HAS CONCERNS WITH THE TIMES**

9 **ESTIMATED IN THE COST FOR SPACE OPTIONING**

10 **ADMINISTRATION SERVICE, ARE HIS CONCERNS JUSTIFIED?**

11 A. No. First it should be noted that the space optioning service is an optional service. It is  
12 a service that provides the CLECs with the ability to "reserve" collocation space for  
13 future use before they are ready to commit to specific plans for collocation. Qwest  
14 provides this service as a convenience for the CLECs, however, they can choose to  
15 participate in the program, or not, at their option. Second, Mr. Lathrop recommends  
16 eliminating the time estimate associated with the engineering function included in this  
17 study. He equates it to the quote preparation fee (QPF) for collocation and claims that  
18 Qwest is already recovering for such engineering cost. Mr. Lathrop is incorrect. The  
19 engineering associated with space options includes determining the amount of space  
20 available for optioning, creating drawings indicating the location of the reservation,

1 updating information in a variety of databases and creating an information packet for  
2 purposes of tracking the reserved space. This is not the same as the engineering  
3 included in collocation, or the QPF, which is related to engineering for the collocation  
4 space itself.

5  
6 Mr. Lathrop brings up the QPF merely to confuse the issue of engineering related to  
7 space options. Qwest has made it clear to the CLECs in a number of proceedings that  
8 crediting the QPF against the engineering component of its space construction charge is  
9 a practice that it will follow in all of its jurisdictions. This has been Qwest's intended  
10 treatment of the QPF from the time that it was first instituted, not, as Mr. Lathrop  
11 suggests at page 31 of his testimony, a result that came about only after the potential for  
12 a duplicate charge was pointed out in a cost docket proceeding. The only time the  
13 QPF is retained is when Qwest performs the engineering for a collocation request and  
14 the CLEC chooses not to go ahead with space construction. In that case, there is no  
15 space construction charge to credit the QPF against, and Qwest retains the fee to cover  
16 the costs for the engineering that it has already completed. However, as described  
17 above, there is no connection between the engineering conducted for purposes of space  
18 optioning and the QPF and engineering related to space construction.

19

1 As with other adjustments to Qwest's nonrecurring time estimates, it would be  
2 inappropriate for the Commission to adjust the times proposed by Qwest's SMEs  
3 based purely on the conjecture of Mr. Lathrop that those times are too high. Mr.  
4 Lathrop has provided no evidence regarding his familiarity with those functions, nor has  
5 he provided an opinion from an expert of his own. He merely argues that Qwest's  
6 times are inflated and makes suggestions for reducing them based on what seems right  
7 to him. For a purely optional service that Qwest offers for the benefit of the CLECs,  
8 such adjustments are most certainly inappropriate.

9  
10 **Q. ON PAGE 26 OF HIS TESTIMONY MR. LATHROP NOTES THAT**  
11 **QWEST APPEARS TO HAVE MADE AN INPUT ERROR FOR**  
12 **PROBABILITIES ASSOCIATED WITH THE SPACE OPTIONING**  
13 **STUDY. IS HE CORRECT?**

14 A. Yes. The probabilities that Mr. Lathrop refers to were inadvertently increased to values  
15 in excess of 1.0 (i.e., 2.0, 3.0 and 4.0) because of an errant "drop and drag" maneuver  
16 performed in the cost study spreadsheet. Mr. Lathrop is correct that the probabilities  
17 for the activities performed by Qwest's Infrastructure Availability Center (IAC) should  
18 have been 1.0, rather than the numbers in excess of that reflected in the study for those  
19 functions. He is also correct that by changing the probabilities to 1.0, Qwest's  
20 recommendation for the nonrecurring charge for the Space Option Administration Fee

1 changes from \$1,807.17 to \$1,097.24. The corrected rate is reflected in Exhibit  
2 TKM-55 at section 8.10.

