Exhibit RVF-20T

BEFORE THE WASHINGTON STATE
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of	**)**	
	)	**DOCKET NO. UT-033044**
QWEST CORPORATION	**)**	
	)	
To Initiate a Mass-Market Switching	**)**	
And Dedicated Transport Case	**)**	
Pursuant to the Triennial Review	**)**	
Order	**)**	

REBUTTAL TESTIMONY

OF

ROBERT V. FALCONE

ON BEHALF OF

AT&T COMMUNICATIONS OF THE PACIFIC NORTHWEST, INC., AT&T LOCAL SERVICES ON BEHALF OF TCG SEATTLE, AND TCG OREGON
(COLLECTIVELY "AT&T")

HOT CUT AND BATCH MIGRATION PROCESSES

February 17, 2004

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME FOR THE RECORD.

A. My name is Robert V. Falcone

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am a self-employed telecommunications and management consultant retained by AT&T to assist with its efforts on the Triennial Review Order ("*TRO*") hearings in the states.

Q. HAVE YOU PREVIOUSLY FILED TESTIMONY IN CONNECTION WITH THIS PROCEEDING?

A. Yes. On January 23, 2004, I filed direct testimony on Qwest's hot cut and batch migration process. Additionally on December 19, 2004, I filed direct testimony on the hot cut process in general and on network architecture.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony responds to the testimony filed on January 23, 2004, by Qwest witnesses Dennis Pappas, Lynn Notarianni, Teresa K. Million and Lorraine Barrick.

Q. BRIEFLY DESCRIBE WHAT THE TESTIMONY OF EACH OF THESE WITNESSES ADDRESSED.

A. Mr. Pappas and Ms. Notarianni, who filed joint testimony, describe the current hot cut process, Qwest's proposed batch hot cut process ("BHC") and the

Operational Support Systems ("OSS"), both existing and planned, that are associated with these processes. I will refer to this piece of testimony as the "joint testimony." Ms. Million's testimony discusses the cost study used to support Qwest's batch hot cut rates and the hot cut volumes Qwest estimates it will face based on a finding of non-impairment by this Commission. Finally, the testimony of Ms. Barrick, who is consultant working with Hitachi Consulting, discusses the review and test of Qwest's proposed batch hot cut process that was conducted by Hitachi.

Q. WILL YOU BE ADDRESSING ALL ASPECTS OF THE TESTIMONY OF THE THREE QWEST WITNESSES?

A. No. I will not be addressing the cost study details found in the testimony of Ms. Million. This section of her testimony will be addressed by AT&T witness Arleen M. Starr.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. Generally, I have broken my testimony down by witness and subject category. In Section II of my testimony I will address Qwest joint testimony; in section III I will address the testimony of Qwest witness Million, and in Section IV I will address the testimony of Ms. Barrick. There are times however that it will be necessary to discuss the testimony of multiple Qwest witnesses in the same section.

II. QWEST'S JOINT TESTIMONY ON THE HOT CUT PROCESS AND OSS

Q. WHAT IS YOUR OVERALL IMPRESSION OF QWEST'S JOINT TESTIMONY ON THE BATCH HOT CUT (BHC) PROCESS?

A. The Qwest witnesses seem to jump to the conclusion that simply because "Qwest and the CLECs were able to reach agreement on the broad outlines of a new BHC process and most of the operational details"[1] that Qwest's proposed BHC process has eliminated the operational impairment associated with migrating customers from one local carrier to another local carrier using the manually intensive hot cut process. As demonstrated in my direct testimony, and as I will demonstrate in this testimony, this is not the case at all. Agreements by the competitive local exchange carriers ("CLECs") to changes of a process that was, and continues to be, a labor intensive manual process does not permit Qwest to take the quantum leap that its proposed process has eliminated the operational and economic barriers to competition associated with the hot cut process.

Q. WHY DO YOU STATE THAT QWEST'S PROPOSED PROCESS DOES NOT ELIMINATE ANY OF THE ECONOMIC OR OPERATIONAL BARRIERS THAT WERE RECOGNIZED BY THE FEDERAL COMMUNICATIONS COMMISSION?

A. The Federal Communications Commission ("FCC") envisioned a timely, seamless, low cost process that would allow CLECs to economically serve a

[1] Qwest joint testimony at 7.

market that is characterized by low margins.[2] As I will demonstrate, Qwest's BHC proposal accomplishes none of these objectives.

Q. WHY DOES QWEST'S PROPOSED PROCESS CONFLICT WITH THE TIMELINESS OBJECTIVES ENVISIONED BY THE FCC?

A. Qwest gives the Commission the misimpression that its proposed BHC process improves on the timeliness of its existing process by stating that the seven day provisioning interval for a batch hot cut is better than the negotiated interval that currently exists for orders containing 25 or more lines.[3] However, the fact is that an order for 25 or more lines that requires a negotiated interval is not an order involving a mass market customer, which are the customers that the FCC intended that the batch hot process would be used for. Orders for mass market customers rarely exceed more than a line or two. Today the interval for a CLEC to migrate mass market customers over to its services is neither negotiated nor is it seven days; the customer is typically migrated the same or next day when provisioned using UNE-P or five days when using UNE loops, or UNE-L. Therefore, as opposed to an improved interval for customer migrations using UNE-P, Qwest added seven days to what these customers are currently experiencing and added two days to the existing hot cut interval that the FCC found to be unacceptable.

Q. QWEST STATES ON PAGE 10 OF ITS JOINT TESTIMONY THAT THE BHC PROCESS PROVIDES THE CLECS WITH A "FIXED, SEVEN

[2] *TRO*, ¶¶ 423, 474 and 488.
[3] Qwest joint testimony at 10 and 152.

BUSINESS DAY PROVISIONING INTERVAL." DO YOU AGREE THAT THIS INTERVAL IS "FIXED" AT SEVEN DAYS?

A. No. The seven day interval is the ***best*** interval the CLEC can expect to get. However, because of Qwest's requirement of a minimum of 25 lines per central office to qualify for a batch hot cut, CLECs will often find themselves in a situation where they do not have a sufficient quantity of lines to quality for a BHC and, therefore, will have to wait beyond the seven days until their customer base is built up in the target central office. This fact is illustrated by Qwest's joint testimony: "If a CLEC submits fewer than 25 lines to the appointment scheduler, those lines will remain as pending until the CLEC enters a total of 25 lines. However, these pending lines may be "bumped" to the next available day if another CLEC submits LSRs in a batch that exceeds 75 lines for a particular CO."[4]

Q. HOW WILL THIS WAITING AND POTENTIAL "BUMPING" IMPACT A CLEC'S ABILITY TO OBTAIN NEW CUSTOMERS USING QWEST'S PROPOSED BATCH PROCESS?

A. Qwest's minimum quantity policy will make its BHC process useless for a CLEC to attract new customers to its service offer. This is best illustrated by an example. Assume a CLEC service representative is on the phone with a prospective customer who wants to switch her service over to that CLEC. During

[4] Qwest joint testimony at 52.

this contact the representative must be in a position to tell the customer exactly when the migration to the new service provider will occur. Today, with UNE-P, the CLEC's representative can generally inform the customer that her service will be migrated over to the CLEC by the next day. Using the current UNE-L hot cut process the representative can give the customer a service date that is 5 business days from the customer contact. However, for the CLEC to use the proposed batch hot cut process, all the CLEC's representative will be able to tell the customer is that she will be put in a queue and that when a sufficient quantity of other customers sign-up with the CLEC, the CLEC will be able to migrate the customer's service. Considering there is no way of predicting when the CLEC will be able to reach the 25 line minimum, when asked by the customer how long it will take to change service providers, the representative will be able to tell the customer only that it could be as "quick" as seven business days from the date of the contact or, depending on the level of activity in that customer's central office for the CLEC, it could take weeks or months. Obviously, the CLEC will not win many new customers under such an absurd scenario.

Q. WILL ACCESS TO "ROLLING UNE-P" RESOLVE THIS CUSTOMER ACQUISITION PROBLEM?

A. If it is properly and flexibly applied, rolling UNE-P may resolve the problems associated with using the BHC process to quickly acquire a new customer's service. With rolling UNE-P, a CLEC would be able to acquire customers using

UNE-P as an acquisition tool until such time as it can augment or establish the collation and network facilities it needs, and it will allow CLECs who do have sufficient collocated facilities time to "gather" a sufficient number of customers to qualify for the batch hot cut process. However, to be effective, a rolling UNE-P arrangement cannot impose additional economic barriers on the CLECs by charging non-TELRIC rates for both the recurring and non-recurring UNE-P charges. Nor can it add operational barriers to the migration process. Examples of these operational barriers will be discussed later in my testimony.

