

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of )  
 )  
Establishing Just and Reasonable Rates for Local ) WC Docket No. 07-135  
Exchange Carriers )

**REPLY COMMENTS  
OF  
MCLEODUSA TELECOMMUNICATIONS SERVICES, INC.**

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TABLE OF CONTENTS

	<u>Page</u>
SUMMARY .....	ii
I. THE PROPOSED RULES ARE DESIGNED TO PROTECT BOC "TRAFFIC STIMULATION" ARRANGEMENTS.....	1
II. PROPOSED PROHIBITIONS OR RESTRICTIONS ON REVENUE SHARING SHOULD NOT BE ADOPTED .....	3
A. <i>Revenue Sharing Is Lawful</i> .....	3
B. <i>The Proposed Revenue Sharing Prohibitions Are Unworkable</i> .....	4
C. <i>The Prohibitions on Revenue Sharing Would Be Overkill Even from the BOCs' Point of View</i> .....	8
III. ECONOMIC CONCLUSIONS UNDERLYING THE NPRM AND BOC COMMENTS DO NOT APPLY TO CLECS .....	9
IV. PROPOSALS APPLICABLE TO RURAL CLECS SHOULD NOT BE ADOPTED .....	10
V. BOC CONCERNS SHOULD BE ADDRESSED AS PART OF INTERCARRIER COMPENSATION REFORM.....	12
VI. CONCLUSION.....	14

## SUMMARY

The Commission should not adopt any of the BOCs' regulatory requirements proposed in this proceeding because, as explained in these Reply Comments, these proposals are designed to preserve BOCs' own "traffic stimulation" arrangements while harming competitors. BOCs serve more customers with high in-bound calling volumes than all other carriers combined.

The proposed blanket prohibitions or restrictions on revenue sharing should not be adopted for the additional reason that the Commission has previously correctly found that revenue sharing arrangements are lawful and beneficial. The proposed prohibitions and restrictions on revenue sharing are also unworkable. Terms such as "net payor" and "business partner" are vague and enforceable as a practical matter in light of the numerous permitted relationships between LECs and their customers. The BOC proposals also fail to take discounts into account. Because they are vague and unworkable, the BOCs' proposed limits on revenue sharing would seriously harm normal business operations and relationships. These proposals would also lead to extensive litigation initiated by BOCs unlawful withholding of access payments.

BOCs believe that "traffic stimulation" is a rural ILEC and CLEC issue. Therefore, even if BOC concerns about "traffic stimulation" were otherwise valid, there would be no basis to apply restrictions on revenue sharing to all LECs. Any regulatory requirements should be narrowly tailored.

However, there is no basis for adopting rules applicable even to rural CLECs. Far from being "modest" proposals as suggested by AT&T, the proposed rules would have major

disruptive impacts on any CLEC subject to them. BOCs' proposed thresholds for "traffic stimulation" identify carriers with high access minutes but say nothing about whether the CLEC is engaging in the type of "traffic stimulation" that the BOCs object to. These thresholds would guarantee that CLECs would be penalized that have nothing to do with "traffic stimulation." The proposed certification requirements would require CLECs to cease nearly all marketing activities because company officials could not otherwise certify to the vague, unworkable requirements.

The premise of the *NPRM* and BOC comments that increased access will lead to excessive earnings may not be applied to CLECs. The attached Declaration of August H. Ankum and Sidney L. Morrison, QSI Consulting, Inc. demonstrates that for a number of reasons most CLECs have access rates that are below costs and thus, their incremental revenues almost certainly do not cover their incremental costs associated with significant growth in access traffic.

AT&T's proposed interconnection and transport requirements reinforce that "traffic stimulation" should be addressed, if at all, in the context of intercarrier compensation reform. Mandated points of interconnection are a subject of the pending *Inter-carrier Compensation Proceeding* because they assign between interconnecting carriers responsibility for incurring transport cost. The Commission should consider all the BOC proposals in the context of that proceeding.

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**REPLY COMMENTS**

McLeodUSA Telecommunications Services, Inc. submits these Reply Comments in response to the Commission's *NPRM* concerning "traffic stimulation."<sup>1</sup>

**I. THE PROPOSED RULES ARE DESIGNED TO PROTECT BOC "TRAFFIC STIMULATION" ARRANGEMENTS**

BOCs propose a number of specific rule changes that would apply only to other LECs. Qwest states that there is no reason to apply new rules to price cap ILECs because "access stimulation" only works where a LEC's rates for access are considerably higher than those of price cap LECs.<sup>2</sup> Verizon and AT&T make similar claims.<sup>3</sup> Price cap ILECs can benefit from efforts to increase network utilization even though their access rate is lower. AT&T asserts that under price cap regulation its profits, presumably from traffic stimulation or other activities, are not limited by regulation, unlike ILECs subject to rate-of-return regulation.<sup>4</sup> The appropriate translation of BOCs' proposals to exclude themselves and other price cap ILECs from new rules

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<sup>1</sup> *Establishing Just and Reasonable Rates for Local Exchange Carriers*, Notice of Proposed Rulemaking, WC Docket No. 07-145, FCC 07-176, released October 2, 2007 ("*NPRM*").

<sup>2</sup> Qwest Comments 30.

<sup>3</sup> Verizon Comments 28; AT&T Comments n. 62.

<sup>4</sup> AT&T Comments n. 62.

is that they want to retain their own "access stimulation" activities while harming others efforts to increase network utilization. This is no accident since the BOCs provide more service to call centers, conference bridges, and other customers with high inbound traffic volumes than all other carriers combined. BOCs desire to exclude themselves from their own proposals also because they are unworkable. As explained elsewhere in these Reply Comments, BOCs' suggested rules are vague, impractical, over inclusive, and harmful to normal business relationships in a number of respects. BOCs want to assure that these harmful impacts are confined to other LECs.

Even the broad declaratory rulings concerning revenue sharing that BOCs propose that would apparently apply across the board have been fashioned to protect their own access stimulation arrangements. AT&T proposes that the Commission declare unlawful revenue sharing arrangements in which the LEC becomes a net payor to the customer.<sup>5</sup> But this leaves ample room for all of BOC current "traffic stimulation" activities. AT&T has presumably conducted a cost-benefit analysis to determine what test would best balance savings in access charges paid to others versus possible curtailment of its own arrangements with traffic stimulating customers and determined that the "net payor" test would produce the greatest savings in access charges while continuing its own arrangements to the maximum extent possible.

BOC proposals for certification by some ILECs and CLECs based on growth in access minutes would protect BOC "traffic stimulation" activities if applied to them because even very substantial growth in access minutes caused by call centers, etc. that BOCs serve are masked by the much larger total BOC access minutes. Qwest's statement that the Commission can open a

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<sup>5</sup> AT&T Comments 32.

proceeding if a BOC's access minutes increase to an extent similar to identified access stimulation "schemes"<sup>6</sup> is disingenuous because BOCs, in light of their huge total quantity of access minutes, are very unlikely to show a significant total increase in access minutes attributable to access stimulating customers that they serve.

Accordingly, in addition to other reasons discussed in these Reply Comments, the Commission should not adopt any of the BOC proposed regulatory requirements because they are designed to preserve BOCs' own "traffic stimulation" arrangements with call centers and conference calling services, etc. while harming competitors.

## **II. PROPOSED PROHIBITIONS OR RESTRICTIONS ON REVENUE SHARING SHOULD NOT BE ADOPTED**

### ***A. Revenue Sharing Is Lawful***

Although AT&T and Qwest request that the Commission find that revenue sharing is unlawful in all or some circumstances, they provide no justification for it. They request this ruling, but fail to support it with any specific reasoning or facts that would show that revenue sharing is *per se* unreasonable. In fact, as already explained in initial comments, on three previous occasions the Commission has declined to make any such finding. *AT&T v. Jefferson Corp.* (2001); *AT&T v. Frontier Pulaski* (2002); *AT&T v. Beehive* (2002).<sup>7</sup> The Commission should similarly reject BOC requests here.

Far from finding that payments from carriers to customers for increasing network utilization are unlawful, the Commission has found that this is routine industry practice.

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<sup>6</sup> Qwest Comments n. 45.

