BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of the Petition of Qwest Corporation to Initiate a Mass-Market Switching and Dedicated Transport Case Pursuant to the Triennial Review Order	**Docket No. UT-033044**

DIRECT TESTIMONY OF

CEDRIC COX

ON BEHALF OF

WORLDCOM, INC. ("MCI")

December 22, 2003

REDACTED (PUBLIC) VERSION

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, EMPLOYER, AND TITLE.

A. My name is Cedric Cox. I am currently employed by MCI as a Manager, Local Order Processing and Order/Billing Reconciliation Support.

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. I have 12 1/2 years of experience in the telecommunications industry: twelve years with MCI and six months with Qwest. In 1991, I was employed by Qwest as a sales representative. I joined MCI in 1992 as a member of the sales team for MCI's long distance products.

Prior to becoming a manager at MCI, I held a number of positions including: supervising a team of local and long distance customer service representatives; supervising a team of analysts focusing on an MCI initiative to test resale, UNE-P (unbundled network elements-platform), and UNE-L/ILEC (unbundled network elements-loop/incumbent local exchange carrier) order processing procedures; and managing the creation of billing and order processing requirements for MCI's local product development.

My current managerial role at MCI includes overseeing local order processing support, order tracking and order interval analysis, line loss performance trending, and local customer reconciliation for resale, UNE-P and UNE-L. In addition, I worked with the MCI product development team to address implementation of UNE-L pre-order and order/batch workflow processes which will define the long term solution for MCI's UNE-L provisioning activities.

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

A. The purpose of my testimony is to discuss MCI's efforts to become a facilities-based provider in the mass market, and to describe for the Commission solutions to the numerous current customer-impacting operational barriers that must be eliminated in order for MCI to make this transition fully. My testimony also explains that if MCI were forced to switch to its own facilities on a flashcut basis because switching was prematurely eliminated, customers and competitors would face severe negative consequences.

II. SUMMARY OF TESTIMONY

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. Qwest Corporation ("Qwest") is asking the Commission to remove switching as an unbundled network element ("UNE") in various parts of this state. In practical terms, if the Commission grants that request, it means that the UNE platform ("UNE-P" or "UNE-Platform") as we know it today will be reduced or disappear. If MCI is able to move to its own facilities to provide service to mass market customers in a methodical and coordinated manner, elimination of Qwest switching may not have significant consequences for customers, depending on when and where the cutover occurs. However, premature withdrawal of switching before the appropriate processes and systems are in place will have significant adverse consequences for consumers, carriers and competition.

In this testimony, I lay out some of the operational challenges (and proposed solutions) that exist for carriers, like MCI, that are moving to their own facilities for mass

markets customers.[1] Other operational challenges relating directly to network and technology challenges are presented in Mark Stacy's testimony on behalf of MCI. The operational issues addressed in my testimony relate to the "customer's experience" as he or she attempts to switch carriers, not just to MCI from Qwest, but to MCI from other competitive local exchange carriers ("CLECs"), and away from MCI to Qwest or other CLECs. These issues stem from, in one way or another, the physical changes required when a CLEC uses its own facilities in conjunction with Qwest unbundled loop, and the difficulty in exchanging information about customers between all carriers in the seamless manner that mass market customers, who tend to switch carriers frequently, have come to expect. Specifically, the issues that we have identified here, as well as those in the network operational testimony, must be fully defined and resolved before UNE-L can become a reality for the mass market. The issues in my testimony are summarized below, as are the proposed solutions or first steps recommended by MCI to address these issues.

1. Standard processes and procedures must be developed to obtain and share customer service records ("CSR"). MCI proposes that a distributed database be developed, shared, and maintained by incumbent local exchange carriers ("incumbents" or "ILECs") and competitors alike.

2. Loop information databases must be accurate and current. MCI proposes that these databases be audited for accuracy and a process be developed to ensure timely maintenance.

[1] Additional operational issues will likely arise as MCI begins to move to UNE-L to serve the mass market.

3. Trouble handling processes must be adapted for a mass market world. MCI proposes that all parties develop internal processes (if they do not already exist) to ensure that trouble handling functions properly in a world with mass market volumes.

4. The industry must ensure that required E911 changes are sequenced correctly and occur efficiently. MCI proposes that a collaborative forum be convened to ensure compliance with existing standards as well as coordination among industry participants including the Public Service Answering Points ("PSAPs") in Washington to ensure that all parties can handle the increased volume of transactions.

5. The industry must ensure that number portability processes that are in place are coordinated and can handle mass market volumes. MCI proposes that the commission convene a collaborative that includes the third party administrator to determine the systems capabilities in a mass market environment. In addition, MCI proposes that a scalability analysis be conducted to confirm that capability.

6. The directory listing process must be evaluated for efficiency in a mass market UNE-L environment. MCI proposes that process be developed to limit the number of times the directory information must be inserted and deleted from the directory.

7. The industry must ensure that the caller name and line information databases can be accessed and loaded with minimal inaccuracy. MCI proposes that competitors be allowed to obtain a "dump" of the incumbent's databases to ensure accuracy and quality service.

For CLECs, these operational barriers impair their ability to use their own facilities effectively when serving mass market customers. But even more important,

these operational difficulties create frustration and potentially serious problems for consumers, including the inability to make or receive calls, errors in the 911 address data base, and the need to re-program/re-install some customer-programmable features. In discussing the complex technical issues involved in transitioning carriers from existing UNE-P arrangements to UNE loops connected to CLEC switches, it is easy, sometimes, to forget about the effect of such a transition on the customer. Competitive carriers, like MCI, must place an emphasis on minimizing negative effects on customers who want to transition onto or off of MCI's services. Ultimately, all of this is about people and the kinds of competitive choices that will be available to them.

It is one thing to identify problems that CLECs encounter in a dynamic and rapidly shifting market, but it is another to find solutions to these problems. As part of this proceeding, MCI will be asking for this Commission's help in removing operational barriers and impairments so that MCI (and other CLECs) can use their own facilities to interconnect efficiently with Qwest and provide service to mass markets customers, instead of always having to rely on leasing Qwest's facilities.

III. OPERATIONAL IMPAIRMENT AS RECOGNIZED BY THE FCC

Q. DOES MCI CURRENTLY PROVIDE LOCAL SERVICES TO RESIDENTIAL CUSTOMERS IN WASHINGTON?

A. Yes. After years of laying the necessary operational and regulatory groundwork, MCI began providing local service to Washington residential and small business consumers through UNE-P in April 2002. MCI now serves tens of thousands of Washington consumers using UNE-P, the only service delivery method that has proved successful thus far in bringing local service to the mass market. MCI is now exploring a

move to a UNE-L service delivery method to serve these customers, because MCI would prefer to serve these customers whenever possible over its state-of- the-art network and other facilities and because it wants to provide voice and DSL service using the same network and promote further innovation of its products and services through development and deployment of new technology. Moreover, as MCI begins to roll out its broadband services to consumers, MCI will integrate its broadband facilities with its voice facilities and to move off the Qwest's circuit switches and onto its own facilities.

Today's customers have experienced relatively seamless migrations with their long distance carriers, and increasingly with their local carriers as well. They will judge their experience with UNE-L carriers by the same standards, and thus so should the Commission.

Q. DID THE FCC'S *TRIENNIAL REVIEW ORDER* RECOGNIZE THE OPERATIONAL BARRIERS THAT CUSTOMERS MAY EXPERIENCE WITH UNE-L CARRIERS?

A. I am not a lawyer, and to the extent I discuss the *Triennial Review Order,*[2] I have cited provisions in the *Order* that speak for themselves and control anything I express here about the *Order* in my testimony. I am not, therefore, attempting to interpret the *Order*, but rather citing to its language to provide my understanding of the *Order*. With that explanation, it is my understanding that the *Triennial Review Order* clearly recognizes that both operational and economic barriers to UNE-L competition exist

[2] *See* Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carrier*, CC Docket No. 01-338, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, FCC 03-36 (rel. Aug. 21, 2003) ("*Triennial Review Order*" or "*Order*").

today.[3] The FCC made a national finding of "impairment" with respect to unbundled local switching at the mass market level based on the existence of these operational and economic barriers. In essence, the FCC realized that competitors are presently unable to move to a UNE-L service delivery method with the processes and procedures that currently exist. Further, the FCC concluded that, for local competition to exist, competitors must have access to unbundled local switching until the existing operational and economic barriers associated with UNE-L are fully identified, investigated, adequately resolved, and solutions are tested.

Q. DID THESE OPERATIONAL BARRIERS LEAD TO THE FCC'S FINDING OF IMPAIRMENT WITH RESPECT TO MASS MARKET SWITCHING?

A. Again, it is my understanding that in the *Triennial Review Order*, the FCC explicitly recognized the complex operational issues currently preventing UNE-L from being a viable local service delivery method – and concluded that these issues were serious enough to find nationally that competitors are impaired without access to unbundled local switching. Unlike UNE-P migrations, in which the CLEC uses the same facilities as Qwest in providing local service, UNE-L migrations are complicated by the necessity of physically reconfiguring facilities so that CLECs can use their own switches. To this end, a physical network change as well as a greater exchange of customer and other information must occur between all local providers (including CLECs and intermodal providers) for UNE-L provisioning as opposed to UNE-P. Until these operational issues involving UNE-L are addressed and adequately resolved – that is, until migrations and service changes in a UNE-L world are as seamless and trouble-free as

[3] Economic issues are not discussed in this testimony but are discussed at length in the Economic

they are with respect to long-distance and UNE-P – the FCC recognized that a transition to UNE-L could harm competition and consumers.

The FCC discussed a wide array of operational issues that prevent UNE-L from being a realistic local service delivery method at present.[4] As the FCC recognized, competitive carriers may face barriers associated with loop provisioning which may impair their entry into the mass market.[5] More specifically, the FCC asked the states to determine whether ILECs are providing non-discriminatory access to unbundled loops.[6] In making this determination, the FCC asked the states to consider more granular evidence concerning ILECs in general, and specifically Qwest's ability to transfer loops in a *timely and reliable* manner.[7] Accordingly, before UNE-L can be an operational reality, Qwest must be able to transfer loops in a timely and reliable manner, not only from Qwest to CLEC, but between CLECs as well. Smooth transfers are not only an operational necessity, but they are mandatory to meet customers' expectations for reliable, hassle-free carrier changes.

Q. ARE THESE OPERATIONAL ISSUES RELEVANT IN A TRIGGERS ONLY CASE?

A. Yes, as discussed at length in MCI's economic testimony, these operational issues must be considered in evaluating the relevant geographic market as well as in determining whether a company can be considered a triggering company that is actively serving the mass market.

Testimony filed by Mr. Richard Cabe on behalf of MCI.

[4] *See, e.g.*, *Triennial Review Order* ¶¶ 476-478.

[5] *Id.* ¶ 512.

[6] *Id.* ¶ 512.