3

4 **Q. MR. LATHROP CRITICIZES QWEST ON PAGE 29 OF HIS TESTIMONY**  
5 **FOR UTILIZING THE EQUIPMENT OF TWO DIFFERENT VENDORS**  
6 **IN ITS REMOTE TERMINAL COST STUDY. IS HIS CRITICISM**  
7 **VALID?**

8 A. No, and Mr. Lathrop himself gives the reason on page 30 of his testimony where he  
9 provides the example of a CLEC wishing to place two different sizes of equipment. In  
10 one example the equipment of "Vendor A" provides an appropriate solution, and in the  
11 other example "Vendor B" is the appropriate solution based on size differences alone.  
12 In addition, there are other differences in the cabinets of the two vendors that could  
13 make one or the other the best solution for a remote terminal depending on the  
14 circumstances at a particular location. These differences include the fact that Vendor  
15 A's cabinet is only capable of providing DSL, but not telephony services and is  
16 therefore appropriate in remote deployment where telephone facilities already exist.  
17 Vendor B's cabinet is integrated, capable of providing both telephony and DSL, and is  
18 therefore appropriate in remote deployments where no facilities exist. Also, Vendor  
19 A's cabinet has the flexibility to accommodate both copper facilities and optical fiber,  
20 while Vendor B's cabinet accommodates only optical fiber. Thus, it is a correct

1 approach for Qwest to include a weighted average of the equipment of both vendors in  
2 its cost study, since both may provide a least cost solution given the particular  
3 circumstances or equipment configuration at a location.

4

5 **Q. MR. LATHROP ALSO TAKES ISSUE WITH THE UTILIZATION**  
6 **FACTOR QWEST USES IN ITS REMOTE TERMINAL STUDY AND**  
7 **RECOMMENDS A 50% FACTOR, DO YOU AGREE?**

8 A. No. The 33% utilization factor that Mr. Lathrop takes issue with is not designed to  
9 reflect the amount of space that a CLEC may occupy in any one remotely located  
10 cabinet, as his analysis shows. Rather, the 33% utilization reflects Qwest's very  
11 generous, forward-looking estimate of average utilization in remotely located cabinets  
12 given the deployment of Qwest's remotely located DSLAMs. Contrary to the  
13 argument of the CLECs, Qwest's deployment of remote terminals specifically makes  
14 space available for their equipment should they choose to deploy their own DSLAMs  
15 remotely. For example, in Washington, in the 56 locations where Qwest has deployed  
16 DSLAMs there is also space available for CLECs. To date, there are no CLECs who  
17 have chosen to occupy the available space. In fact, currently, there are only two  
18 locations in the entire Qwest region where CLECs have remotely located DSLAMs in  
19 space that Qwest has made available. Given those circumstances, it is extremely  
20 forward-looking of Qwest to assume in its cost study that there will eventually be an

1 average of 33% utilization by CLECs among all of Qwest's remote locations. It would  
2 be unfair to require Qwest to make space available wherever it locates DSLAMs  
3 remotely, as the FCC has, and then use a 50% utilization rate when there is so little  
4 occupation of the space by the CLECs.

5  
6 **Q. MR. LATHROP RECOMMENDS THAT THE COMMISSION**  
7 **DISALLOW A TOTAL OF NINE HOURS OF QWEST'S TIME**  
8 **ESTIMATE FOR THE BONA FIDE REQUEST (BFR) PROCESS, IS THIS**  
9 **APPROPRIATE?**

10 A. No. Qwest's estimate of time needed to complete a BFR process is based on the  
11 experience of its SMEs in analyzing requests by CLECs for services or arrangements  
12 that it does not currently provide. Qwest has gained a great deal of experience in this  
13 process over the past several years as its list has grown to hundreds of different services  
14 based primarily on requests from CLECs. The estimates provided by Qwest's SMEs  
15 represent the average amount of time spent on each particular activity. Because of the  
16 varied and complex nature of the requests from the CLECs and Qwest's recent  
17 experience in addressing those requests, the time estimates contained in the BFR  
18 nonrecurring study provide the most accurate prediction of the cost Qwest will incur to  
19 process such requests. Once again, Mr. Lathrop recommends that this Commission  
20 adjust times based purely on his conjecture that it should take less time to perform such

1 an analysis. However, he provides no evidence that he has ever been involved in such  
2 activities himself, nor that he has any personal familiarity with Qwest's processes.  
3 Absent more than Mr. Lathrop's speculation that these activities should take less time, it  
4 is inappropriate for the Commission to reduce the time estimates produced by the  
5 SMEs performing the work.