<sup>7</sup> *AT&T Corp. v. Jefferson Telephone Co.*, 16 FCC Rcd 16130 (2001); *AT&T Corp. v. Frontier Communications of Mt. Pulaski, Inc.*, 17 FCC Rcd 4041 (2002); *AT&T Corp. v. Beehive Telephone Co.*, 17 FC rcd 11641 (2002).

Commissions paid to private payphone companies,<sup>8</sup> and commissions to so-called traffic aggregators<sup>9</sup> are lawful. The Commission has found that payments to traffic aggregators (which are essentially traffic simulating entities) are ordinary business expenses.<sup>10</sup> More generally, the Commission has previously noted the “legal and beneficial revenue sharing arrangements that exist in the telecommunications industry today.”<sup>11</sup> Accordingly, there is no basis for finding that revenue sharing is an unlawful or unreasonable practice.

***B. The Proposed Revenue Sharing Prohibitions Are Unworkable***

Even if revenue sharing was unlawful, the BOC proposals to proscribe it could not be implemented on a practical basis. AT&T's proposal that the Commission proscribe revenue sharing arrangements in which the LEC is a net payor to the customer<sup>12</sup> is unworkable for a number of reasons. A discount has the same practical impact as a payment from the LEC to the customer. Discounts should therefore be included in determining whether there is a net payment to the customer. But if discounts are including in determining whether the LEC is a net payor, a large discount off tariffed prices would likely greatly exceed the amount of payments by the customer to the LEC. AT&T's proposed threshold would be met whenever the discount is greater than 50% off tariffed rates, or when the discount and any payments to the customer exceed payments from the customer. Therefore, AT&T's proposed rule would eliminate

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<sup>8</sup> *AT&T's Private Payphone Commission Plan*, 7 FCC Rcd 7135 (rel. November 4, 1992).

<sup>9</sup> *National Telephone Services, Inc. Petition for Declaratory Ruling that Untariffed Payment of Commissions by Dominant Carriers to Customers Violates Section 203 of the Communications Act*, 8 FCC Rcd 654 (Com. Car. Bur. Rel. January 28, 1993) (“*NTS Order*”) ¶ 9.

<sup>10</sup> *NTS Order* at ¶ 9.

<sup>11</sup> *Polices and Rules Governing Interstate Pay-Per-Call and Other Information Services, and Toll-Free Number Usage*, Notice of Proposed Rulemaking, CG Docket No. 04-244, FCC 04-162, released July 16, 2004 n. 83.

<sup>12</sup> AT&T Comments 32.

numerous actual or potential discounts, especially considering that all discounts are essentially inducements to generate traffic on the LEC's network. On the other hand, not to consider discounts in assessing whether the LEC is a net payor would create an unrealistic measure of "payments" and a huge loophole in AT&T's proposal which would also make it unworkable.

AT&T's net payor proposal is unworkable because even if only actual payments between the LEC and the customer are considered, it would be impossible as a practical matter to determine if there has been a net payment related to "traffic stimulation" in light of all the possible business arrangements between a LEC and its customers involving an exchange of payments. As noted in initial comments,<sup>13</sup> the myriad of regulated and unregulated relationships that is permitted under the Commission's rules between LECs and their customers including contract tariffs, special construction arrangements, detariffed provision of CPE and information services, and joint ownership with unrelated or affiliated entities would make it impossible as a practical matter to ascertain when there have been net payments from the LEC to the customer or when they might be related to "traffic stimulation." Even where it appears that a LEC has an explicit agreement to share revenues, such as apparently is the case with AT&T Wireless' agreement with Apple in connection with the iPhone,<sup>14</sup> there could well be numerous other arrangements between these companies that would make it impossible to ascertain whether there are any net payments in connection with AT&T's efforts to increase traffic on its network via iPhone usage. AT&T contends that rural ILECs and others are engaged in an "endless variety"

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<sup>13</sup> McLeodUSA Telecommunications Services, Inc. and Hypercube, LLC Comments 7.

<sup>14</sup> Analyst: Apple get a cut of AT&T iPhone revenue, CNet News.com, [http://www.news.com/8301-10784\\_3-9747031-7.html](http://www.news.com/8301-10784_3-9747031-7.html), viewed November 16, 2007.

of traffic stimulation schemes.<sup>15</sup> In an effort to capture this "endless variety" of supposedly disreputable schemes, AT&T proposes an overbroad approach that would foreclose ordinary business practices of any LEC subject to the proposed restrictions.

Identifying "payments" is likely to be more difficult when the customer is a large purchaser of services from one or more of the LEC's IXC or nonregulated affiliates where there may be numerous large payments from the customer to the LEC. One reason that BOCs do not want their proposed rules applicable to them is that they would be particularly unworkable for them in light of their numerous business relationships with large customers.

AT&T's proposed "net payor" test is also unworkable because it is not reasonably tailored to identification of payments related to network utilization. AT&T states that "any arrangement in which the LEC is paying more to the end-user from access revenues than the end-user is paying to the LEC for local service makes economic sense only if the LEC is earning exorbitant returns on access services ..."<sup>16</sup> But it is possible that the LEC could be a net payor to the customer without earning any or excessive returns. The fact that a LEC is a net payor may mean only that the LEC has entered into an unprofitable business relationship. AT&T's assumption that net payor situations will always result in excessive earnings is unsupported. Thus, the Commission should not adopt AT&T's proposal because it would be over inclusive. On the other hand, even assuming that in net payor situations it is likely or possible that the LEC is making up for net payments by over earning on access, over earnings are also possible even if the LEC is not a net payor. AT&T proposed test is potentially under inclusive as well.

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<sup>15</sup> AT&T Comments 6.

<sup>16</sup> AT&T Opposition 33.

Therefore, even assuming that revenue sharing is problematic, AT&T's proposed test is ineffective in capturing revenue sharing that should be limited or proscribed.

Qwest proposes that the Commission find that it is unlawful to bill an IXC for any minutes generated by a revenue-sharing agreement between a carrier and a business partner.<sup>17</sup> This is unworkable because "business partner" is vague. Again, in light of the numerous relationships that BOCs and other LECs may have, it will be impossible to determine when an entity is a customer or a business partner or both. Qwest states that "a case-by-case determination of customer status would be unworkable ..."<sup>18</sup> But if this is the case, which it is, then it makes no sense to adopt Qwest's proposal because it could not be enforced. In addition, it will likely be impossible as a practical matter to determine when minutes have been generated by a revenue sharing because it is market forces and end user demand for services that generate traffic, not revenue sharing agreements.

Because the BOCs' proposals to proscribe or restrict revenue sharing are variously over inclusive, under inclusive, and vague, it would be unclear when or to what precisely they apply. Attempted application of them to any LEC would seriously harm normal business operations and relationships. The requested determinations would proscribe or limit a wide range of LEC marketing activities that the Commission has already found acceptable. This in turn would undercut investment, innovation, and provision of new services, including broadband services, to the public.

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<sup>17</sup> Qwest Comments 16.

<sup>18</sup> Qwest Comments 17.

Adoption of BOC's inherently vague proposals would additionally lead to unnecessary litigation before the Commission and elsewhere because it would be unclear when, for example, a LEC is a "net payor" or when a customer is a "business partner" of the LEC. BOCs would likely unlawfully withhold payments of access charges to CLECs based on essentially unenforceable rules even though the gravamen of their concern is rural ILECs. This is the opposite direction in which the Commission should be heading. As noted elsewhere in these Reply Comments, the Commission should establish now a comprehensive reform of intercarrier compensation that would resolve access charges issues, not create additional ones by a new set of vague, intrusive rules.

***C. The Prohibitions on Revenue Sharing Would Be Overkill Even from the BOCs' Point of View***

BOCs claim that the heart of the "traffic stimulation" "problem" is caused by rural ILECs or CLECs that use the rural exemption or that benchmark to a rural ILEC rates.<sup>19</sup> The specific rule changes that BOCs propose, concerning reporting, certifications, and retariffing requirements, as opposed to the requested blanket restrictions on revenue sharing, would apply only to rural ILECs and CLECs. But if this is a rural issue, the BOCs' proposals for blanket prohibitions on revenue sharing applicable to non-rural CLECs are unnecessary. Although the Commission should not adopt any rules in this proceeding, if it were to do so it should narrowly tailor them to the BOCs' concerns.

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<sup>19</sup> AT&T Comments 2; Verizon Comments 1-2; Qwest Comments 3.