[7] *Id.*

Q. PLEASE EXPLAIN WHAT YOU MEAN BY A "TRIGGER" ONLY CASE.

A. The FCC provided the states with several ways to determine if competitors were impaired without access to unbundled local switching. One way is an analysis of "triggering" companies that have deployed their own switches and are actively serving mass market customers in the relevant geographic market defined by the states. If the Commission determines that there are three companies that have self deployed switches and are actively serving the mass market then they can "pull the trigger" in that geographic market and competitors will no longer have access to unbundled local switching.

Q. HOW DOES YOUR TESTIMONY ON OPERATIONAL ISSUES TIE IN TO THE TRIGGER ANALYSIS?

A. State commissions must define the geographic market that they are going to analyze in the context of "trigger" only cases. Mass market customers must have a real and current choice between three carriers providing local service through their own switches and utilizing Qwest's loop plant within the defined market. As the FCC noted in its discussion of market definition, in conducting their granular analysis, state commissions must take into consideration "competitors' ability to target and serve specific markets economically and efficiently using currently available technologies."[8] Any examination of potential triggering companies for mass market switching requires an examination of whether those alleged "triggering" companies have overcome the technical and customer impacting issues related to connecting Qwest's loops to the CLEC's switching facilities and can economically and efficiently serve the mass market. To understand that, one needs to understand the technical/operational issues relating to

loop provisioning on a mass markets basis and to understand whether Qwest or the alleged triggering CLEC has implemented any of the steps necessary to make the provision of service to mass markets customers as seamless with UNE-L as it is with UNE-P.

In addition, whether a company identified by Qwest as a triggering company is an actual mass market competitor requires an analysis of technical and operational issues. The FCC notes that the identified competitive switch providers should be actively providing voice service to the mass market.[9] This explicitly requires a determination of whether these named companies are "competitive" and also "actively" providing service. The state commissions must determine to what extent the services provided by these named companies are comparable in cost, quality and maturity to Qwest's services.[10] These determinations require the states to consider the technical and operational impairments that these named companies face in serving the mass market utilizing UNE-L. If due to significant technical and operational barriers a competitor cannot compete to provide service that is comparable to Qwest, then the CLEC should not be counted as a triggering company. Basically, the Commission must address these operational issues in order to determine whether the alleged "triggering" companies have overcome the technical and customer impacting issues related to connecting Qwest's loops to the CLEC's switching facilities and can economically and efficiently serve the mass market.

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[8] *Id.* ¶ 495.
[9] *Id.* ¶ 499.
[10] *Id.* ¶ 499, n.1549.

IV. THE HOT CUT PROCESS

Q. THE FCC APPEARED TO FOCUS A GREAT DEAL OF ATTENTION ON THE "HOT CUT" PROCESS.

A. Yes, the FCC did focus in great detail on the operational barriers associated with migrating UNE-P customers to UNE-L through the "hot cut" process. The FCC focused on this issue because the existing process of moving customers to UNE loops, one or a few at a time, could not handle the volume of UNE loop migrations that would occur if UNE switching were eliminated. Thus, the FCC found that until ILECs develop and implement a process that can handle very high volumes, seamlessly and in sizeable "batches," CLECs would not be able to move all of their customers from the existing UNE-P arrangement to UNE loops and CLEC switching, and thus CLECs would be impaired in their ability to compete without UNE switching.

Although the FCC requires state Commissions to oversee the development, implementation and testing of a process to handle hot cuts for batches of loops, this testimony will provide only a high level description of batch cuts, and will compare and contrast such batch cuts with subsequent day-to-day individual customer migrations between and among different carriers. MCI will provide additional detailed testimony on the batch cut process under the separate schedule developed for batch hot cut testimony. In any event, the Commission should not lift the national finding of impairment based on the lack of batch cut processes, until such processes are finalized in detail, implemented with metrics in place to assess their performance, tested, and proven to work.

Q. PLEASE DESCRIBE THE HOT CUT PROCESS.

A. A "hot cut" refers to a process requiring Qwest technicians to manually disconnect an existing customer's loop, provisioned over UNE-P and carrying live traffic, which was hardwired to Qwest's switch, and physically re-wire that loop to the CLEC switch, while simultaneously reassigning (*i.e.*, porting) the customer's original telephone number from Qwest's switch to the CLEC switch." [11] The "lifting and laying" of the loop to move it from the Qwest main distribution frame ("MDF") to the CLEC collocation is only one small part of the hot cut process. Indeed, the process should be thought of as all the work, on both the CLEC and the ILEC sides, that is required to move the customer's dial tone from one switch to another and to provide the features and functions that the customer seeks. The FCC cited as barriers related to hot cuts "the associated non-recurring costs, the potential for disruption of service to the customer, and [its] conclusion, as demonstrated by [its] record, that ILECs appear unable to handle the necessary volume of migrations to support competitive switching in the absence of unbundled switching."[12] The FCC explained that because of the manual, labor-intensive nature of the hot cut process, "hot cuts frequently lead to provisioning delays and service outages, and are often priced at rates that prohibit facilities-based competition for the mass market."[13] In other words, the FCC concluded that the existing hot cut process, which can handle only a few loops at a time, could not handle the high volume of loop migrations that would occur if UNE switching were withdrawn, and thus posed an insurmountable barrier to entry using UNE-L.

[11] *Id.* ¶ 421, n.1294
[12] *Id.*
[13] *Id.* ¶ 465.

Qwest is an ILEC. The FCC did not exempt Qwest's hot cut processes from its findings that the ILECs appeared to be unable to handle the necessary volume of migrations to support competitive switching in the absence of unbundled switching. Thus, it is my understanding that Qwest's existing hot cut processes that were evaluated in the "271 proceedings" were explicitly found to be inadequate hot cut processes in the *Triennial Review Order*.

Q. DID THE FCC DISCUSS THE FATE OF CUSTOMERS IN ITS *ORDER*?

A. Yes. In addition to discussing the technical aspect of these network and operational issues, the FCC also explained how these issues negatively impact the customer's experience itself. The FCC noted that the delay that accompanies a UNE-L migration prevents competitors from providing service in a way that mass market customers have come to expect.[14] At a basic level, a UNE-L migration, characterized by hot cuts, will always have a potentially more negative effect on a customer than a UNE-P migration, because "[f]rom the time the technician disconnects the subscribers loop until the competitor reestablishes service, the subscriber is without service."[15] Similarly, the UNE-L process of "porting" the customer's number from the CLEC switch to Qwest's switch "also potentially subjects the customer to some period of time where incoming calls will not be received,"[16] because absent proper porting – a task that requires two separate inputs to the national number portability administration data base – calls will not be routed to the customer's new number on the CLEC switch. In addition to these risks, a cut over to UNE-L is not automatic and automated, but depends on Qwest responding

[14] *Id.* ¶ 466.
[15] *Id.* ¶ 465 n.1409.
[16] *Id.*

to a CLEC request for a change of service, which generally takes several days longer than a UNE-P order.[17]

The FCC explicitly recognized that because "mass market customers generally demand reliable, easy-to-operate service and trouble-free installation,"[18] such disruptions and delays negatively affect customers' perceptions of the CLEC's ability to provide service. Indeed, the FCC found in the *Triennial Review Order* that the record indicated that customers experiencing such difficulties are likely to blame the CLEC, not the ILEC – even if the problem is caused by the ILEC.[19] Moreover, because customers view the ILEC as a baseline alternative to the CLEC for local service, customers' negative perception of a CLEC's service directly hampers a CLEC's ability to win and retain customers.[20]

Q. WHAT WAS THE FCC'S ULTIMATE CONCLUSION?

A. The FCC found that CLECs today are impaired nationally without access to the ILECs' unbundled local switching. The FCC recognized that numerous operational impediments make UNE-L presently infeasible. Based on the FCC's reasoning, these operational impediments must be identified and adequately resolved before UNE-L can be considered a viable service delivery method for mass markets.

[17] *See* Exhibit C to Qwest's Washington SGAT entitled "Service Interval Tables" that show an interval for UNE-P POTS conversion "as is" for 1-39 lines as the same business day if the LSR is received before noon MT, UNE-P POTS new install is 3 business day, whereas the interval for UNE-L (2/4 wire analog) begins at 5 business days for 1-8 lines and is ICB for 25 lines or more.
[18] *Id.* ¶ 467
[19] *See id.*
[20] *See id.* ¶ 466.

Q. THE FCC ALSO REQUIRES THE STATES TO APPROVE AND IMPLEMENT A "BATCH" HOT CUT PROCESS. WHAT IS THE PURPOSE OF THE "BATCH" HOT CUT PROCESS?

A. In an effort to alleviate some of the operational barriers to using UNE-L and CLEC switching, the *Triennial Review Order* requires that the states investigate, approve and implement a batch hot cut process ("Transition Batch Hot Cut Process") to "cut over" unbundled loops in high volumes from the ILEC to CLECs.[21] The FCC expected that such a process would enable groups of UNE-P customers installed before its *Order* took effect, to be transitioned to UNE-L simultaneously in batches, thus "result[ing] in efficiencies associated with performing tasks once for multiple lines that would otherwise have been performed on a line-by-line basis."[22] Yet, although the FCC recognized that such "a seamless, low-cost batch cut process for switching mass market customers from one carrier to another is necessary, at a minimum, for carriers to compete effectively in the mass market,"[23] it did not view this transitioning process as a panacea.[24] Indeed, because this Transition Batch Hot Cut Process only addresses the issue of transitioning to UNE-L the base of customers that competitors like MCI have acquired on UNE-P, it is merely one discrete piece of the much larger puzzle that must be assembled before UNE-L can be seen as a viable service delivery method for the mass market. In practical terms, eliminating the operational barriers associated with the everyday hot cut process ("Mass Market Hot Cut Process") which will be used to move customers to and from multiple carriers in a dynamic competitive market – is far more critical from MCI's

[21] *See, e.g.*, *id.* ¶¶ 487-490.
[22] *Id.* ¶ 489.
[23] *Id.* ¶ 487.
[24] *See, e.g.*, *id.* ¶ 423 (describing the batch process as mitigating, not necessarily eliminating impairment).

perspective than implementing a Transition Batch Hot Cut Process that is only useful for simultaneously moving blocks of UNE-P customers to UNE-L.

Q. WHAT ROLE DO STATE COMMISSIONS PLAY WITH RESPECT TO THE HOT CUT PROCESS?

A. Although states must evaluate and approve a Transition Batch Hot Cut Process, to fully address the barriers to using UNE-L, they must also work toward alleviating the distinct operational issues associated with subsequent carrier migrations by developing and implementing the Mass Market Hot Cut Process. Although it is likely that the two processes will be similar in some respects, they are not identical. What MCI refers to as the "Transition Batch Hot Cut Process," because it involves the transition of large numbers of customers at once, will necessarily require a number of coordinated steps and scheduling with Qwest, and thus substantial Qwest involvement and oversight. In contrast, the Mass Market Hot Cut Process will need to be a standardized, simple, and low-cost process that can take place on a day-to-day basis. It will also have to function at the same time that the other migration processes are working, including migrations to and from retail, UNE-P, and resale, disconnections, suspensions, feature additions and changes. Thus, although a transitional batch hot cut process is critical, it simply will not address the everyday operational barriers that exist in migrating UNE-L customers from CLEC to CLEC, from ILEC to CLEC, and from CLEC to ILEC, in various serving configurations. To address these more fundamental difficulties with UNE-L migrations, the state must streamline the standard Mass Market Hot Cut process (known as the coordinated hot cut process and the frame due time process) as well, so that it is as effective, efficient, seamless, low cost and as scalable as possible, but without the Qwest-

proposed special scheduling and Qwest handling necessary for the Transition Batch Hot Cut Process. For it is only when day-to-day migrations among all carriers, using all service delivery methods, take place quickly, efficiently and successfully, that a truly competitive market can develop.