Q. ARE YOU SUGGESTING THAT IF ROLLING UNE-P WAS MADE AVAILABLE TO THE CLECS THE SEVEN DAY INTERVAL REQUIRED FOR A BATCH HOT CUT WOULD NO LONGER BE A PROBLEM?

A. No, I'm not saying that at all. What I am suggesting is that rolling UNE-P has the potential for mitigating this problem. However, rolling UNE-P does nothing to address the economic impairment CLECs face in the costs associated with collocation and backhaul. CLECs will still have to convert the analog signal that is provided over the unbundled loop to a digital signal, multiplex the individual lines and backhaul the traffic to a CLEC's distant switch. Until the details of the rolling UNE-P offer, assuming there will even be such an offer, are worked out with Qwest, its proposed batch hot cut process cannot be used by CLECs to acquire customers, thereby making the process only functional for the conversion

of the embedded base of existing UNE-P customers. I am confident that this is not what the FCC had in mind when it suggested that a process be developed to transfer loops in a "timely and reliable manner."[5]

Q. DOES QWEST'S PROPOSED BHC PROCESS PROVIDE FOR THE SEAMLESS RELIABLE MIGRATIONS THAT THE FCC ENVISIONED?

A. As an initial matter it is important to note that any manual process used for the migration of customers that employs "technology" which was first patented in the 19th century can never be classified as seamless. The manual nature of all hot cut processes, including Qwest's proposed BHC process, which involves installing new wires and removing old wires on the cross connection frames simply to allow customers to change service providers, will always create an out-of-service condition for the customer. In fact, the highly intensive manual nature of this process is demonstrated by Qwest itself in the video which was provided as Exhibit DP-4 to Qwest's joint testimony.

Q. ISN'T IT TRUE THAT THE CUSTOMER IS OUT OF SERVICE FOR ONLY A VERY SHORT PERIOD OF TIME?

A. Only when everybody involved performs their work perfectly. However, as is the case with all processes that involve manual labor, human error will occur; and these human errors, if not detected immediately by the person who made the error, will lead to an extended outage and will impact customer service. For

[5] *TRO*, ¶ 512.

decades all industries, the telecommunications industry included, have sought out automated process improvements to reduce or eliminate manual touch points to a process. Attempting to serve the mass market using any manual hot cut process is contrary to all of these efforts and truly sets the industry significantly backward in time.

Q. DO YOU HAVE ANY ADDITIONAL EVIDENCE THAT QWEST'S BHC PROCESS WILL NOT BE SEAMLESS AND WILL IMPACT CUSTOMERS?

A. Yes. Qwest, in its joint testimony, admits that the process is designed in such a manner that it will impact customer service for the sake of "efficiency." In response to the question "what steps will Qwest take if the line is in use at the time the lift and lay is to take place," Qwest responds by stating that in order to remain efficient "the Qwest central office technician (COT) would monitor the line to ensure that the conversation was not of an urgent nature and upon making that determination, perform the lift and lay. Proceeding in this manner will allow Qwest to proceed on with the batch and allow the CLEC to get notification of the batch completion without having to wait on a single customer."[6] Frankly, I'm appalled by this answer. After working for over 33 years in an industry that always put customer service first, Qwest is now putting its central office frame technicians in a position to not only listen in on a customer's conversation but to

[6] Qwest joint testimony at 59.

also make a determination as to whether this conversation is of an "urgent nature." If the technician determines that it is not, the technician is authorized by Qwest to cutoff the customer's conversation (or data transmission).[7]

Q. OTHER THAN QWEST'S ABILITY TO TERMINATE A CLEC CUSTOMER'S CONVERSATION IN MID-SENTENCE, ARE THERE OTHER ASPECTS TO QWEST'S BHC PROCESS THAT MAY IMPACT THE QUALITY OF CUSTOMER SERVICE?

A. Yes. As I mentioned earlier, the manual nature of the hot cut process will ultimately result in human error. The substantial increase in this manual activity on Qwest's central office cross connection frames, for example, installing new wires to the CLEC's collocated equipment and removing the old wires that were connected to Qwest's switch,[8] will unavoidably result in Qwest's technicians impacting the service of customers. This will occur by the COT inadvertently disconnecting the wrong wires, by inadvertently breaking wires on the frame when either installing new cross connection wire or pulling out the old cross connection wire, by open connections and by shorting out adjacent terminal lugs where the cross connection wire is terminated. The open connections and shorts

[7] Aside from the ethical issues associated with Qwest's technician listening in on the customer's conversation, it is not clear what criteria they are going to use to determine whether the conversation is of an "urgent nature" or not. Considering the intense pressures that are going to be put on these technicians to keep up with the volumes that will be necessary for them to produce in an environment where the mass market must be served via UNE-L hot cuts, one can only expect that these "cut-offs" will become more and more indiscriminate.

[8] The reverse activity must occur on a Qwest win-back of the customer. In this case the new wires are installed to the Qwest switch and the old wires are disconnected from the "losing" CLEC's collocated equipment.

are created by sloppy solder connections (assuming Qwest still has frames in its network that use these types of connections) or by poor wire wraps or punch downs.

Q. **HOW CAN YOU BE SO CERTAIN THAT THIS INCREASED ACTIVITY WILL RESULT IN THESE TYPES OF ERRORS THAT WILL IMPACT CUSTOMER SERVICE?**

A. I am certain that these problems will occur because I spent approximately eight months of my career doing nothing but installing and disconnecting cross connections on central office frames. While doing this work I, at times, inadvertently shorted out terminals, broke wires and disconnected the wrong jumpers. Given that the tools and techniques for performing a cross connection have not materially improved since the time I was doing cross connections, I have no reason to believe that today's frame technician is any more proficient than I was.

Q. ACCORDING TO QWEST, ITS PID RESULTS INDICATE THAT QWEST'S PERFOMANCE IS GENERALLY MEETING THE PERFORMANCE STANDARDS. WHY SHOULD THIS COMMISSION BE CONCERNED WITH SERVICE QUALITY?

A. There are two issues associated with Qwest's current performance metrics that may lure the Commission into a false sense of security with respect to Qwest's future hot cut performance and its impact on customer service. First, it must be

noted that ***none*** of the metrics presented in Qwest's joint testimony at Exhibit DP-9 are associated with hot cut only activity. These metrics reflect Qwest's provisioning performance for all UNE-loop activity, including new loops that do not require a hot cut. Additionally, the maintenance and repair metrics included in this Exhibit reflect Qwest's performance for the entire embedded base of UNE-loops and do not reflect Qwest's performance on repair issues resulting from a hot cut. The effect of this is that any order delays and customer impacting problems associated with hot cut activity get included in with all of the other UNE-L activity. Second, simply because Qwest's performance may be meeting the standard under current hot cut process volumes is no guarantee that Qwest will be able to maintain this performance when it is faced with the hot cut volumes that will be necessary to support mass market migrations.[9]

Q. WOULD ANY OF THE METRICS THAT QWEST INCLUDED IN ITS EXHIBIT DP-9 PROVIDE AN INDICATION OF THE IMPACT TO CUSTOMER SERVICE AS A RESULT OF QWEST'S HOT CUT PERFORMANCE?

A. Yes. A key metric that one could use to determine whether Qwest is performing hot cuts with minimal impact on the customer service is the OP-5 "New Service Installation Quality" metric. Unfortunately, as is the case with all of the metrics Qwest included as exhibits to its testimony, this metric does not have a separate

[9] I will address these projected volumes later in my testimony when I address the testimony of Qwest witness Million.

disaggregation for hot cut activity. Yet, even when giving Qwest the benefit of the doubt and working under the assumption that all of the activity currently shown on this report was hot cut related, which it was not, Qwest's results for the eleven month period from December 2002 through October 2003 show that there was a two percent trouble report rate associated with all UNE loop provisioning activity.[10] Assuming that Qwest can maintain this same performance when faced with future hot cut volumes, a very unlikely assumption considering the increased activity on the cross connection frames, based on Qwest's own projection of peak future hot cut volumes of 74,500 per month,[11] a two percent failure rate means that 1,490 customers will lose their service each month. Customers will lose service simply because they were naï ve enough to believe that the industry was capable of transferring their local service to another service provider in a seamless fashion as has been the case for years when they wished to change long distance carriers. I am sure this is not what the FCC had in mind when it stated that the process needed to be seamless, and I tend to think that the 1,400 plus customers who lose their service each month would agree with me.

[10] This two percent is based on Qwest's region-wide results

[11] In section III of my testimony I will demonstrate why this estimate of future volumes cannot be considered reliable. Obviously, any increase in hot cut volumes will result in an increase in customer-affecting service problems.

