process. The BOCs' enhancements uniformly fail to address the requirement that every hot cut be provisioned manually by an ILEC technician.[49] The BOCs also fail to reveal that none of these enhancements has yet been fully implemented or tested, and that therefore their impact on the hot cut process remains speculative at best.

For instance, Qwest discusses two new tools that it developed – the Appointment Scheduler and the Batch Status Tool.[50] Qwest explains that, with these enhancements, competitive LECs will be able to plan and schedule hot cuts on a central office basis and will be notified of order completion.[51] BellSouth mentions a web-based scheduling tool in its comments,[52] and SBC and Verizon also discuss similar enhancements designed to provide competitive LECs real-time information on the status of requested hot cuts.[53] By design, these tools only affect the pre-ordering and ordering phases of the process. They in no way alter the fundamentally manual nature of the hot cut provisioning process.[54] As a result, even with these software-based enhancements in place, a BOC technician still needs to be dispatched to perform the "lift and lay" function of physically moving a loop

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[49] Starkey/Morrison Reply Decl. ¶¶ 3, 8, 15; *see also id.* ¶ 9 (BOCs' plans to hire and train thousands of new employees to handle the increase in hot cuts that would occur without UNE-P do not address the manual bottleneck of the loop provisioning process).

[50] Qwest Comments, Attachment 1, Declaration of Dennis Pappas at 7 and 23-24 ("Pappas Decl.").

[51] *Id.*

[52] *See* BellSouth Comments, Attachment 2, Affidavit of Ainsworth, Milner and Varner at 9 ("Ainsworth/Milner/Varner Affidavit").

[53] *See* Verizon Comments, Declaration of Thomas Maguire at 7 ("Maguire Decl.") (discussing Verizon's Wholesale Provisioning and Tracking System ("WPTS")); *see also* SBC Comments at 59 (describing its "OSS enhancements.").

[54] Starkey/Morrison Reply Decl. ¶ 8.

from one network to another.[55] This is the work step that causes the most substantial delay, introduces the highest risk of error, and incurs the largest component of cost.[56] Thus, despite the BOCs' claims regarding their "enhanced" hot cut processes, no progress related to automation has been introduced where it is needed most, in the *provisioning* aspect of the hot cut.[57]

Moreover, even if the BOCs' OSS enhancements do increase the efficiency of the pre-ordering and ordering processes, those processes comprise only a small fraction of the total time and costs of the hot cut.[58] Thus, the BOCs' enhancements will not alleviate the vast majority of the delay and cost that plague the UNE-L process.[59]

In addition, most of these enhancements have not yet been fully implemented. For example, BellSouth's web-based scheduling tool is slated for release on October 29, 2004,[60] Verizon is still working on improvements to its WPTS,[61] and Qwest's enhancements are not scheduled to be fully implemented until 2005.[62] These systems cannot be legitimately relied upon until they have been deployed and tested under commercial volumes to ensure that they will work properly.[63] Even assuming flawless

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55 *Id.*

56 *Id.*

57 *Id.*

58 *Id.* ¶ 9.

59 *Id.*

60 Ainsworth/Milner/Varner Affidavit at 9.

61 Maguire Decl. at 12.

62 Qwest Comments at 50.

63 Starkey/Morrison Reply Decl. ¶ 10; *see also id.* ("If the 271 certification process taught us nothing else, it was that OSS systems on paper do not always perform as advertised without substantial debugging and testing.").

implementation, moreover, these improvements can only go so far toward improving the process, because they do nothing to address manual provisioning.

i. BOC Claims that Third Party Testing Has Validated Their Hot Cut Processes Are Without Merit

The BOCs claim that third-party testing, both in the recent state hot cut proceedings and during the 271 process, demonstrates that their hot cut processes are sufficient to handle UNE-L volumes. The only BOC that describes any new testing of its hot cut process is BellSouth. The others do not claim to have conducted any new tests. Both the batch hot cut testing described by BellSouth[64] and the testing performed during the BOCs' pursuit of section 271 authority shed little to no light on the ability of the incumbents to handle the mass market volumes of hot cuts that would be required in a UNE-L environment. Moreover, BellSouth's testing exposed significant problems with its existing processes, which BellSouth chose not to reveal in its comments.

(A) Batch hot cut testing

Two of the BOCs, Qwest and BellSouth, claim that their batch hot cut processes were evaluated by third-party testers and found to be sufficient.[65] Because very little information has been shared by Qwest about the testing of its systems, conducted by Hitachi, it is impossible for MCI to review that test's veracity.[66] While BellSouth also

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[64] BellSouth Comments at 33.

[65] As an initial matter, as MCI explained in its comments, batch hot cut processes are limited in application to the transition of customers from one service delivery mechanism (*e.g.*, UNE-P) to another (*e.g.*, UNE-L) and therefore cannot be relied upon to cure impairment in and of themselves, even if they were to function perfectly.

[66] In addition, Qwest claims that its batch hot cut process has been found to be sufficient, pursuant to testing by Hitachi. Pappas Decl. at 52-54. Because very little

conducted its test behind a shroud of secrecy, enough information about its testing is available to demonstrate that BellSouth's claims about the test do not hold water.

Specifically, BellSouth states that testing conducted by PricewaterhouseCoopers ("PwC") "constitutes conclusive evidence that BellSouth's batch hot cut process works."[67] There are significant problems with this assertion. First, the PwC test is suspect because it was performed without participation by competitors, and because BellSouth has not disclosed the test plan or its parameters (including acceptable ranges of error and critical details regarding observations, procedures, and a number of other factors).[68] Second, even assuming away these problems, the PwC test fails to demonstrate that BellSouth's batch hot cut process "works." Rather, it demonstrates quite the opposite: that BellSouth's process is not ready for prime time.