Q. THE FCC ALSO REFERS TO THE CONCEPT OF "ROLLING ACCESS" IN ITS *ORDER*. WHAT IS "ROLLING ACCESS"?

A. In the *Triennial Review Order*, the FCC also raises the possibility of a state commission granting CLECs "rolling access" to mass market switching, if the state commission determines that such access would cure a finding of CLEC impairment.[25] With rolling access, CLECs would have "access to unbundled local circuit switching for a temporary period [at least 90 days], permitting carriers first to acquire customers using unbundled incumbent LEC local circuit switching and later to migrate these customers to the competitive LEC's own switching facilities."[26] In other words, rolling access allows CLECs to use UNE-P to acquire customers at the outset, but then requires that the CLEC transition (*i.e.*, "roll off") those customers to UNE-L within a specified time period after acquisition. Theoretically, this process would enable the CLEC to avoid the delays and disruptions of service that would occur if a CLEC had to acquire the customer via UNE-L at the outset, because the customers are first acquired and then transferred to UNE-L via the Transition Batch Hot Cut Process.

[25] *See id.* ¶¶ 521-524.
[26] *Id.* ¶¶ 521, 524.

Q. WILL ROLLING ACCESS CURE THE OPERATIONAL BARRIERS FACING A MOVE TO UNE-L?

A. No, as this description makes clear, rolling access does not ultimately alleviate the operational impairments presented by the everyday Mass Market Hot Cut Process, because it is simply time-delayed batch hot cut process that focuses solely on transferring UNE-P customers to UNE-L. As discussed above, the Mass Market Hot Cut Process will be essential for all day-to-day ongoing customer transfers, while the Transition Batch Hot Cut Process addresses customers who are initially moved *en masse* from UNE-P to UNE-L as a result of UNE switching being withdrawn. For instance, even if CLECs have rolling access, they will not, unless explicitly required to be included in the process by state commissions, be able to rely on the Transition Batch Hot Cut Process for acquiring and losing customers to other CLECs or of the number of migration scenarios I describe that are truly necessary to offer customers a choice of a bundled set of services. Because other CLEC customers may not be acquired on UNE-P, the migration will involve only UNE-L, and thus must be accomplished with the everyday Mass Market Hot Cut Process. Therefore, at best, the Transition Batch Hot Cut Process or rolling access could alleviate only some aspects of CLEC impairment. Thus, it is critical that the Commission investigate and resolve the substantial operational barriers associated with the Mass Market Hot Cut process as well.

Q. ARE THERE ANY OTHER ISSUES WITH THE CONCEPT OF "ROLLING ACCESS" TO UNBUNDLED SWITCHING?

A. Yes, not only does rolling access not cure the operational issues involved with utilizing UNE-L to serve the mass market, but it also creates an additional impairment. If MCI develops a new and innovative product offering using its own switches and other

facilities, the customer would not immediately be able to purchase that product because customers must first have their loop provisioned on UNE-P, which limits MCI to providing whatever features Qwest supports. Customers would be deprived of the product offering until MCI could migrate them on a rolling basis to UNE-L. This can create a perception problem – *i.e.*, the CLEC cannot immediately provide the services it is selling.

Q. WHAT IS HAPPENING IN THE TELECOMMUNICATIONS INDUSTRY TODAY?

A. The telecommunications industry is in a state of flux. It is slowly moving from an industry controlled by large monopolies to an industry with multiple carriers offering multiple services to a dynamic customer base. The trend in the industry is toward bundled services, which allows consumers to select one carrier that meets all of their communications needs.

Q. WHAT IS TODAY'S TYPICAL TELECOMMUNICATIONS CUSTOMER LIKE?

A. In light of the nature of these evolving markets, and the increasing choices available to consumers, today's telecommunications consumer is savvier than consumers of the past. Today's consumer moves frequently between carriers and expects seamless migrations and quality bundled service offerings. The consumer expects that changing local service providers will be as simple and efficient as changing long distance providers. Consumers want to purchase bundles of services – local voice and long distance, features such as Caller ID, call forwarding and call waiting, broadband, and in some instances wireless and video services as well.

In order to survive and flourish, given these industry conditions, telecommunications providers must be able to meet and exceed these consumer expectations. Providers must be able to provide consumers with seamless and efficient migration between carriers, robust bundled service offerings, and timely repair and maintenance. If a provider is unable to meet the customer's increasingly high expectations, that provider will be pushed out of the market.

V. MCI'S SERVICE DELIVERY IN THE MASS MARKET

Q. DOES MCI SERVE THE MASS MARKET TODAY?

A. Yes. Today, MCI utilizes the UNE-Platform to provide its bundled product (The Neighborhood) to the mass market customers. The UNE-Platform allows MCI to lease end-to-end facilities from Qwest and other ILECs in order to provide services to consumers. Because UNE-P allows competitive providers to enter the market fairly quickly and efficiently on a broad scale, UNE-P has been, and remains, critical in the development of competition in the local exchange market. However, UNE-P is not necessarily the service delivery method that all CLECs would rely upon if they had other alternatives. It is worth noting as the FCC and state commissions attempt to lay the groundwork for carriers to enter the market using their own facilities that it has taken nearly seven years – since the 1996 Telecommunications Act ("Act" or "1996 Act") became law – for UNE-P to become such an efficient, cost effective, customer-friendly service delivery method.

Q. IS UNE-P MCI'S SERVICE DELIVERY METHOD OF CHOICE IN QWEST STATES?

A. Not necessarily. Because using UNE-P requires CLECs to rely solely Qwest's facilities, the use of UNE-P results in technological limitations on the products and services that MCI and other CLECs can offer consumers. Accordingly, if it were economically and operationally viable, MCI would prefer to utilize its own network (*e.g.*, switching, transport) in conjunction with Qwest's UNE loops to provide service to its customers rather than simply leasing end-to-end facilities from Qwest.

Q. WHY IS MCI ATTEMPTING TO MOVE TO A UNE-L STRATEGY?

A. Because it makes sense. The UNE-L service delivery method would allow MCI both to utilize its state of the art network and to promote further innovation of its products and services through further development and deployment of new technology.

MCImetro Access Transmission Services LLC ("MCImetro") – an MCI CLEC – installed its first switch in 1995 in Baltimore, MD, and grew from there over time. Since 1995, MCI has installed local switches in the majority of Qwest states, installed collocations in Qwest's central offices and installed fiber rings in major metropolitan areas throughout the country. MCI uses these facilities, along with leased high capacity loop facilities or their equivalent, to provide competitive local exchange service to business (enterprise) customers today.

Q. DOES MCI USE THESE FACILITIES TO PROVIDE SERVICE TO MASS MARKET CUSTOMERS?

A. No, not today. Despite deploying facilities across the country in the hey-day of CLEC expansion, MCI's network coverage does not provide the kind of ubiquitous, seamless service that its position as a "national" local carrier demands. As a result, MCI

has used UNE-P to provide local exchange service to mass market consumers and expand its overall local footprint (geographic area it provides service).

Q. IS MCI CHANGING ITS LOCAL STRATEGY?

A. Given its extensive local network, it is logical for MCI to use that network wherever and whenever it can instead of constantly having to battle with the ILECs to get nondiscriminatory and properly priced access to UNEs such as UNE-P. Moreover, as MCI begins to roll out its broadband services to consumers, it only makes sense to integrate its broadband facilities with its voice facilities. Eventually, when Voice over Internet Protocol ("VoIP") that uses packet switching becomes the technology of choice instead of traditional circuit switches, it will be essential that MCI move off Qwest's circuit switches and onto its own facilities anyway. MCI is planning for that future while serving its over 3 million mass market customers today.

Q. DOES MCI INTEND TO USE UNE-L EVERYWHERE IT HAS MASS MARKET CUSTOMERS?

A. No. I can not imagine that would happen. For one thing, there are locations where MCI does not have any facilities. Generally, MCI will use UNE-L with its own switches wherever it makes economic and operational sense to do so. It is highly unlikely that UNE-L will make economic and operational sense everywhere in every state.

Q. WHAT ARE THE IMPLICATIONS OF MCI MOVING TO A FACILITIES-BASED STRATEGY FOR MASS MARKET CUSTOMERS?

A. The implications for MCI, and hopefully eventually for consumers, will be enormous. First, no carrier has ever attempted to do what MCI is trying to do now. MCI operates in 49 jurisdictions, dealing with the 4 major ILECs, interfacing with the 7 or

more different ILEC Operations Support Systems ("OSS") across the country. MCI has over 3 million mass market local customers, practically all on UNE-P now. As of October 2003, MCI has more than **BEGIN CONFIDENTIAL*** [redacted] ***END CONFIDENTIAL** customers in Washington. Those customers are spread out geographically across the state; we have customers in **BEGIN CONFIDENTIAL** *** [redacted] ***END CONFIDENTIAL** central offices (CLLIs) in Washington. The size, scope, and dynamics of residential customers are significant factors in MCI's determination of where it is feasible to use its own facilities. I will discuss this in more detail later in the testimony.

Q. PLEASE CONTINUE.

A. Matching MCI's customer base with its facilities will be a significant challenge but the rewards could be huge.

Q. WHY DO YOU SAY THAT?

A. Most facilities-based CLECs, to the extent they are still in business, continue to focus mostly, if not solely, on business customers. Business customers not only tend to be more profitable, but they also tend to be concentrated in specific locations and more stable. The few facilities-based CLECs that are attempting to serve residential customers do so on a relatively small scale and in such a highly manual world that expansion for them has been slow (at least compared to the expansion MCI has been able to accomplish with the availability of UNE-P in recent years).[27] Cable companies have started offering residential local exchange service, but not on any grand scale yet, and they do not face

the same operational challenges as CLECs because they are using their own cable plant for loops instead of fighting with the ILECs to get access to UNE loops. However Qwest reported in the Batch Hot Cut Forum that cable technicians are cutting Qwest's drops from customer facilities and leaving the Qwest drop on the ground with no notice to Qwest, which certainly would make migrations from cable ever more difficult.[28]

Simply stated, it is no small challenge to match our existing local network to our large and dynamic customer base. No carrier has yet attempted the kind of nationwide facilities-based approach for mass market customers upon which MCI has embarked.

Q. ARE THERE OTHER IMPLICATIONS INVOLVING MCI'S MOVE TO A FACILITIES-BASED STRATEGY IN THE MASS MARKET?

A. Yes. In order to utilize UNE-L, MCI's network will need to be "interconnected" with Qwest's network in a much more integrated fashion than ever before. Beyond OSS connectivity, "interconnection" in this sense also means that MCI will be physically connecting its local network to Qwest's local network to get access to Qwest's loops that MCI needs to serve its customers. That means growing the network that MCI already has by establishing more collocations and building or leasing more transport facilities from those collocations to connect to MCI's network. Mr. Stacy's testimony describes these issues in greater detail.