6

7

**TESTIMONY OF DR. CABE**

8

**Q. DR. CABE CLAIMS IN HIS TESTIMONY THAT QWEST HAS  
9 PROVIDED NO COST SUPPORT FOR ITS NONRECURRING CHARGE  
10 FOR COOPERATIVE TESTING OF THE LOOP, IS HE CORRECT?**

11

A. No. As explained by Qwest's witness Kennedy, whose testimony has been adopted  
12 by Mr. Easton, the times and activities required to accomplish cooperative testing are  
13 essentially the same as those required for performance testing. The similarity in these  
14 work steps is evident in the "Installation Option Comparison" chart contained in Mr.  
15 Hubbard's testimony on page 22. The nonrecurring study for the costs associated with  
16 performance testing was submitted in Docket Nos. UT-960369, et al. resulting in an  
17 approved tariff rate that is currently in effect for Basic Installation with Testing. Qwest  
18 did not believe, under the circumstances of this multi-part proceeding that it was  
19 necessary to re-submit cost data from a prior docket, and instead provided an  
20 explanation as to the cost information upon which it was relying for the cooperative

1 testing charge. Nevertheless, on January 22, 2002, in response to Covad's data  
2 request #01-006, Qwest provided in its second supplemental response the relevant  
3 section of the compliance cost study filed May 18, 1998 in support of that rate.

4

5 **Q. DOES DR. CABE ACTUALLY RECOMMEND ANY ADJUSTMENTS TO**  
6 **QWEST'S TIME ESTIMATES FOR COOPERATIVE TESTING AS**  
7 **PROVIDED IN ITS PART B STUDY FOR PERFORMANCE TESTING?**

8 A. No. Dr. Cabe spends a great deal of time in his testimony making allegations about the  
9 quality of Qwest's loop installation processes, but beyond recommending that Qwest  
10 should not be allowed to charge anything for such activities he does not take issue with  
11 the activities themselves. Mr. Hubbard's rebuttal testimony discusses the validity of Dr.  
12 Cabe's claims about the loop installation process, in general, and the veracity of his  
13 discussion of cooperative testing. Notwithstanding Dr. Cabe's exhortation regarding  
14 what is, or is not, the purpose and benefit gained from cooperative testing, to the extent  
15 this Commission finds that Qwest performs the activities represented in its nonrecurring  
16 costs, it should also find the charge for cooperative testing to be appropriate.

17

18 **Q. DR. CABE ARGUES THAT QWEST HAS NOT CHOSEN THE LEAST**  
19 **COST, MOST EFFICIENT TECHNOLOGY TO PROVIDE UNBUNDLED**  
20 **PACKET SWITCHING, IS THIS A VALID ARGUMENT?**



1 A. No. Dr. Cabe's argument clouds the point of the FCC's rules regarding unbundled  
2 packet switching (UPS) and appears to be based on an assumption that Qwest will  
3 deploy DSLAMs ubiquitously throughout its network. This is simply not the case, nor is  
4 it required according to the FCC. As discussed in response to Mr. Price's testimony,  
5 the FCC ruled that the ILEC's must make UPS available to the CLECs if, *and only if*,  
6 the ILEC deploys a DSLAM remotely without also providing adequate space or  
7 opportunity at the remote location for the CLEC to do likewise. The fact is that the  
8 FCC's discussion on this issue underscores its understanding that ILECs might be  
9 deploying remotely located DSLAMs for purposes of providing xDSL services to end  
10 user customers. Nowhere in its discussion does the FCC imply that ILECs must  
11 provide UPS, in the limited circumstances where it is required, using particular  
12 technologies. What the FCC does say is that it will "define unbundled network  
13 elements, to the extent practicable, in a technologically neutral manner so as to not favor  
14 one particular packet switching technology over another."<sup>3</sup> Nor does the FCC indicate  
15 anywhere  
16 in its discussion that NGDLC is the technology of choice for purposes of developing  
17 costs for UPS. I am not convinced that NGDLC is the least cost architecture for UPS  
18 and the CLECs have provided no evidence upon which to base such a conclusion.  
19 However, I am convinced that if Qwest is required to provide UPS as a result of

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<sup>3</sup> UNE Remand Order at ¶312

1           deploying DSLAMs remotely, then the development of costs for the service should be  
2           based on the forward-looking technology being deployed. I am also convinced that  
3           Qwest has conducted its cost study for UPS in accordance with the FCC's TELRIC  
4           rules and the UNE Remand Order as evidenced by the cost studies submitted in this  
5           proceeding.