The PwC test followed the cutovers of approximately 750 lines that BellSouth wired to its frames in three central offices.[69] Because these lines were not actually terminated to a competitive LEC collocation cage or switch, and instead were cut from a BellSouth switch to a BellSouth switch,[70] it appears that key aspects of UNE-L migration, such as LNP, directory listings, trouble handling, and 911, were not tested.

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information has been shared by Qwest about this test, it is impossible for MCI to review the test's veracity. Starkey/Morrison Reply Decl. ¶ 12 n.10.

67 BellSouth Comments at 33.

68 Starkey/Morrison Reply Decl. ¶ 12.

69 *Id.* ¶¶ 12-14.

70 *Id.* ¶ 13 (when the migration order was worked, the lines were re-terminated on the CLEC portion of the main distribution frame and then run back to BellSouth's switch).

These are precisely the types of customer-affecting issues identified in MCI's initial comments.[71]

Further, the PwC report identified numerous problems with lines that were tested, including: an inability to detect dial tone; the cessation of dial tone after 20-40 minutes; the undertaking of cuts on the wrong date; the failure to test competitive LEC dial tone prior to the cut; and the failure to provide cutover notification.[72] All told, of the 724 lines actually observed, 81 resulted in customer-affecting problems – approximately 11% of all observations.[73] An 11% failure rate on a suspect, limited volume test that did not even involve moving a line to a CLEC switch is not evidence that BellSouth's batch hot cut process works.

(B) Section 271 testing

The BOCs repeatedly point to evaluations of their hot cut processes performed during their pursuit of section 271 authority as evidence that those processes are adequate.[74] SBC even argues that, as a matter of law, the Commission's decisions in the 271 proceedings preclude the Commission from finding the hot cut process constitutes grounds for a finding of impairment.[75] Yet, as explained below, the section 271 reviews simply are not relevant to the ability of the BOCs to handle mass market UNE-L volumes, and SBC's legal argument has no merit.

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71 MCI Comments at 70-73.

72 Starkey/Morrison Reply Decl. ¶ 14.

73 *Id.*

74 *See, e.g.*, Qwest Comments at 51; BellSouth Comments at 27; Pappas Decl. at 5, 23, 43, & 51; Maguire Decl. at 8.

75 SBC Comments at 45.

First and foremost, the hot cut testing that the third-party independent testers conducted during the 271 process was extremely limited, much more so than the comprehensive testing they conducted of UNE-P processes.[76] The volumes of hot cuts that were tested during the 271 process were extremely low.[77] Unlike the UNE-P systems, which were subjected to volume and stress tests, the UNE-L processes were never tested for their ability to handle mass market volumes.[78]

When the third party tested the UNE-P systems, the testers conducted end-to-end tests, acting as a pseudo-CLEC in a manner that was designed to be blind to the BOCs.[79] In contrast, the testers of UNE-L did not test the end-to-end process, following an order from pre-order through to provisioning. Instead they relied on a limited number of observations of specific aspects of the hot cut process. Critical aspects of the process, such as the checks for dial tone on the "Due Date Minus Two," were never tested, and in New York, BearingPoint (then KPMG) never even observed a hot cut involving a retail customer served by IDLC.[80] And because the BOCs knew exactly when they were being observed by the independent tester, the usefulness of the results was further reduced.[81]

BearingPoint's testing of SBC Michigan's section 271 UNE-L provisioning illustrates the limited nature of their UNE-L testing. Specifically, BearingPoint tested only 129 UNE loop orders involving 192 circuits, and did not examine the average daily

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76 Starkey/Morrison Reply Decl. ¶ 32.

77 *Id.* ¶ 27.

78 *Id.*

79 *Id.* ¶ 26.

80 *Id.* ¶¶ 26, 32.

81 *Id.* ¶ 26.

volume of loop orders in Michigan.[82] BearingPoint did not examine the ability of NPAC and Neustar to process orders, nor did BearingPoint determine whether 911 data is properly loaded.[83] In the situation where IDLC is presently being used and the customer is then targeted to be served via copper, BearingPoint did not determine whether there would be enough spare copper to handle all orders.[84] Further, Bearing Point did not perform any volume testing on UNE-L provisioning, or attempt to determine whether the due dates could be met if (as is likely) the incumbent were to receive in a single day a thousand orders to migrate residential customers to an unbundled loop.[85] Such "testing" clearly is not adequate to prove the BOCs' claims regarding their hot cut processes.

The hot cut testing during the 271 process was therefore so limited that it can only have minimal relevance, if any, in this proceeding. But even if that were not the case, as the Commission correctly found in the *Triennial Review Order*, the volumes of hot cuts that were performed by the BOCs during the 271 process pale in comparison to the volumes that would result if the mass market were to be served by UNE-L, and therefore the relevant issue is not how well the hot cut process worked with the limited volumes that were performed at the time of the 271 proceedings, but how well it would work when faced with mass market volumes.[86] Further, the evaluation of section 271 requirements

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82 *Id.* ¶ 28.

83 *Id.*

84 *Id.*

85 *Id.*

86 *Triennial Review Order* ¶ 463.

was conducted when UNE-P was available and supported the vast majority of competitively-acquired mass market access lines.[87]

SBC argues that the Commission is precluded, "as a matter of law," from finding that the BOCs' hot-cut processes "constitute grounds for a finding of impairment," given the Commission's approval of those processes in the section 271 proceedings.[88] SBC fails to point out that the BOCs made this argument during the *Triennial Review* proceeding, and the Commission rejected it. Specifically, the Commission found that "the number of hot cuts performed by BOCs in connection with the section 271 process is not comparable to the number that incumbent LECs would need to perform if unbundled switching were not available for all customer locations served with voice-grade loops," and that the record demonstrated "an inherent limitation in the number of manual cut overs that can be performed, which poses a barrier to entry that is likely to make entry into a market uneconomic."[89] The Commission accordingly concluded that its "prior findings in section 271 orders do not support a finding here that competitive carriers would not be impaired if they were required to rely on the hot cut process to serve all mass market customers."[90] The same conclusion is warranted today, since the BOCs' hot cut provisioning processes remain manual and hence continue to be inherently constrained in terms of scalability. The *USTA II* decision is not to the contrary. With respect to mass market switches, the court declined to find that the Commission's 271

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87 Starkey/Morrison Reply Decl. ¶ 27.