Q. WILL MCI'S MOVE TO ITS OWN FACILITIES HAVE ANY EFFECT ON MASS MARKET CUSTOMERS?

A. Yes, definitely. As noted above, when I talked about MCI's customer base, the move to a facilities-based world is not simply about customers moving from the Qwest to

[27] *See generally* Batch Hot Cut Forum Transcripts, found at http://www.qwest.com/wholesale/downloads/2003/031215/120303QT.doc. (particularly the comments of Ms. Patty Lynott of McLeod).

MCI. It will not be that easy. Customers will also move from other CLECs to MCI. Those CLECs may be UNE-L CLECs, or resellers, cable companies, or UNE-P CLECs. In addition, those same customers will also move away from MCI. Today, customers are won back to Qwest and they can, and do, go to other CLECs (UNE-L CLECs, resellers, cable companies, and UNE-P CLECs), but the processes to implement these migrations, particularly among facilities-based providers and from and to facilities-based providers and UNE-P providers, are still in the nascent stage. Most mass markets competition is UNE-P today, but as CLECs move to their own facilities, the more "simple" UNE-P migration process will need to be enhanced with processes to allow customers to move among all types of serving arrangements. The point here is that MCI's move to facilities-based competition will not be limited to establishing and maintaining the relationship between MCI and Qwest or other ILECs; it involves (either now or in the future) the entire industry—MCI, Qwest, the other ILECs, and every other CLEC offering service in the state.

In reality, it is more than that. As I will discuss in greater detail later, the move to facilities-based competition will have implications for third parties that provide necessary, but ancillary services, such as the E911 providers and the local number portability provider.

Q. WHAT ARE OTHER CONSIDERATIONS IN THIS ANALYSIS?

A. This testimony talks a lot about systems or processes, but we should never lose sight of the customer. As a competitive carrier, we always have to care greatly about the "customer experience" as he or she attempts to move between carriers. To the extent it is

[28] *See* Batch Hot Cut Forum Transcript, December 2, 2003, at pp. 493, L.14 to 494, L. 14.

difficult for customers to come to MCI for service, or, for that matter, to leave MCI, then customers will not be happy with us and will be more reluctant to switch to any competitive provider in the future. This is bad not just for MCI, but for the entire competitive market. To the extent customers have a bad experience switching to or from other carriers, those customers may be reluctant to switch to MCI or any other CLEC. These negative experiences will be used by Qwest and other ILECs to retain or winback dissatisfied customers.

VI. CUSTOMER EXPECTATIONS

Q. WHAT EXPECTATIONS DO CONSUMERS HAVE TODAY WITH RESPECT TO SWITCHING CARRIERS?

A. Customers expect seamless transitions among carriers such as those they have experienced in the long-distance industry for years and more recently in the UNE-P world.

Q. HOW DOES THE LONG DISTANCE TRANSITION WORK TODAY?

A. Migrations among carriers in the long distance market have set a benchmark for ease and speed of conversion that customers expect from local providers. Through years of experience and expense, Qwest, ILECs in general, and interexchange carriers ("IXCs") developed the Primary Interexchange Carrier ("PIC") process, using the Customer Access Record Exchange ("CARE") interface. Indeed, it has taken nearly two decades of constant effort and enhancement of the PIC process (since equal access was established in 1983) for transitions between long distance providers to be as smooth as they are today. Looking at this process in slightly greater detail provides the appropriate

framework for assessing how far the present infrastructure must improve before widespread UNE-L competition can be expected to work smoothly.

When a customer decides to change long distance carriers, that customer contacts the new carrier. The new carrier then sends an electronic PIC change request (identifying the customer's telephone number, the date of authorization, and a transaction code) to an ILEC, CLEC, or cellular company – depending on which company currently provides the customer with local service. The customer's local service provider then sends back an electronic message to the new carrier, either confirming that the change has been made or indicating that the change has been rejected. Common reasons for rejecting a PIC change request include that the PIC is restricted or "frozen" (meaning that the local carrier requires the customer to become involved in the transaction to lift the PIC), that the local service is provided by a different company than that receiving the transaction, or that the telephone number simply does not exist. For the majority of all such transactions, this process is completely automated – the order comes into the underlying service provider's computer system containing customer data, and if the order meets basic criteria, it flows through the system to the switch, where the PIC is changed, and then a confirmation message is sent directly to the new IXC, all without human intervention. The entire process takes approximately 12 hours. Thus, because of a standard, automated process, created through 15 years of refinement and cooperation – since CARE was introduced in 1988 – transitioning between long distance providers is the quick and relatively hassle-free process that customers have come to expect.

Q. IS THERE A SIMILAR EXPERIENCE TODAY IN THE LOCAL SERVICE ARENA?

A. Yes, to some extent UNE-P transitions are also relatively seamless to the customer.[29] CLECs and ILECs have worked together over the last seven years – since the passage of the 1996 Act – and this work continues today to develop an automated process for the smooth migration to UNE-P of retail, resale, and CLEC-served UNE-P local voice customers.[30] The migration process is transparent (*i.e.*, so seamless that the customer is actually unaware that it is occurring) to the customer until it is completed and the new provider's new features and functionalities (*e.g.*, voice mail) appear on his line. There is for the most part no loss of dial tone, no need for coordination between the ILEC and the CLEC, and, most importantly, no manual intervention at the central office distribution frame or other loop interface. Rather, just as in the long distance world, the CLEC sends a request, usually automated, to the ILEC for the migration of the new CLEC customer, and the change is made. In this way, the UNE-P process is quite similar to the CARE long distance process just described, and is indeed no different from the customer's experience in changing features of its ILEC service without changing providers. As a result of the industry efforts concerning UNE-P, millions of customers have been migrated successfully from the ILECs to UNE-P CLECs, from one UNE-P

[29] In MCI's experience, Qwest's OSS has been the most deficient in the country and has resulted in reject rates for MCI higher than in any other BOC region. Since entering the local market in the Qwest region, MCI has had to engage in lengthy trial-and-error processes that required MCI to expend significant resources in deciphering Qwest's poor documentation and non-standard OSS. Through these efforts MCI's reject level in the Qwest region has been reduced to 22.7% (as of the week of December 12, 2003) for residential customers, down from the 50% reject rate that existed earlier in the summer of 2003. Nevertheless, a 22.7% reject rate is too high and remains higher than any other BOC region of the country which averages 10.8% including Qwest's current reject rate.

[30] It must be noted that it has taken seven years of considerable effort and expense to arrive at a process that is relatively seamless to the customer and allows for frequent migrations.

CLEC to another UNE-P CLEC with relatively little loss of dial tone and no need to coordinate multiple installation and maintenance teams.

VII. DETAILED DESCRIPTION OF UNE-P MIGRATION

Q. CAN YOU DESCRIBE THE UNE-P MIGRATION PROCESS IN MORE DETAIL?

A. Yes. More specifically, the process of migrating a Qwest customer to CLEC UNE-P service (generally referred to as migration using the "single C" or "change order") proceeds as follows:

Retail to UNE-P Migration

- The CLEC issues a single UNE-P local service request ("LSR") to Qwest following the Qwest-defined local ordering procedures. This LSR is issued using electronic data interface ("EDI") or Qwest's- graphical user interface ("IMA-GUI"). After much discussion and many Change Management requests, Qwest now allows the CLEC to only provide the telephone number and house number (SANO) for this transition. Directory listings can remain the same, and service address information and E911 information are not required by Qwest. The E911 database remains intact and all updates and corrections, as well as trap and trace functionality, continue to be handled by Qwest.

- Qwest's EDI translator (Business Process Layer or BPL) checks the order to ensure that key fields are correct and, via the same computer system, returns a Firm Order Confirmation ("FOC") or an electronic error message (reject or clarification) to the CLEC. The FOC provides the due date for the completion of the programming necessary to complete the order.

- If an error message is issued, the CLEC will re-submit the order, restarting the process.

- The order then electronically "flows through" to Qwest's service order processor ("SOP"), where the internal service orders necessary to make the switch programming changes and billing changes necessary for the migration to UNE-P are generated. Flow through ensures that errors are minimized by allowing the service orders to be created mechanically, rather than typed by a service representative. Qwest is now achieving well over 90% flow through for

"eligible" standard UNE-P POTS service orders with its EDI interface in Washington.[31]

- Qwest's internal service orders initiate the internal service order provisioning process, including the implementation of switch feature changes. Migration orders do not require the dispatch of technicians to the frame because the programming changes are made at the switch and can be completed totally electronically. The physical facilities (loop and cross connect) are not changed in any way.

- Once the switch translations work is complete, Qwest's internal systems send the CLEC a Service Order Completion ("SOC") notifier. At this point, the customer has "migrated" to the CLEC.

- Qwest completes its internal migration process by updating its internal customer service records ("CSR") and billing records to stop billing the customer directly and to begin issuing wholesale bills to the CLEC. However, Qwest has a more complicated process than other BOCs that requires CLECs to take a different notifier at each step of the process.

Q. HOW LONG DOES THE UNE-P MIGRATION PROCESS GENERALLY TAKE?

A. CLECs and the ILECs have worked together to ensure that the migration of customers from retail to UNE-P and from UNE-P to UNE-P is typically completed within 1 business day[32] (unless the CLEC specifies a later date), regardless of the features ordered. Depending on the rules established with Qwest, fully automated CLECs, like MCI, can send (and receive) up to 2000 transactions (including migrations, disconnections, and feature changes) per hour, because the process is almost wholly electronic. Most importantly, just like a long distance PIC change, the UNE-P migration process is relatively invisible to the customer and allows customers to change carriers whenever they desire.

[31] See Qwest's Performance Results at www.qwest.com/wholsale/downloads/2003/031125/RG_271_Nov02-Oct03_Exhibit_Checklist-Final.pdf

[32] S*ee supra* n.17.

Q. IS IT IMPORTANT THAT CUSTOMERS BE ABLE TO CHANGE PROVIDERS RAPIDLY AND SEAMLESSLY?

A. Yes. As noted above, today's consumer changes carriers more frequently than consumers of the past and expects to be able to do so in an efficient and timely manner. In the telecommunications industry, this movement of customers to and from carriers is commonly referred to as "churn." Churn generally describes the behavior of customers as they move not just from ILEC to CLEC but also from CLEC to ILEC and from CLEC to CLEC. Even in the case of UNE-P, migrations between CLECs today are not seamless, quick or efficient. In most regions, CLEC to CLEC migration processes and procedures are in the nascent stages of being developed and will require extensive work by industry participants to result in viable seamless processes.