### **III. ECONOMIC CONCLUSIONS UNDERLYING THE NPRM AND BOC COMMENTS DO NOT APPLY TO CLECS**

The premise of BOC comments is that a LEC will have excessive earnings if its access minutes increase dramatically because of "traffic stimulation." McLeodUSA Telecommunications Services, Inc. has retained QSI Consulting, Inc. to examine the validity of this conclusion with particular reference to the Declaration of Peter Copeland referenced in the *NPRM*.<sup>20</sup> The attached Declaration of August H. Ankum and Sidney L. Morrison demonstrates that whatever validity the BOCs' conclusions may have with respect to ILECs, they are not applicable to CLECs for a number of reasons. CLECs have lower rates of utilization than the ILECs whose rates CLECs are forced to mirror.<sup>21</sup> CLECs have different levels of incremental costs associated with traffic growth, obviating any generalized conclusions about over-earnings.<sup>22</sup> Because BOCs enjoy significant switch discounts and because switch augmentation and growth facilities tend to be considerably more expensive than initial switch placement, incremental costs of switching may well exceed the average costs of switching, rather than the converse as asserted in the Copeland Declaration.<sup>23</sup> Because of these and other considerations explained in the Ankum/Morrison Declaration, most CLECs have access rates that are below costs and thus, their incremental revenues almost certainly do not even cover their incremental costs associated with significant growth in access traffic.<sup>24</sup>

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<sup>20</sup> *NPRM* ¶ 16.

<sup>21</sup> Ankum/Morrison Declaration ¶ 17.

<sup>22</sup> *Id.* ¶ 18.

<sup>23</sup> *Id.* ¶ 40-42.

<sup>24</sup> *Id.* ¶ 17.

Accordingly, even if the economic considerations and tentative conclusions cited in the *NPRM* about over earning caused by "traffic stimulation" have any validity with respect to ILECs, they may not be applied to CLECs.

#### **IV. PROPOSALS APPLICABLE TO RURAL CLECS SHOULD NOT BE ADOPTED**

Although McLeodUSA Telecommunications Services, Inc. does not use the rural exemption, or benchmark to any rural ILEC rate, it opposes the BOC proposals directed at rural CLECs because they are symptomatic of the disregard that BOCs have for the adverse impact on normal business operations that their proposals would have. Far from being "modest" rule changes as claimed by AT&T<sup>25</sup> they would have major disruptive impacts on CLECs subject to them.

BOCs suggest that the Commission do away with the rural exemption and/or make rural CLECs benchmark to BOC rates in all or some circumstances.<sup>26</sup> But as explained in the Ankum/Morrison Declaration, CLECs have higher cost levels than ILECs generally, and this would be particularly true for rural CLECs in comparison to BOCs. The rural exemption was established to protect against below cost pricing.<sup>27</sup> Accordingly, the Commission should not make rural CLECs benchmark to BOC rates because this would cause below cost pricing.

Verizon proposes a specific threshold for disqualification from the rural exemption of 350 MOU per access line or a total of 1.3 million minutes per month.<sup>28</sup> Similarly, Verizon

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<sup>25</sup> AT&T Comments 31.

<sup>26</sup> Qwest Comments 25.

<sup>27</sup> *Access Charge Reform, Reform of Access Charges Imposed by Competitive Local Exchange Carriers*, Seventh Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 96-262, FCC 01-146, released April 27, 2001 ¶ 66.

<sup>28</sup> Verizon Comments 26.

proposes that rural CLECs should not be permitted to benchmark to a rural ILEC rates if its MOU exceed 400 MOU per month. It states that these trigger points are above the 95th percentile of MOU per line per month or MOU per month for NECA Band 8 ILECs.<sup>29</sup> Assuming that NECA figures are otherwise translatable to CLECs, this merely identifies the five percent of CLECs with the highest traffic volumes. It says nothing about whether they are engaging in the type of "traffic stimulation" that BOCs object to. Verizon's thresholds should not be adopted because they guarantee that CLECs would be penalized that have nothing to do with the "traffic stimulation" activities that BOCs' complain about. AT&T's proposed trigger of 2,000 MOU, although higher, also suffers from the same defect -- it identifies CLECs with high MOUs but not necessarily those engaged in "traffic stimulation." AT&T's proposal would be doubly intrusive because it would also place restrictions on a CLEC's ability to sell access lines out of concern that the CLEC would reduce per line access minutes by reducing access lines.<sup>30</sup> It is difficult to imagine a more intrusive regulation for LECs than those that would impinge on sale of access lines.

AT&T proposes that a CLEC must include with tariff filings a certification that it will not enter into any agreement with a customer for stimulating calls resulting in net payments from the CLEC, with criminal penalties for false statements. As discussed, AT&T's net payor test is unworkable and would preclude normal business relationships between LECs and their customers. Therefore, no CLEC could submit any such certification without essentially ceasing

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<sup>29</sup> Verizon Comments 26-27.

<sup>30</sup> AT&T Comments n. 47.

most marketing activities. Not surprisingly, AT&T exempts itself and other BOCs from any such certification requirement.

As pointed out in initial comments, BOCs may use the existing complaint process to press their concerns about "traffic stimulation." This would provide a complete remedy to any meritorious BOC concerns while avoiding the intrusive impact of the heavy regulation that they propose in this proceeding.

**V. BOC CONCERNS SHOULD BE ADDRESSED AS PART OF INTERCARRIER COMPENSATION REFORM**

Commenters have pointed out that the Commission should address "traffic stimulation," if at all, in the context of comprehensive intercarrier compensation reform.<sup>31</sup> BOC comments make clear that "traffic stimulation" should be addressed only as part of intercarrier compensation reform. AT&T claims that LECs are using centralized access arrangements to increase charges for transport services. It requests severe restrictions on how LECs may interconnect and route traffic.<sup>32</sup>

Interconnection is inseparably related to access reform because points of interconnection assign responsibility for incurring transport cost, which is why AT&T and others proposed interconnection rules as part of the Missoula Plan.<sup>33</sup> Interconnection, routing, and aggregation of traffic issues are already under consideration in the pending *Intercarrier Compensation*

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<sup>31</sup> Cbeyond, Inc. 2; U.S. Telepacific Corp. d/b/a Telepacific Communications 1; Cavalier Telephone, LLC 2; Chase Com et al. 5; Global Conference Partners 20.

<sup>32</sup> AT&T Comments 35.

<sup>33</sup> Missoula Plan for Intercarrier Compensation Reform, Section III, CC Docket No. 01-92, attached to letter from NARUC Task Force on Intercarrier Compensation, July 24, 2006.

*Proceeding*<sup>34</sup> because intercarrier compensation and the exchange and routing of traffic are inseparable regulatory issues. Therefore, new rules governing interconnection and routing of traffic, and certainly not self-serving proposals such as offered by AT&T, should not be considered separately from comprehensive intercarrier compensation reform.

For its part, Qwest submits a supporting declaration in which the issues of this proceeding are presented and discussed "within the context of economic issues and principles generally applicable to effective intercarrier compensation reform."<sup>35</sup> This could not be a clearer admission that the issues of this proceeding should be considered only as part of intercarrier compensation reform.

It is possible that comprehensive intercarrier compensation reform that the Commission could establish now in the *Inter-carrier Compensation Proceeding* could obviate any perceived, although unnecessary, need for oppressive regulation of competitive carriers while solving problems that actually need regulatory attention. Accordingly, the Commission should terminate this proceeding and proceed with comprehensive intercarrier compensation reform.

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<sup>34</sup> *Developing A Unified Inter-carrier Compensation Regime*, Notice of Proposed Rulemaking, WC Docket No. 01-92, FCC 01-132, released April 27, 2001 ("*Inter-carrier Compensation Proceeding*").

<sup>35</sup> Declaration of Timothy J. Tardiff ¶ 3.

**VI. CONCLUSION**

The Commission should terminate this proceeding without adoption of any new rules applicable to competitive carriers.