88 SBC Comments at 45.

89 *Triennial Review Order* ¶ 469.

90 *Id.*

findings were dispositive of the impairment inquiry,[91] holding instead that the Commission would have to "explor[e] the possibility of more nuanced alternatives" such as "criteria based . . . on an ILEC's track record for speed and volume in a market, integrated with some projection of the demand increase that would result from withholding of switches as UNEs."[92] This directive in no way requires the Commission to interpret its prior section 271 findings in the manner suggested by SBC.

ii. Scalability

The BOCs have submitted reams of data purporting to demonstrate the adequacy of their hot cut processes, including their ability to meet mass market volumes, but the evidence they have submitted simply does not demonstrate that their hot cut processes are capable of seamlessly handling the large volumes that would exist in a multi-carrier environment with UNE-L replacing UNE-P as the main service delivery mechanism to serve the mass market. Perhaps this is why, after years of claiming that the availability of UNE-P was the only thing holding back UNE-L competition, the BOCs now try to convince this Commission that hot cut volumes will not increase if UNE-P disappears. After years of trying to convince regulatory agencies that in the absence of UNE-P, UNE-L competition would thrive, and that their hot cut processes could handle mass market volumes, the BOCs now tell this Commission an entirely different story, that UNE-L volumes are not expected to increase if UNE-P is eliminated, because CLECs will choose to serve customers through other means, such as VoIP. This remarkable change in the BOCs' story can only be seen as an implicit admission that they know that their hot cut

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91 *See USTA II*, 359 F.3d at 570 ("The record on the matter is mixed").

92 *Id.*

processes are so flawed and so incapable of serving the mass market that CLECs cannot use them.

Nevertheless, after trying to convince the Commission that the debate over the hot cut process is largely "academic," the BOCs then effectively ask the Commission to take on faith their predictions that their hot cut processes will be sufficiently scalable to handle whatever volumes ensue in the absence of mass market switching. The Commission did not do so in the *Triennial Review Order* and the D.C. Circuit did not suggest that it should have. In fact, the evidence in the record demonstrates that it is highly unlikely that the BOCs' manual processes can handle mass market volumes in a manner that supports robust competition. Accordingly, the Commission should find that the existing BOC hot cut processes are not sufficiently scalable to handle expected UNE-L volumes, and that such lack of scalability is a source of operational impairment for carriers seeking unbundled access to circuit switching.

As MCI demonstrated in its original comments, such findings would comport with both logic and experience. The Commission consistently has maintained that manual order processing is not scalable to the extent necessary for mass market services.[93] Because the BOCs have steadfastly avoided introducing automation or mechanization into the provisioning aspect of the hot cut process, it is logical to assume that the various limitations that the Commission found to be inherent in manual hot cut processing will continue to prevent the BOCs from achieving a scalable process.[94]

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93 *See* MCI Comments at 51-52.

94 *See id.*, Attachment C, Declaration of Michael Starkey and Sidney Morrison, ¶¶ 30-45 ("Starkey/Morrison Decl.").

Verizon cites to a recent NY PSC *Order Setting Permanent Hot Cut Rates* as authority for the proposition that Verizon's hot cut processes are scalable to meet mass market volumes. The NY PSC's *Order* must be viewed in the proper context, however.

Several times in its *Order*, the NY PSC states that UNE-P may be "phased out" or become considerably more expensive in the future.[95] The NY PSC also agreed with competitive LECs that "it will be difficult for Verizon to manage the process [of handling a large volume of hot cuts as part of a transition to UNE-L] without a decline in service quality."[96] In fact, the NY PSC recognized that Verizon's ability to meet hot cut volumes is subject to inherent uncertainty.

> Any projections regarding the numbers of hot cuts, the numbers of employees necessary to complete them, and the ability of Verizon to accomplish the task while delivering good service quality are speculative at this point, until the market actually begins to experience the level of hot cut activity that might result.[97]

Given that the NY PSC was "well aware of the potential for the sheer volume of workers and activity to overwhelm Verizon's current management systems,"[98] for the NY PSC's ultimate conclusion that Verizon's hot cut processes are indeed scalable to make sense, the NY PSC's scalability finding (with which MCI does not agree) can only be read to mean that Verizon's manual provisioning processes are scalable to accommodate moderate, gradual increases in hot cut volumes over time, and not mass market volumes. Adding further credence to this conclusion is the New York-specific "Pre-Filing Statement," which requires Verizon, in the event that it is no longer required to provide

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95 NY PSC Hot Cut Order at 1, 2, 6.

96 *Id.* at 6 (explaining that such claims are "well taken").

97 *Id.*

98 *Id.* at 66.

UNE-P at TELRIC, to provide a two-year transition from cost-based UNE-P to "substantially the cost of similar resold lines," a transition process which has not yet begun.[99]

In light of such concerns, the NY PSC's order cannot plausibly be interpreted as an endorsement of the BOCs' prediction that their hot cut processes will be sufficiently scalable to handle mass market volumes.

iii. Hot Cut Loop Types (DS0 EELs)

As MCI explained in its initial comments, in addition to garden variety ILEC-to-CLEC hot cuts for a voice-only customer, the incumbent LEC processes must permit hot cuts involving a retail customer served by IDLC, hot cuts involving a customer with voice and xDSL service on the same line, and retail/UNE-P-to-EEL hot cuts.[100]

The record clearly demonstrates that none of the ILECs will hot cut a loop that is served by IDLC. It is equally clear (and in fact undisputed) that the ILECs will not hot cut a loop that provides both voice and xDSL service (either via line sharing or line splitting), and instead will require disconnection of the xDSL service before performing the hot cut. And three of the four BOCs refuse to perform retail to EEL or UNE-P to EEL hot cuts, while the fourth, BellSouth, has proposed an unworkable process.