Q. IS CHURN A BAD THING OR A GOOD THING?

A. It is really both. Churn is a good thing for consumers, because it allows them to try new products and services from various providers. Such consumer movement encourages carriers to innovate and become more efficient, which in turn, attracts new customers so that carriers are rewarded for innovation and efficiency. In a very real sense, churn is the proof that the competitive process is working. Although good for consumers, churn is problematic for industry players: not only is it expensive when consumers pick a provider for only a short period of time and then leave for another provider, but churn also complicates both the provider's record keeping and billing process that accompany acquiring and losing a customer and those of the underlying network service provider. However, competitors realize that the customer's ability to move amongst providers quickly and efficiently is a necessary and integral part of a

competitive telecommunications landscape. Consumers cannot be "locked in" to a single provider or "stranded" on a single service delivery platform. They must be able to make choices and migrate among providers at will.

Q. IS THERE A LOT OF CHURN IN THE INDUSTRY TODAY?

A. Yes, as discussed above, customers are more educated and savvy today and move more frequently among carriers to get better service packages. Churn rates today are fairly high in the telecommunications industry, in both long distance and UNE-P local markets. Customers are switching to and from carriers frequently. These high churn rates have been enabled by regulatory requirements and changes in the OSS of the carriers. Specifically, equal access in the long distance arena, and UNE-P and electronic data interface ("EDI") based order processing in the local service arena, are milestones that have facilitated customer migrations and permitted churn to exist and accelerate.

Q. CAN YOU GIVE A MORE REAL WORLD EXAMPLE OF CHURN IN THE INDUSTRY TODAY?

A. Yes. As of October 1, 2003, MCI had **BEGIN CONFIDENTIAL** ***[redacted]***END CONFIDENTIAL** residential UNE-P customers in Washington. These customers are distributed over **BEGIN CONFIDENTIAL** ***[redacted]***END CONFIDENTIAL** central offices (CLLIs) in Qwest's territory in Washington. But that is a very static – and not completely accurate – picture of MCI's customers in Washington. MCI's customers in Washington (and elsewhere) are very dynamic.

Q. PLEASE PROVIDE AN EXAMPLE OF HOW DYNAMIC MCI'S CUSTOMER BASE IS IN WASHINGTON.

A. MCI's customers are dynamic in three respects. MCI adds customers every day and loses customers every day. MCI does this across its footprint, including Washington. For example, for the month of October 2003, the most recent month for which we have data, we added **BEGIN CONFIDENTIAL ***[redacted]***END CONFIDENTIAL** new UNE-P customers in Qwest's territory in Washington. We also had **BEGIN CONFIDENTIAL ***[redacted]***END CONFIDENTIAL** customers leave us for another carrier. Given those numbers, our churn rate in Washington in October, 2003 was **BEGIN CONFIDENTIAL ***[redacted]***END CONFIDENTIAL.** While churn means that customers are reaping the benefits of competition, as discussed above, this churn creates significant issues as we move to a UNE-L service delivery mechanism.

VIII. PROBLEMS ASSOCIATED WITH UNE-L MIGRATION

Q. IS THERE "CHURN" IN THE UNE-L MARKET TODAY?

A. No, in contrast to the telecommunications markets just described, there is no widespread churn or competition today in the UNE-L market for mass-market customers.

Q. WHY IS THAT?

A. First of all, based upon data responses received to date, MCI believes that there are very few UNE-L providers from which mass market customers can choose in Qwest's service territory, and MCI believes that these providers exist in limited areas and support a limited range of customers. A second, and equally compelling reason for this lack of churn is that a migration to and from the UNE-L service delivery method is anything but simple. In fact, it is really difficult. The systems and processes involved in a UNE-L

migration, as opposed to a UNE-P migration, are complex, manually intensive and cumbersome. It is important to remember that it took seven years, from the passage of the Act, to achieve the type of limited success that has been achieved with UNE-P in the Qwest mass-market territory and UNE-P does not require a physical facility change like UNE-L.

Q. WHAT MAKES THE UNE-L MIGRATION PROCESS SO COMPLEX?

A. Unlike UNE-P, UNE-L requires both a physical change to the facilities involved in providing service to the customer (the loop serving the customer must be physically disconnected from the Qwest UNE-P facilities and then connected to the UNE-L carrier's facilities in Qwest's central office) [33] as well as an unprecedented exchange of information between the multiple parties involved, including providers not generally involved in the processes reviewed and tested by this Commission. Attached to this testimony as Exhibits CC-1 through CC-8 are process flow diagrams assembled using publicly available information. These process flowsthat indicate the pre-ordering, ordering, provisioning, maintenance and repair, and billing steps involved eight core migration scenarios that MCI believes it will experience in a dynamic competitive market.

Q. ARE THERE COMPLEXITIES THAT THIS PROCESS FLOW DOES NOT DIAGRAM?

A. Yes, while theses process flows can outline the steps in a typical migration, there are several things that these process flows simply cannot illustrate adequately:

[33] The technical aspects of the hot cut process are discussed in detail in the Network Operational Testimony filed by MCI.

1. At numerous points in this process, manual handling of the UNE-L migration tasks is required, often resulting in errors and delay;

2. UNE-L flow through rates are somewhat lower than for UNE-P, causing still more manual work and, hence, more delay and potentially more manually introduced errors;

3. There is a significant amount of information that must be exchanged among various parties to the migration (not just Qwest and the CLEC or CLECs) and the failure of this information to reach its destination in a timely and accurate manner could significantly affect a customer's service; and

4. The scalability of this process to meet mass market volumes is doubtful and untested (because loops have never been migrated at mass market volumes) at this time.

All four of these issues individually or in combination, if left unresolved, have the potential to impact customer service and derail a competitor's ability to viably utilize UNE-L to serve mass-market customers.

Q. PLEASE EXPLAIN.

A. The process of migrating a Qwest customer to CLEC UNE-L service proceeds as follows[34]:

- The CLEC issues an electronic order to Qwest requesting that the customer be moved from Qwest's switch to the CLEC switch. Unlike a UNE-P order which requires only the customer's name and telephone number and the features that the customer will be purchasing, the UNE-L order must include more information including the customer's name, address and telephone number, and information

[34] Qwest's Batch Hot Cut Process flow diagram is on its website at: http://www.qwest.com/wholesale/downloads/2003/031126/Proposed_Batch_Loop_Install_11_12_03.ppt and is attached as Exhibit CC-9.

on the collocation cage to which the loop will be transferred and the channel facility assignment (pair) to which the loop will be terminated.

- The CLEC will also create internal orders to send to the National Number Portability Assignment Center, the LIDB provider, and the E911 center serving the customer to establish ownership of the customer's number at the appropriate time. These orders must be timed to coordinate with the orders issued by the Qwest. For example, Qwest's order to unlock the E911 database should be complete prior to the CLEC order to accept responsibility for the record and lock the database. These orders may fall out at any time causing additional customer problems. During the batch hot cut discussions, Qwest stated that this order is not issued in its own systems until after the cutover is complete in the service order processor.[35]

- Qwest's EDI translation software will accept or reject the order and return a FOC or clarification/reject to the CLEC. Qwest's service order processor may now be able to create the internal orders necessary to migrate the customer to UNE-L. If it cannot, the orders will need to be entered manually by service center personnel. Fallout rates for UNE-L orders are higher than those for UNE-P. If the order does not flow through the system, Qwest service order personnel will need to type the orders. Unlike a UNE-P migration, multiple related service orders must be created for a UNE-L transition – generally, the local service center personnel must create a Disconnect (D) order to remove the customer from Qwest's switch; a New (N) order to move the loop from the MDF to the CLEC collocation equipment; and a Change (C) order to change the billing to the CLEC from UNE-P to UNE-L. Directory listing orders may also have to be created, as well as a request to unlock the E911 data base to allow the CLEC to "claim" the customer and a "trigger" order to route calls to the customer via the local number portability data base rather than Qwest's switch.[36]

- The internal Qwest service orders are routed to the technicians responsible for the UNE-L cutover. These technicians must "find" the customer's circuit at the main distribution frame by manually clipping onto the loop and "listening" for dial tone, wire in a jumper cable which will allow the loop to be extended to the CLEC's collocation equipment, and prepare for the cutover. The frame personnel should also check for dial tone at the CLEC end, ensuring that the CLEC switch will have dial tone for the customer when he/she migrates. Under Qwest's batch hot cut proposal this all happens on the day of the batch hot cut, and if there is no dialtone, the CLEC is given one hour to correct any problems.

  On the day of the cut, Qwest connects the jumper from the CLEC collocation cage to the frame and notifies the CLEC that the cut has been made.

[35] *See infra* n.43.
[36] *See infra* n.43.

- When the CLEC receives the cut notification, it must complete the local number portability transaction by issuing a "claiming" order to the NPAC. The customer will have dial tone and be able to call out during this process but will be unable to receive calls until the NPAC transaction is completed.

- Qwest will issue a service order completion notification to the CLEC and will also send the CLEC an email informing it that the work has been done.

- Qwest will complete the internal work required to change the billing to the CLEC from UNE-P (loop and port) to UNE-L (loop only). The customer's CSR will be removed from Qwest's systems.

Q. IS THE UNE-L MIGRATION PROCESS READY FOR MASS MARKET USE?

A. No. Much of the work that is required to migrate a customer to a CLEC is manual, including calls from the Qwest frame technicians to the QCCC and emails to the CLEC from Qwest to inform it of the completion of the steps in the process. If carriers move to a UNE-L service delivery method before the processes and procedures are in place to allow migrations to take place quickly and efficiently, the churn that is a trademark of competition in the long distance and UNE-P markets will create significant problems both for carriers and customers. Without seamless and efficient migration processes in all directions and among all carriers, customer attempts to migrate away from their existing carriers could overwhelm the ability of carriers (both the losing carrier as well as the acquiring carrier) to accommodate that move. The result could be chaos as customers are in effect, held hostage to cumbersome untested processes that cannot support the volume of orders being issued.

Of the 8 core migration scenarios that MCI believes it will encounter in a dynamic competitive UNE-L market, the ILEC retail to CLEC UNE-L is one of the more straightforward. One of the remaining seven standard migration scenarios is UNE-P to

UNE-L for existing CLEC customers, the migration that the FCC's requirement for a transition batch cut process is intended to address. Other migration process flows are more complex involving CLEC UNE-L to CLEC UNE-L migrations as well as injecting DSL service into the migration either from the ILEC to the CLEC or between CLECs. MCI has attached the 8 migration process flows to this testimony as Exhibits CC-1 to CC-8.

Q. DOES THIS MEAN THAT UNE-L WILL NEVER BE A VIABLE SERVICE DELIVERY METHOD FOR THE MASS MARKET?

A. No. As discussed in more detail below and in Mr. Stacy's testimony, these issues are not insurmountable, but they must be resolved before UNE-L can be considered a viable service delivery method for the mass market. Otherwise, not just competitors but customers will be hurt. That should not be an acceptable outcome to the Commission. The processes and procedures for migrating to and from UNE-L must be improved and advanced, so that the UNE-L customer experience is as good or better than the customer experience today in the long distance and UNE-P arenas.