Respectfully submitted,

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**DECLARATION OF AUGUST H. ANKUM AND SIDNEY L. MORRISON IN  
SUPPORT OF THE COMMENTS OF MCLEODUSA, INC.**

**Qualifications**

1. My name is August H. Ankum. My business address is 1027 Arch, Suite 304, Philadelphia, PA, 19107. I am Senior Vice President and founding partner of QSI Consulting, Inc., an economics and telecommunications consulting firm. I received a Ph.D. in Economics from the University of Texas at Austin in 1992, an M.A. in Economics from the University of Texas at Austin in 1987, and a B.A. in Economics from Quincy College, Illinois, in 1982.
2. My professional background covers work experiences in private industry and at state regulatory agencies. As a consultant, I have worked with large companies, such as AT&T, AT&T Wireless and MCI WorldCom (“MCIW”), as well as with smaller carriers, including a variety of competitive local exchange carriers (“CLECs”) and wireless carriers. I have worked on many of the arbitration proceedings between new entrants and incumbent local exchange carriers (“ILECs”). Specifically, I have been involved in a large number of arbitrations between new entrants and AT&T, Verizon, Qwest, AT&T, and Puerto Rico Telephone. Prior to practicing as a consultant, I worked for MCI Telecommunications Corporation (“MCI”) as a senior economist. At MCI, I provided expert witness testimony and conducted economic analyses for internal purposes. Before I joined MCI in early 1995, I worked for Teleport Communications Group, Inc. (“TCG”), as a Manager in the Regulatory and External Affairs Division. In this capacity, I testified on behalf of TCG in proceedings concerning local exchange competition issues, such as Ameritech’s Customer First proceeding in Illinois. From 1986 until early 1994, I was employed as an economist by the Public Utility Commission of Texas (“PUCT”) where I worked on a variety of electric power and telecommunications issues. During my last year at the PUCT, I held the position of chief economist. Prior to joining the PUCT, I taught undergraduate courses in economics as an Assistant Instructor at the University of Texas from 1984 to 1986.
3. Of particular importance to the current issue is my extensive background in and experience with ILEC cost models.
4. My name is Sidney L. Morrison. I am in charge of QSI Consulting, Inc’s Engineering and Telecommunications Services group. My business address is 550 Sunset Lakes Blvd., SW, Sunset Beach, North Carolina 28468.

5. I have over 40 years of experience in the telecommunications industry. I began my telecommunications career in 1966 with Southern Bell Telephone and Telegraph, and transferring, in 1970, to Mountain Bell in Denver, Colorado as a central office technician. In 1972, I was promoted to supervise main distributing frame operations. In 1980 and 1981, I performed time and motion studies for service provisioning on approximately 75 of Mountain Bell's MDF operations. These time and motion studies included components for jumper running and administrative activities on each of these frames. From 1983 until 1986, I was the switching control center and main distributing frame subject matter expert for U S WEST. In this position, I was responsible for staff level support for service provisioning and maintenance including the development of enhancements for operational support systems (OSS) supporting these activities. From 1986 until 1993, I was responsible for the U S WEST AMA ("Automatic Message Accounting") teleprocessing organization for the fourteen state U S WEST region.
6. In 1993, I retired from U S WEST and began contract engineering work and consulting. In 1995 I took an assignment in Kuala Lumpur, Malaysia as a contractor/consultant with a team of specialists to build a CLEC network consisting of a Global System for Mobil (GSM) communications services, fixed network services, cable television services and data services integrated into a common transport backbone.
7. I returned from Malaysia in June of 1997 and worked for approximately two years as a contract outside plant/central office equipment (OSP/COE) engineer, and trained new engineers for U S WEST collocation efforts.
8. In May 1999, I accepted a contract in Switzerland building a new CLEC under the market name of diAx telecommunications. My responsibilities involved project management to establish OSS supporting all wireless, wireline, and data services offered by diAx. I also provided consulting services developing business processes supporting the establishment of the diAx Internet Provider Operations Center (IPOC) and diAx data services offerings. I established system requirements based on IPOC business processes for fault management systems, provisioning systems, capacity inventory systems, customer service inventory systems and workflow engines controlling overall maintenance and provisioning processes.
9. In December 2000, I returned from Switzerland and began working for QSI Consulting Inc. as a Senior Consultant. I provide telecommunications companies with engineering advice and counsel for direct network planning, management and cost-of-service support. My specific areas of expertise include network engineering, facility planning, project management, business system applications, incremental cost research and issues related to the provision of unbundled network elements. I have also participated and filed expert witness testimony in a large number of proceedings before state regulatory agencies.

## Purpose and Overview

10. The purpose of this Declaration is to address issues raised in the May 1, 2007 declaration of Peter Copeland (the “Copeland declaration”) and echoed in the NPRM<sup>1</sup> and briefs filed by the Regional Bell Operating Companies (“RBOCs”).
11. An essential claim of the Copeland declaration and the RBOCs’ briefs is that incremental revenues associated with an increase in access traffic exceed the incremental costs associated with that traffic. For example, the Copeland declaration states:

[W]hen Farmers’s traffic volumes increased without any concomitant increase in the number of access lines it served, it is almost certain that its costs rise at a much slower rate than did its traffic figures.<sup>2</sup>

12. This same notion is found in the FCC’s NPRM:

When local switching demand increases significantly, a carrier’s increased revenues generally will exceed any cost increases. As a result, a carriers’ rate of return at some point is likely to exceed the maximum allowed rate of return, making the rates unjust and unreasonable.<sup>3</sup>

Or,

We tentatively conclude that average per minute switching costs do not increase proportionately to average per minute revenues as access demand increases, and that, as a result, rates that may be just and reasonable given a specific level of access demand may not be just and reasonable at a higher level of access demand.<sup>4</sup>

13. The RBOCs generally support the Copeland declaration and reference it to buttress their own assertions.<sup>5</sup> Further, the RBOCs suggest that *the Copeland declaration and other cost observations apply with equal validity to ILECs and CLECs alike*.<sup>6</sup>
14. Because the CLECs’ interstate switched access rates are not, as a practical matter, based on the CLECs’ own costs, the RBOCs arguments and Copeland declaration are not only wrong but also irrelevant to the Commission’s oversight of CLEC switched access charges.

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<sup>1</sup> The FCC requested comment on the merit of the Copeland declaration in paragraph 16 of its NPRM.

<sup>2</sup> Copeland declaration at paragraph 2.

<sup>3</sup> NPRM at 14. For RBOCs statements echoing this assertion, see, for example: AT&T brief at page 12; Qwest brief at page 14; and, Verizon at page 13.

<sup>4</sup> NPRM at 21.

<sup>5</sup> For example, even the declaration of Dr. Timothy Tardiff, filed on behalf of Qwest, relies on the Copeland declaration for support.

<sup>6</sup> For example, AT&T at page 12: “AT&T’s own extensive analysis has confirmed that Mr. Copeland’s analysis applies generally to all of the traffic pumping ILECs and CLECs that experience similarly enormous increases in access minutes – it is an indisputable fact that a LEC’s costs do not increase materially with the enormous traffic volume increases associated with traffic pumping.”

Nonetheless, even if otherwise relevant, we will rebut the Copeland declaration and the RBOCs' briefs and demonstrate that ILECs and CLECs have different networks and cost structures.

15. First and foremost, however, the RBOCs' briefs are deficient in that they flip-flop between various cost methodologies to leap to the conclusion that growth in traffic causes CLECs to over-earn. In virtually one breath, the RBOCs compare switched access rates (which are ultimately based on some form of booked costs) to forward-looking incremental costs (which are based on the ILECs' networks and switch vendor contracts) and then, before completely exhaling, they conclude that this amalgam of considerations proves that CLECs must be over-earning. Completely ignored is the fact that CLECs switched access charges are typically set neither on the CLECs' booked costs nor on its forward-looking costs.
16. Also ignored is the fact, acknowledged by the FCC, that the CLECs are start-up operations<sup>7</sup> and typically have low rates of utilization. That is, even under optimally efficient network designs and planning, most CLECs must purchase and install networks in the anticipation of significant traffic growth. In fact, for most CLECs significant traffic growth is virtually an economic imperative. There is cruel irony, therefore, to the RBOCs' advocacy that significant growth in traffic be discouraged under new Commission rules.
17. CLECs have materially lower rates of utilization than the ILECs', whose access charges they are typically forced to mirror. This means that while it may be true that growth in traffic causes ILECs to over-earn, there is no demonstration that traffic growth in traffic causes CLECs, with lower levels of utilization, to over-earn as well. In fact, most CLECs have access rates that are below costs<sup>8</sup> and, thus, their incremental revenues almost certainly do not even cover their incremental costs associated with significant growth in access traffic.
18. We will demonstrate that CLECs and ILECs will incur different levels of incremental costs associated with traffic growth, obviating any generalized conclusions about over-earnings. Specifically, we will discuss the following:
  1. The Copeland declaration claims that line-side and trunk-side switch costs are not usage (traffic) sensitive – this is at odds with previous RBOC testimony.
  2. The Copeland declaration and the RBOCs ignore that incremental switch costs are determined by the specifics of switch vendor contracts, which vary by LEC, switch vendor and switch type.
  3. The Copeland declaration and the RBOCs ignore the well established fact that switch growth and switch augmentations are considerably more expensive than the initial placement of switches. This means that growth in access traffic is likely to cause per-unit-*incremental* costs that may well exceed per-unit-*average* costs – which is the opposite of what the Copeland declaration and the RBOCs assert.