Absent the ability to transfer UNE-P or incumbent LEC retail customers to an EEL arrangement, competitive LECs would have to be collocated in every central office

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[99] Pre-Filing Statement of Bell Atlantic-New York at 9, *Petition of New York Tel. Co. for Approval of its Statement of Generally Available Terms and Conditions pursuant to Section 252 of the Telecomm's Act of 1996 and Draft Filing of Pet'n for InterLATA Entry Pursuant to Sec. 271 of the Telecomm's Act of 1996*, NY PSC Case 97-C-0271 (Apr. 6, 1998).

[100] MCI Comments at 59-61; Starkey/Morrison Reply Decl. ¶ 16.

in which they wish to serve customers via UNE-L.[101] Although such ubiquitous collocation is not a viable strategy for serving mass market customers, to date MCI is aware of only one incumbent LEC – BellSouth – that has agreed to develop a process by which UNE-P or retail loops could be transferred to an EEL via a hot cut.[102] Unfortunately, however, BellSouth's process is not effective.[103] As an initial matter, BellSouth's EEL process was only released on July 30, 2004, and there is no indication that it would work, especially in the face of commercial volumes.[104] Further, BellSouth's underwhelming track record of supporting DS0 EELs, even without accommodating those circuits via a hot cut, does not generate confidence. For example, while BellSouth provided more than 2.4 million UNE-P lines and 377,000 UNE loops to competitors throughout its territory during 2003, it only provided 272 DS0 EELs over the same time period (representing 0.001% of total loops).[105] None of those DS0 EELs were provided via a hot cut, and to MCI's knowledge, the vast majority were simply migrated from existing special access or private line arrangements so that no provisioning whatsoever was required.[106]

In addition, even on paper, BellSouth's retail/UNE-P-to-EEL proposal would result in substantial cost, delay, and administrative inefficiency for competitive LECs. For example, the proposal requires competitors to purchase SL2 ("designed") loops,

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101 Starkey/Morrison Reply Decl. ¶ 16.

102 *Id.* ¶¶ 16-17.

103 *Id.* ¶¶ 17-19.

104 *Id.* ¶ 17.

105 *Id.* (citing Bellsouth's public response to AT&T Interrogatory No. 59 in GAPSC Docket No. 17749-U, 11/7/03).

106 Starkey/Morrison Reply Decl. ¶ 17.

which are assessed a higher non-recurring charge when compared to a basic (SL1) loop and involve a higher degree of coordination, thereby increasing the competitive LEC's costs.[107] The proposal also requires ILEC transport to be in place prior to BellSouth accepting any order for EELs, thereby negating any efficiencies that would result from ordering loop and transport facilities at the same time.[108] Finally, from the scant information available from BellSouth on its proposal, it appears that even if a company had previously established interoffice transport facilities prior to ordering an unbundled loop, orders would still require a minimum of 15 days to complete (based primarily on the fact that SL2 loops are required).[109] Each of these conditions will unnecessarily increase delay, costs, and administrative burdens for competitive LECs attempting to use the retail/UNE-P-to-EEL process, and will require the incumbent LEC and the CLEC to coordinate each individual order extensively, likely taking days to construct effectively the EEL and hot cut arrangement required to cut a single line (days that would be added to the standard 15 day completion interval).[110]

As a result of such deficiencies, even if BellSouth were immediately to put in place its proposal, competitive carriers would remain impaired without access to unbundled switching. And, to repeat, the other incumbent LECs offer no process at all – even on paper. It therefore remains imperative that the Commission adopt rules requiring the incumbent LECs to modify their processes to ensure prompt, seamless migration for retail/UNE-P-to-EEL migrations.

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107 *Id.* ¶ 18.

108 *Id.*

109 *Id.*

110 *Id.*

b. IDLC

As MCI explained in its comments, although the FCC recognized in the *Triennial Review Order* that it is technically feasible to unbundle IDLC loops, incumbent LECs have thus far not implemented the procedures necessary to make such unbundling a reality.[111] In their comments, three of the four BOCs make no claim that they will unbundle IDLC loops. Verizon never mentions IDLC in its comments, and SBC does so only once, when discussing its OSS.[112] Qwest makes sweeping general statements that imply that IDLC loops are included in their hot cut scenarios (which the other BOCs have done in state proceedings),[113] but in reality, their solution for handling IDLC loops is precisely what MCI stated in its initial comments, namely they and the other BOCs will move the customer to an inferior UDLC or copper facility and then perform the migration, rather than performing a hot cut of the IDLC loop.

The fourth BOC – BellSouth – misleadingly asserts that it "makes all of its loops, including loops provided via IDLC equipment, available to CLECs in a nondiscriminatory manner."[114] Specifically, BellSouth claims that it provides eight different ways for competitive LECs to gain access to IDLC loops.[115] In fact, BellSouth, like the other BOCs, has not unbundled a single IDLC loop for competitive LEC use, and appears to have no plans to do so.[116]

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111 MCI Comments at 66 (citing *Triennial Review Order* ¶ 297 n.855).

112 SBC Comments at 59.

113 *See* Qwest Comments at 49-50.

114 BellSouth Comments at 31 n.117.

115 *Id.* at 31 n.117 & Attachment 3, Affidavit of W. Keith Milner, ¶ 5 ("Milner Affidavit").