Q. THIS FAILURE RATE IS NOT THE SAME AS THE ONE PERCENT FAILURE RATE REPORTED ON PAGE 26 OF THE QWEST JOINT TESTIMONY. WHY IS THAT?

A. By using the MR-8 (Trouble Rate) metric results Qwest is making an apples-to-oranges comparison. The MR-8 metric results are not hot cut specific. This metric is a measure of the failures that occur on the embedded base of UNE loops that are in-service. These are the same type of outside plant and central office troubles that can occur on any line, whether it is a UNE loop, UNE-P, Retail or Resale, all of which are totally unrelated to the hot cut process.

Q. DOES QWEST'S PROPOSED PROCESS MEET THE LOW COST OBJECTIVES THAT THE FCC REQUIRES?

A. No. Qwest first quotes the basic installation rate of $100.65 that it filed with the Commission and the Commission rejected.[12] Qwest argues that the current rate fails to recover Qwest's estimated costs of a basic installation.[13] Qwest's proposed BHC process rate of $45.96 is $5.98 cheaper than the existing basic installation rate of $51.94.[14] However, the current comparison should be made to the current additional line rate of $48.77, which is on a savings of only $2.81.[15]

[12] *See* Million testimony at 34.
[13] *Id.*,
[14] The rate of $51.94 is the total of the connection rate and disconnection rate.
[15] The "additional" rate is applied to all the subsequent lines of a multi-line loop migration order. For example, in Washington, when a CLEC issues an order to migrate 5 lines, the initial rate of $55.27 only applies to the first line on the order. For each of the other four lines Qwest charges the CLEC the $48.77 additional line rate. Considering the minimum size of a batch project is 25 lines, the appropriate analog for rate comparison is the current "additional" line rate for all but the first line of the batch.

Q. OTHER THAN THE MARGINAL SAVINGS OVER THE CURRENT HOT CUT RATES, ARE THERE ANY OTHER SAVINGS TO THE CLEC?

A. No. To the contrary, Qwest's proposed process has the potential to increase the CLEC's internal costs. These increased costs will result from the CLEC's need to manage and track its orders so that it can achieve the 25 minimum to qualify for a BHC project, the cost of determining which customer lines qualify for a batch and segregating these lines from those that do not, the unknown costs associated with rolling UNE-P assuming it is made available, and the cost of having to receive hot cut completion notifications with a proprietary GUI interface that is not integrated into the CLEC's current EDI interfaces.

Q. QWEST'S JOINT TESTIMONY STATES ON PAGE 153 THAT THE PROPOSED BHC PROCESS CAN HANDLE THE EXPECTED VOLUMES OF HOT CUTS IF UNBUNDLED SWITCHING IS NO LONGER AVAILABLE. DO YOU AGREE WITH THIS STATEMENT?

A. No. First, Qwest clearly has not made an accurate assessment of what its future hot cut volumes will be. Qwest needs to make an assessment of its ability to keep up with future hot cut volumes based on a realistic estimation of what these volumes will be. This assessment must include ***all*** hot cut and migration activity, not simply the hot cuts that qualify for the batch process. Additionally, Qwest must conduct a much more comprehensive test of its proposed process. The

"test" conducted by Hitachi falls far short of this objective. I will address both of these issues in greater detail in sections III and IV of my testimony.

Q. ASIDE FROM THE FAILURE OF THE PROPOSED BHC PROCESS TO ADDRESS THE FCC'S TIMELINESS, COST AND SERVICE QUALITY REQUIREMENTS, DO YOU HAVE ANY OTHER SERIOUS CONCERNS WITH QWEST'S PROPOSAL?

A. Yes. Many of the issues that remain at impasse represent serious flaws with the process that the CLECs would have to contend with. Considering the marginal cost savings that this process offers, it is not clear to me how Qwest can expect wide-spread use of the proposed process to serve the mass market until such time as these issues are resolved.

Q. QWEST STATES THAT AT&T OPPOSES THE WEB-BASED STATUS TOOL AND WANTS TO RECEIVE NOTIFICATION BY EMAIL. IS THIS ACCURATE?

A. No. Qwest states that AT&T originally opposed receiving notification of status and completions via an e-mail and then "reversed its course and demanded e-mail notification."[16] Qwest misstates AT&T's position. Qwest's original proposal was for e-mail order status notifications. AT&T took no position on e-mail notification up until the point that Qwest proposed its Batch Status Tool ("BST"). Specifically, AT&T stated, "And right now, the latest Qwest proposal is there's

[16] Qwest joint testimony at 68.

going to be an e-mail of the spreadsheet every 30 minutes to say which lines have been cut over. Maybe that's acceptable, maybe it's not."[17] After Qwest proposed the BST as the means of obtaining order status notices, AT&T objected to the BST as an unacceptable means of obtaining BHC order status notices because of the need for the CLEC to frequently and periodically check the BST.[18] AT&T stated that its preference was that Qwest "push" order status information to it rather than having to "pull" if from the BST.[19] While AT&T identified e-mails as a type of a "push transaction," at no point did it "demand" e-mail notification.[20] AT&T stated that its preference was for order status notifications to be provided by Qwest to the CLECs via the existing EDI messages.[21] AT&T is seeking to have enhancements made to the existing EDI system that will be used by the CLEC to place the BHC orders and which is integrated with the CLECs' internal OSSs, so that the completion notifications can be "pushed" out to the CLECs from WFA rather than requiring the CLECs to manually monitor email or the GUI-based BST for updates. Pushing the completion notice over EDI would, in turn, allow the CLECs to automatically trigger the number port without the human intervention required with the BST process.

I can understand why some of the CLECs participating in the forum may have agreed to the BST simply because they believe it to be a better option than the e-

[17] Qwest Batch Hot Cut Forum, TR 378 (Dec.2, 2003).
[18] *Id.*, TR 18 (Jan. 6, 2004).
[19] *Id*.
[20] *Id.*, TR 6 (Jan. 7, 2004).
[21] *Id.*, TR 156 (Jan. 7, 2004).

mail notification proffered by Qwest. However, simply because some CLECs believe BST is a better solution than email does not mean that it is an economic solution for the CLECs. The Commission should require Qwest to provide the status and completion notification over EDI as it currently does with all other CLEC order notifiers.

Q. AFTER READING QWEST'S TESTIMONY, HAVE YOU CHANGED YOUR POSITION ON THE MINIMUM AND MAXIMUM SIZE OF A BATCH?

A. No. As I indicated in my direct testimony, AT&T cannot make an informed determination on the minimum size because it lacks a key piece of information, specifically, whether Qwest is going to make rolling UNE-P available or not. In his testimony, Ms. Million shows zero UNE-P growth beyond 2004. From her representation, all AT&T can assume is that UNE-P will not be available at all. As I explained earlier, without rolling UNE-P, Qwest's proposed process, with the current minimum requirement of 25 lines to qualify for a batch, makes it virtually useless for the migration of mass market customers. Therefore, to have any utility, the minimum size has to be no more than two lines. Otherwise, CLECs will always have to use one of the existing hot cut processes for the migration of customers to their switch. Additionally, even if Qwest makes rolling UNE-P available, depending on the terms of Qwest's rolling UNE-P offer, the minimum still has to be something significantly less than the current 25 lines.

Q. WHY DO YOU FEEL THAT IF ROLLING UNE-P IS AVAILABLE, A MINIMUM OF 25 LINES STILL MAY LIMIT THE CLECS' ABILITY TO USE QWEST'S BHC PROCESS?

A. Qwest's "one size fits all" policy just won't work. There are many variables that Qwest is not taking into account with this 25 line minimum policy. These variables include the size of the CLEC, the size of the central office and the penetration of IDLC lines in each central office.[22]

Q. PLEASE EXPLAIN HOW THESE VARIABLES WILL IMPACT A CLEC'S ABILITY TO USE QWEST'S BHC PROCESS WITH THE CURRENT MINIMUM OF 25 LINES.