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<sup>7</sup> Even CLECs that have been in existence since the mid-1990s are relative “start-ups” compared to virtually any ILEC.

<sup>8</sup> This is true because CLECs must generally mirror the access charges of their ILEC counter parts, even though, as discussed in more detail below, they have higher costs due to (a) lower levels of network utilization, (b) additional collocation and transport facilities, and (c) higher input prices.

4. The Copeland declaration and the RBOCs ignore that most CLEC switches do not even have a traditional line-side; instead, CLEC switches are typically configured as trunk-port-to-trunk-port and the CLECs' networks' "line-side" is typically found in collocation facilities, placed in spaces leased from ILECs, and connected to the CLEC switch. These facilities have traffic-sensitive costs not typically incurred by ILECs.
5. The Copeland declaration and the RBOCs ignore that network-utilization rates are typically low for CLECs, and significantly below those of ILECs.
6. The Copeland declaration and the RBOCs ignore that CLECs face higher input prices and thus higher incremental costs.

19. In sum, we demonstrate that the Copeland declaration and the RBOCs' briefs fail to demonstrate that CLECs will over-earn as a result of significant growth in traffic.

**The RBOCs' Own Testimony Claims that Line-Side and trunk-Side Switch Costs Vary with Usage**

20. The Copeland declaration asserts that line-side and trunk-side switch costs do not vary with usage. With respect to the line-side of the switch, the Copeland declaration states:

*Line-Side End-Office Switching Costs.* An end-office switch is equipped with line-side switch ports used to connect individual access lines to the switch. In simple terms, each access line is associated with a single line-side switch port. Line-side costs therefore will rise when a carrier is required to install new line-side switch ports. An increase in the number of MOUs transiting the switch will not, however, result in any increase in line-side costs if that increase is not tied to any significant increase in access line usage. This is so because the line-side switch ports that switch manufacturers sell to ILECs are engineered with sufficient capacity to support any reasonable increase in usage that may be delivered to those access lines during the life of the switch.<sup>9</sup>

[...]

Thus, line-side end-office switching costs are *not* affected by the *huge increase in MOUs* that are being received by Farmers's switch and handed off to the FSPs.<sup>10</sup> (Emphasis added.)

21. The Copeland declaration makes a similar assertion about the trunk-side of the switch:

As with line-side switch ports, trunk-side switch ports are sold with all the related traffic capacity components necessary to support *any level* of usage associated with a given trunk. Thus, the increased trunk-side costs associated with increased traffic arise solely as a result of any increase in the number of necessary trunk-side switch ports.<sup>11</sup>

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<sup>9</sup> Copeland declaration at paragraph 7.

<sup>10</sup> *Id.* at paragraph 7.

<sup>11</sup> *Id.* at paragraph 8.

22. These assertions are the underpinnings for the Copeland declarations' conclusions that the incremental revenues associated with an increase in switched access traffic exceed the incremental costs associated with that traffic. These assertions are either misleading or inaccurate.
23. First, it is important to note that the Copeland assertion, that line-side costs do not vary with increases in traffic, is misleading within the context of the issue at hand: *significant* increases in usage. While the Copeland declaration does insert some qualifiers, such as the term "reasonable increase in usage", it subsequently ignores those qualifiers as it proceeds to discuss the incremental costs associated with "*huge increases in MOUs.*" These qualifiers appear also to have been ignored by the RBOCs when they refer in their briefs to the Copeland declaration in order to buttress their claims that significant increases in usage must lead to over-earnings. In fact, any professionally engineered and designed switch or transmission network that experiences significant<sup>12</sup> increases in traffic will require augmentations.
24. The Copeland declaration is also at odds with the RBOCs' own testimony.<sup>13</sup> For example, AT&T witness, Dr. Kent Currie, addressed precisely these issues in a number of state proceedings and testified that variations in per customer line-side usage patterns *do* impact costs. For example, Dr. Currie notes:

[A]s discussed earlier, usage affects the level of switch investment required, which affects cost over the long run. Changes in customer usage patterns are likely to affect long run pricing and switching costs as well. Ms. Klais' rebuttal testimony indicates that the majority of recent jobs that are needed to augment switching equipment for SBC Michigan have been *driven by usage*. In addition, the underlying cost structure of switching systems has not changed. The average BH CCS of a population of switch customers affects vendor switch design and the vendor's cost of production. Thus, the *high use* and *low use* customers in this population contribute differently to switch design and production *costs*, regardless of how the vendor chooses to price the switch to SBC.<sup>14</sup> (Emphasis added.)

25. It is important to recognize that Dr. Currie is not just talking about the CLASS 5 end-office switch in general but specifically about *the very line-side of the switch discussed in the Copeland declaration*. One explanation Dr. Currie offers for why line-side switch costs are usage sensitive is the level of concentration of the digital loop carrier systems: the more usage (traffic) end-users place on a digital loop carrier system, the lower is the level of

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<sup>12</sup> The Copeland declaration, the RBOCs' briefs and the NPRM all consider increase that cause traffic loads to possibly double or even triple.

<sup>13</sup> We will discuss public testimonies filed by AT&T witnesses before state proceedings. While we have generally filed testimony in opposition to the conclusions of those witnesses regarding the pricing of unbundled local switching, we have not disagreed with their representation of AT&T's switch vendor contracts, as they are discussed in the following excerpts.

<sup>14</sup> Currie, Rebuttal Testimony, at 48.

concentration and the higher are the line-side related costs of serving the end-users. Dr. Currie explains this as follows:

However, when customers are concentrated on a digital loop, more customers are served than there are talk paths available. *If customer usage increases* to the point that more customers vie for talk paths than there are paths available, blocking occurs, and *equipment capacity is added* to serve the additional demand.<sup>15</sup> (Emphasis added.)

26. To be sure, the additional equipment Dr. Currie refers to is line-side switch equipment.

27. Another AT&T witness, Ms. Linda Klais, explains that because end-user traffic data impacts end-office switch costs (of line-side and other switch components), AT&T's switch vendors require switch usage forecasts:

SBC Michigan provides the current and forecast usage data needed for each purchase application. Each vendor also has the contractual right to validate such data provided by SBC Michigan in order to justify the requirement for a specific application. The data is provided by SBC Michigan planners and engineers. They analyze current and future demands based on their best judgment and analysis of the data. They determine the average CCS/NAL required to support the demands on the switch.<sup>16</sup>

28. AT&T witness Klais goes on to explain how usage alters the line-side network configuration of, say, the Nortel DMS 100 switch:

For example, in the design of a Nortel DMS 100 switch, Nortel uses cabling called Speech Links to handle usage demands on the switch fabric. Speech Links are the cables connecting the Line Concentration Module (LCM) to the Line Group Control (LGC) module in the Nortel DMS100 switch. [...] Each additional Speech Link above four (4) *adds cost* to the project that must be absorbed by Nortel, because the DND contract is based on number of lines provided.<sup>17</sup> (Emphasis added.)

29. Having explained the relationship between usage and line-side switch configurations, AT&T witness Klais goes on to discuss AT&T's switch vendor contracts. She explains that higher per line end-user usage requires more expensive line-side (end-user) trunks:

**Q. DO VENDORS HAVE DIFFERENT PRICING LEVELS FOR DIFFERENT CCS LEVELS?**

A. Yes. The Lucent contract specifically identifies average CCS/NAL pricing levels and provides different prices for different usage

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<sup>15</sup> Currie, Rebuttal testimony, at 40, 41.

<sup>16</sup> Linda Klais, Rebuttal Testimony, at 11.