116 Starkey/Morrison Reply Decl. ¶ 22.

First, four of the eight unbundling options that BellSouth claims to be available (options 1, 3, 7 and 8 in the Milner Affidavit)[117] are not options for unbundling IDLC at all, but rather involve moving a customer to alternate facilities.[118] As MCI has explained, such facilities are generally of poorer quality than the existing fiber-fed IDLC loops, and may need to be modified to provide voice-grade service, thus imposing additional charges and resulting in longer provisioning intervals.[119]

Second, during the state hot cut proceedings, MCI attempted to determine how many times BellSouth actually had used any of the options described in the Milner Affidavit that unbundle the IDLC facilities, Alternatives 2, 4, 5 and 6.[120] BellSouth did not identify a single instance in which, during the normal course of its business, it had accommodated a UNE request for an unbundled loop by employing any of these methods.[121] The most BellSouth could offer was a technical trial it had undertaken on two loops to test the viability of Alternative 5 ("side door grooming"),[122] but BellSouth concluded that the trial was a failure and that the option was no longer worth pursuing.[123] BellSouth does not mention the results of this trial in its Comments or in the Milner Affidavit, nor does BellSouth tell the Commission that although it lists four IDLC unbundling methods in its menu of unbundling options for regulatory purposes, in practice, none of these options is in use.

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117 Milner Affidavit ¶ 5.

118 Starkey/Morrison Reply Decl. ¶ 23.

119 MCI Comments at 67-68.

120 Starkey/Morrison Reply Decl. ¶ 24.

121 *Id.*

122 *Id.*

123 *Id.*

MCI also attempted during the state proceedings to determine whether BellSouth had any specified methods and procedures that competitive LECs could review to determine how they might access unbundled IDLC loops. MCI was unable to obtain any such documentation,[124] and it has been unable to determine the applicable rates, terms and conditions.[125] Also, accessing UNE loops via one of the options described by the Milner Affidavit would require the competitive LEC to access the loop in a digital format, and hence require unique interconnection arrangements.[126] Yet, those arrangements do not appear to be available in BellSouth's territory.[127] Accordingly, it is abundantly clear that BellSouth currently has no operational methods in place by which to provide unbundled access to IDLC loops, and in fact has not provided such access, and has no plans to do so.

c. Customer-Affecting Issues

BellSouth alleges that competitive LECs in general, and MCI in particular, have offered no empirical evidence to support their criticisms of BellSouth's hot cut processes.[128] While it is true, as BellSouth points out, that MCI has not ordered any hot cuts on a commercial basis for residential customers in BellSouth's region,[129] it is not for MCI's lack of interest in UNE-L. Rather, as MCI has explained, the economic and operational barriers to entry plaguing the UNE-L entry model – barriers that are not being

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124 *Id.*

125 *Id.*

126 *Id.*

127 *Id.*

128 BellSouth Comments at 34-35.

129 *Id.* at 34.

lowered, and that the ILECs seek to raise – prevent the use of UNE-L for the residential market today.[130] MCI has thoroughly analyzed a UNE-L entry strategy, and that analysis has generated substantial concern that current hot cut processes would have significant negative impacts on consumers if used to serve the mass market.

As MCI explained in its comments, a number of deficiencies with the incumbent LECs' hot cut processes were identified during the state proceedings, including scalability issues, excessive reliance on manual "lift and lay" processes, and lack of procedures for processing hot cut migrations involving certain services.[131] These deficiencies virtually guarantee that it will take longer to provision a customer via UNE-L than it takes the incumbent LEC to provision retail services, and that there will be a noticeably increased chance of error. Moreover, the competitive LEC will incur costs that the incumbent LEC does not incur. As the Commission has recognized, when such problems occur, it is the new carrier – not the incumbent LEC – that is typically blamed by the end-user customer.[132]

During the state proceedings across all of the BOCs' footprints, a host of other customer-affecting operational issues involved in the end-to-end hot cut process were also identified, including deficient (or non-existent) processes and procedures governing customer service records ("CSRs"), directory listings, and local number portability.[133] As MCI pointed out in its initial comments, in addition to the operational issues raised by the hot cut process and IDLCs, these customer-affecting issues must be resolved before

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130 Huyard Decl. ¶ 18.

131 MCI Comments at 47-65.

132 *Triennial Review Order* ¶ 467; *see also* Starkey/Morrison Decl. ¶ 44.

133 MCI Comments at 70-73 & Attachment D, Declaration of Sherry Lichtenberg.

competitive carriers can be assured that a transition to UNE-L will proceed without disruptions in customer service.

In its comments, BellSouth alleges (without support) that there is no need to resolve such issues because they are "speculative."[134] To the contrary, in a recent proposed decision, a California ALJ found – based on an extensive evidentiary record – that many of these issues identified by MCI required resolution before a seamless transition to UNE-L could occur. The ALJ found, for instance, that "a standardized process for exchanging customer service records (CSR) and obtaining circuit ID information is not yet in place," and that such a process "needs to be developed . . . so that customers will not be stranded after their migration to UNE-L."[135] With respect to number portability, the ALJ concluded that "[i]t is questionable whether the NPAC can handle the volumes of transactions that would occur in a dynamic UNE-L market."[136] Likewise, with respect to directory listings, the ALJ found that, unless a "migrate as is" functionality were made available to CLEC-to-CLEC migrations, there could be no guarantee that "customers will enjoy the seamless, timely and accurate migration process mandated by the *TRO*."[137] Before it can conclude that UNE-L is a viable means of offering service to mass market customers, the Commission must ensure that these customer-affecting issues have been investigated and resolved.

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134 BellSouth Comments at 34-35.