A. The best way to describe this impact is by a few real world examples. First, a large CLEC (CLEC A) competing in a large central office may be likely to attract enough new customers quickly so that it can qualify for a BHC project to move those customers off of rolling UNE-P and onto its own network. However, a smaller CLEC (CLEC B) may require an extended rolling UNE-P period before it is able to attract a sufficient quantity of customers to qualify for a BHC project. Secondly, even CLEC A will likely need an extended rolling UNE-P period when competing in a small central office. Because of the relatively small base of

[22] Of course, all of this assumes a make believe world where all of the CLECs have the network, collocations and backhaul facilities that will be needed before they can even contemplate using any of Qwest's hot cut processes to migrate their existing UNE-P customers over to their own networks. Realistically, rolling UNE-P access will have to be available for an extended period to give the CLECs time to raise the capital and install the network facilities that will be required to support mass market UNE-L service.

customers in small central offices it will obviously take CLEC A longer to attract the number of new customers it will need to qualify for a BHC project than it will in the large central office. It goes without saying that CLEC B will take an even longer time to attract the BHC critical mass in these smaller offices. Finally, assuming Qwest does not lift its restriction on IDLC lines from being included in BHC projects, both CLEC A and CLEC B will need a longer amount of time in those central offices where there is a high penetration of IDLC to build up the base of customers to qualify for the 25 line limit. The bottom-line is, assuming Qwest even makes a rolling UNE-P offer, unless this offer is very flexible in the amount of time that CLECs can avail themselves of rolling UNE-P, Qwest's 25 line limit is a showstopper.

Q. YOU MENTIONED THE IDLC RESTRICTION. DOES AT&T HAVE ANY CONCERNS WITH QWEST'S RESTRICTIONS ON THE LOOP TYPES THAT QUALIFY FOR THE PROPOSED BHC PROCESS?

A. Yes. Qwest currently restricts loops on IDLC from qualifying for the BHC process. By imposing this restriction, for all practical purposes, Qwest essentially denies CLECs from using their proposed BHC process in many of Qwest's central offices.

Q. WHY DO YOU STATE THAT THIS RESTRICTION WILL MAKE MANY CENTRAL OFFICES INELIGIBLE FOR THE PROCESS WHEN QWEST

STATES THAT, ON A REGION-WIDE BASIS, ONLY NINE PERCENT OF ITS LOOPS USE IDLC FACILITIES?[23]

A. This is yet another case of Qwest using fancy footwork to minimize a problem by trying to apply an overall regional statistic to a process that is performed on a central office level. Having nine percent of its loops on IDLC facilities on a region-wide basis is an interesting fact but it is not material to this discussion. The fact is, hot cuts are not performed at a region-wide level; they are performed at a central office level. When the IDLC penetration is examined at the central-office level, one will find that there are many large central offices in Qwest's network with IDLC penetrations ranging from 20 percent to as high as 68 percent, with many of these offices being extremely large, having over 70,000 access lines.[24] Considering Qwest's 25 line minimum needed to qualify for a batch hot cut and the large proportion of lines on IDLC facilities in these central offices which do not qualify for the BHC process, CLECs are going to be hard pressed to build up a sufficient quantity of lines in these offices to qualify for a BHC project. Additionally, assuming Qwest can ever fix the cost, timeliness and quality issues associated with the process that I discussed earlier in my testimony, CLECs will be denied the ability to use the low-cost process envisioned by the FCC for a sizeable number of access lines in the state.

[23] Qwest joint testimony at 84.
[24] Based on data found in Qwest's ICONN database found at www.qwest.com/cgi-bin/iconn.

Q. QWEST IMPLIES ON PAGE 84 OF ITS JOINT TESTIMONY THAT DURING THE BHC FORUM AT&T AGREED WITH QWEST THAT IDLC LOOPS SHOULD BE EXCLUDED FROM THE BATCH. IF THAT IS THE CASE WHY ARE YOU BRINGING THIS UP AS AN ISSUE HERE?

A. AT&T became aware that the problem is more significant than initially believed based on Qwest's claims of nine percent IDLC penetration. It is one thing to say that 9% of the loops will be excluded from the BHC process. It is quite another to say that 68% of the loops will not qualify. Not only does this disqualify too many loops, as I mentioned it will also make it that much harder to meet the 25 line minimum.

Q. ARE YOU AWARE OF ANY ILECS THAT HAVE PROPOSED BHC PROCESSES THAT HAVE NO MINIMUM LIMITS?

A. Yes. Verizon has stated that when a CLEC issues an order to move a customer to its own facilities using Verizon's BHC process it will hold that order for a maximum of 26 business days.[25] If the "critical mass" for that central office[26] is not achieved within the 26 business days, Verizon will "BHC" the line on day 26, essentially making Verizon's "minimum" one line.

Q. DOES AT&T STILL HAVE CONCERNS WITH THE 100 LINES PER CENTRAL OFFICE PER DAY LIMIT?

[25] Verizon has indicated that the CLECs will be able to have access to rolling UNE-P during this 26 days.
[26] Verizon's critical mass for a BHC is central-office specific and not based on one set limit as Qwest's is .

A. Though the 100 line maximum is not as much of a showstopper as the 25 line minimum is, AT&T is concerned with the lack of flexibility with Qwest's position. Qwest states that it is going to have dedicated teams to perform the batch hot cuts in its central offices. Considering that this is inevitably going to lead to situations where there will be technicians with low volumes and the associated non-productive downtime, it is not clear why Qwest would not want to take advantage of a potential opportunity to better utilize these technicians by shifting them on a temporary basis to an office that is experiencing a higher BHC demand.

Q. WOULDN'T SHIFTING THESE TECHNICIANS TO ANOTHER OFFICE TO INCREASE THAT OFFICE'S OUTPUT OVER THE CURRENT 100 MAXIMUM RESULT IN THE OVERCROWDING THAT QWEST CLAIMS ON PAGE 134 OF ITS JOINT TESTIMONY?

A. I agree with Qwest that any manual process will suffer from the law of diminishing returns when simply trying to ramp up volumes by adding more people to the process. However, Qwest's crowding issue could easily be remedied by moving the second team to a different shift. This will prevent overlap of work times and the resulting overcrowding and will effectively allow Qwest to double its BHC maximum output to 200 per day when necessary to do so.

Q. DOES AT&T HAVE ANY OTHER CONCERNS WITH THE 100 LINE PER DAY PER CENTRAL OFFICE MAXIMUM?

A. Yes. Based on the BHC cost study that was submitted by Ms. Million, it is not clear that Qwest could even come close to accomplishing this 100 line maximum if the CLECs issued requests to do so.

Q. WHAT MAKES YOU FEEL THAT QWEST'S ABILITY TO ACHIEVE THIS LEVEL OF ACTIVITY IS DOUBTFUL?

A. It is doubtful simply because the Qwest arithmetic doesn't work. In its joint testimony Qwest states that "the 100 maximum reflects the work that dedicated two-central office technician team can perform in a single eight hour shift."[27] Yet, in her cost study[28] Ms. Million has calculated the non-recurring cost for a BHC based on each line requiring 20.22 minutes of COT time. Therefore, doing simple arithmetic, two COTs, each working an eight hour shift, amounts to 16 hours or 960 minutes. With each line requiring 20.22 minutes of total time to cutover that means that the maximum number of lines that these two technicians can cut over during any eight hour shift would be 47 lines (960 divided by 20.22). Additionally, this assumes that the two COTs are working eight productive hours each which, when considering that they must take meal breaks, health breaks and the general socializing that occurs daily on the job, is a very unrealistic assumption. When these realities of the workplace are taken into consideration it

[27] Qwest joint testimony at 46.
[28] Exhibit TKM-2 to the testimony of Ms. Million.

is more likely that the productive time that Qwest can realize from these COTs is more in the range of 6.5 to 7 hours or 780 to 840 minutes per shift. This more realistic estimate of the productive output of these COTs means that the maximum number of BHCs that they could perform per day would be between 39 and 42. This is a far cry from the 100 maximum Qwest is stating that they are capable of producing.

Q. DO YOU HAVE ANY OTHER INDICATION THAT QWEST WILL NOT BE ABLE TO PRODUCE THE 100 LINE MAXIMUM THAT THEY STATE THEY CAN?

A. Yes. McLeod was the CLEC that volunteered to participate in the Hitachi trial of the Qwest BHC process. The testimony of McLeod witness Patty Lynott, who reported on McLeod's experience during this trial, supports the concern that Qwest will not be able to meet this quantity. According to Ms. Lynott, "the time for Qwest to convert 25 lines totaled over 3.5 hours. Extrapolating this result, it would take Qwest approximately 7 hours to convert 50 lines and 14 hours to convert 100 lines."[29]

Q. WHAT DO YOU CONCLUDE FROM THIS COMPARISON OF THE BHC COST STUDY TO THE OUTPUT QWEST CLAIMS IT IS CAPABLE OF PRODUCING?

[29] Direct Testimony of Patty Lynott dated January 23, 2004, at 16

A. Obviously, one or both are quite wrong. However, Qwest can't have it both ways by driving up the cost study minutes when it is to its advantage results in higher rates to the CLECs and at the same time represent that it will take less than half the time its cost study represents to justify the maximum output Qwest states it is capable of.

