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Direct Testimony of Joseph Gillan
on behalf of the CLEC Coalition
PA PUC Docket No. I-00030099
January 9, 2004

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Investigation into the Obligation of Incumbent Local Exchange Carriers to Unbundle Network Elements	))))	**Docket No. I-00030099** **Filed: January 9, 2004**

DIRECT TESTIMONY AND EXHIBITS OF
JOSEPH GILLAN
ON BEHALF OF
ARC NETWORKS, INC. D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC., MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. D/B/A METTEL
(CLEC COALITION)

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I. Introduction and Witness Qualification

Q. Please state your name and address.

A. My name is Joseph Gillan. My business address is P.O. Box 541038, Orlando, Florida 32854. I am an economist with a consulting practice specializing in telecommunications.

Q. Please briefly outline your educational background and related experience.

A. I am a graduate of the University of Wyoming where I received B.A. and M.A. degrees in economics. From 1980 to 1985, I was on the staff of the Illinois Commerce Commission where I had responsibility for the policy analysis of issues created by the emergence of competition in regulated markets, in particular the telecommunications industry. While at the Commission, I served on the staff subcommittee for the NARUC Communications Committee and was appointed to the Research Advisory Council overseeing the National Regulatory Research Institute.

In 1985, I left the Commission to join U.S. Switch, a venture firm organized to develop interexchange access networks in partnership with independent local telephone companies. At the end of 1986, I resigned my position of Vice President-Marketing/Strategic Planning to begin a consulting practice. Over the past twenty years, I have provided testimony and/or sworn affidavits before more than 35 state commissions, five state legislatures, the Commerce Committee of

the United States Senate, the Federal Communications Commission, and the Federal/State Joint Board on Separations Reform. In addition, I have provided expert reports to the Canadian Radio-television and Telecommunications Commission, as well as the Finance Ministry of the Cayman Islands. I currently serve on the Advisory Council to New Mexico State University's Center for Regulation.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of ARC Networks, Inc. d/b/a InfoHighway Communications Corp., Broadview Networks, Inc., BullsEye Telecom, Inc., McGraw Communications, Inc. and Metropolitan Telecommunications of PA, Inc. d/b/a MetTel ("CLEC Coalition). It is through the competitive energy of companies such as these that the intended benefits – i.e., the choices, savings, innovations and jobs – of the pro-competitive provisions in the federal Telecommunications Act of 1996 ("federal Act") and the Pennsylvania statute are realized.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to address the FCC's Triennial Review Order[1] (TRO) as it applies to unbundled local switching and its use as part of the

[1] Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, CC Docket Nos. 01-338, 96-98 and 98-147, Released August 21, 2003 ("Triennial Review Order" or "TRO").

unbundled network element platform (UNE-P) to serve "mass market" customers. The TRO lays out a complex path to a simple conclusion, namely that conditions in Pennsylvania do not warrant reversal of the FCC's national finding that CLECs are impaired without access to unbundled local switching to serve the "mass market." Particularly in light of this state's policy encouraging local competition by explicitly requiring that Verizon offer entrants access to facilities that underlie competitive services as part of a package of regulatory reforms, there is no basis to conclude that there are Pennsylvania-specific conditions that would justify overturning the FCC's national finding of impairment here.

This is not an abstract debate with intellectual appeal but little practical effect – the decisions that the Commission reaches in this proceeding will have a real and immediate impact on the choices available to Pennsylvania consumers and business customers, on the quality and type of services they have access to, and on the prices that they pay. The stark reality is that before UNE-P became generally and operationally available to CLECs, there was no meaningful mass-market competition. If UNE-P is eliminated prematurely, competition for the average POTS customer would likely disappear, with this important customer segment reverting back to the monopoly that the Pennsylvania legislature, the U.S. Congress and this Commission have worked so hard to reform.

The principal focus of my testimony concerns the so-called "triggers" outlined in the TRO that, in effect, rely on actual competition as a means to judge whether

impairment exists. In order to place the trigger (or actual competition) analysis in context, it is important to appreciate competitive conditions in Pennsylvania today and the important role played by unbundled local switching as a means to access Verizon's monopoly loop network in a commercially meaningful way.[2] As my testimony explains, UNE-P is responsible for mass market competition throughout the state of Pennsylvania and the Commission should take care that it does not limit UNE-P availability until it is confident that an alternative is capable of producing comparable results.

Q. Have you estimated what the effect would be if the Commission were to accept Verizon's claim that the self-providing switch triggers are satisfied in a number of Pennsylvania "markets?"

A. Yes. Let me be clear at the outset, however, that I do not agree with Verizon's claim that triggers have been satisfied in Pennsylvania in any market, largely because Verizon mischaracterizes – by totally ignoring – important criteria that must be satisfied before a carrier qualifies as a self-providing switch trigger. That said, however, I have estimated what the effect would be if its claims were accepted, and the effects are dramatic. Verizon's proposal would eliminate (at least under federal law) UNE-P in exchanges serving approximately 75% of the business lines, and 70% of the residential lines, in its region. Because UNE-P

[2] Generally, when I refer to Verizon in the testimony, I am referring to those portions of the market in Pennsylvania previously served by Bell Atlantic. As I note later in my testimony, competitive activity in the Verizon-GTE exchanges remains in its infancy, with mass market competition only now emerging.

1 based competition is generally uniform throughout the state – that is, UNE-P is
2 used to compete in urban, suburban and rural exchanges alike – the effect on
3 UNE-P based competition would be equally dramatic, reducing residential and
4 business lines served by UNE-P by more than 70%.[3]
5
6 The effect on mass market competition in Pennsylvania if UNE-P were no longer
7 available would be catastrophic and long-lasting. The Commission should
8 appreciate that the process of establishing a competitive local market requires a
9 long-term commitment. There is no miracle technology that offers an immediate
10 solution to overcoming the incumbent's entrenched advantages in the mass
11 market. The incumbent's inherited network represents the cumulative product of
12 decades of monopoly protection. The Commission is seeing emerge in
13 Pennsylvania exactly the type of widespread competition hoped for when local
14 competition first moved onto the nation's policy agenda and the Commission
15 should take great care in how it approaches the trigger analysis to assure that
16 before any "trigger" reduces Verizon's federal unbundling obligation, there is
17 compelling evidence that "new entrants, as a practical matter, have surmounted

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[3] My testimony highlights in detail later the fact that UNE-P based competition is providing Pennsylvania with the type of statewide competition that the federal Act had hoped would develop. For all practical purposes, the mass market *is* a broad market, and it is only UNE-P that has shown the ability to provide the entire market with competitive choice.

barriers to entry in the relevant market,"[4] and "...it is feasible to provide service without relying on the incumbent LEC."[5]

Q. Does your testimony recommend any "follow-on" proceedings that the Commission should schedule here?

A. Yes, I recommend two follow-on proceedings. First, because of the importance of local switching to local competition, Congress specifically required that Verizon offer access to this network element in order to be able to offer long distance services in Pennsylvania. Under the terms of Section 271's social contract, Verizon has voluntarily accepted the obligation to offer unbundled local switching at rates, terms and conditions that are "just and reasonable and nondiscriminatory" and which provide entrants "meaningful access."[6] In order for this commitment to have practical meaning, the Commission should expect it will need to adjudicate (as the arbiter of interconnection disputes) rates that comply with this pricing standard for any local switching rate (such as the rate for DS-1 switch ports) that is no longer required under Section 251 of the Act. Therefore, for administrative efficiency, I recommend that the Commission initiate, at the conclusion of this docket, a generic proceeding in which Verizon may request the Commission establish the "just and reasonable" rates, terms and conditions for any switching arrangement no longer required to be unbundled under section 251

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4 TRO ¶ 99.