135 *Order Instituting Rulemaking on the Commission's Own Motion into Competition for Local Exchange Service*, R.95-04-043, I.95-04-044, Opinion Regarding Hot Cut Processes and Pricing, Proposed Decision of ALJ Pulsifier (CPUC July 28, 2004), at 72 ("California Proposed Decision").

136 *Id.* at 53.

137 *Id.* at 55.

3. Actual Deployment

The evidence of actual deployment thus far submitted in this proceeding strongly militates in favor of finding nationwide impairment. First, the granular trigger analyses that MCI conducted during the state proceedings revealed that there are at most a handful of wire centers in which three or more unaffiliated carriers are actively providing service to the entire mass market. These results have not changed in the interim. In particular, as detailed below, MCI presents updated trigger analyses for three states – Michigan, Illinois, and Texas. These analyses show that *none* of the wire centers for which a finding of non-impairment was sought in those states had three or more facilities-based local service providers leasing loop plant from the incumbent to serve residential customers. These results would be the same even if the Commission were to conclude erroneously that the MSA, rather than the wire center, is the appropriate geographic market for assessing impairment. Based on MCI's experience with the state cases, moreover, the situation in Illinois, Michigan, and Texas is replicated across the vast majority of wire centers in the nation. The actual deployment data, when properly analyzed, supports a national finding of impairment for mass market switching. Further, as explained below, the alternate trigger analyses proposed by the NY PSC, ALTS, and PACE do not accurately measure impairment and should not be adopted.

a. Trigger Analysis

SBC suggested in its comments that, based on data collected during the state impairment cases, it had met the switching trigger test adopted during the *Triennial*

Review Order throughout its territory.[138] Contrary to these claims, the state proceedings revealed that there are at most a handful of wire centers in which three or more unaffiliated carriers are actively providing service to the entire mass market – including residential as well as business customers.

As MCI indicated in its initial comments, it became clear during the state proceedings that incumbent LECs were applying the Commission's trigger analysis in a manner that made it a poor tool for determining where barriers to entry have been overcome.[139] As MCI explained, unlike the trigger analysis for high capacity facilities, the trigger analysis for mass market switching is much less straightforward and requires several critical policy determinations before it can be implemented, such as geographic market definition, the definition of mass market, the treatment of *de minimis* UNE-L deployment, and others. MCI explained in its initial comments that in order for the trigger analysis to have meaning, the Commission needs to resolve these policy determinations in a manner such that the triggers are only satisfied in situations where economic and operational barriers to entry actually have been overcome. To the contrary, the BOCs, in the state proceedings and in this proceeding, have attempted to present the actual deployment data in a manner that vastly overstates the level of competitive facilities-based presence in the mass market, and therefore would result in "triggering out" wide areas in which there is either little or no facilities-based competition at all.

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138 *See, e.g.*, SBC Comments, Attachment A (providing summaries of state impairment cases, including trigger data, for Arkansas, Kansas, Missouri, Oklahoma, Texas, California, Illinois, Indiana, Michigan, Ohio, Wisconsin and Connecticut).

139 MCI Comments at 116-120.

In order to illustrate this point, MCI included in its initial comments a complete trigger analysis for the state of California based on evidence presented by SBC and Verizon during the state cases. That analysis demonstrated that in no wire center in California were three or more facilities-based local exchange providers leasing loop plant from the incumbent and actively more than a *de minimis* number of mass market customers via self-provided switching. Since the filing of initial comments, several states have amended their protective orders or otherwise permitted use of state impairment data in the instant proceeding. Accordingly, as discussed below and in the Reply Declaration of Terry L. Murray,[140] MCI hereby submits complete trigger analyses for the states of Illinois, Michigan, and Texas.

MCI's trigger analysis shows that, as in California, none of the wire centers for which a finding of non-impairment was sought in Illinois, Michigan, or Texas had three or more facilities-based local exchange providers leasing loop plant from the incumbent and actively serving a meaningful number of mass market customers via self-provided switching. These results would be the same, moreover, even if the Commission were to accept the BOCs' argument that the MSA, rather than the wire center, is the appropriate geographic market for assessing impairment, although as MCI has discussed, the MSA is not a nearly granular enough analysis to satisfy the requirements of *USTA I* and *USTA II*. To supplement this analysis, the Murray Declaration also appends a series of exhibits applying MCI's trigger analysis to nine additional states, as well as the District of

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[140] The Murray Reply Declaration contains confidential information and is being filed concurrently with these reply comments under separate cover pursuant to the protective order in this docket. *See* Reply Declaration of Terry Murray ("Murray Reply Decl."), appended to *Ex Parte* Letter from A. Renée Callahan, counsel for MCI, to Marlene H. Dortch, FCC, WC Docket No. 04-313 (Oct. 19, 2004).

Columbia, further documenting that switch-based competition for mass market customers is extremely limited.

i. Application of Triggers

As detailed below, the BOCs' treatment of actual deployment data in support of their claims of non-impairment are either irrelevant or provide a highly misleading and exaggerated picture of the level of actual deployment of mass market switching. During the state impairment proceedings, MCI developed a spreadsheet tool that permits analyses of wire center-specific data.[141] That tool employs sequential "screens" to determine whether a carrier qualifies as a triggering company, based on the following inquiries:

Screen 1	Does the company have or use its own switches?
Screen 2	Is the company affiliated with an incumbent LEC?
Screen 3	Is the company affiliated with another competitive LEC that has already been counted?
Screen 4	Is the company actively providing service?
Screen 5	Is the company likely to continue providing service?
Screen 6	Is the company able to provide service to nearly all mass market users in the market, including residential customers?
Screen 7	Is the company offering a service comparable in cost, quality, and maturity to the incumbent LEC's service?
Screen 8	Has the company overcome economic and operational barriers to entry, as evidenced by the fact that it serves at least one percent of the market?