Q. WHAT IS AT&T'S RECOMMENDATION WITH RESPECT TO THE MINIMUM AND MAXIMUM SIZES OF THE BATCH?

A. First, the Commission must order Qwest to clearly state whether rolling UNE-P will be available and, if so, what the terms of its rolling UNE-P offer will be. This has some impact on the size of the batch. However, not knowing whether rolling access is available, AT&T recommends that Qwest's minimum and maximum volumes be more flexible, taking factors such as central office size, IDLC penetration and workload volumes into consideration, rather than adopting a minimum of 25 lines and a maximum of a 100 lines per central office per day. Additionally, Qwest must make an accounting of why its advertised daily maximum is not consistent with the times stated in its cost study. The only way in which Qwest could truly prove that it is capable of meeting the 100 daily maximum is through a robust test of its process. If this test verifies that it is capable of meeting this limit then Qwest obviously needs to do further work on the COT times reflected in its cost analysis.

Q. HAS QWEST DEMONSTRATED ITS ABILITY TO HANDLE FUTURE HOT CUT VOLUMES?

A. No. Aside from the fact that it is probably because Qwest's proposed BHC process cannot meet the maximum volumes Qwest states it is capable of, Qwest has not made a showing that it has accurately accounted for all the future hot cut and other manual work activity volumes that it will face in an environment where the industry is attempting to serve the mass market by having Qwest manually moving wires around. Considering that staffing estimates are a factor of manual work volumes, and given that Qwest did not make an accurate assessment of these volumes, obviously Qwest could not, and did not, accurately estimate the number of additional staff it will need. I will address this issue in more detail in section III of my testimony, when I will discuss the faulty methodology used by Qwest to arrive at its future volume estimate. However, the bottom-line is that this Commission should not rely on Qwest's back-of-the-envelop calculations to make a determination on something as critical as whether Qwest will be able to support mass market volumes with its manual hot cut process. The consequences for the CLECs and for competition in general are too great.

Q. QWEST STATES ON PAGE 150 OF ITS JOINT TESTIMONY THAT ITS BHC PROCESS WAS EVALUATED BY HITACHI AND THAT THIS EVALUATION PROVIDES "DEMONSTRABLE EVIDENCE" THAT ITS

PROCESS WORKS. CAN THE COMMISSION RELY ON THE HITACHI EVALUATION AS PROOF THAT THE PROCESS IS ADEQUATE?

A. No. To refer to the Hitachi evaluation as a "test of the BHCP by an independent third party"[30] is simply inaccurate. As I will demonstrate in section IV of my testimony, the evaluation that was conducted by Hitachi does not come close to the robust test of the BHC process that is necessary. This evaluation may have allowed Qwest to receive input from Hitachi on improvements that can be made to the process. However, as I will demonstrate, it cannot be relied upon to make a determination that the process will work to serve the mass market when implemented throughout the Qwest region. AT&T recommends that the Commission dismiss Qwest's claim that its process has been tested and order Qwest to work with the industry stakeholders to develop and execute a robust test of Qwest's proposed process.

Q. BEFORE MOVING ONTO THE NEXT SECTION OF YOUR TESTIMONY, DO YOU HAVE ANY FINAL COMMENTS REGARDING THE JOINT TESTIMONY AND QWEST'S PROPOSED BHC PROCESS?

A. Yes. As I've demonstrated in my testimony, Qwest's proposed BHC process does not address any of the three critical areas of impairment that the FCC found with the hot cut process. Qwest's proposed BHC process is less timely that its current hot cut processes, it is not seamless and, in fact, is designed to adversely impact

[30] Qwest joint testimony at 151.

customer service, and it does not come close to being low cost. A process that does not meet the criteria for which it was intended is useless and should not be approved by this Commission simply for the sake of approving a process within the nine month period. Such an approval will not resolve the economic and operational impairment that CLECs face when trying to serve the mass market with the hot cut process; and, therefore, the ultimate reason for developing the process in the first place will still exist.

III. TESTIMONY OF TERESA K. MILLION ON ESTIMATED HOT CUT VOLUMES

Q. DID YOU FIND ANY PROBLEMS WITH THE ANALYSIS THAT WAS CONDUCTED BY MS. MILLION TO ARRIVE AT THE ESTIMATE OF FUTURE INCREMENTAL HOT CUT VOLUMES?

A. I found a number of problems with the assumptions that went into Ms. Million's model, which when viewed as a whole drastically understate the number of incremental hot cuts Qwest will be required to perform should UNE-P no longer be available as a result of a finding of non-impairment. This results in unreliable output, or estimated hot cut volumes.

Q. WHY DO YOU STATE THAT PROBLEMS WITH HER ASSUMPTIONS WILL RESULT IN AN UNRELIABLE OUTPUT?

A. As is the case with any model that uses various data inputs to arrive at a conclusion, the output of the model will only be as good as the data that went into the calculation. This is a classic case of the old adage "garbage in, garbage out."

Q. PLEASE DESCRIBE SOME OF THE INPUT ASSUMPTION PROBLEMS YOU FOUND WITH MS. MILLION'S CALCULATION.

A. First, Ms. Million assumes that the embedded base of UNE-P lines will be converted to UNE-loops via the hot cut process over a 20 month period, with the first of the conversions beginning in August, 2005 and the last of the conversions completing in March, 2007. Ms. Million shows that the bulk of this conversion activity will occur in the first five or six months of the schedule. This schedule has no basis in reality.

Q. WHY IS MS. MILLION'S CONVERSION SCHEDULE UNREALISTIC?

A. What Ms. Million fails to take into account is that in many central offices the CLECs may not have the collocated facilities and network equipment in place to support the migration of the embedded base of UNE-P customers over to the CLECs' facilities. In fact, in many instances, CLECs may not have collocation

arrangements in place to support these migrations.[31] Before these CLECs can issue their conversion orders they will need to establish new collocation facilities and/or augment existing arrangements.

A CLEC's ability to establish or augment the collocation arrangements that will be needed to meet the schedule that Ms. Million assumed will be gated by a number of factors outside of the CLEC's control. These factors include: the CLEC's ability to raise the capital it will need for these facilities, Qwest's ability to manage and keep up with the collocation demand, the ability of Qwest's approved vendors to establish the required collocation arrangements and the CLEC's equipment manufacturer's ability to deliver and install the equipment in the CLEC's new or expanded collocation space. In short, Ms. Million's analysis assumes a frictionless, make-believe world in which none of the real world difficulties of supply, resource and logistical constraints apply.

Q. AREN'T YOU EXAGERATING THE DIFFICULTIES THAT CLECS WILL HAVE ESTABLISHING THE COLLOCATION ARRANGEMENTS AND OTHER NETWORK INFRASTRUCTURE NECESSARY FOR HOT CUTS TO WORK?

A. Absolutely not. For a CLEC to serve customers with UNE loops it must be able to "backhaul" its customers' traffic from the Qwest central office where the

[31] To compound the problem, many CLECs are currently UNE-P only providers. Unless a finding of non-impairment is intended to drive these CLECs out of business, the schedule must account for the time it will take these CLECs to get the funding they will need to purchase and install their network facilities (circuit switch, SS7 signaling capabilities, database access, collocation and backhaul facilities, etc.)

customers' loops terminate to its own distantly located switch. To accomplish this, the CLEC must first create an overlay network infrastructure. In essence, the CLEC must add a very long, costly and dedicated "extension cord" to connect its end-users' loops to its own switches. This arrangement requires the CLEC to:

(1) purchase and install a switch and the associated infrastructure needed to support the switch (*e.g.* signaling links, signal transfer points, service control points, operations support systems, operator services, etc.)

(2) establish and maintain collocations at the Qwest central office, where the customers' loops terminate (and incidentally where the Qwest switches are located);

(3) install and maintain the equipment necessary to digitize and, using concentration and multiplexing techniques, aggregate the traffic on those loops to permit connections to the CLEC's switch at acceptable quality levels; and

(4) establish the necessary transport facilities that provide the physical path connecting the CLEC's collocated facilities in each and every Qwest central office and the CLEC's switch.

Only after all of this infrastructure and functionalities are in place and operational in the CLEC's network, and in each Qwest central office in which it wishes to compete, can the CLEC begin to offer service to customers in those central offices.

In sum, due to the underlying integrated, and effectively closed design of Qwest's network architecture, competitors must invest in and deploy all of the functionalities described above to replace the simple cross connection pair of wires used by Qwest to connect its customers to its switch.