Q. WHAT WOULD HAPPEN IF COMPETITORS WERE REQUIRED TO MOVE TO UNE-L TODAY?

A. Chaos. The UNE-L migration process today is manually intensive and cumbersome with multiple points of failure that could result in delay, loss of features, inability to receive calls and worse yet loss of dial tone for the consumer.[37] If the

[37] See generally Batch Hot Cut Forum transcripts and Qwest's batch Hot Cut Proposal field November 12, 2003, where Qwest's states it is using many of its current "hot cut" processes to create its existing batch hot cut proposal, and where Qwest will rely on telephone calls, faxes, e-mails and similar manual procedures to communicate with CLECs, rather than using a system such as the Verizon's Wholesale Provisioning and Tracking System ("WPTS") which is posted on Qwest's website at: http://www.qwest.com/wholesale/downloads/2003/031211/WPTSCLECInterface.ppt and at a Verizon website at: http://www22.verizon.com/wholesale/ldp/apphome/1,,3-WPTS,00.html

transition to UNE-L is made prematurely, the progress that has been made toward a dynamic, competitive telecommunications market since the passage of the 1996 Act will be erased.

Q. SO, IT IS NOT VIABLE FOR MCI TO UTILIZE UNE-L TODAY FOR ITS MASS-MARKET CUSTOMERS?

A. No, use of UNE-L is not viable today for the mass market because of the significant operational barriers that remain. If competitors were immediately required to utilize UNE-L – with the existing processes and procedures for accessing and installing an unbundled loop – it would be impossible for them to meet customer expectations, and, more likely than not, customers would experience a delay or loss of service when switching carriers. This is simply not acceptable in today's telecommunications environment, in which consumers expect quality service and the ability to move among providers quickly and efficiently and would create more material for Qwest to use in advertising demeaning CLEC service quality. In order for UNE-L to be a viable service delivery method, it must allow competitors to meet and exceed customer expectations. In particular, migrations between carriers utilizing UNE-L must be seamless and the systems and processes of the entire industry – Qwest, other ILECs, CLECs and third parties – must be fully functional and capable of working together effectively. Today these systems and processes are highly manual and are untested in a mass market environment.

Q. PLEASE EXPLAIN THE SPECIFIC OPERATIONAL BARRIERS TO UTILIZING UNE-L THAT EXIST TODAY.

A. There are multiple points where there are changes to customer records and information in both internal and external databases that are required for migration to a

UNE-L service delivery method. Many of these changes result from the fact that the CLEC switch will be utilized in the provision of service with UNE-L versus Qwest's switch that is used with UNE-P. Because there is very little mass market UNE-L competition today there are a great many unanswered questions surrounding these transfers and information exchanges. These exchanges of information all represent potential points of failure in the UNE-L world that do not exist today with UNE-P. While it appears that they do not represent major technical network barriers that must be overcome, these coordination, database, and ordering issues represent operational barriers that are of critical importance to both the customer and the service provider.

As noted above, in this testimony MCI is focusing on the customer impacting operational issues. Mr. Stacy's testimony will deal with the more technical operational issues such as the hot cut itself and the presence of integrated digital loop carrier ("IDLC") in Qwest's networks. Specifically the customer impacting operational issues involve the necessary exchange of information that needs to take place quickly and efficiently in a UNE-L world. MCI will describe for the Commission the issues involving Customer Service Records ("CSR"), Local Facilities Administration and Control System ("LFACS"), E911, National Number Portability Administration Center ("NPAC"), Line Information Database ("LIDB") and Caller Name Database ("CNAM") and Directory Listing/Directory Assistance ("DL/DA") as well as possible solutions. All of these customer record/information changes must take place as efficiently and seamlessly as possible in a UNE-L environment. In addition, MCI will discuss the changes in trouble handling that must take place before MCI can operate effectively in a UNE-L world.

Q. WHAT IS THE ISSUE INVOLVING CUSTOMER SERVICE RECORDS?

A. Obtaining accurate and complete customer information is essential to a CLEC's ability to submit a valid order. CSRs are used to identify address, features, directory and other information for migrating customers. CSRs show the most current customer configuration based on the switch port and Qwest's internal billing systems. During the pre-order phase of a migration, the CLEC representative needs to obtain current customer and service information in order to create the order. While this information can be retrieved on a real time basis for Qwest's customers and for CLEC customers served by UNE-P or resale, it is not available in the Qwest systems for customers served by UNE-L. Moreover, the systems and processes required to obtain and share this information have not been developed for all migration scenarios – most notably CLEC to CLEC migrations, for example loop to UNE-P or loop to loop. In addition, there are no processes in place at all for migrations from intermodal competitors like cable companies, who are not using the Qwest loop (or even the Qwest NID) at all.

Q. IS THIS AN ISSUE IN A UNE-P WORLD?

A. No. This is not an issue in initial migrations from Qwest whether they are to UNE-P or UNE-L or UNE-P to UNE-P because all the data required for the migration continues to reside in the Qwest systems. In addition, Qwest and other ILECs currently support migrations by telephone number and customer name or telephone number and house number for UNE-P and resale, which reduces the errors in the process. This is not true for UNE-L migrations or in the proposed Qwest batch hot cut process, where a full service address and MSAG valid E911 address will be required. In these initial

migrations, Qwest's systems contain the relevant customer information and the CLEC representative has electronic access to Qwest's systems and can retrieve the information.

Q. IS THIS PROCESS THE SAME WITH ALL MIGRATIONS?

A. No. Obtaining this type of customer information becomes much more complicated in a CLEC to CLEC UNE-L migration because Qwest no longer has the current CSR information (because the customer is being served off of a CLEC switch) and MCI must contact the other carrier by email, fax, or through a web site to obtain the relevant information. At this time there are no standard processes for the exchange of CSR data between CLECs, which renders this process much less efficient.

Q. WHAT MAKES UNE-L CSR REQUIREMENTS DIFFERENT?

A. Since the customer is currently a UNE-L customer with another CLEC, the representative cannot run pre-order queries against Qwest's databases to validate the information needed to initiate an order. The MCI representative must at this point contact the other CLEC to obtain the relevant information, including the circuit ID for the loop facility currently providing service to the customer, the most important piece of data needed to move a customer from UNE-L to another provider.

Today's CSR alone does not provide all of the information necessary for migrations in a UNE-L environment – other than the initial migration from Qwest to CLEC. In a UNE-L world, the departing customer gains new information from the CLEC that Qwest does not – and has no means to obtain. For example, when a Qwest customer initially migrates to CLEC-1 (a UNE-L provider), that CLEC obtains the customer's CSR from Qwest, but this CSR does not include the "circuit ID," which will be used by Qwest to track where the customer's loop appears on the Qwest main

distribution frame ("MDF") or interconnection distribution frame ("ICDF") after the migration. The circuit ID information is critical, since MCI will need that information to ensure that the same physical loop can be used to serve the customer. This information is returned to the winning CLEC with the Firm Order Confirmation ("FOC") and must be passed on to the next service provider to allow the re-use of the customer's facility. Once the customer has migrated to the UNE-L carrier, Qwest is generally no longer able to associate a customer's CSR with the circuit ID – only CLEC-1 can do that. Because all information needed for UNE-L migrations is not readily available – either because Qwest cannot provide it, or because there are not reliable, comprehensive systems for transferring this information among CLECs – the CSR system must be revised and expanded to function properly for UNE-L.

Q. WHAT HAS BEEN DONE THUS FAR AT THE STATE LEVEL TO ADDRESS THIS ISSUE?

A. While CLECs, ILECs, and the states continue to work collaboratively to attempt to develop CLEC to CLEC migration procedures, the ability to share CSRs and obtain circuit ID information is not yet in place. While CLEC to CLEC migration processes have been worked out on paper, each company can provide CSR information as it chooses using its own transmission method (fax, website, email) and no quality assurance processes have been developed. Today, there is no standard CSR framework to support a UNE-L environment.[38]MCI pulls all CSR's manually and has to research the "facilities" and hand write those on the actual CSR after printing and before faxing to the carrier. This CSR issue must be addressed and the infrastructure developed prior to the

[38] See, Ordering and Billing Forum ("OBF") of Alliance for telecommunications Industry Solutions ("ATIS") website at: http://www.atis.org/atis/clc/obf/obfhom.htm

implementation of UNE-L. Unless we do so, customers will be stuck where they land in their first migration (because other carriers have no means to obtain the information necessary to migrate the customer to another carrier) or ILECs will be forced to install more and more facilities to compensate for the inability to identify the current circuit being used. There is an item on the OBF agenda for this.[39]

CLEC to CLEC information exchange processes are still under development and tend to vary state by state. Qwest and CLECs are in the earliest stages of developing a CLEC to CLEC migration process and have reached no agreements on how this process should be managed. Some states, such as New York and Florida, have established requirements for the data to be included in the CSR. Under the New York rules, for example, there are 13 pieces of information that must be included in a CSR record: billing telephone number; working telephone number; billing name and address; directory listing information (including listing type); complete service address; current PICs (for both inter and intraLATA, including freeze status); local freeze status, if applicable; all vertical features; options (such as toll blocking and remote call forwarding); tracking or transaction number; service configuration information (*i.e.*, whether customer is served via resale, UNE-P, UNE-L, etc.); the identification of the network service provider, and the identification of any line sharing or line splitting on the line.

[39] As stated on the OBF website: *Multi-Provider Migration:* With the advent of local competition, challenges associated with seamlessly migrating an end user to a new service provider is at the forefront of several state Public Utility Commission agendas. Designing an industry-wide standard for migrating end users has become critical to ensure companies have one process that benefits all companies. http://www.atis.org/atis/clc/obf/LSOP/multi_migration.htm.

Q. DOES MCI AGREE WITH THE NEW YORK GUIDELINES?

A. While MCI agrees with the New York Guidelines as far as they go, we propose that additional information be added to New York's list of requirements. Specifically, MCI recommends that the list include: 1) Qwest's feature name and USOC for vertical features and blocking options to ensure that CLECs can understand each other's CSRs; 2) circuit ID information (currently provided in a second step in the process); and 3) identification of line sharing/line splitting providers. In addition, CLECs must be required to provide contact information for requesting CSRs and must commit to providing CSR data within specific timeframes**.**

Q. ASIDE FROM THE ADDITIONS TO THE NEW YORK REQUIREMENTS, DOES MCI HAVE A PROPOSAL TO RESOLVE THE CSR ISSUE?

A. Yes. Going forward, it will be necessary to implement a solution to these problems. MCI proposes the establishment of a distributed CSR database, shared and maintained by CLECs and ILECs alike. These database improvements may take a considerable amount of time, expense, and effort to accomplish, but are necessary before UNE-L migrations can be handled on the same basis as UNE-P migrations.

Q. PLEASE EXPLAIN YOUR DISTRIBUTED DATABASE PROPOSAL IN MORE DETAIL.

A. MCI recommends that a central clearinghouse be maintained to identify the owner of a particular customer and to launch a query to retrieve that customer's service information**.** The central database would function similarly to the current CARE clearinghouse, directing requests to the proper providers following a single data communications protocol. Under this proposal, CLECs would maintain CSRs in a

standard format and would agree to standard delivery methods and time frames. Companies that did not want to maintain their own CSRs or could not develop the software necessary to electronically transmit that information to other carriers could contract with the third-party clearinghouses that would inevitably spring up to support this process. State commissions would need to develop metrics and enforcement procedures to ensure that information is exchanged within the appropriate time frames. Until such a distributed method is developed, MCI believes that Qwest can continue to provide access to the information it has about customers on its network as well as the information remaining after a customer leaves the network.