<sup>17</sup> Linda Klais, Rebuttal Testimony, at 13.

configurations. The contract pricing for all vendors is based upon usage projections that accommodate current and forecast usage. Customer usage increases (past, current and projected) require SBC Michigan to request a switch design that supports a higher usage factor.

**Q. DOES SBC MICHIGAN ALWAYS ORDER THE HIGHEST CCS CONFIGURATION POSSIBLE?**

A. No.

30. Thus, the AT&T witnesses testified that increased line-side usage causes the purchases of different, more expensive switch configurations or augmentations.<sup>18</sup>
31. Qwest witnesses have filed comparable testimony asserting that variations in line-side usage (traffic) result in significant variations in costs.<sup>19</sup>
32. This type of AT&T testimony – which has been supported by AT&T witness in a large number of proceedings<sup>20</sup> – is directly at odds with the Copeland declaration, which, again, asserts that there are no additional line-side costs associated with significant increases in access traffic.
33. With respect to the Copeland’s assertions about the trunk-side of the switch, a number of observations are in order.
34. First, most LECs engineer their switch-trunk-port facilities to pre-specified levels of utilization (which may vary from company to company) and augment the switch (i.e, add trunk ports and move traffic) when traffic increases so as to prevent more blockage than is acceptable. The notion that traffic can be increased significantly on existing trunk port facilities is inconsistent with longstanding engineering practices and, for that matter, common sense.
35. Second, while it may be true that some switch vendors may price and sell – and ILECs may purchase – switch capacity on a per trunk port basis<sup>21</sup> (which is, in fact, what Mr. Copeland is saying), it by no means implies that LECs can increase traffic significantly without trunk augmentations and without incurring additional trunk costs. *In fact, the Copeland declaration inadvertently demonstrates the precise opposite of its conclusions.* To the extent that switches are purchased on a per trunk-port basis – i.e., all other switch facilities, such as the necessary processors capacity, are bundled into the trunk-port price – the switch-trunk

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<sup>18</sup> Like the Copeland declaration the AT&T testimony discuss the costs associated with traditional circuit switches.

<sup>19</sup> See, for example, Direct Testimony of Robert Brigham, on behalf of Qwest Corporation, *In the Matter of the Determination of the Cost of the Unbundled Loop of Qwest Corporation*, PSC of Utah, Docket No. 01-049-85, June 21, 2002.

<sup>20</sup> For example, we have reviewed this type of AT&T testimony in state proceedings in California, Texas, Michigan, Ohio, Indiana, Illinois, and Wisconsin.

<sup>21</sup> This practice was introduced by some vendors, such as Lucent and Nortel, for large ILECs in the nineteen nineties.

costs increase linearly with increases in traffic (which, again, is the precise opposite of what the Copeland declaration seeks to establish.)<sup>22</sup>

### **Incremental Switch Costs Are Determined by the Specifics of Switch Vendor Contracts, Which Vary by LEC, Switch Vendor and Switch Type**

36. As discussed, the Copeland declaration and the RBOCs make generalized statements and conclusions about how little – if at all – costs increase when traffic increases on the ILECs' networks. These types of generalized statements and conclusions are unsupportable and, indeed, inaccurate given that switch contracts vary by LEC, switch vendor and switch type.<sup>23</sup>
37. Given the importance of switching costs, the terms and conditions of switch purchases are typically carefully negotiated between the LECs and vendors and the LECs; ILECs often have teams of negotiators that seek to arrange for contracts that optimally suit the needs of their companies. For example, switching facilities are often purchased and installed to specifically accommodate the usage patterns of the communities they are intended to serve. Most troublesome are sudden and significant changes in usage patterns – such as those that would be caused by significant growth in traffic contemplated in the Copeland declaration and the RBOCs' briefs. Such changes would almost certainly trigger switch augmentations (which, as discussed below, are extra expensive). Without examining the specifics of a company's switch vendor contracts, one simply cannot say in advance what incremental costs a company may incur under their specific switch vendor agreements.
38. Further, switch vendors, such as Lucent and Nortel, deploy different switch architectures that are separate and distinct and that defy generalizations about how costs are incurred on the line-side of the switch (and in other components). For example, the Nortel DMS100 deploys a completely different set of modules on the line-side to concentrate traffic than the Lucent 5ESS. Examination of company specific switching costs models, such as AT&T's SICAT model, shows that they treat the Nortel DMS100 and the Lucent 5ESS differently.
39. Last, switch vendor contracts are carefully guarded third-party highly confidential documents. As consultants, we have had an opportunity to participate in a large number of state proceedings that provided us with access to these third-party highly confidential contracts. It is not clear that Mr. Copeland in his capacity as a Qwest employee has had an opportunity to review many switch contracts other than Qwest's own, which are by no means representative of contracts for other companies. Most certainly, the Qwest contracts are not representative of those between the switch vendors and CLECs.

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<sup>22</sup> Specifically, in paragraph 9, the Copeland declaration provides an example of a trunk-port investment of \$197 per DS0 port and assumes that this port is capable of accommodating 9,000 MOUs per month. Clearly, given its own assumptions, the Copeland declaration demonstrates that as traffic increases, the number of required trunk ports increases commensurately, in the intermediate/long run and over significant volumes, *in linear fashion*. This directly contradicts the Copeland declarations – the RBOCs' briefs – which assert that costs increase less than proportionally when traffic volumes increase.

<sup>23</sup> We have examined switch vendor contracts for the former Ameritech, former SBC, former AT&T, former MCI, former Verizon, and for a large number of CLECs and some small ILECs.

### **The Copeland Declaration Ignores that Switch Augmentations and Growth Facilities Tend to Be Considerably More Expensive than Initial Switch Placement**

40. The Copeland declaration and the RBOCs ignore that under most switch contracts switch augmentations and growth facilities are considerably more expensive than facilities purchased upon switch installation.

41. This well-know attribute of switch contracts was recognized in the Virginia Arbitration Order:

There is no dispute that large carriers such as Verizon routinely receive substantial discounts off the manufacturer's list price when purchasing switches. In the SCIS model, the amount of this discount represents a significant variable in calculating switch prices. The amount of the discount may vary *considerably* depending on whether the discount is for *new* switches or for *additional equipment* to accommodate additional users.<sup>24</sup>

42. This pricing structure implies that, when access traffic grows, the *incremental costs of switching may well exceed the average costs of switching*, rather than the converse, as asserted by the Copeland declaration, the NPRM and the RBOC briefs. Again, a company specific inquiry is required before one can draw conclusion about anyone specific company's costs.

### **CLECs Typically Deploy Co-Located Rather Than Traditional Line-Side Switch Facilities**

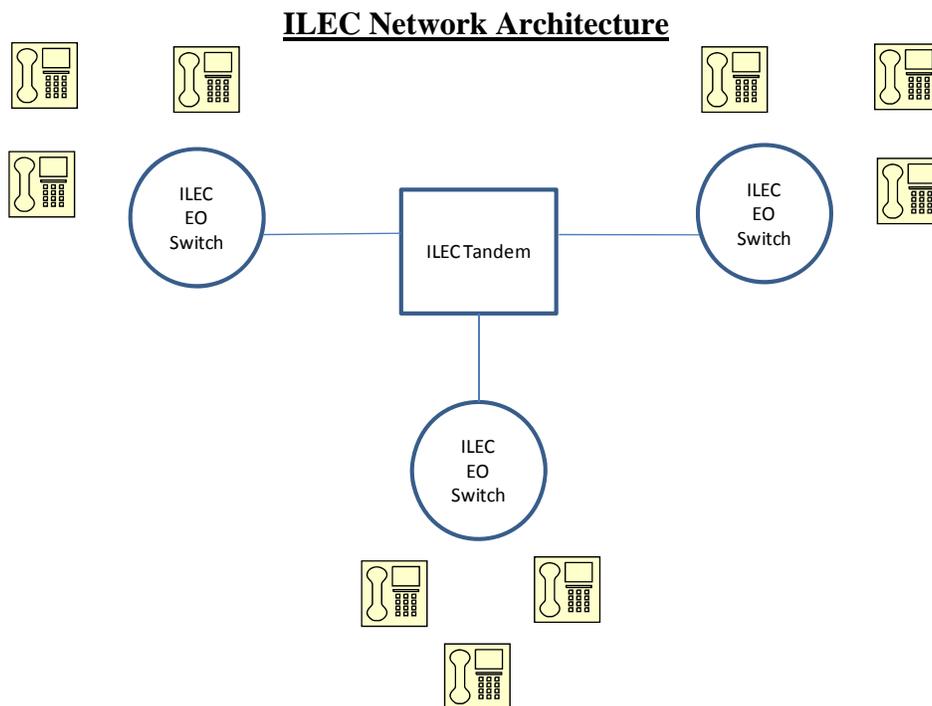
43. The Copeland declaration and the RBOCs' briefs are almost entirely predicated on a traditional ILEC network architecture. Surely, nowhere in the Copeland declaration is there an awareness of the CLEC architecture. While this is not surprising, as the Copeland declaration was presumably drafted for purposes of Qwest's specific complaint proceeding,<sup>25</sup> it does mean that the Copeland declaration should not be used to draw conclusions about the impact of access traffic growth on the CLECs' costs and returns.