Q. WHAT IMPACT WILL THESE COLLOCATION ISSUES HAVE ON MS. MILLION'S SCHEDULE?

A. Obviously, the CLECs cannot begin to negotiate a conversion schedule with Qwest until the CLECs have sufficient facilities in place to support the embedded base of their UNE-P customers. Because of the time it will take to establish these collocation arrangements and install the necessary backhaul facilities, the conversions in the central offices associated with these collocation augments will have to be "back-loaded" at the end of the schedule. This back-loading is presently reflected as an overstatement in Ms. Million's model in the number of hot cuts that need to be performed in the early stages of the conversion process, and a drastic understatement in the model of the number that will have to be done in the later stages.

Q. IF THE PROJECTED NUMBER OF CONVERSIONS AT THE BEGINNING OF THE CONVERSION PERIOD IS GOING TO BE OVERSTATED AND THE NUMBER AT THE END UNDERSTATED, ISN'T THE NUMBER OF HOT CUTS REQUIRED STILL THE SAME?

A. Even if the overall number of hot cuts were the same, which, as I will explain below, they are not, that is not the issue. The issue is how many hot cuts will Qwest be required to do each day, week, or month. Qwest has to be prepared to meet the peak periods, and the back-loading of the schedule will dramatically increase the volumes that Qwest will have to handle in the later months.

Q. ASIDE FROM THE COLLOCATION ISSUES, ARE THERE ANY OTHER ISSUES THAT MS. MILLION HAS NOT TAKEN INTO ACCOUNT IN HIS SCHEDULING ASSUMPTIONS?

A. Yes. She has not considered the impact of the shift in traffic off of Qwest's current local switch-to-local switch network and onto the tandem transport network.

Q. PLEASE EXPLAIN WHY THERE WILL BE A SHIFT IN TRAFFIC ONTO THE TANDEM TRANSPORT NETWORK.

A. When a CLEC is using UNE-P, it not only uses Qwest's unbundled switching, it also uses Qwest's unbundled common transport.[32] Because of the traffic volumes and the community of interest between local switches that Qwest has as a result of its former monopoly status, much of the retail, resale and UNE-P inter-switch traffic is routed on direct trunk groups from the originating end office local switch to the terminating end office local switch. However, because the CLECs do not enjoy the same economies of scale as Qwest does, most of the traffic from the CLECs' local switches will have to be routed through Qwest's tandem switches for completion to the Qwest end offices.[33] Additionally, traffic originated by Qwest customers will need to be routed through its tandem switches for

[32] Common transport is also known as shared transport.
[33] I am aware that the SGAT § 7.2.2.9.6 requires direct trunking where there would be a DS1's worth of traffic (512CCS). This may or may not mitigate the problem, depending on the amount of traffic a CLEC may initially have and the number of other CLECs moving their traffic over to UNE-L.

completion to the CLECs' local switches when a Qwest customer is calling a CLEC customer.

As a result of the conversion of the embedded base of UNE-P customers to the CLECs' switches there is going to be a tremendous shift in traffic volumes off of the existing Qwest end office–to-end office trunk groups and onto the Qwest tandem switches and the trunk groups between the tandem switches and the Qwest end offices. Unless Qwest has properly engineered for this growth in volumes on its tandem network, CLECs and their customers are going to experience network congestion and the resulting call blocking. This could be a customer service disaster waiting to happen. Qwest does not acknowledge that this shift in traffic will occur, and it will occur.

Q. BECAUSE QWEST WILL NEED TO USE ITS TANDEM NETWORK TO COMPLETE ITS CUSTOMERS' CALLS TO THE CLECS, WON'T THIS PROBLEM ALSO BE A CONCERN FOR QWEST?

A. Not necessarily. It is important to keep in mind that the customer being migrated is already a CLEC customer and may have been a CLEC customer for a considerable amount of time. Because of the service outage and feature functionality issues associated with a hot cut over to the CLECs' facilities, it is necessary for the CLECs to notify all of their UNE-P customers of the conversion to UNE-L via a letter to the customers informing them of a "network upgrade." After this "network upgrade" is accomplished, the customer, who never had a

problem completing or receiving calls before the "upgrade" but now experiences these problems, will assume that the CLEC dropped the ball on its "upgrade." Even in cases where Qwest's customers get blocked, it is likely to be a negative reflection on the CLEC. Unless Qwest has planned for and engineered its network for this major shift in traffic patterns, CLECs' customer service and reputations will be severely impacted; and, as a result, the CLECs will lose customers back to Qwest.

Q. SHOULD QWEST BEGIN TO ENCOUNTER THIS CONGESTION ON ITS TANDEM NETWORK, CAN'T IT EASILY BE REMEDIED BY THE ADDITION OF TRUNKS BETWEEN THE TANDEMS AND THE END OFFICES?

A. If it is a simple matter of increasing the trunk group size and the spare facilities are available to do so, then it is a relatively easy problem to fix. However, the problem is not all that simple. First, Qwest must determine whether its tandem switches can handle the increased traffic load. If not, the tandem switch capacity will have to be increased through an augment of equipment and supporting software. This increase in capacity is no minor undertaking and will require a considerable amount of time to implement, during which the CLECs' customers will continue to experience service problems.

Additionally, there may be cases where the tandem has the capacity for additional growth but there are no spare facilities between the tandem and the end offices to

increase capacity of the existing trunk groups to handle the additional traffic load. This scenario will also take time for Qwest to install the interoffice facilities it will need to support the traffic loads, all resulting in the same detrimental impact to the CLECs' customers and reputations. One can only hope that neither of these circumstances occurs.

Q. IS THERE HISTORICAL EVIDENCE OF A TRAFFIC BLOCKING PROBLEM THAT WAS A RESULT OF POOR PLANNING AS YOU DESCRIBE HERE?

A. Yes. After divesture in 1984, AT&T experienced an extreme problem with no circuit available conditions as a result of poor planning of the access network, tandem congestion and the RBOCs' inability to upgrade their networks in a timely manner to adjust for the shifts in traffic that occurred as a result of divesture. Even though incented to make the upgrades, it took the RBOCs years to remedy this problem.[34]

Q. CONSIDERING 1984 WAS A LONG TIME AGO HOW CAN YOU BE SO CERTAIN THAT THIS PROBLEM EXISTED AND HOW LONG IT TOOK TO BE RECTIFIED?

A. At the time of divesture, I worked in AT&T's access engineering department in the Northeast Region. It was my job to work with NYNEX and the other ILECs

[34] US WEST had a tremendous incentive to remedy this problem because of the access revenues it received from the long distance carriers. This same incentive obviously will not exist in the UNE-P to UNE-L migration scenario.

in the Northeast to relieve the numerous "no circuit available" conditions AT&T's customers were experiencing as a result of trunk group congestion between AT&T's Points of Presence ("POPs") and the ILEC's tandem and/or end office switches. AT&T also experienced call blocking as a result of congestion between the ILECs' tandem switches and their end office switches. This problem was not isolated to the Northeast; it was a situation that AT&T was experiencing throughout the country, including the US WEST states.

Q. HOW DOES THIS TANDEM NETWORK CAPACITY ISSUE IMPACT MS. MILLION'S SCHEDULE?

A. Unless the CLECs can be assured that Qwest's tandem network can handle the traffic load that it will experience, the CLECs are going to back-load their UNE-P migrations to minimize the exposure of their customers to the service quality issues that they will face.

Q. WHAT OTHER PROBLEMS DID YOU FIND WITH THE INPUTS TO MS. MILLION'S MODEL?

A. Ms. Million's assumed growth of the UNE-P embedded base in 2004 is without any basis.

Q. PLEASE EXPLAIN.

A. One of the key factors that must be determined to accurately estimate the number of incremental hot cuts that will be necessary is the size of the embedded base of

UNE-P customer lines. Without any basis for her assumption, Ms. Million assumes a standard growth of 39,583 UNE-P lines each month. This "standardized" growth results in a sliding growth rate scale, with a rate of 4.9 percent in January of 2004 and a rate of 3.2% in December of 2004. Based on current trends, this assumption is totally unrealistic and understates what the actual UNE-P growth will be.

Q. WHAT PROOF DO YOU HAVE THAT MS. MILLION'S GROWTH ASSUMPTION UNDERSTATES WHAT THE ACTUAL GROWTH OF UNE-P LINES WILL BE?

A. Qwest's own reported performance results for the MR-8 – "Trouble Report" Metric for 2003, shows that the UNE-P growth has been much more substantial than what Ms. Million estimated in his model.[35] This is best illustrated in the Table 1 below.