Q. ARE THERE OTHER DATA BASE ISSUES?

A. Yes, work is required on all the data bases utilized to configure and provide UNE-L to mass markets customers, including LFACS, E-911, LIDB, CNAM, DA/DL, and potentially others.

Q. WHAT IS THE PROBLEM WITH LFACS?

A. In the pre-order phase, MCI may submit a loop qualification inquiry (to LFACS) to determine loop make-up information. The accuracy of the data is critical to the CLEC's ability to determine if it can serve the customer. For example, the CLEC needs to know if the customer's loop is all-copper (and can be unbundled) or is served through an integrated digital loop carrier ("IDLC") system, which Qwest claims cannot be unbundled, or whether the customer has fiber to the home.[40] Qwest requires that loops served by IDLC be handled separately and will not unbundle fiber to the home.

[40] MCI discusses the various options for unbundling IDLC loops in its Network Impairment testimony.

Q. IS THE DATA CONTAINED IN LFACS ACCURATE?

A. At this point we truly do not know. There has been evidence in other proceedings (various 271 proceedings as well as the Virginia arbitration proceeding at the FCC) that LFACs does not contain accurate data. Given the current low level of UNE-L and DSL competition, it is difficult to know how inaccurate that data was, despite testing done during the 271 process. In batch hot cut forum, Eschelon and McLeod representatives have alluded to database accuracy problems for the loop qualification toll.

Q. HOW DOES MCI PROPOSE TO RESOLVE THIS ISSUE?

A. MCI proposes that LFACS be audited for accuracy and a process be developed to ensure that it is accurately maintained (real time) when Qwest alters or changes its loop plant. This is particularly important as Qwest retires its copper plant and replaces it with fiber. In addition, CLECs must be able to "reserve" a spare copper facility when a customer is migrating to ensure that that migration can take place. Currently, while LFACS will allow a CLEC to determine whether there is spare copper to support the unbundling of the customer's service, that copper loop may be "taken" by another CLEC or Qwest itself to serve another customer in the process of migrating or changing his loop to allow the provision of data services.

Q. ISN'T TROUBLE HANDLING ALSO DIFFERENT IN A UNE-L VERSUS A UNE-P WORLD?

A. Absolutely. When providing UNE-L service, each company is responsible for maintaining its respective portions of the network. The CLEC is responsible for its switch, collocation space, and transport. Qwest is responsible for the loop, frame, and

connectivity to the CLEC collocation space. This is a notable difference from UNE-P, where Qwest is fully responsible for making repairs to the switch and network.

Q. SPECIFICALLY, WHAT IS DIFFERENT ABOUT TROUBLE HANDLING IN A UNE-L WORLD?

A. In a UNE-L environment, MCI representatives gather the appropriate information from the customer and make an initial trouble assessment. In order to do this, MCI must "sectionalize" the trouble and determine whether a dispatch in to the switch or frame or a dispatch out to the field is required. If no trouble is found after a "dispatch in," the initial ticket may be closed and a new ticket must be opened. If the problem is in the MCI portion of the network, MCI must either dispatch a technician to its collocation cage or work with Qwest to clear the problem. This process could increase out of service times and the multiple handoffs between companies could harm customers by putting them in the middle of "finger pointing" exercises.

Q. WHY IS THIS AN ISSUE?

A. Since few mass markets customers today have UNE-L service, this trouble handling process has not yet been adapted for a world where customer service outages must be repaired rapidly so that residential customers can continue to be able to receive dial tone with the same reliability as Qwest customers.

Q. HOW DOES MCI PROPOSE TO HANDLE THIS ISSUE?

A. In order for trouble handling in a UNE-L environment to be viable, CLECs like MCI need to obtain newer and more advanced test equipment as well as develop internal processes to address this trouble handling and the anticipated volumes. In addition, all

parties need to make sure that the dispatch rules surrounding trouble handling are adequate and function properly under mass market volume constraints.

Q. ARE THERE CHANGES INVOLVING A CUSTOMER'S E911 INFORMATION?

A. Yes. When a consumer migrates from Qwest, other ILECs (or another CLEC) to MCI, the 911 database must be updated to reflect the new switching provider. This change occurs shortly after the loop is cutover to the CLEC and requires Qwest to "unlock" the E911 database. This allows the CLEC record to overlay the existing Qwest record with updated information, including the CLEC company code and a 24 hour, 7 days a week ("24x7") emergency number as well as the current customer address information (if necessary).

Q. WHAT HAPPENS IF THE CHANGE IS NOT MADE CORRECTLY?

A. If this change is not made correctly, the customer's E911 information in the Automatic Line Identification ("ALI") database will not include the CLEC's company ID or the customer's correct address if the customer moved or the record required some other correction. It is essential that this change to E911 be done correctly and also that it be seamless and transparent to the migrating consumer.

Q. IS THIS CHANGE REQUIRED IN A UNE-P WORLD?

A. No such change is required in a UNE-P world where Qwest retains control over the 911-database information for the UNE-P CLEC.

Q. COULD YOU EXPLAIN THE NECESSARY E911 CHANGE IN MORE DETAIL?

A. Specifically, in a UNE-L environment there are two orders required for changes to the 911 ALI database.[41] One order must go from Qwest to the 911 provider to unlock the record in the ALI database. This allows the CLEC to overlay the existing record with the updated 911 ALI record, once the migration has been successfully processed.

The second order must go through the CLEC's vendor (or Qwest if the CLEC has contracted with it) to overlay the existing 911 record with the new record. It is essential that these orders be coordinated so that Qwest's unlock order arrives before the CLEC "Migrate" order to populate the database.

A critical issue here is the timing of the "unlock" order. While Qwest has stated that they will send the "unlock" transaction to NPAC when the lift and lay is complete and the order is completed in WFA, MCI needs further information on this process and how the CLEC will be notified of the actual work completion and the 911 unlock. In MCI's experience in providing UNE-L to business customers, we have discovered that many ILECs do not send the "unlock" order until the CLECs migration order has actually closed in the provisioning system.[42] Since this will necessarily be sometime after the

[41] Qwest in most cases maintains the 911 Selective Router used for routing a 911 call to the appropriate PSAP. The PSAP dips into the ALI database when a 911 call is received to retrieve the address of the caller. The PSAP is the custodian of the data required to dispatch emergency personnel. The PSAP must have a record for each customer a facilities CLEC owns and must be able to contact that carrier.

[42] *See* Batch Hot Cut Forum Transcript, December 2, 2003, at pp. 600, L. 17 to 601, L. 11, at http://www.qwest.com/wholesale/downloads/2003/031215/120303QT.doc, where it is stated:

MR. UREVIG (Qwest Witness): The 911 unlock will happen approximately 6:00 p.m. It would be batched with any D[isconnect] order that has been completed for that day.

MS. LICHTENBERG: So the D order doesn't complete at the end of the shift, it completes at 6:00 p.m.?

MR. UREVIG: The D order would be completed in the service order processor when the order is completed in WFA, depending upon the acceptance of the inward action.

MS. LICHTENBERG: I think I get it but let me give you an example. Let's go back to the 3:00 a.m. to the 11:00 a.m. cut window to make sure that I understand what you're saying. Order completes at

physical completion of the order, there could be a time lag where the 911 system has incorrect information on the network service provider. The National Network Numbering Association ("NENA") standard is to send the 911 order at the time of port. MCI follows that standard. This discrepancy between Qwest and CLEC processes could lead to major problems regarding the accuracy of the 911 database and the ability of CLECs to provide current information to update the database. Qwest systems should be revised so as to send the 911 record at the time of porting. This change would greatly improve the timeliness of the 911 record process and further ensure that accurate customer information is in the 911 database.

Q. WHAT HAPPENS IF THE ORDERS ARE NOT SEQUENCED CORRECTLY?

A. If the sequence of the orders is disrupted, the 911 database cannot be updated. While the customer will be able to dial 911, the Public Safety Answering Position ("PSAP") will only see the old customer record, which may or may not be accurate and will contain the wrong company ID for correction or trap and trace requests. As the number of UNE-L orders increases and particularly during the bulk transition of customers from UNE-P to UNE-L, the problem will become more severe. Most importantly, the CLEC will be required to manually check the PSAP information to determine if the update has been accepted and has passed the myriad of required edits.

11:00 a.m. At 6:00 p.m. that night you issue the unlock via batch to the E-911 PSAP to unlock the record. So that customer is still listed in 911 as a Qwest customer, even though he's been my customer for about seven hours.

MR. UREVIG: Yes.

Q. DOES MCI HAVE A SUGGESTION ON HOW TO FIX THIS PROBLEM?

A. Yes. Aside from requiring Qwest and other ILECs to comport with the NENA guidelines as discussed above, these critical 911 orders must be coordinated through the various systems and processes of all industry players in order to ensure that migration to UNE-L does not result in E911 problems. MCI suggests that the states convene some type of collaborative forum to ensure that the orders are coordinated. Today, these 911 changes take place for a limited number of consumers because UNE-L is not used predominantly in the mass market. However, if UNE-L were to become a viable mass-market service delivery method, it would be essential to ensure that the 911 changes required with such a migration are accurate as well as seamless and transparent to the consumer. In addition, CLECs, state commissions, and the PSAPs need to work together to ensure that the PSAP database can handle the increased volume of unlock and lock requests issued in a UNE-L environment.

Q. ARE THERE ISSUES INVOLVING NPAC IN A UNE-L MIGRATION?

A. Yes. The National Number Portability Administration Center handles the data base updates necessary to determine the "home switch" for each UNE-L (and cable) customer – *i.e.*, the switch that customer is associated with.

Q. ARE NPAC CHANGES NECESSARY WITH UNE-P?

A. No. Since UNE-P utilizes Qwest's switching, there is no need to send transactions for UNE-P migrations to the NPAC, keeping the number administration task to a manageable level. When CLECs move to UNE-L, however, this becomes a necessary and integral part of the process – and one that is currently untested at mass-market volumes.

Q. PLEASE EXPLAIN.

A. When a customer migrates to UNE-L, a transaction must be sent to NPAC to identify the "destination" switch for calls to this number. Qwest initiates this transaction by creating a "10 digit trigger" in the donor (losing) switch at the time the UNE-L order is created. The trigger will cause incoming calls to "dip" into the NPAC database to determine the switch that now houses the number. The CLEC initiates the second step of this process when it receives notification from Qwest that the cut has been completed. The CLEC then sends a transaction to NPAC to claim the number. Until the CLEC claims the number in the NPAC database, the customer will be unable to receive any incoming telephone calls.[43] If the NPAC transaction is not completed successfully, (for example, the NPAC system is down, the request is formatted incorrectly, or Qwest has not notified the CLEC that the cut is complete) the customer will not be able to receive calls, since they will be directed to the incorrect home switch.[44] It is essential that the NPAC process be coordinated and successful. If it is not, consumers could experience service problems that simply do not exist today with UNE-P, and these problems may occur on a switch-by-switch basis, causing some calls to complete to the UNE-L customer but not others. The current experience of customers trying to port their number between wireless carriers provides a good example of the problems that are occurring in the local number portability process. The number portability problems are causing many customers to carry two telephones, one from their new provider and one from their old provider, to ensure that they will continue to receive calls. While this is merely

[43] Recently in New York, Verizon has indicated that it will now retain control over both of the NPAC orders in a UNE-L migration.