5 *Id.* at ¶ 93.

6 *Id.* at ¶ 603.

of the federal Act, but which Verizon has committed to offer as a result of its choice to invoke the provisions of Section 271 to offer long distance service in the State.[7] Finally, the FCC has requested that states develop procedures to conduct periodic review of the incumbent's unbundling obligations.[8] Consequently, at the conclusion of this proceeding, the Commission should establish the process it will use to conduct future inquiries.

II. POTS Competition and the Unbundling Policy of Pennsylvania

Q. Has the State of Pennsylvania adopted a policy concerning unbundling and local competition?

A. Yes. As the Commission is well aware, Pennsylvania has long recognized the interrelationship between retail deregulation and wholesale access to the inherited exchange plant of Verizon. Verizon's unbundling obligations under state law are specifically linked to the deregulatory freedom in its alternative regulation plan, which closely tracks the language of the statute:

> The local exchange telecommunications company <u>shall</u> unbundle each basic service function on which the competitive service depends and <u>shall</u> make the basic service functions separately available under nondiscriminatory tariffed terms and conditions,

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[7] By recommending that the Commission initiate such a proceeding, however, I do not suggest that the rate itself should necessarily change. TELRIC-based rates are "just and reasonable" to comply with federal law, and it would be entirely appropriate for the Commission to continue existing rates. At most, any difference between a just and reasonable rate under section 271, and the just and reasonable TELRIC-based rate, can be no more than a just and reasonable difference.

[8] TRO ¶ 424.

> including price, that are identical to those used by the local exchange telecommunications company and its affiliates in providing competitive service.[9]

While the state law cited above sunset on December 31, 2003, the Commission recognized last month in its 90-Day Order[10] that Verizon's obligation to provide CLECs with unbundled access to local switching continues pursuant to the Global Order.[11]

Although the TELRIC pricing standard adopted by the FCC may produce rates that are systematically too high to satisfy the pricing standard required under Pennsylvania Law (the internal transfer price of network facilities is frequently based on forward looking incremental cost, and not the forward looking average cost required by TELRIC), there is no question that the policy of this state is to encourage UNE-based[12] local competition as an integral element in its general policy of regulatory reform.

Q. Are you recommending that the Commission independently order Verizon to offer unbundled local switching under state law?

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[9] 66 Pa.C.S. § 3005(e)(1), emphasis added. This statute sunset on December 31, 2003.

[10] Investigation into the Obligation of Incumbent Local Exchange Carriers to Unbundle Local Circuit Switching for the Enterprise Market, Docket No. I-00030100, Order (released December 18, 2003) ("90-Day Order").

[11] Joint Petition of Nextlink, et al., Docket Nos. P-00991648 and P-00991649, Opinion and Order (entered September 19, 1999) ("Global Order").

[12] Although the Pennsylvania statute does not use the same terminology as the federal Act, the terms "basic service function" and "network element" are interchangeable for purposes of the discussion here.

A. No, but only because such an action is unnecessary. The FCC has made a national finding that CLECs are impaired without access to unbundled local switching to serve mass market customers, and the record of this proceeding will demonstrate that there is no basis for overturning that finding in Pennsylvania. I do believe, however, that this Commission should analyze the issues in this proceeding through the prism of the state law and the policy choices that have already been made concerning the manner in which Verizon is now regulated.

Q. Is POTS competition central to the regulatory reform underway in Pennsylvania?

A. Yes. As the incumbent gains greater regulatory freedom, the only consumer protection from it earning unreasonably high profits is competition at the heart of its monopoly, the analog POTS customer. Analog POTS lines account for approximately 85% of Verizon's switched access lines.[13] If Verizon is able to retain a POTS monopoly, it will enjoy a base of captive customers and revenues that can be used to leverage against rivals in those narrow submarkets where other entry strategies are beginning to take hold. The only way that competition can thrive and endure is if the core of Verizon's monopoly – the POTS market – is the beneficiary of aggressive competition.

Moreover, the POTS marketplace has long been the concern of traditional regulation. Demonstrating the importance of this customer segment is the fact

[13] Source: ARMIS 2001.

that a centerpiece of federal and state public policy has been the goal of "universal service" – i.e., assuring the widespread availability of these services at affordable prices. It would make little sense to adopt a commitment to the availability of POTS (i.e., universal service), without being equally committed to assuring that this same customer segment enjoys competitive choice.

Q. Is competition developing in this important customer segment in Pennsylvania?

A. Yes. However, mass market competition - that is, competition for the average POTS customer – depends today on competitive carriers being able to access Verizon's loop network in a commercially meaningful way. For all practical purposes, that access is obtained through the use of Verizon's unbundled local switching, which provides electronically-controlled access to Verizon's analog loop plant through the combination known as UNE-P. The following summarizes the growth in local competition in Pennsylvania over the past several years using UNE-P and UNE-L, based on Verizon's filings with the FCC:

Table 1: Relative Growth[14] in UNE-P and UNE-L

Year	UNE-L	UNE-P
2001	67,976	202,558
2002	26,432	88,593

As Table 1 illustrates, although all forms of UNE-based competition slowed in Pennsylvania last year, UNE-P accounted for nearly 80% of all the UNE-based

[14] Source: Verizon Form 477 (Local Competition) Filings with the FCC.

1 local competition in Pennsylvania (and its share of mass market competition
2 would be even greater, if the data were available in a form that separated the mass
3 market from the enterprise market).
4
5 **Q. Does UNE-P bear a special relationship to section 271 and the consequences**
6 **of Verizon's offering of bundled local/long distance services?**
7
8 A. Yes. There are a number of important parallels and linkages between UNE-P and
9 Verizon's offering of long distance services in this state. The first is quite direct –
10 UNE-P is nothing more than the local-wholesale equivalent to the wholesale
11 services that Verizon uses to provide long distance service. Indeed, the concept
12 of unbundled local switching was first developed to provide the same type of
13 electronic access to local loop facilities[15] – and to create a comparable local
14 generic switching and transmission "platform" – that was (and is) commonly
15 available in the long distance market, and which was (and is) readily available to
16 the RBOCs after the legal prohibitions on their offering long distance service
17 were lifted. This is not a coincidence. The expectation at the time the federal Act
18 was passed was that the RBOCs would rely on wholesale long distance
19 arrangements to quickly offer the mass market local and long distance services
20 from a single provider, and the only way to prevent the RBOCs from reasserting

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[15] One of the many problems (or impairments, if you will) solved by unbundled local switching is that it supports a customer-migration process that is similar to (in terms of cost and customer experience) the PIC change process used by consumers when they change long distance carriers.

their dominance would be if other carriers had a comparable opportunity to compete.

The social contract embodied in section 271 fully recognized the importance of local switching to achieving the balance of reforms contained in the federal Act. Section 271 specifically requires Verizon to offer local switching if it wants to offer long distance services in the states where it is the incumbent. It is remarkable that Verizon (as well as the other RBOCs) continuously denigrates a local entry method that parallels its own strategy for offering long distance service (i.e., leasing the requisite switching and transmission functionality through a wholesale arrangement), as though one (its interLATA offerings) provides public benefits, while the other (competitive local services), does not.