[35] The denominator of this metric reflects total UNE-P lines in service at the end of each report month

Table 1 – UNE-P Growth – 2003

Month	UNE-P lines in service	Growth from previous month	Percent growth
Jan	197,950	N/A	N/A
Feb	212,461	14,511	7.3%
March	230,494	18,033	7.8%
April	267,734	37,240	16.2%
May	317,333	49,599	18.5%
June	357,245	39,912	11.2%
July	410,038	52,793	14.8%
Aug	466,435	56,397	13.8%
Sept	530,782	64,347	12.1%
Oct	591,876	61,094	10.3%
Nov	644,986	53,110	9.0%
Dec	677,939	32,953	5.1%

This table clearly demonstrates that competition using UNE-P is just beginning to thrive in Qwest's service area, coincidentally, just as Qwest is attempting to kill it as a competitive option. For all of 2003 the number of UNE-P lines in-service grew almost 3 and one-half times what they were at the start of the year. I have no reason to believe that this rate of growth will be curtailed in 2004, and nor should Ms. Million. However, Ms. Million assumed exactly that in the growth

assumption that went into her incremental hot cut model, thereby understating the number of lines that will need to be migrated to UNE-loops via a hot cut.

Q. DO YOU HAVE ANY OTHER DATA POINTS THAT WOULD INDICATE THAT UNE-P GROWTH WILL LIKELY BE MUCH GREATER THAT THE ESTIMATES MADE BY MS. MILLION?

A. Yes. In markets where UNE-P competition has been allowed to mature, CLECs have been able to capture a significant and growing market share with their UNE-P offer. For example, as of November 2003, CLECs are serving 2,222,376 of the 9,867,014 total access lines in New York State, for a 22.5 percent market share.[36] Considering there are approximately 13,200,000 access lines in the Qwest region, the 677,939 UNE-P lines that CLECs have been able to capture by the end of 2003 represents only 5.1 percent of the total market. Obviously, UNE-P has a long way to go before the CLECs' market share matures in Qwest's region, assuming Qwest is not successful in cutting it off before it even has a chance to start paying dividends to customers.

Q. OTHER THAN HIS ASSUMPTION ABOUT THE UNE-P GROWTH RATES, DO YOU HAVE ANY OTHER REASON TO BELIEVE THAT MS. MILLION'S ESTIMATE OF THE UNE-P EMBEDDED BASE IS UNDERSTATED?

[36] Based on Verizon's Carrier-to-Carrier MR-2-02 metrics results for November, 2003.

A. Yes. There are two additional errors in Ms. Million's assumptions that also result in a further understatement of the number of incremental hot cuts that Qwest will need to perform. First, Ms. Million assumes that a totally arbitrary 64 percent of the UNE-P lines in service will be in the areas of Qwest's 14-state region where Qwest is seeking a finding of non-impairment.[37] By applying this factor, Ms. Million reduces her already understated year end 2004 UNE-P base of 1,270,000 lines to 816,000. Ms. Million's testimony does not offer any explanation of how he arrived at this 64 percent fudge factor. However, when looking at factual data using the states of Washington and Arizona as examples, it turns out that in Washington and in Arizona, 76.2 percent and 93.3 percent, respectively, of the working lines are in the MSAs where Qwest intends to seek relief.[38] There is no logical reason to believe that the proportion of UNE-P lines in the states is going to be out-of-sync with the proportion of total lines as Ms. Million does. Based on this factual data from Washington and Arizona, Ms. Million's random 64 percent allocation is totally without merit and thereby contributes to the understatement of the hot cut volumes that Qwest will face.

Second, Ms. Million assumes that there will be absolutely no UNE-P growth beyond year end 2004. This assumption again envisions a make-believe world that has no basis in reality. As I mentioned earlier in my testimony, a finding of

[37] On page 38 of her testimony Ms. Million states that "on a preliminary basis, Qwest estimates that it will seek relief for approximately 64% of the UNE-P lines in the 14 state region."
[38] Based on data from the testimony of Harry M. Shooshan and Qwest's ICONN data base found at www.qwest.com/cgi-bin/iconn.

non-impairment does not magically put all the collocation arrangements, collocated equipment, network facilities and backhaul facilities in place that the UNE-P CLECs will need to support their existing customer base and future customers. CLECs are going to require time to raise the capital that they will need, to arrange for new collocation arrangements or expand existing collocation arrangements, to install or grow their switches and the other network facilities required to make the switch operational, to order and install their collocated equipment and to install or lease the backhaul facilities that they will need to connect the collocated equipment to their distantly located switch. Only after all of this occurs and the equipment is in place can the CLECs begin to migrate customers to their own switches. ***All of this activity cannot possibly happen in the five month period between a finding of non-impairment in July 2004 and the end of the year.*** Unless a finding of non-impairment is intended to drive these CLECs out of business or prevent from them from continuing to market their services and accept new customers, access to UNE-P will be required beyond year end 2004. Obviously, by assuming that there would be no further growth of the UNE-P base after year end 2004, these real world constraints were not a consideration for Ms. Million when she developed his future increment hot cut estimate.

Q. ARE THERE ANY OTHER PROBLEMS WITH MS. MILLION'S ASSUMPTIONS WHICH WOULD LEAD TO AN UNRELIABLE FUTURE INCREMETAL HOT CUT ESTIMATE?

A. Yes. Ms. Million offers no basis for his assumed churn rate of three percent.

Q. WHAT IS CHURN?

A. Churn is the term used in the industry for when a customer changes service providers.

Q. WHY IS AN ACCURATE CHURN RATE IMPORTANT TO ARRIVE AT THE VOLUME OF FUTURE HOT CUTS?

A. To understand why this is important one must first understand what is occurring in the network. Today, when a customer is served by a CLEC using UNE-P or is a retail customer of Qwest and that customer wishes to change his local service provider, a hot cut typically is not required. In these cases, the only time a hot cut is necessary is when the new service provider is a UNE loop CLEC. Therefore, in today's environment, where an ever increasing majority of the mass market customers are being served by UNE-P, the churn rate has little impact on hot cut volumes. However, when operating in an environment where UNE-P is no longer available, the embedded base of UNE-P customers are being converted to UNE-L and all new customers are UNE-Loop customers, ***every time*** a customer wants to change his service provider, even when he goes back to Qwest on a win-back, a

hot cut will be required to accomplish the customer migration.[39] Therefore, an understatement in the churn rate will lead to a drastic understatement in the number of hot cuts required.

Q. WHY DO YOU BELIEVE THAT THE THREE PERCENT CHURN RATE THAT MS. MILLION USED IS AN UNDERSTATEMENT?

A. Anytime a new market is developing the churn rate is typically high. This churn is a result of the aggressive marketing efforts of the new entrant (and the incumbent to win-back customers) and by customers' willingness to react to these marketing efforts to try out an alternate service provider's offer. I believe that this type of aggressive marketing and the resulting churn are exactly the robust competitive goals envisioned by the Act.[40]

Q. PLEASE SUMMARIZE YOUR FINDINGS AND CONCLUSIONS ABOUT THE INCREMENTAL HOT CUT ESTIMATE THAT MS. MILLION PRESENTED IN HIS TESTIMONY.

A. Ms. Million's estimate is long on assumptions that have no basis in fact and short on the precision that this Commission needs to make an assessment of whether Qwest could meet the hot cut demand it will be faced with upon a finding of non-impairment without impacting customer service and the CLECs' ability to

[39] The rare exception to this is the case of a customer going from one reseller to another reseller or back to Qwest retail, or from Qwest retail to a reseller.
[40] AT&T advocates the use of a 4.6% churn rate in its business case. *See* Direct Testimony of Douglas Denney and Arleen Starr (DS0 Cost Tool), Exhibit DD-4, § 4.2.

compete. The inaccurate, unsubstantiated assumptions and errors that were key inputs to Ms. Million's estimate include:

- CLECs will have all of the collocations, network facilities and backhaul facilities in place to accomplish an orderly migration of the embedded base of UNE-P lines;
- Qwest's tandem switching network can support the shift in traffic that will occur when converting lines from UNE-P to UNE-L;
- UNE-P growth rates in 2004 will be significantly less than the growth experienced in 2003;
- Only 64 percent of the UNE-P lines will be located in areas where Qwest is seeking relief;
- There will be absolutely no growth in UNE-P lines beyond year end 2004 and;
- The churn rate will only be three percent.

The sum of these errors makes the output of Ms. Million's estimate totally unreliable; and, therefore, it should be disregarded by the Commission.

IV. TESTIMONY OF LORRAINE BARRICK ON HITACHI'S TEST OF QWEST'S BHC PROCESS

Q. WHAT IS YOUR OVERALL IMPRESSION OF THE TESTIMONY OF MS. BARRICK?

A. It is encouraging that Qwest sought the input of an independent party on its proposed BHC process and "tested" the process. While the Hitachi test was a good first step and may have provided Qwest with some valuable input on how it can make improvements to its process, it falls far short of what is truly required to make an assessment of Qwest's proposed BHC process.