[141] *See* Declaration of Terry L. Murray, ¶ 45, attached to letter from A. Renée Callahan, counsel for MCI, to Marlene H. Dortch, FCC (Oct. 4, 2004) ("Murray Decl.").

As discussed below and in the Murray Reply Declaration, application of this screening analysis illustrates the importance of looking behind the simple competitor counts that the incumbent LECs presented in support of their claims of non-impairment for mass market switching. In particular, *none* of the wire centers in Illinois, Michigan and Texas for which SBC sought a finding of non-impairment in the state proceedings had three or more switch-based competitors that met the necessary trigger criteria. Because these criteria were established to ensure that the trigger analysis actually was relevant to a determination of whether economic and operational barriers to entry had been overcome, the Commission should conclude that there are no wire centers in these states in which there would be sufficient mass market competition, in the absence of UNE-P, to demonstrate non-impairment. This result parallels the conclusion that was reached with respect to SBC's and Verizon's trigger claims in California, as described in MCI's initial comments.

In addition, the Murray Declaration confirms that these conclusions do not vary even if the data are analyzed at the MSA level. In that case as well, *none* of the MSAs in California, Illinois, Michigan or Texas for which SBC (or, in California, Verizon) sought a finding of non-impairment contains three or more competitors that meet all of MCI's triggering criteria.

(A) Michigan Wire Center Analysis

In the Michigan state impairment proceeding, SBC identified seven MSAs encompassing almost 90% of SBC's retail lines as qualifying for a finding of no

impairment.[142] SBC identified eleven potential triggering carriers in one or more of those MSAs: AT&T, Choice One, Climax (CTS Telecom), Comcast, KMC Telecom, LDMI, McLeodUSA, MCI, MichTel, TDS, and XO. A summary of the application of MCI's trigger analysis appears below:

Screen 1	No carriers were excluded from the trigger count based on this screen.
Screen 2	Climax (CTS Telecom) and TDS are affiliated with an incumbent LEC, and thus are excluded under this screen.
Screen 3	No carriers were excluded from the trigger count based on this screen.
Screens 4-5	Eight of the eleven potential triggering carriers fail these screens because there is no qualitative evidence that the companies are active and continuing participants in the market: AT&T, Choice One, Climax (CTS Telecom), KMC Telecom, LDMI, MCI, MichTel, and XO.
Screen 6	Nine of the eleven potential triggering carriers do not offer a meaningful facilities-based option to residential customers: AT&T, Choice One, Climax (CTS Telecom), KMC Telecom, LDMI, MCI, McLeod, MichTel, and XO.
Screen 7	Because cable service is not comparable in cost, quality, or maturity, Comcast is excluded under this screen.
Screen 8	All of the eleven companies provide service to less than one percent of the market using UNE-L in at least some wire centers in which they offer service, and thus are excluded under this screen.[143]

Once the data has been analyzed, out of the 169 wire centers in the seven Michigan MSAs for which SBC sought a finding of no impairment, *none* contained three

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142 Murray Reply Decl. ¶ 22.

143 *See generally id.*, Exhibit 5. The precise wire centers in which each company fails and passes Screen 8 are identified in the confidential exhibit to the Murray Reply Declaration. *Id.*

or more competitors that met all of the screening criteria.[144] As shown in Table 5 of the Murray Reply Declaration, SBC itself claimed that at least three triggering CLECs served mass market customers in only 48 of the 169 wire centers in these seven MSAs. After eliminating ILEC affiliates and companies that were not actively serving mass market customers, there were no wire centers remaining with three or more switch-based competitors, even before applying the residential (Screen 6), intermodal (Screen 7) or 1% screens (Screen 8).

It may be instructive to describe briefly the responses in the Michigan proceeding of some of the CLECs identified by SBC as serving mass market customers, because it illustrates why SBC's data cannot be taken at face value:

- LDMI explained in its brief that it "is not actively providing voice service to mass market customers with its own switches," that it is serving only lines inherited from a bankrupt provider, and that it has determined that it is uneconomic for it to serve additional customers *even in the wire centers in which it is already serving some customers*, much less in the many additional wire centers in the two MSAs where LDMI is located.[145]

- MCI testified that while it does provide some UNE-L service to a limited number of business customers, these are not mass market customers: "MCI does not currently offer or provide such services through its mass market residential and small business sales channels,"

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144 Murray Reply Decl. ¶ 26.

145 *On the Commission's Own Motion, to facilitate the Implementation of the Federal Communications Commission's Triennial Review Determination in Michigan*, Mich. PSC Case No. U-13796, LDMI Brief at 2.

but only through direct or face-to-face business sales channels.[146] MCI's mass market offering is through UNE-P, not UNE-L.[147]

- AT&T also stated that it serves no residential customers and has effectively withdrawn its offer of UNE-L to small business customers. AT&T testified that, in addition to providing no residential service, "all service being provided to small business customers is an artifact of a previous business plan that is no longer being pursued to provide service to new customers in Michigan."[148]

MCI's conclusion that there were no wire centers with three or more switch-based competitors was confirmed by the ALJ's Proposed Decision in the Michigan state impairment proceeding. The ALJ adopted the wire center market definition and most of the screening criteria proposed by MCI and concluded that there were no wire centers in which three or more competitors met the screening criteria, and therefore that competitive carriers would be impaired everywhere in the state without access to unbundled switching.[149]

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146 *On the Commission's Own Motion, to facilitate the Implementation of the Federal Communications Commission's Triennial Review Determination in Michigan*, Mich. PSC Case No. U-13796, Transcript 2901 (Lichtenberg Second Round at 4).

147 There is one exception. MCI does provide mass-market service via UNE-L to a small group of Multi-Tenant Dwelling Units served by an MCI-deployed fiber ring in some wire centers in a single MSA. This is the legacy of a failed business plan. MCI must therefore be excluded as a triggering carrier even in these wire centers, and must be excluded elsewhere because it is not serving mass market customers at all.