Q. Was it wise for Verizon to accept the terms of section 271 and offer UNE-P in exchange for the opportunity to provide long distance services?

A. Yes. Even with the availability of the UNE-P wholesale offering, Verizon is dominating its competitors in the race to provide customers with bundled local and long distance service obtained from a single carrier. In the third quarter of 2003 (the most recent quarter for which the information is available), Verizon gained nearly <u>three</u> long distance lines (to add with its local service) for every local line gained by <u>all</u> of its competitors (using UNE-P) combined.[16] Verizon now provides long distance service to 28% of its switched access lines

[16] Source: Verizon Quarterly Earnings Statements, 2nd Q 2003 and 3rd Q 2003.

regionwide, while complaining that it should not be required to offer (even though it was an explicit part of its 271 commitments) a similar local arrangement that is enabling competitors using UNE-P to serve only 8% of the local market.

Q. Are the local competition statistics for Pennsylvania consistent with data in other states?

A. Yes. Pennsylvania statistics are consistent with national data filed at the FCC during the Triennial Review proceeding (and summarized below). As the following table shows, UNE-P is critical to POTS competition for residential customers and small businesses that desire analog-based telephone service.

Table 2: UNE-P Penetration in Mass Market[17]

Holding Company	Penetration Rate	
	Business	Residential
Verizon	12.2%	4.6%
Qwest	7.4%	2.1%
Verizon (Bell Atlantic)	7.6%	7.7%
SBC	6.2%	8.5%
Total	7.6%	6.7%

Q. What type of carrier is using UNE-P to compete in the POTS market?

A. Not surprisingly, the largest competitors using UNE-P to compete in the mass market are the traditional long distance carriers, AT&T and MCI. More recently, Sprint has announced its intention to compete in the local exchange POTS market

[17] Source: UNE-P lines are from RBOC *Ex Parte* Filings in CC Docket 01-338, or as reported by Commerce Capital Markets, December 20, 2002. Vintage of data varies, but is generally from August or September, 2002. Relative penetration rate calculated as UNE-P lines (business or residential) as a percentage of residential and business analog lines. Source: ARMIS 43-08.

using UNE-P. The fact that Sprint, the nation's largest incumbent local exchange carrier not affiliated with an RBOC, has concluded that UNE-P is needed to compete for mass market customers provides further validation that UNE-P is the efficient, economic choice (and, conversely, that other approaches simply will not produce comparable results).

Because each of the traditional long distance carriers had a relatively large preexisting base of voice customers (and the need to offer local/long distance bundles referenced earlier), these carriers have become the largest individual competitors using UNE-P. The largest collective purchaser of UNE-P, however, is the new wave of competitive entrants that rely on UNE-P to bring fresh energy and innovative ideas and services to this market segment. It is estimated that more than 40% of the UNE-P lines are purchased by non-IXC CLECs (nearly 1/3 more than AT&T or MCI), demonstrating the importance of UNE-P to reducing entry barriers in the POTS market.[18]

Q. You indicated earlier that UNE-P was producing statewide competition in the territory served by Verizon. What evidence is there of statewide competition in the Pennsylvania mass market?

A. Exhibit JPG-2 dramatically illustrates the competitive profile of UNE-P in the exchanges served by Verizon. The bar chart in Exhibit JPG-2 plots the competitive share achieved by UNE-P in each of Verizon's wire centers in

[18] Source: *UNE-P Fact Report*, published by the PACE Coalition, July 2003.

Pennsylvania, ranked by the size (measured in POTS access lines) of the exchange. Verizon's largest exchange is farthest on the left, while Verizon's smallest exchange is on the right. Verizon's remaining exchanges are arranged in between according to size. Because of the large number of wire centers in Pennsylvania (Verizon has 387 wire centers in the state), I have had to split the graph over two pages, with page 1 of JPG-2 presenting the results for the largest 194 wire centers, and the second page of JPG-2 presenting the results for the next largest 193 wire centers in the state.

As the Exhibit JPG-2 clearly shows, CLECs utilizing UNE-P to serve mass market customers have brought competition to every Verizon exchange in Pennsylvania, irrespective of the size of the exchange. The significance of this competitive profile cannot be overstated – the competitive signature of the UNE-P entry strategy is its ability to serve the mass market across the entire mass market without geographic limitation. No other competitive entry strategy can provide this result.

Q. Have you analyzed comparable information for UNE-L?

A. Yes, to the extent possible. The competitive profile of UNE-L is shown in Exhibit JPG-3, illustrating relative penetration across the same set of wire centers as JPG-2. The complication introduced in JPG-3 (the relative penetration of UNE-L) is that Verizon's data response includes UNE-L loops used to serve enterprise customers (channelized into voice grade equivalents) and, therefore, it

overstates (relative to the mass market analysis in JPG-2) the relative penetration of UNE-L. However, the Exhibit does accurately depict the geographic distribution of UNE-L, clearly showing that only UNE-P is able to serve the entire mass market.

Q. What conclusion should the Commission draw from the competitive profile illustrated in Exhibits JPG-2 and JPG-3?

A. The competitive profile of UNE-P clearly demonstrates that "the locations of customers actually being served (if any) by competitors" is, in fact, the entire territory of the incumbent. This is clear marketplace evidence that the UNE-P entry strategy supports competition in each wire center. As the Commission judges alternatives to UNE-P, it should do so fully aware that UNE-P produces statewide competition – and it should not restrict the availability of unbundled local switching and UNE-P unless it can conclude that an alternative will produce a similar competitive profile.

Q. Do you believe that statewide competition was intended by the federal Act?

A. Yes. It is clear that one of the goals of the federal Act is to encourage broad competition throughout an entire state. For instance, the Act fundamentally judges whether local markets are open (in Section 271) on a state-by-state basis:

> The requirement of an operational competitor is crucial because ... whatever agreement the competitor is operating under must be made generally available throughout the State. Any carrier in

> another part of the State could immediately take advantage of the "agreement" and be operational fairly quickly. By creating this potential for competitive alternatives to flourish rapidly throughout a State, with an absolute minimum of lengthy and contentious negotiations once an initial agreement is entered into, the Committee is satisfied that the "openness and accessibility" requirement is met.[19]

For its part, the Pennsylvania Legislature certainly expressed an interest in statewide conditions, requiring that the Commission judge alternative regulation plans (among other factors) to ensure that they:

> Will permit the deployment of new voice, data and video services to rural, suburban and urban areas throughout the local exchange company service territory.[20]

The bottom line is that the Commission is observing in the market exactly the type of statewide competitive activity that the Pennsylvania Legislature and the U.S. Congress hoped to see when they opened these markets to competition. Consequently, the Commission should take great care that it not take any action to curtail UNE-P based competition, unless it is confident that an alternative would produce the same result.

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[19] *Ameritech Pennsylvania Order*, Federal Communications Commission, CC Docket 97-298, Footnote 169, *citing* House Report, emphasis added.

[20] 66 Pa. C.S.A. § 3004 (d)(10).

III. Establishing the Preconditions to a Trigger Analysis: Defining the Mass Market

Q. Did the FCC conduct a comprehensive evaluation of the impairment that limits mass market local competition?

A. No. It is important to remember that the FCC focused its analysis – and rested its conclusion – on only one source of impairment, the manual hot cut process used to provision analog loops to CLEC switches. Based on this single factor, the FCC concluded that impairment exists on a national scale.[21] Significantly, the FCC did not determine that the hot-cut process was the only source of impairment – rather, having already found impairment nationally, it left it to the states to evaluate whether any exceptions to this national finding were locally appropriate.