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<sup>24</sup> Memorandum Opinion and Order, CC Docket Nos. 00-218, 00251, *In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration, In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes With Verizon Virginia Inc.*, released August 29, 2003, at 381.

<sup>25</sup> *In the Matter of Qwest Communications Corporation, Complainant, v. Farmers and Merchants Mutual Telephone Company, Defendant.*, in File No. 07-MD-001, at ~ 6-10, as filed in WC Docket No. 07-135 (Nov. 30, 2007).

44. In what follows, we discuss a typical CLEC network architecture and demonstrate how it differs from the traditional ILEC network architectures, discussed in the Copeland declaration (and presumed in the NPRM and the RBOCs' briefs.)
45. CLECs typically enter the market with a distributed network architecture that is significantly different from that of the ILECs. Under this distributed architecture, CLECs tend to substitute *longer transport routes* for *switching nodes* and outside plant facilities while at the same time providing origination/termination services throughout large geographic areas, which may be comparable in size to those served, for example, by ILEC tandems that aggregate the ILEC's traffic from its end office switches (the Class 5 switches). The two diagrams below illustrate and compare the two different architectures. The first is the traditional distributed ILEC architecture that uses both Class 5 and Class 4 offices to serve a specific geographic area. The second represents the CLEC's architecture that uses one switch to serve a comparable geographic area. The CLEC uses one switch for the same area as the ILEC because, while the ILEC serves the majority of the customers, the CLEC can expect to serve only a small fraction of all the customers in the area.



46. CLECs generally deploy switches that provide a *combined* Class 5 (end office)<sup>26</sup> and Class 4 (tandem)<sup>27</sup> functionality (rather than switches that provide those functionalities on a stand-alone basis) and by means of a distributed architecture provide call origination and termination services across large geographic areas. By utilizing SONET nodes collocated in

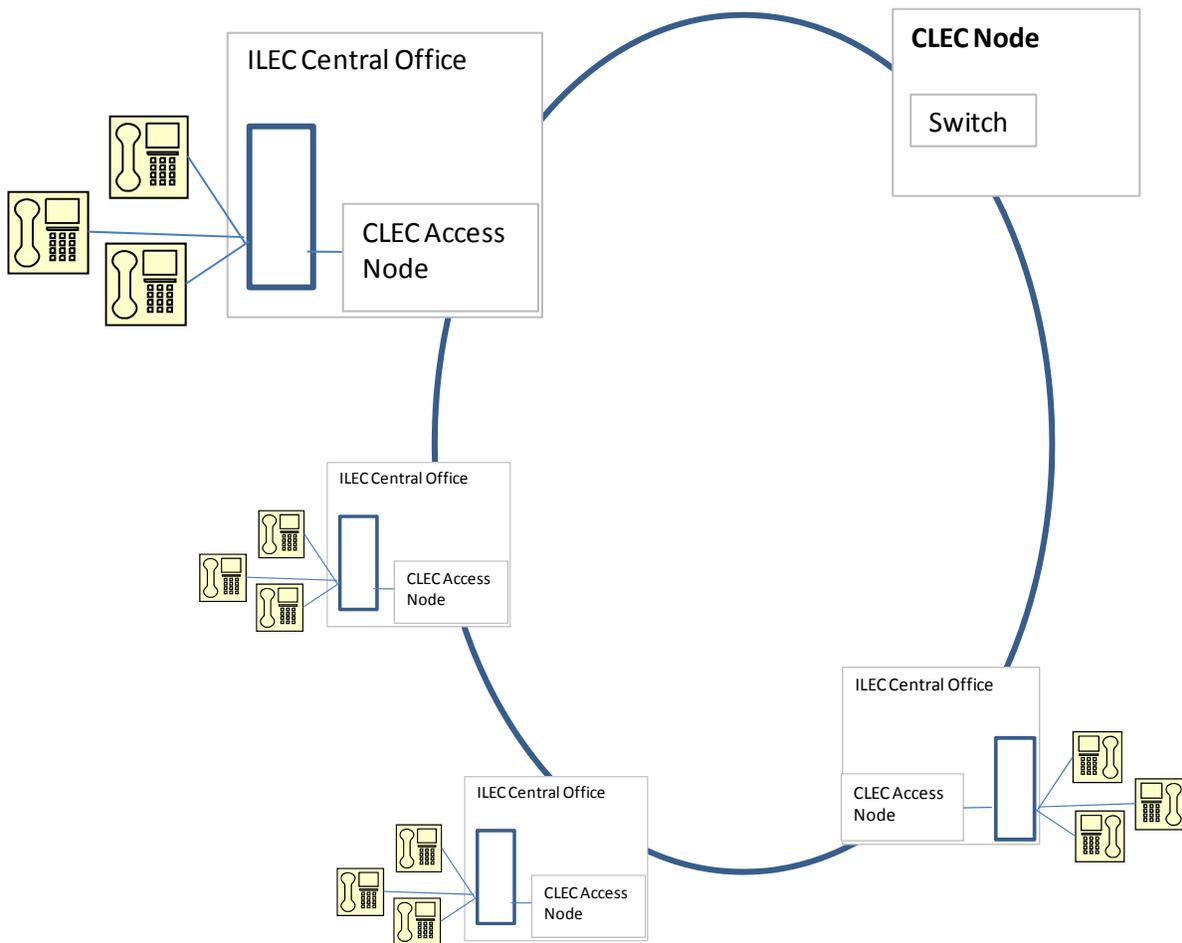
<sup>26</sup> Class 5 (end office) switches typically aggregate the traffic of end user customers over end user loops, which terminate at the switch. They also provide the vertical features, such as call waiting, etc.

<sup>27</sup> Class 4 (tandem) switches typically are used to aggregate the traffic from end office switches and provide a point in the ILEC network to which the IXCs can connect to for terminating and originating long distance calls.

multiple ILEC central offices, CLECs often are able to serve a customer base that is spread out across an entire state or LATA using a single, integrated end office and tandem switching platform.

47. The cost advantages of this architecture are that it minimizes the amount of switching and central office investment required to serve a *mostly dispersed customer base*, both by minimizing the number of Class 5 local switches required as well as reducing the need for a stand-alone tandem switch. However, the downside is that this network architecture requires additional investments in transport, collocation and SONET nodes. Given that most of the costs of these components are *traffic sensitive costs*, the CLEC network architecture will increase the *traffic sensitive costs* of intercarrier traffic, such as switched access traffic.
48. The following diagram depicts a generic CLEC network architecture and highlights the distributed nature of a typical CLEC network.

**CLEC Network Architecture**



49. In sum, to properly assess the impact of switched access traffic growth one should, at a minimum, consider the differences between the CLECs' and ILECs' networks and costs.

Clearly, one cannot willy-nilly draw conclusions about the CLECs' costs and earnings based on an analysis of the ILECs' networks and costs.