[44] The customer's voice mail will also be impacted.

inconvenient to wireless customers (and perhaps more expensive than necessary – subscribing to two different wireless carriers at the same time) customers can still receive calls directed to their number. With wireline local number portability, customers would likely be livid if the process does not work properly as the customers would have no work-around to receive calls from their former carrier until the number is properly ported over to the carrier providing dial tone to the residence.

When the customer changes carriers again, the losing carrier must "unlock" the existing record to allow the winning carrier to "replace" it with its destination code. Both churn and the addition of wireless local number portability (the ability for customers to migrate their numbers between wireless carriers and from wireline to wireless carriers) will raise the number of transactions processed by the NPAC tremendously. It is unclear whether or not NPAC will be able to handle the volumes of transactions that would occur in a dynamic UNE-L market. If they cannot handle the volumes, changes to the NPAC process will undoubtedly prove necessary.

Q. DOES MCI HAVE ANY SUGGESTED RESOLUTION TO THIS ISSUE?

A. MCI recommends that the Commission immediately open a collaborative discussion between Qwest, other ILECs, CLECs, and the current NPAC administrator, Neustar, to determine NPAC's actual capabilities and to develop metrics for the completion of number portability tasks. Volume testing or scalability analysis will also be required to determine whether NPAC can actually handle the volumes of numbers that will be ported in a single day. Since a failure of the NPAC system will have a direct negative impact on customers, it is critical that the movement to UNE-L for mass markets

customers not take place until all parties are clear that the system can support the increased volumes.[45]

Q. ARE THERE ISSUES WITH DIRECTORY LISTING AND DIRECTORY ASSISTANCE?

A. Yes. In a UNE-L world, CLECs must send directory listing information to Qwest to include in both the printed and on-line directories of each company. This step occurs as part of the UNE-L migration order.

Q. ARE CHANGES TO DL/DA NECESSARY WITH UNE-P?

A. No. No changes are necessary in a migration to UNE-P.

Q. PLEASE EXPLAIN.

A. The CLEC completes the directory listing form and sends it with its order to Qwest for processing. While an "as is" (i.e., no change) directory listing can be ordered from Qwest as part of the "first" retail to UNE-L migration (or UNE-P to UNE-L conversion), this process must be repeated with full information for each subsequent change. This increases the likelihood of errors or deletions in the directory as it is "opened" to remove listings and "closed" to put the same listings back in. This was an issue raised in the state 271 proceedings by UNE-L carriers that had evidence of directory

[45] See, Batch Hot Cut Forum, Transcript, December 3, 2003, at pp. 722, L. 1 to 724, L. 19, found at http://www.qwest.com/wholesale/downloads/2003/031215/120303QT.doc, where it is stated:

> MS. LICHTENBERG: . . .what we haven't been able to address in this forum and what is not a part, if you will, of the batch process, the simple -- or the single process of moving a customer from one switch to another, are the ancillary processes that have significant impact on customers that surround that batch hot cut. And they're not processes that Qwest is responsible for. They are processes from the NPAC, the national number forwarding organization, and they handle this sort of volume, and that's not a Qwest issue, but it is an issue for commissions because it's your customers in your states, our customers, everyone's customers, customers being won back, that will be impacted if the number isn't forwarded properly. * * * We've got the issue, can the PSAP handle the large number of locks and unlocks and the vendors that deal with the PSAPs. I don't know how to ask that question because those PSAPs are many, but there's a direct impact to customers. So we have to view the batch hot cut process as a piece of a

listings were left out of the phone books, inserted into incorrect locations in the phone books, or containing incorrect customer information. Again, the sheer volume of directory changes to be processed if UNE-L were to become a viable mass-market service delivery method could have significant impacts on the directory publishing and operator services databases.

Q. DOES MCI HAVE A PROPOSED RESOLUTION TO THIS ISSUE?

A. MCI recommends that "migrate as is" functionality for directory listings be available to CLEC-to-CLEC migrations as well as in ILEC-to-CLEC migrations to limit the number of times that this information must be added and deleted.

Q. ARE THERE ISSUES WITH LIDB AND CNAM?

A. Yes. The Line Information Database ("LIDB") and Caller Name ("CNAM") databases provide information on caller identity and blocking options. UNE-P customers today use the LIDB and CNAM databases provided by Qwest. Unless a customer of the CLEC chooses new blocking options, no changes are required to the data when a customer migrates. Today, when a customer migrates a telephone number to a new carrier, the losing company deletes the telephone number's LIDB/CNAM information from its LIDB/CNAM database and the acquiring carrier loads the telephone number's LIDB/CNAM information internally.[46]

LIDB and CNAM are essential databases. Customer information for migrating customers whose LIDB and CNAM is not loaded or incorrect will not be available for

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whole. * * * I don't want to develop the best batch hot cut process in the world where the customer at the end still can't get phone calls.

[46] MCI, as the acquiring carrier loads the data internally and at its LIDB/CNAM vendor, VeriSign.

caller name display on caller id, potentially leading to call blocking by the called party and improper rejection of third-party billed calls.

With UNE-L, both LIDB and CNAM data must be reloaded because the losing LEC will delete the information from their LIDB and CNAM processes. The LIDB/CNAM data entry step is performed while the order is in order entry. CLECs must either create CNAM data from published sources (which results in a substandard database because not all necessary data is available publicly) or dip Qwest's systems to receive the data at a per dip TELRIC rate in Washington. Under the *Triennial Review Order*, the database dips referred to above will no longer be at cost based pricing. CLECs should be allowed to obtain a download of Qwest's databases (at TELRIC rates) when using UNE-L in order to ensure that there is consistency of information and that callers are provided with the fully functional features that they require.

Both vendors and Qwest need to examine the increase in data loads that they will have to handle to determine whether existing processes are sufficient. In addition, current processes for error checking and reject handling must be followed or new processes developed – issues that were never addressed with UNE-P because Qwest's systems were used.

Q. DOES MCI BELIEVE THAT ALL OF THESE CUSTOMER-IMPACTING ISSUES WOULD HAVE A SIGNIFICANT EFFECT ON CUSTOMERS IN A UNE-L WORLD?

A. Yes. All of these customer record/information changes must take place as efficiently and seamlessly as possible in a UNE-L environment. It is critical that these various orders and transfers of information be coordinated to the greatest extent possible throughout the various systems and processes of each provider, and between providers.

A lack of coordination could result in errors in the customer records, the loss of customer data and loss of dial tone.

IX. QWEST'S BATCH HOT CUT PROCESS

Q. WHAT IS THE "BATCH" HOT CUT PROCESS AND WHAT IS ITS PURPOSE?

A. In an effort to alleviate some of the operational barriers to UNE-L recognized by the FCC, the *Triennial Review Order* requires that the states approve a batch hot cut process ("Transition Batch Hot Cut Process") to transition UNE-P customers to UNE-L by cutting over unbundled loops in high volumes from Qwest to CLECs. *See, e.g.*, *Order* ¶¶ 487-490. The FCC expected that such a process would enable groups of UNE-P customers to be transitioned to UNE-L simultaneously in batches, thus "result[ing] in efficiencies associated with performing tasks once for multiple lines that would otherwise have been performed on a line-by-line basis." *Order* ¶ 489. Yet although the FCC recognized that such "a seamless, low-cost batch cut process for switching mass market customers from one carrier to another is necessary, at a minimum, for carriers to compete effectively in the mass market," it did not view this transitioning process as a panacea. *See, e.g.*, *Order* ¶¶ 423, 487 (describing the batch process as mitigating, not necessarily eliminating impairment). Indeed, because this Transition Batch Hot Cut Process only addresses the issue of transitioning to UNE-L the base of customers that competitors like MCI have acquired on UNE-P, it is merely a discrete piece of the much larger puzzle that must be assembled before UNE-L can be seen as a viable service delivery method. In practical terms, eliminating the operational barriers associated with the every day hot cut process ("Mass Market Hot Cut Process") – which will be used to move customers to and

from multiple carriers in a dynamic competitive market – is far more critical than implementing a Transition Batch Hot Cut Process that is only useful for simultaneously moving batches of UNE-P customers to UNE-L.

Q. DOES MCI HAVE ANY CONCERNS AT THIS TIME ABOUT HOW QWEST IS ADDRESSING BATCH HOT CUTS?

With the Commission's approval, Qwest, CLECs, and other interested parties are participating in a Batch Hot Cut Forum to address the batch hot cut process proposal filed by Qwest. MCI is participating in the forum and is initially generally concerned about the following in Qwest's proposed process because the process:

1. Limits "batch" orders to 100 lines per day, per central office for all CLECs;

2. Requires a minimum of 25 lines (adjusted downward to 20 for fallout) and requires up front negotiation,

3. Assigns due dates through negotiation, in contrast to the current "basic" (uncoordinated, frame due time) process which has a five business day interval;

4. Eliminates pre-wiring that is currently done two days prior to the due date and dial tone testing, completeing those critical procedures on the due date instead;

5. Requires the CLEC to correct a no dial tone situation or CFA mismatch within one hour or the order would be canceled; and

6. Is only available for "basic" loops, not ILDC,[47] DSL, or line split loops.

[47] *See* Batch Hot Cut Forum Transcript, December 1, 2003, at p. 144, L. 12 to 16, where it is stated:

MR. PAPPAS [Qwest witness]: This is Dennis Pappas again. For the process as it sits proposed today, IDLC is not part of the batch hot cut process.

Moreover, Qwest has rejected MCI's suggestions that it develop an on-line tracking tool similar to Verizon's Wholesale Provisioning and Tracking System (WPTS) that would make the batch hot cut process more robust and less manual for Qwest and CLECs. The WPTS is described at: http://www22.verizon.com/wholesale/ldp/apphome/1,,3-WPTS,00.html

However, testimony on Qwest's batch hot cut process is not due until mid-January and the forum is ongoing, so I will not elaborate further on MCI's concerns at this time, and hope that by the time batch hot cut testimony is due, MCI's concerns will be addressed.

X. CONCLUSION

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. MCI has tried to identify some of the issues (and potential solutions) facing carriers as they move to provide service to mass market customers using Qwest loops connected to CLEC switching facilities. This is largely uncharted territory and may well be difficult to implement, but with the will (and the right incentives) it can be made to work.

It is critical to the success of the dynamic, competitive local exchange market that all of the industry players participate in the resolution of these customer-impacting operational issues. The goal of this proceeding must be to ensure that the correct processes and systems are in place to allow consumers to move quickly and seamlessly among carriers in a dynamic competitive market that includes UNE-L as a service delivery method. Only then will we achieve the goal of making sure that consumers have real viable service and provider choices available to them.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.