Q. How does the "trigger" analysis called for by the TRO relate to the FCC's national finding of impairment?[22]

A. It is useful to think of the "trigger analysis" as an "actual competition" test. Its basic role is to determine if there are markets where the level of actual competition is so vigorous that the national finding of impairment must be wrong. The FCC believed that the "principal mechanism" to judge impairment should be

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[21] TRO ¶ 423.

[22] There are other areas of inquiry raised by the TRO (such as the potential deployment analysis) that I understand Verizon is not pursuing in this state (Berry-Peduto Testimony, page 8). Because Verizon intends to only address whether the "triggers" are satisfied in Pennsylvania at this time, I will not address other aspects of the TRO.

actual marketplace activity.[23] Such an approach does make sense, but only so long as the analysis is conducted in a fashion structured to determine whether potential trigger candidates do, in fact, provide evidence of non-impairment.

Q. What threshold questions must the Commission address in order to apply the "actual competition test" to the "mass market"?

A. The first layer of the actual competition test is the definition of the "mass market." As noted earlier, the mass market is generally defined by the FCC as the POTS market – that is, the market of customers obtaining analog voice service. There are two parameters, however, that the FCC has asked the state commissions to establish in order to define the "mass market" in its state. The first is to determine the "cross-over" that will define the upper boundary of the mass market in terms of the number of voice lines a customer may have before the customer should be viewed as an "enterprise customer." Second, the FCC has asked the states to determine the appropriate "geographic boundary" of the mass market in which it will conduct its impairment analysis.

Q. How does the TRO define the mass market customer?

A. The TRO provides a basic definition of the "mass market customer" and contrasts it with the "enterprise customer." The mass market customer is (a) primarily interested in basic voice-grade POTS service; (b) widely geographically

[23] TRO ¶ 498.

dispersed; and (c) unaccustomed to complex or disruptive provisioning schemes. As the FCC explains, "mass market customers are analog voice customers that purchase only a limited number of POTS lines, and can only be economically served via DS0 lines."[24] Unlike enterprise customers, mass market customers are not concentrated in particular geographic locations, such as central business districts; rather residential and small business customers are spread across all urban, suburban, and rural locations. These customers expect that using their telephone services, as well as changing service providers, will be a seamless transaction, without a disruption to their service or their lives.[25]

Q. Does the mass market include both residential and business customers?

A. Yes. Perhaps because we are all residential customers, we intuitively appreciate the fact that the residential marketplace is part of the mass market. The forgotten customer of telecommunications policy, however, is the average (which is to say in this context, voice-centric) small business customer. There are many business customers that still rely on traditional POTS service for their telecommunications needs (for example, restaurants, garages, plumbers, florists, and others for whom higher speed enterprise services are simply unnecessary).

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[24] *Id.* at ¶ 497.

[25] *Id.* at ¶ 467 ("Most importantly, mass market customers demand reliable, easy-to-operate service and trouble-free installation.").

One of the important roles for local competition is to eliminate discrimination by driving prices towards their costs. Traditionally, an artificial price difference has been used to separate the residential POTS customer from the business POTS customer. One benefit of local competition will be that this price differential will decline, as competitors offer more cost-based products to both the residential and small business market. Small businesses will benefit from lower prices, while residential customers will see more value-laden offerings, such as MCI's Neighborhood product or Z-Tel's and InfoHighway's Voice Mail service using innovative Unified Messaging technology. These competitive offerings are already at work erasing the artificial boundary in the POTS marketplace between the residential and small business customer, as the technological boundary separating the analog (POTS) and digital (i.e., enterprise) market emerges in its place.

A. The DS0/DS1 Cutover

Q. What is the DS0/DS1 cutover called for by the TRO?

A. The TRO permits states to artificially cap, through regulatory rule, the upper bound of the mass market (in terms of voice lines at a customer premise) where the state commission determines "it is economically feasible for a competitive carrier to provide voice service with its own switch using a DS1 or above loop. We determine that this includes all customers that are served by the competing

carrier using a DS1 or above loop and all customers meeting the DS0 cutoff."[26] The cutoff is defined as "the point where it makes economic sense for a multi-line customer to be served via a DS1 loop."[27]

Q. Has Verizon requested that the Commission establish a "regulatory cap" on the mass market in Pennsylvania?

A. No. As I understand (and support) Verizon, Verizon is acknowledging that the best bright line between the enterprise and the mass market is the line between analog voice loops (which define mass market services) and digital loops (which define the enterprise market). There is no need for the regulator to step in and "decide" that some customers that are part of the mass market by choice, should instead be deemed enterprise customers through the application of a regulatory rule. As explained by Verizon:

> At its simplest, this "cutoff" should be between customers actually being served with one or more voice grade DS0 circuits and customer actually being served by DS-1 loops.... This objective test is more reliable, and grounded in the realities of the marketplace, than an arbitrary "cutoff" at a particular number of lines regardless of whether customer is actually being served as a DS-1 customer.[28]

This is essentially the only area in my testimony where I will agree with Verizon (albeit for a very different reason). The "cutover" described in the TRO is a

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[26] *Id.* at ¶421, n.1296.

[27] *Id.* at ¶497.

[28] Direct Testimony of Berry and Peduto, page 17.

governmentally drawn upper boundary to the mass market that, in effect, substitutes the Commission's judgment of how a customer should be served (via a DS-1) for the customer's judgment of how it has chosen to be served (multiple analog loops). I agree with Verizon, however, that the customer is in the best position to know what type of service it needs and, therefore, the most accurate dividing line between the analog mass market and the digital enterprise market tracks the service choice of the customer.[29]

Of course, I disagree with Verizon that, after properly defining the mass market, CLECs should be denied access to unbundled local switching to compete within it. Presumably, Verizon has adopted its position in an attempt to inflate CLEC UNE-L numbers to bolster its trigger claims (claims which are not satisfied even by the help of this strategy). It is important, however, that the Commission make clear to Verizon that having now defined the mass market as comprising all analog loops (a wise approach), that it must make unbundled local switching available <u>to serve all analog loops</u> wherever the Commission determines the triggers have not been satisfied (which I would contend is the Commonwealth of Pennsylvania).

Q. Why would a customer with multiple analog voice loops choose to remain a mass market customer?

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[29] Although Verizon's testimony suggests that the CLEC decides what the customer wants, the reality is that CLECs (as well as ILECs) offer various products designed for different customer interfaces (such as analog phone service or a DS-1 to a PBX) and the *customer* decides whether it is to be an enterprise customer or part of the mass market.

A. There are a number of reasons why a customer may not desire a DS1-based service. As a practical matter, in the real world, customers are not likely to purchase a DS-1 service unless they are using a PBX that supports a digital interface. In such real-world situations, it is the customer that chooses to become an enterprise customer by the customer premise equipment it selects. This is quite different than the "theoretical customer" suggested by the TRO that is assumed to be served by a DS-1, even though it has no PBX on its premise. For this customer, a DS-1 based service would require that the customer make space available for channel bank equipment on its premises. Customers may not want to give up the space for such equipment, or may resist the telecommunications provider's need to have access to the premises to maintain or repair the equipment. Alternatively, because of provisioning problems or the customer's individual traffic patterns, the CLEC might need to use higher priced special access rather than UNE DS-1 facilities (which would significantly reduce the economic attractiveness of a DS-1 service). In these circumstances, the customer would have good reasons to preserve its analog POTS service, even if it were at or above the point at which a DS-1 would theoretically be less expensive. In addition, a customer served by multiple analog lines is less vulnerable to a total loss of service than a customer whose entire service is being provisioned over a single DS-1.