6

7           **Q.    DR. CABE CLAIMS THAT QWEST'S UPS STUDY IS A BLACK BOX**  
8           **THAT CANNOT BE EXAMINED, DO YOU AGREE?**

9           A.    No. While Dr. Cabe is correct that Qwest's study did not contain diagrams of the  
10           architecture being studied, he misstates the issue by calling Qwest's study a black box.  
11           The fact is that the configurations for UPS are cutting-edge technology, so new that at  
12           the time the study was performed, Qwest only had firm price quotes from two of the  
13           four vendors that it intends to use to deploy the technology. Qwest's vendors for this  
14           technology have been very protective of what they consider to be their highly  
15           proprietary information regarding these technologies, not only the prices, but the  
16           network configurations themselves. That Qwest protected this information at the  
17           request of its vendors does not make its study a black box. In addition, Qwest  
18           attempted to accommodate the CLECs in their examination of the study by opening up  
19           its calculations to scrutiny after removing the vendor proprietary data. Beyond such an  
20           accommodation, Qwest cannot believe that Covad, or this Commission, would expect

1 Qwest to violate the proprietary provisions of its contracts with vendors or provide such  
2 information prior to obtaining permission from those vendors.

3  
4 **Q. DR. CABE STATES THAT QWEST'S UPS STUDY SHOULD NOT**  
5 **INCLUDE COSTS FOR COPPER CABLE, IS HE CORRECT?**

6 A. No. As discussed by Mr. Hubbard at page 25 of his testimony, the issue of whether  
7 copper T1 lines could be considered forward-looking technology was addressed in Part  
8 B of this docket. In addition to the issues Mr. Hubbard discusses, AT&T's witness  
9 Mr. Weiss made adjustments to Qwest's cost study for high capacity loops in Part B as  
10 well, eliminating copper facilities because he claimed they were not forward-looking. In  
11 the end, Mr. Weiss reinstated the weightings in the study for the copper-based  
12 architectures because he had to admit that there are circumstances where copper  
13 continues to be the least-cost, forward-looking technology to deploy. Qwest will  
14 continue to reflect costs for copper in its forward-looking studies as long as there  
15 continue to be circumstances where it is the least-cost, forward-looking technology.

16  
17 **Q. DR. CABE STATES THAT, WITH REGARD TO LINE SHARING OVER**  
18 **FIBER, HE WAS UNAWARE THAT QWEST INTENDED REMOTE**  
19 **TERMINAL COLLOCATION (DA HOTEL) AND UPS TO PROVIDE THE**  
20 **SOLUTION. PLEASE COMMENT.**

1 A. It is hard to believe that Dr. Cabe could make such a claim since Covad, and for that  
2 matter Dr. Cabe, has actively participated in this proceeding during both Parts A and B.  
3 In fact, when Covad's attorney, Mr. Harlow, attempted to make an issue of line sharing  
4 over fiber fed DLC during the Part B hearings, Qwest's witness Brohl provided oral  
5 testimony regarding the DA Hotel and its function.<sup>4</sup> As explained by Ms. Brohl, at that  
6 time Qwest was in the process of conducting meetings with the CLECs, and Covad  
7 was included on the list of invitees, to discuss this offering as a solution to line sharing  
8 over fiber fed DLC. In addition, Qwest made reference to that discussion in its post-  
9 hearing brief in Part B.<sup>5</sup> It is disingenuous for Dr. Cabe to now claim at this phase of  
10 the proceeding that he and his client had no prior knowledge of Qwest's intent to use  
11 remote terminal collocation and UPS in the context of line sharing over fiber.

12  
13 **CONCLUSION**

14 **Q. BASED ON YOUR REBUTTAL TESTIMONY, WHAT ARE YOUR**  
15 **RECOMMENDATIONS TO THIS COMMISSION?**

16 A. The Commission should accept the newly filed cost study for Channel Regeneration,  
17 Exhibit TKM-56, Study ID #6189, prepared in response to the testimony of Mr.  
18 Griffith. The Commission should also accept the correction Qwest has made to its  
19 Space Option Administration Fee in response to Mr. Lathrop's testimony. In addition,

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<sup>4</sup> Docket No. UT-003013, Part B Transcript, Volume XX, pages 2220 to 2242.

1 the Commission should resist the temptation to reduce the time estimates and  
2 probabilities provided by Qwest's SMEs, and contained in its nonrecurring studies, on  
3 the basis of conjecture and speculation by intervening witnesses without concrete  
4 evidence that adjustments are appropriate. Finally, the Commission should refrain from  
5 making a finding that goes beyond the FCC's decision regarding the unbundling of  
6 packet switching.

7

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 **A.** Yes, it does.

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<sup>5</sup> Docket No. UT-003013, Part B, Qwest's Post-Hearing Brief, Section V.B, pages 57 to 58.