148 Mich. PSC Case No. U-13796, Transcript 3187 (Finney Rebuttal at 7).

149 Murray Reply Decl. ¶ 28 (citing *On the Commission's own Motion, to Facilitate the Implementation of the Federal Communications Commission's Triennial Review Determination in Michigan*, Case No. U-13796, Proposal for Decision at 9, 17-24 (Mich. PSC May 10, 2004), *available at*: <http://www.cis.state.mi.us/mpsc/orders/alj/2004/u13796pfd.51004.pdf>). A copy of this proposed decision was included as an electronic appendix to the Initial Comments and Waiver Request of the Michigan Public Service Commission.

(B) Illinois Wire Center Analysis

SBC sought a finding of non-impairment for only one Illinois MSA, the Chicago-Naperville-Joliet MSA, which encompasses nearly 90% of all SBC retail lines in the state.[150] Although the identity of specific carriers cannot be disclosed publicly under the Illinois protective order, SBC identified eleven potential triggering carriers in the Chicago-Naperville-Joliet MSA.[151] A summary of the application of MCI's trigger screens appears below:

Screen 1	One provider indicated that it does not own its own switches, and thus was excluded from the trigger count on this basis.[152]
Screen 2	One carrier is affiliated with an incumbent LEC, and thus is excluded under this screen.
Screen 3	Two carriers are affiliated with each other and thus are combined to count as one company.
Screens 4-5	One carrier is excluded under these screens because it has not added customers since September 2001 and has no plans to offer service to mass market customers using UNE-L. The status of one other carrier (added belatedly to SBC's list, without the provision of specific data) was impossible to establish; hence, MCI screened out this carrier as well.
Screen 6	Six of the eleven potential triggering carriers offer service to business customers, but do not offer service to residential customers.
Screen 7	Because cable service is not comparable in cost, quality and maturity, one company is entirely excluded under this screen;

150 Murray Reply Decl. ¶ 16.

151 SBC added one of these carriers after the opening round of testimony and did not provide any loop count data to support the inclusion of that carrier. The carrier in question does not, therefore, appear in MCI's spreadsheet model. *See* Murray Reply Decl., Exhibit 4. MCI was unable to establish that this company is, in fact, actively providing service to mass-market customers in the Chicago-Naperville-Joliet MSA.

152 Even if that were not the case, this carrier would fail to count toward trigger satisfaction by independent operation of Screen 7.

	another is excluded except for the wire centers in which it augments its cable-based service with a UNE-L based service.[153]
Screen 8	Four of the eleven companies provide service to less than one percent of the market in every wire center in which they operate, and thus are excluded entirely on this basis; six of the remaining carriers exceed the 1% threshold in at least a handful of wire centers.[154]

Once the data has been analyzed, out of the 155 wire centers in the Chicago MSA, there is *not a single* wire center in which there are three or more companies that satisfy the necessary criteria offering service to mass market customers.[155] As with California, one principal reason for this is that very few carriers are using UNE-L to offer service to residential customers and one of the carriers doing so is an affiliate of an ILEC. Although, as MCI demonstrated in its initial comments,[156] entry by cable companies is not probative of whether additional companies will be able to enter, even where cable companies are included in the trigger count, there is *not a single wire center* in Illinois in which three or more competitive companies meeting the necessary criteria are offering service to mass market customers.

(C) Texas Wire Center Analysis

SBC identified five MSAs encompassing the vast majority of all SBC lines in its Texas service territory as qualifying for a finding of no impairment for mass market

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153 In addition, one fixed wireless company that, in any event, does not offer service to residential customers, does not provide a comparable service in terms of cost, quality, maturity and ubiquity.

154 *See generally* Murray Reply Decl., Exhibit 3. MCI was unable to perform this analysis for the company for which SBC failed to provide loop count data.

155 *Id.* ¶ 19 & Table 3.

156 *See* MCI Comments at 93-98.

switching.[157] SBC identified thirteen potential triggering carriers: Allegiance, AT&T, Birch, Cable Plus, Comcast, Grande, ICG, KMC, MCI, McLeod, Millenium (One Source), XO and Xspedius.[158] A summary of the application of the screens appears below:

Screen 1	Because Comcast indicated that it "has not deployed switches for the provision of local service in Texas," it is excluded from the trigger count.[159]
Screen 2	No carriers identified by SBC are affiliated with an incumbent LEC, and thus none is excluded under this screen.
Screen 3	Two sets of carriers, Allegiance-XO and Cable Plus-Grande, are affiliated with each other and thus are combined to count as two (single) companies.
Screen 4-5	At least three of the carriers identified by SBC are not actively or continually providing UNE-L-based service to mass market customers: Birch, KMC, and Xspedius.
Screen 6	Out of the thirteen potential triggering carriers identified by SBC, eight do not offer service to residential customers using UNE-L: Allegiance-XO, AT&T, Birch, ICG, KMC, MCI, and Xspedius.
Screen 7	Because cable service is not comparable in cost, quality and maturity, Comcast and Cable Plus-Grande are excluded under this screen.
Screen 8	Only two of the eleven identified competitors (treating each of the two pairs of affiliated competitors as a single company) provide service to more than one percent of the market in any wire center; the remaining nine competitors do not and thus are not indicative that barriers to UNE-L entry have been overcome for purposes of serving mass market volumes.[160]

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157 Murray Reply Decl. ¶ 29.

158 *See generally id.*, Exhibit 8.

159 *Id.* at 11. Even if that were not the case, Comcast would fail to count toward trigger satisfaction by independent operation of Screen 7.

160 *See generally id.*, Exhibits 8 and 9. The latter exhibit provides detail on the specific wire centers in which each of the two companies passes the 1% market share test.