B) The Appropriate Geographic Area for the Evaluation of Impairment

Q. What general approach should the Commission use in selecting the geographic area for its impairment analysis?

A. The basic approach should be to look at areas being served by a particular network element and determine whether an alternative could reasonably produce the same result. The basic approach described in the TRO is obviously (and correctly) customer-centric, with the states being directed to consider, among other things:

* The locations of customers actually being served (if any) by competitors;
* The variation in factors affecting competitors' ability to serve each group of customers; and,
* The competitors' ability to target and serve specific markets economically and efficiently using currently available technologies.[30]

The only bounds that the FCC placed on the state's discretion in determining the geographic contours of a "market" (or, more properly stated, an impairment evaluation zone) is that the area must be smaller than an entire state. At the same time, it must not be so small that "...a competitor serving that market alone would

[30] TRO ¶ 495.

not be able to take advantage of available scale and scope economies from serving a wider market."[31]

Q. Have you reviewed data that identifies "the locations of customers actually being served (if any) by competitors?"

A. Yes. My review of Pennsylvania-specific data demonstrates that UNE-P exhibits a very distinct – and very important – competitive profile: that is, UNE-P brings competitive choice throughout the serving territory of Verizon. As shown in Exhibits JPG-2 and JPG-3, unbundled local switching dramatically alters the competitive landscape across the mass market. As the Commission approaches its impairment analysis, it must not lose sight of the important differences between the competitive signature of UNE-P and UNE-L. The mass market is a broad market and it is important that the Commission define "geographic areas" in a manner that enables the Commission to recognize the very different abilities of UNE-P and UNE-L to service the mass market.

Q. What geographic area do you recommend the Commission use to evaluate impairment?

A. I recommend that the Commission use LATAs to evaluate impairment, at least as a preliminary matter. I include two caveats with this recommendation. The first is that I do not yet have the complete data set from Verizon to definitively

[31] *Id.* at ¶ 495.

conclude that LATAs most accurately represent the geographic mass market. I have concluded , however, that the mass market is widely distributed across the state and it is being served through access to unbundled local switching as compared to the far more limited and impaired entry that would occur (if at all) with UNE-L.

One of the key reasons that the Commission should adopt a reasonably broad area to evaluate impairments that must be overcome to serve the mass market is to assure that the Commission not mistake some limited entry in a relatively small area as evidence of non-impairment. This brings me to my second caveat. If the Commission does adopt relatively broad areas in order to avoid the mistake of interpreting some geographically limited entry as evidence that impairment does not exist, then it is vitally important that the Commission apply the triggers with this concern in mind. That is, the Commission must make sure that it does not inadvertently accept as a trigger any carrier whose offerings are geographically limited. One of the larger threats to mass market competition in this proceeding stems from the risk that the Commission would adopt broad areas to evaluate conditions in the mass market (which it should do to properly recognize the geographic breath of mass market competition), but then count as triggers carriers that are incapable of serving that same geography. This need for a consistent approach in the market definition and the trigger analysis is covered later in my testimony.

Q. Why is the LATA a superior boundary to the MSA (which Verizon has proposed)?

A. LATA boundaries have the advantage of being well understood within the industry, they already exist, they conform to wire center boundaries (which is the basic unit or "building block" for all analyses), and they were first drawn (albeit 20 years ago) as an approximation of the local monopoly network.

MSA boundaries may create the impression of legitimacy (inasmuch as they are the product of a process unrelated to telecommunications), but that legitimacy is an illusion. MSA boundaries have little to nothing to do with telecommunications; they do not consider networks, calling boundaries, or any other factor that would influence an entrant's cost. The MSA construct is not made more objective because it is unrelated to telecommunications; it is merely made less useful. As a practical matter, even the most basic information that must be considered in an impairment analysis (such as UNE-L and UNE-P volumes) is collected by wire center, and any decision to modify Verizon's unbundling obligation would have to be implemented on a wire center basis. Those facts alone suggest that any area ultimately chosen by the Commission must be easily defined by its component wire centers, as opposed to census or political boundaries.

It is also useful to note that not even Verizon is actually recommending that the Commission evaluate impairment using the MSA boundaries as drawn. Rather,

Verizon is asking that the Commission evaluate impairment within only those portions of the MSA that Verizon is the certificated local exchange carrier – a caveat to its position which essentially acknowledges that the MSA, by itself, is not a useful boundary to evaluate impairment.

Q. Are LATAs reasonable proxies for MSAs in any event?

A. Yes. The LATAs were first drawn to identify distinct local markets, with one of the guidelines being that no LATA should include more than one MSA. LATA boundaries conform to wire center boundaries, so it is not necessary to address wire centers that straddle MSA boundaries. Moreover, LATAs have the advantage of associating all of Verizon's wire centers to a market, while MSA boundaries do not. This is particularly important because Verizon's proposal would have this Commission not only adopt the MSA boundaries that it recommends (and discusses), but it would also have the effect of creating a residual market of all those wire centers that are not in an MSA and that Verizon ignores in its testimony. Significantly, this forgotten residual market must also satisfy the TRO's requirement that "...a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market."[32]

Q. Have you analyzed the effect of Verizon's recommendations on the forgotten residual market?

[32] TRO ¶ 495.

A. Yes. Table 4 (below) compares a number of characteristics of the "challenged markets" where Verizon is seeking to eliminate UNE-P and the "residual market" of wire centers that would (at least, theoretically) remain.

Table 4: Comparing Challenged Markets to the Residual Market

	Wire Centers	Retail Lines	UNE-P Lines	UNE-P Share	Lines/Wire Center
Challenged Markets	140	4,068,976	322,749	7.9%	29,064
Residual Market	247	1,678,793	120,163	7.2%	6,797
Reduction		71%	73%		

There are a number of critically important points revealed in Table 4. The first is that, as indicated earlier, UNE-P is a true mass market entry strategy. As shown in Exhibit JPG-2 and demonstrated once again in the above table, UNE-P's penetration rate in the smallest 247 wire centers in Pennsylvania is comparable to its penetration rate in the largest 140 wire centers. This is not a theoretical debate about where UNE-P might serve – customers throughout Pennsylvania are benefiting from the strategy today.

Secondly, however, the effect of Verizon's proposal to eliminate UNE-P in the top 140 wire centers would most assuredly eliminate mass market competition throughout the state, including in the residual market that would be too small to support entry and competition. Can anyone (even Verizon) plausibly suggest that the UNE-P entry strategy could withstand a 70% drop in its addressable market (i.e., the lines in Verizon's challenged markets), and a 70% drop in its realized share, yet continue if limited to sparsely-populated, high-cost, wire centers spread all across the state?