**CLECs Generally Experience Much Lower Levels of Utilization for Switching and Transport Facilities than Assumed in the Switched Access Studies and Rates for ILECs on Which CLEC Rates Are Based**

50. The level of utilization of facilities is a critical determinant of incremental and average costs of production (output) for virtually all companies in capital intensive industries. In the airline industry, for example, an airline that fills up most of its airplanes has lower average and lower incremental costs than an airline that flies half empty (assuming all else equal). The same principle holds for telecommunications firms: the higher is the level of utilization of a company's network, the lower tends to be the company's incremental and average costs.<sup>28</sup> CLECs, in general, have lower levels of network utilization than their ILECs counterparts.
51. As discussed previously, CLECs typically purchase large switches, such as a Lucent 5ESS, or Nortel DMS500, capable of serving as many as one hundred thousand customers. Likewise, the SONET facilities constructed to transport traffic to end-users and other carriers are often capable of carrying large amounts of traffic. However, most CLECs must deploy these facilities prior to the time at which they are able to acquire sufficient numbers of customers to achieve the levels of utilization for which the facilities are designed. This means that over much of their economic life, the utilization of CLEC facilities is substantially below full capacity, and below the utilization experienced by larger ILECs.
52. By contrast, when an ILEC installs or has installed a new digital switch, it does so to replace an old analog switch that is already serving a large number of customers. In fact, old analog switches, such as the 1AESS, may serve tens of thousands of customers that may very well be comparable to the number of customers that a fully loaded digital switch serves (though obviously the analog switch cannot provide the same functionalities). This means that from the moment a digital switch is installed, the ILEC will be able to achieve a high rate of utilization on certain components of such digital switches.
53. The ILEC is also capable of achieving high utilization rates on existing digital switches in wire centers that are experiencing growth. In such situations, the ILEC will often grow the digital switch by installing additional switch modules in the same central office, or it will place remotes that are served by the existing host switch. In either case, the overall level of switch utilization will be high. The same is true for the ILECs' transport facilities. Here too, ILECs reap the benefit of having a mature network that serves a large, existing customer base so that new facilities can be added incrementally as new demand is anticipated to materialize.
54. The point is that because CLECs have lower rates of utilization than ILECs, the relationship between the incremental costs and the incremental revenues associated with a growth of

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<sup>28</sup> This statement is not necessarily true for all levels of outputs/production on individual facilities in the short run; it is generally true for the total output on a company's telecommunications network viewed over the intermediate to longer run.

access traffic is different for CLECs than it is for ILECs. For example, it very much possible that a specific CLEC -- because of its low rate of utilization -- has incremental costs that are significantly higher than the switched access charges it is permitted to assess. This means that, even after traffic growth in traffic, the incremental revenues for this CLEC may still fall short of the incremental costs.

55. As already noted, growth in traffic is often an economic imperative for CLECs that have low levels of utilization. It would be bad public policy to penalize these CLECs for following through on stimulating traffic to levels required for economic viability.

**CLECs Will Have More TS Costs than ILECs Because the CLEC Switch Does *Not* Have a Line-Side but Instead Uses TS Transport and Collocation Facilities**

56. As discussed, the term “line side” generally refers to the side of the switch on which the end user lines terminate, typically at voice grade (DS0) level capacity. The term “trunk side” refers to the side of the switch on which the trunks (often interoffice trunks) terminate, typically at DS1 level capacity (there are 24 DS0 per DS1.)
57. While the Copeland declaration discussed the effects of costs on the line-side of the switch, it is important to note that *CLECs do not have a typical “line-side” to their switching facilities*. Instead, CLECs tend to use SONET nodes collocated in multiple ILEC central offices in order to serve their customers, customers that may be spread across an entire state or LATA while using only a single, integrated end office and tandem switching platform.
58. That is, for most CLECs, the equivalents of the ILEC’s main distribution frame (MDF) and the line-side of the switch are found in the collocation locations where the SONET nodes connect to their end-user lines. Also unlike ILECs, most CLECs have few, if any, line-cards in their Class 5 switches; rather, the connections tend to be trunk-to-trunk connections.
59. This means that, given that a large portion of the non-traffic sensitive (NTS) costs of a switch stems from the line-side of the switch, a larger percentage of the CLEC switching costs will be traffic sensitive (TS). The percentage of TS costs in originating and terminating long distance calls may be further increased due to the fact that the CLEC’s networks substitute additional transport facilities, with *usage sensitive* costs, for switching facilities. The costs of the collocation equipment used by CLECs to aggregate their UNE loops and transport the traffic back to their central office “hub” is also largely traffic sensitive. Thus, compared to the ILECs, the CLECs will have a much greater ratio of TS-to-NTS costs.
60. TS costs are critical to the evaluation of the incremental costs and incremental revenues associated with a growth in switched access traffic. This difference between CLECs and ILECs, however, is ignored in the Copeland declaration and the RBOCs’ briefs.

**CLECs Tend to Have Higher Input Costs than Their ILEC Counterparts**

61. Among the most important determinants of costs are the prices companies pay for inputs, i.e., the prices at which facilities are purchased. The higher are the input prices, the higher are the cost of service, facilities, unbundled network elements, etc. In fact, the relationship between the level of input prices and the costs that are to be calculated (for switched access services, UNEs, etc.) is almost linear in the sense that if input prices double, then one should expect the costs (for services, UNEs, etc.) to double.
62. CLECs tend to have higher input costs than ILECs for a number of reasons. As we know from economic theory, large buyers typically are able to extract better prices from suppliers than small buyers; we may refer to this as the Wal-Mart effect. In strict economic terms, the ability to dictate terms to suppliers may be referred to as a form of monopoly power. AT&T and Verizon, as the nation's largest telecommunications firms, are also the nations' largest purchasers of traditional telecommunications equipment. As such they are able to play suppliers off against each other and to extract large discounts by shifting the bulk of their purchases to the supplier that is willing to offer the steepest discounts. Of course, in this process in which suppliers are in effect bidding against one another, all suppliers end up lowering their prices. The Commission is well aware of those discounts and has examined them in various TELRIC proceedings. Again, as was noted during the Virginia Arbitration:
- There is no dispute that large carriers such as Verizon routinely receive *substantial discounts off the manufacturer's list price* when purchasing switches.(Emphasis added.)
63. Having reviewed vendor contracts in many state proceedings we can say, while most of these contracts are third-part highly confidential, that the prices paid by companies tend to vary by the size and buying power of those companies. *And, indeed, there is no dispute: the RBOCs receive huge discounts.*
64. The CLECs are much smaller than most ILECs and purchase many fewer facilities and equipment than do, say, AT&T and Verizon, or than more rural LECs, such as Embarq, or Valor. As a result, CLECs tend to pay higher prices (i.e., receive lower discounts off list prices.) Indeed, there is a disincentive for suppliers to give significant discounts to CLECs as it undermines their list prices without the offsetting benefits of large volume sales.
65. Again, having examined a large number of switch vendor contracts for CLECs, we can testify that CLECs typically purchase facilities straight off vendor list prices either without significant discounts or, most commonly, *without any discounts at all.*
66. In short, because CLECs pay higher input prices than their ILEC counterparts, there is a different relationship between the incremental costs and incremental revenues associated with growth in access traffic. This difference between ILEC and CLEC costs is, once again, ignored in the Copeland declaration and the RBOCs' briefs.

## Conclusions

67. In this declaration, we have demonstrated that there are profound differences in the cost structures for CLECs and ILECs.
68. The essence of our declaration can be summed up in a simple analogy: if two parties, A (e.g., a ILEC) and B (e.g., a CLEC), must drive a Ford Taurus for 50,000 miles under identical circumstances (which is comparable to two companies employing the same TELRIC model for switched access), they will have identical per-mile costs. However, if party A receives a discount off the purchasing prices for the car and party B doesn't, then clearly per mile costs are no longer the same. Further, if we now consider that party B, which doesn't receive discounts, also has to drive longer distances (comparable to the fact that CLEC calls much be routed from the CLEC COs to collocation facilities over transport sensitive transport facilities), it is clear that not only are party B's per-mile costs higher than party A's, it's overall costs are higher too. If we had broken down the total mileage into mileage per trip, then party B would have higher incremental costs per trip as well.
69. All of this demonstrates that while the RBOCs may be right that growth in traffic leads certain ILECs to over-earn, the RBOCs arguments are unsupported and not true with respect to the CLECs because the CLECs costs are incurred differently and they tend to be higher with respect to usage sensitive, incremental costs.
70. This concludes this declaration.

We, August H. Ankum and Sidney L. Morrison, declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed: January 15, 2008

August H. Ankum

Handwritten signature of August H. Ankum in blue ink, written over a horizontal line.

Sidney L. Morrison

Handwritten signature of Sidney L. Morrison in black ink, written over a horizontal line.