Q. WHY WAS THE HITACHI TEST INADEQUATE?

A. The Hitachi test is not sufficient for three key reasons: it didn't test the proposed process, it was not robust enough to make a true assessment of Qwest's capabilities and it relied on Qwest's faulty assumptions in making some of its assessments.

Q. WHY DO YOU SAY THAT HITACHI DID NOT TEST THE PROPOSED BHC PROCESS?

A. Hitachi conducted two "live trials", each trial involving two central offices of 25 or 26 lines each. The problem is that neither of these trials tested the BHC proposal currently being proposed by Qwest. The first trial, conducted on

December 17th and 18th, involved a total of 48 hot cuts.[41] This trial tested the initial process that Qwest proposed and did not include any of the revisions to the process agreed to during the BHC workshops, the most critical being the pre-wiring that is done two days prior to the due date and the CLEC notification tool. The second "live test" was conducted on January 15 (pre-wiring) and January 19 (hot cut due date). This trial involved two batches of 26 hot cuts each in two central offices. Yet, as Ms. Barrick states herself on pages 10-11 of her report,

> "Some of the planned process improvements will require significant time and resources from Qwest to develop. Therefore, they could not be completed in time for our testing. Principal process improvements not available at the time of our testing include:
>
> - Interactive edits added to the IMA;
> - Creation of an online status notification tool;
> - Use of trap and trace capabilities inherent in the CLEC's switch; and
> - Automated updates to various Qwest systems.
>
> A complete list of the components of the process, not yet available as of the date of our testing, is included in Exhibit 6."

Exhibit 6 to Ms. Barrick's testimony goes on to list an additional six key items that were also not included in Hitachi's test. It is obvious from the testimony of Ms. Barrack that though some process was tested, it was a process in flux and many of the key components of the process that Qwest is proposing remain untested.

[41] Two orders of one line each were cancelled by the participating CLEC, thereby reducing the intended hot cut quantity from 50 to 48.

Q. WHAT CONCLUSIONS DID MS. BARRICK ARRIVE AT WITH REGARD TO THESE UNTESTED ASPECTS OF THE PROPOSED PROCESS?

A. Ms. Barrick states on page 11 of her report: "The process improvements not available for testing will serve to expedite the process and create additional efficiencies. Therefore, actual performance should be better than that experienced in our testing."

Q. WHAT IS YOUR REACTION TO THIS CONCLUSION?

A. Ms. Barrick is taking a bold step by assuming that the aspects of the process that were untested by Hitachi will work as advertised. Indeed, this is a very dangerous assumption. Simply because Qwest represented to Hitachi how the process or system is envisioned to work does not give Hitachi any basis to jump to the conclusion that "the process improvements not available for testing will serve to expedite the process and create additional efficiencies." If this were the case why bother testing anything at all; Hitachi could simply take Qwest's word that everything will work as planned and be done with it.

Q. PUTTING ASIDE THE FACT THAT THE TEST CONDUCTED BY HITACHI IS NOT RELEVANT TO THE BHC PROCESS THAT QWEST IS PROPOSING, WHY DO YOU STATE THAT THE TEST WAS NOT ROBUST?

A. The answer to this question is simple: any test of a process that is brand new, is intended to be used to migrate hundreds of thousands of CLEC UNE-P customers over to the CLECs' networks, is not blind to the people being tested, and was conducted over a period of one month involving only three central offices[42] and 100 lines cannot be considered robust. Frankly, it is not clear to me how Hitachi arrived at some of its conclusions based on this minimal testing.

Q. WHY DO YOU STATE THAT THE TEST WAS NOT BLIND TO THOSE QWEST EMPLOYEES INVOLVED IN THE TEST?

A. It is clear from Ms. Barrick's testimony that the test was not blind. On page 41 of her report she states, "[t]he trials were conducted with a high level of scrutiny from Qwest, Hitachi consulting and the participating CLEC. The high level of scrutiny and the number of people standing around the frames is likely to have affected COT productivity in some circumstances." Obviously, the test could not be blind to the frame technicians if there were "a number of people standing around the frames" watching their work. Ms. Barrick makes my point by stating that all of the people standing around may have affected COT productivity.

Q. WHY IS THIS LACK OF BLINDNESS A CONTRIBUTING FACTOR TO THE LACK OF VALIDITY OF THIS TEST?

A. It is human nature to want to do one's best when being observed. By being aware that they were participants in this test, one would expect the Qwest central office

[42] One central office was used twice for each "live test."

technicians to be on their best behavior and to do their best to make sure that they performed flawlessly. This controlled situation is not indicative of the actual performance Qwest and the CLECs may get from the frame technicians assigned to batch hot cuts across Qwest's region. Additionally, there is no guarantee that, unbeknownst to Hitachi, Qwest didn't assign its best frame technicians to take part in this trial. Without some degree of blindness the tests performed by Hitachi to observe the central office technicians, and perhaps the work center staff, cannot be considered a valid assessment of what will occur in a production environment using the process.

Q. BASED ON YOUR EXPERIENCE AS A TESTER WITH BEARINGPOINT (FORMALLY KPMG CONSULTING), WHAT ARE SOME OF THE FACTORS THAT WERE MISSING FROM THE HITACHI TEST THAT PREVENTED IT FROM BEING A ROBUST TEST OF THE PROPOSED BHC PROCESS?

A. There were many flaws with the Hitachi test that prevented it from hitting the mark. First, the Hitachi test clearly lacked input from the CLECs who will be users of the process and from the state commissions who are required to evaluate the process being proposed. Secondly, the test itself was lacking many key elements necessary for a meaningful test. These elements include scale, diversity, blindness, clearly defined entry and exit criteria and standard of success.

Q. WHAT IS REQUIRED TO TRULY TEST THE PROPOSED PROCESS SO THAT THE RESULTS OF THE TEST WILL PROVIDE ALL STAKEHOLDERS A MEANINGFUL READOUT OF THE CABAPILITIES OF THE PROCESS?

A. As an initial matter, the process being tested must be stable and not a process in flux. The actual testing cannot proceed until a final process is adopted and the related OSS development is complete. For the test plan, the tester must get input from those who are expected to use the process and from those who are expected to evaluate it, specifically the CLECs and the state commissions. This input would also allow the tester to determine and understand what the standards for success are to be. As opposed to the Hitachi test, which involved 100 conversions in three different central offices, the test plan must involve a significant number of conversions that occur in a diverse group of central offices. The central office selection should be based on a representative sample of large and small central offices, central offices that are not staffed as well as office that are staffed on a regular basis, and there should be a representative sample of the different cross connection frame architectures that can be found in the Qwest central offices throughout its network. Finally, as I discussed earlier in my testimony, the test must be as blind as possible to the Qwest employees who will be involved.

Q. WHY DO YOU STATE THAT THE TEST IS NOT ADEQUATE BECAUSE IT RELIED ON FAULTY QWEST ASSUMPTIONS?

A. Hitachi's conclusions on Qwest's ability to scale the process and staff for the additional work force that will be needed were based on Qwest's incremental hot cut volume forecast.[43] As I indicated in Section III of my testimony, the lack of reliability with the incremental hot cut estimate developed by Qwest indicates that Hitachi relied on faulty data to arrive at these conclusions. When addressing the scalability of the process, on page 3 of her testimony, Ms. Barrick states: "[n]othing has come to my attention to suggest that this process will not scale to the forecasted volumes." If the faults with the forecasted volumes had been brought to Ms. Barrick's attention, there is no way of knowing whether she would have made the same assessment.

Q. DO YOU HAVE ANY CONCLUDING COMMENTS ABOUT THE TESTIMONY OF MS. BARRICK AND THE HATICHI TEST?

A. Considering that the Hitachi evaluation did not test the BHC process that Qwest is proposing, that it was not at all robust, that it was not blind to the participants and that its conclusions were based on faulty assumptions, the Commission should consider this test as a baby step in the right direction and order Qwest to perform a meaningful test of its process once it is fully developed and available for such a test. Additionally, this test should be one that is fully designed and executed by an independent third party and not by Qwest.

[43] *See* pages 43 and 44 of the Hitachi report

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The BHC process being proposed by Qwest does not meet any of the timeliness, seamlessness or low cost objectives the FCC intended it to achieve. In addition, there remain numerous unresolved flaws with the process which make it all the more likely that CLECs will not use it for the migration of mass market customers. Additionally, Qwest has obviously given very little thought and effort to a methodology it can use to accurately assess future hot cut volumes or to a method with which a true test of the capabilities of its proposed BHC process can be conducted. As a result of all of these shortcomings, this Commission should not approve the process being put forth by Qwest and should order it to go back to work with the CLEC community on a process that will satisfy the objectives that the FCC set out.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes it does.