Finally, Table 4 illustrates how Verizon's approach to defining the mass market – by separating the critical low cost and dense areas from the less dense portions of the market – create a residual that cannot possibly comply with the FCC's admonition that no market should be so small that "...a competitor serving that market alone would not be able to take advantage of available scale and scope economies from serving a wider market."[33]

Q. Should the Commission expect UNE-L to have an ability to serve the mass market?

A. No. There are material differences between UNE-L and UNE-P that make UNE-L ill-suited to the type of broad entry that is necessary to address the mass market. To begin, as noted by the FCC, the manual provisioning (i.e., the "hot cut") processes used with UNE-L do not have the scale, reliability or cost structure necessary to support mass market services. Equally important, however, are the additional costs that the FCC did not expressly evaluate and which add significantly to CLECs' economic impairment. These include a CLEC's costs to extend an analog loop from the wire center where it is currently located to the CLEC's switch location. These additional collocation, "signal preparation"[34] and

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[33] Id.

[34] Signal preparation costs include conversion of analog signals to digital format, multiplexing and CO-based transmission costs needed to transport the service to a distant switch.

transport costs are significant and compounded by the fact that Verizon has a large number of relatively small wire centers in Pennsylvania.

The UNE-L business strategy fundamentally requires that CLECs can efficiently access loops at the wire center and transport those loops back to their switch without incurring a cost penalty so large that they may not reasonably compete with the ILEC (that incurs none of these costs). However, even if all of these costs could be wiped away, CLECs would still have to deal with the fact that the ILEC network was never designed to provide a few locations where all the loops may be accessed. Rather, the ILEC network is relatively dispersed – that is, the loops are spread among hundreds of wire centers, some of which aggregate very few loops.

Q. Have you analyzed the geographic dispersion of the Verizon network in Pennsylvania?

A. Yes. Exhibit JPG-4 illustrates the loop aggregation "efficiency" of Verizon's exchange network in Pennsylvania. Like Exhibits JPG-2 and JPG-3, the chart requires two pages to produce, given the extraordinarily large number of wire centers in the Verizon network. As Exhibit JPG-4 shows, Verizon's network in Pennsylvania is characterized by a large number of wire centers that each individually serve relatively few lines. For instance, approximately 65% of the wire centers have fewer than 10,000 lines in total. One consequence of this architecture is that the Commission should not expect to see UNE-L based mass

market competition because serving the broad mass market would require the CLEC to assemble an extensive loop concentration network just to extend these highly dispersed loops back to a centralized location to enable it to provide service.

Q. Is there any other evidence specific to Pennsylvania that you would encourage the Commission to consider?

A. Yes. At one time, Verizon was forced to evaluate how it would provide mass market services in Pennsylvania if it were confronted with the same choices as a CLEC. Verizon had to make this decision because the Commission ordered it to file a structural separation plan that would have resulted in it having the choice of installing its own facilities or leasing those of a separated network company like any other carrier. Of interest here is the fact that Verizon's plans indicated that it intended to serve the mass market using UNE-P and, even more usefully, it estimated the additional costs that would have been incurred had it not had UNE-P available to it. As summarized in the Initial Brief of the Competitive Telecommunications Association:

> Verizon's data [in this proceeding] allow an estimation of the added costs it seeks to impose. Verizon first provided an estimate of the costs to staff, train and support a CLEC relying exclusively on UNE-P. Verizon then estimated the identical costs for a CLEC relying on UNEs, but without access to UNE-P. The difference between these estimates reveals Verizon's own best estimate of the additional costs that would be imposed on competitors (and consumers) by restricting the availability of UNE-P.

> Restricting the availability of UNE-P imposes substantial costs in several areas. Verizon's data show that the direct costs of unnecessary collocation investments would total nearly $20 million. The higher costs imposed by the added complexity caused by a lack of access to UNE-P are also significant. These costs accrue in the form of additional manpower, training and support functions upon market entry, as well as increased expenses incurred each and every year to support an unnecessarily complex operation.
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> Table 1 in the Testimony of Joseph Gillan in this proceeding sets forth the tremendous increases in personnel/training and support costs. These cost increases range from a low of 41% for ongoing management expenses to a 1563% increase for transition associate personnel. The total ongoing costs increase by nearly 50%, costing hundreds of millions of dollars.[35]

I recognize that this proceeding must focus on the triggers claimed by Verizon. However, the Commission should do so fully aware that for that brief moment when Verizon thought it might be forced to operate as a CLEC in Pennsylvania, its conclusions were little different than those of other carriers seeking to offer mass market services throughout the state.

IV. The Criteria Necessary to Evaluate Potential Trigger Candidates

Q. Do you believe that Verizon has reasonably applied the trigger analysis called for in the TRO?

A. No. Verizon mischaracterizes the rigor needed to conduct a reasoned trigger analysis with its characterization that it is a mere counting exercise:

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[35] Initial Brief of the Competitive Telecommunications Association, Re: Structural Separation of Verizon Pennsylvania, Inc. Retail and Wholesale Operations, Docket No. M-00001353, December 11, 2000, ¶¶ 28-30, footnotes omitted.

> The self-provisioning trigger is deliberately objective. It is assessed entirely through the application of data, rather than by the consideration of more subjective experiences, theories, estimates, opinions, and predictions.[36]

It is true that the trigger analysis is different from a potential deployment analysis in that it requires that the Commission focus on an objective standard (i.e, three self-providers), but that does not mean that the Commission is not expected to apply judgment in making sure that the proffered trigger candidates are a "true alternative" that are "...actively providing voice service to mass market customers in the market."[37]

The TRO calls for the application of common sense alongside objectivity; it does not compel state commissions to check their judgment at the door when conducting a trigger analysis. To the contrary, the TRO offers guidance as to the type of carriers and services that can legitimately be considered "actual marketplace evidence" that "...new entrants, as a practical matter, have surmounted barriers to entry in the relevant market."[38]

Q. Does your testimony address each of the trigger candidates named by Verizon?

A. No. The principal focus of my testimony is to outline for the Commission a set of basic criteria that should be used to evaluate whether the candidates nominated by

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36 Berry and Peduto Direct, page 9.

37 TRO ¶ 499.

38 *Id.* at ¶ 93, emphasis removed.

Verizon should be counted as self-providing triggers. However, I will use the criteria to disqualify a number of Verizon's candidates where data or information to do so is available. The reviewing criteria that I recommend are drawn directly from the TRO and parallel, wherever possible, comparable findings and analysis used by the FCC. This is precisely the type of guidance that the FCC intended, with the states evaluating local conditions and, where those conditions and/or circumstances are comparable to the FCC's national review, reaching similar findings:

> For example, we note that CMRS does not yet equal traditional incumbent LEC services in its quality, its ability to handle data traffic, its ubiquity, and its ability to provide broadband services to the mass market. Thus, just as CMRS deployment does not persuade us to reject our nationwide finding of impairment, at this time, we do not expect state commissions to consider CMRS providers in their application of the triggers.[39]

In contrast to this approach, Verizon would have the Commission ignore the TRO in how it applies the triggers. There are a number of instances where Verizon presents data that essentially parallels information that the FCC used to reject ILEC claims of non-impairment, claiming that the TRO compels the Pennsylvania Commission to overturn the FCC's finding of impairment here. But such a result is absurd – how could the FCC possibly insist that the states reach opposite conclusions simply by reviewing local (i.e., more granular) data that confirms the same data the FCC used to determine that switching continue to be unbundled?

[39] *Id.* at ¶ 499, n. 1549, footnotes omitted, emphasis added.

When the FCC asked the states to look at actual competitive activity, it did so with the expectation that the states would apply the "trigger test" with judgment as well as actual data. As the FCC indicated, "We find that giving the state this role [as fact-finder on triggers and other impairment issues] is most appropriate where, in our judgment, the record before us does not contain sufficiently granular information and the states are better positioned than we are to gather and assess the necessary information."[40]

The FCC is relying on the states to examine local markets based on each commission's knowledge and familiarity with local conditions. The Commission's role in this context obviously is not to merely review the data that was already provided to the FCC regarding the deployment of CLEC switches, but rather to conduct a full inquiry into whether the trigger criteria set forth in the TRO are satisfied.

Q. Verizon claims that the Commission is precluded from evaluating "any other factors, such as the financial stability or well-being of the competitive switching providers" in conducting a trigger analysis.[41] Do you agree?

A. Obviously I agree that the sentence is in the TRO. Where I part company with Verizon, however, is with its interpretation that this single sentence wipes away

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[40] *Id.* at ¶ 188.

[41] Berry and Peduto Direct, citing TRO ¶ 500.

every other statement in the TRO that explains how the trigger analysis is to be conducted. Consider the paragraph that this sentence introduces in its entirety:

> For the purposes of these triggers, we find that states shall not evaluate any other factors, such as the financial stability or well-being of the competitive switching providers. Competing carriers in Chapter 11 bankruptcy protection are often still providing service. Regardless of their financial status, the physical assets remain viable and may be bought by someone else and remain in service. We note that requiring states to determine the financial ability of competitive wholesale providers to provide service in the future could hamper economic recovery efforts of companies in financial distress. The key consideration to be examined by state commissions is whether the providers are currently offering and able to provide service, and are likely to continue to do so.[42]

Within the same paragraph that the FCC directs the states to not evaluate any other factor – a directive that, importantly, does not exclude all of the other factors identified in the TRO – the FCC also indicates that "the key consideration" is the ability of the provider to continue to offer service. The only way that this paragraph is internally consistent is if it explains that a past bankruptcy is not to be considered, but that any factor that would likely affect the future actions of the CLEC must be part of the analysis. Moreover, there is nothing in the passage that suggests that the FCC was directing the states to ignore all the other guidance it provided, including requirements that enterprise

[42] TRO ¶ 500, footnotes omitted.

switches not be counted, that CLECs relying on their own loops should be afforded less weight, etc....[43]

The application of the triggers gets at the central question of whether actual, non-UNE-P based competition for mass market customers exists in a given market, sufficient to show that CLECs have been able to overcome impairment.

Q. What criteria are included in the FCC's framework for the "Self-Provisioning Trigger"?

A. The TRO provides guidance and criteria as to the basic qualities a competitive LEC must exhibit in order to be considered a legitimate candidate for the "self-provisioning" trigger. At each step, these criteria are designed to conform to the touchstone purpose of the trigger evaluation – to determine whether there is sufficient actual mass market competition being offered by switch-based CLECs to justify a "no impairment" finding in a market in spite of the national finding of mass market switching impairment.

The self-provisioning trigger criteria can generally be organized into six categories. Before a "trigger candidate" can be found to qualify as satisfying the

[43] *Id.* at ¶ 508 ("switches serving the enterprise market do not qualify for the triggers"), and footnote 1560, emphasis added, ("when one or more of the three competitive providers is also self-deploying its own local loops, this evidence may *bear less heavily* on the ability to use a self-deployed switch as a means of accessing the incumbent's loops.")

self-provisioning trigger, the criteria contained in the TRO for each of these categories must be satisfied. The six categories are as follows:[44]

* The self-provisioning trigger candidate's switches must be "mass market," not "enterprise" switches.

* The self-provisioning trigger candidate must be actively providing voice service to mass market customers in the designated market, including residential customers, and must be likely to continue to do so.

* The self-provisioning trigger candidate should provide services exhibiting a ubiquity comparable to UNE-P within the area chosen for the analysis.

* The self-provisioning trigger candidate should be relying on ILEC analog loops to connect the customer to its switch or, if a claimed "intermodal" alternative, its service must be comparable to the ILEC service in cost, quality, and maturity.

* The self-provisioning trigger candidate may not be affiliated with the ILEC or other self-provisioning trigger candidates.

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[44] As the Commission is well aware, the page-length of the TRO is matched only by its potential importance to local competition. While I believe that these 6 categories are the core requirements needed to qualify a carrier as a Self-Providing Trigger candidate, additional issues may arise after I review the testimony of Verizon and the other parties in this proceeding that would require additions to this preliminary list.

* The existence of the self-provisioning trigger candidate should be evidence of sustainable and broad-scale mass market competitive alternatives in the designated market.

Only if each of these trigger criteria is met does a candidate qualify as one of the three self-provisioning providers necessary to satisfy the FCC's self-provisioning trigger.

Criterion 1: Enterprise Switches Do Not Qualify as Triggers

Q. You identify the first criterion as requiring that the self-provisioning trigger candidate's switches be "mass market" switches rather than "enterprise" switches. Please describe the FCC's discussion of this criterion in the TRO.

A. The analytical importance of the distinction between the "mass market" and "enterprise market" pervades the TRO. The FCC found that, even based on the limited record before it, there was a clear distinction between the mass market and the enterprise market, both in terms of customer profile and the state of CLEC switch deployment.

I have already explained the difference between mass market and enterprise customers. Similarly, the FCC found that CLEC switch deployment is significantly different in the mass market and the enterprise market:

> "[W]e find that the record demonstrates significant nationwide deployment of switches by competitive providers to serve the enterprise

> market, but extremely limited deployment of competitive LEC circuit switches to serve the mass market."[45]

Based on the demonstrated differences between mass market and enterprise switches deployed in the marketplace, the FCC specifically rejected ILEC arguments that mass market switches and enterprise switches should be reviewed together in the mass market triggers analysis.[46] While the FCC allows deployment of an enterprise switch to be considered as a factor in the mass market "potential deployment analysis,"[47] the FCC recognized that the existence of an enterprise switch has no weight in determining whether a mass market switching trigger has been satisfied: "[S]witches serving the enterprise market," the FCC held, "do not qualify for the triggers" applicable to mass market switching.[48] The TRO thus directs the Commission to consider only mass market switches (i.e., switches predominately used to serve mass market customers) in the mass market switching trigger analysis.

Q. Should the Commission expect that enterprise switches will have some analog lines?

A. Yes. There are a variety of reasons a CLEC serving the enterprise market with its own switch may provide some analog service and, therefore, obtain some analog loops as an ancillary extension of its operations. For instance, this could occur if

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45 TRO ¶ 435.

46 *Id.* at ¶ 441.

47 *Id.* at ¶ 508.

48 *Id.* at ¶ 508.

a CLEC's enterprise customer requests fax lines (which require use of an analog line to provide a data need, but do not provide evidence that a mass market POTS service is provided). Similarly, a large, multi-location enterprise customer may require a package of services from a CLEC that includes some analog lines for a particular branch office. It would be contrary to common sense, as well as to the FCC's trigger criteria, to declare that a switch serves the mass market when the number of analog loops provisioned to that enterprise switch is minimal compared to the number of digital loops serving enterprise customers. Consequently, the Commission must examine the type of customer loops (analog versus DS-1 and above) being provisioned to a CLEC switch to determine whether the switch is reasonably categorized as a "mass market switch" that potentially satisfies the requirements for the self-provisioning trigger.

Q. Did the FCC recognize that enterprise switches would include some analog lines?

A. Yes. The FCC understood that enterprise switches would serve some analog lines, but that did not change its conclusion that enterprise switches should not be counted in a trigger analysis.[49] For instance, the FCC specifically recognized data that showed enterprise switches serving analog lines and cited that data as evidence that simply counting switches did not address the critical distinction between the enterprise and mass markets:

[49] Id.

> Incumbent LECs claim that the Commission should remove virtually all unbundling obligations regarding local switching on a national basis simply because competitive carriers have deployed 1,300 switches and are serving, according to the BOC UNE Fact Report 2002, over 16 million lines with those switches. This argument, however, ignores significant differences in the evidence concerning the enterprise market and mass market. The record is replete with evidence showing that competitive LECs are successfully using their own switches to serve large business customers that require high-capacity loops (which can be connected to competitive carrier switches with few of the obstacles that affect voice-grade loops). For example, BiznessOnline.Com cites data compiled by a coalition of competitive carriers which examined six representative markets and found that approximately 90 percent of the loops used by competitive carriers in these markets are DS1 capacity or higher loops.[50]

As the above paragraph makes clear, the FCC was under no delusion that carriers serving the enterprise market would do so perfectly. Rather, it understood that such carriers would be predominately using DS-1 loops, even though some amount of analog activity would occur. Generally, the carriers cited by the FCC as evidence that competitive CLECs were using their switches to compete in the enterprise (but not mass) market relied on digital loops for 80% to 90% of their connectivity. The specific study referenced by the FCC is attached as Exhibit JPG-5 (see Table 4).

Q. Do you have an example of Verizon counting an enterprise switch as a mass market switch?

[50] *Id.* at ¶ 437, emphasis added.

A. Yes. Verizon claims that XO should be considered a mass market switch trigger. XO's answer to the Pennsylvania Public Utility Commission's Preliminary Discovery Request, Item No. 5, however, makes clear that XO is unambiguously focused on serving the enterprise market, its switches qualify as enterprise switches and it cannot be counted as a mass market switch trigger.[51] As that confidential discovery response, attached as Exhibit JPG-6, demonstrates, the vast majority of lines (in excess of 90%) on XO's Pennsylvania switches are digital lines serving enterprise customers and, as a result, the switches should properly be categorized as enterprise (and not mass market) switches.

Criterion 2: Self-Providers Must Be Actively Providing Mass Market Service

Q. The second trigger criterion you describe requires that the self-provisioning trigger candidate must be actively providing voice service to mass market customers in the designated market, including residential customers, and is likely to continue to do so. Please identify the provisions of the TRO that discuss this criterion.

A. This measure summarizes several criteria that the FCC requires before a CLEC may satisfy the self-provisioning trigger. To break this category into its component parts, the TRO requires that a self-provisioning trigger candidate: (a) provide voice service to mass market customers;[52] (b) that it be "actively"

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[51] *See* Exhibit JPG-6.

[52] *Id.* at ¶ 499.

providing such service;[53] and (c) that the self-provisioning trigger candidate is likely to continue actively providing voice service to mass market customers in the future.[54]

Q. How should the Commission determine whether a CLEC is providing "voice service to mass market customers"?

A. In determining whether this criterion is met, the Commission must first exclude potential trigger candidates who do not provide stand-alone voice service and who do not serve mass market customers, including those that do not serve residential customers. For example, as noted above, some analog loops that have been provisioned to a CLEC switch are used for purely data purposes (e.g., DSL or fax lines), and thus do not provide voice service. Such lines should not be included in determining whether the self-provisioning trigger candidate provides voice services to the mass market.

Perhaps more significantly, the Commission must ensure that the voice services provided by self-provisioning trigger candidates are being provided to mass market customers rather than to enterprise customers. A customer purchasing voice and data services provisioned by a DS-1 loop is by definition an enterprise customer[55] and not a mass market customer (even if a few voice lines are being

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53 Id.

54 *Id.* at ¶ 500.

55 *Id.* at ¶ 451.

served along with the data circuit). The Commission's trigger analysis must focus on the appropriate customer market, and exclude self-provisioning trigger candidates that are not serving customers who are the focus of the mass market switching impairment analysis.

Moreover, to qualify as a mass market trigger, a potential trigger candidate should be serving the core of the mass market, the residential customer. In Pennsylvania, more than 75% of the analog lines in Verizon's territory are purchased by residential customers.[56] It makes no sense to qualify a potential self-providing trigger candidate as providing "mass market" service if it does not even offer service to the largest portion of the mass market, i.e., residential customers.

Q. Has Verizon counted carriers as mass market switch triggers carriers that do not serve residential customers?

A. Yes. Verizon Pennsylvania's Supplemental Response to AT&T's Interrogatories[57] (the specifics of which are confidential) indicates that Verizon routinely counted carriers as mass market switching triggers even though they served no residential lines. Such activity hardly qualifies as actual marketplace evidence of non-impairment.

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[56] Source: Verizon 3rd Quarter 2003 Earnings Release, Access Line Counts.

[57] Verizon Supplemental Response to AT&T Set I, Nos. 1, 13, 15-17, 19-21 is attached at Exhibit JPG-6.

Q. How should the Commission determine whether a self-provisioning trigger candidate is actively providing voice service to mass market customers?

A. The FCC recognized the importance of evidence that a CLEC is actually in the marketplace and actively marketing POTS services to mass market customers. Without evidence that a self-provisioning trigger candidate is actively providing POTS services, a CLEC that no longer serves mass market customers could satisfy a trigger that is intended to assess actual competition in the present rather than the past. In the real world (the world the triggers seek to analyze), this is a significant concern. There are CLECs who attempted to serve mass market customers using their own switches, but found the operational and economic impairments too formidable to overcome. As a result, these CLECs essentially abandoned the mass market. Those CLEC switches may still serve some "legacy" analog loops connected to customers who took advantage of an early CLEC offering even though the CLEC is no longer adding mass market customers generally. It would be nonsensical for such legacy analog lines (which are remnants of business plans scrapped precisely because of impairment) to serve as evidence that the CLEC's switch today is being used to "actively" serve the mass market. The FCC captures this concern by requiring that self-provisioning in the mass market must be occurring in an active manner today, that the providers "are currently offering and able to provide service."

One way to assess whether a self-provisioning trigger candidate is "actively" serving mass market customers is to review the types of unbundled loops recently provisioned to the CLEC's switch (for instance, in the last 6 month period). If the loops provisioned to the switch in the last 6 months are predominantly DS-1 and above, that is strong evidence that the self-provisioning trigger candidate is not actively providing POTS services to mass market customers. Moreover, as previously discussed, even where there are analog loops being provisioned to the CLEC's switch, the Commission should evaluate whether the carrier is actively marketing to mass market customers, or whether the analog lines that it is adding are the by-product of sales to enterprise customers, pre-existing UNE-L customers, or some other anomaly.[58]

Q. Has Verizon counted carriers as potential switch triggers that do not appear to be actively providing service?

A. Yes. One such carrier is SBC Telecom. As Verizon's Confidential Exhibit 1 (Part A) reveals, SBC Telecom is serving only a handful of lines in Pennsylvania. In addition, it is useful that the Commission consider the circumstances that lead to SBC Telecom's "entry" into the Pennsylvania market. SBC Telecom is a wholly owned subsidiary of SBC Communications that was formed in the fall of 1999 as a condition of SBC's merger agreement with Ameritech. As a part its merger approval, SBC made specific commitments to provide local telephone

[58] One sign of a CLEC's intention to serve mass market customer would be that it actively engages in marketing to such customers, such as print, radio and mass media advertising.

services in 30 markets outside of its 13 state region. Specifically, SBC agreed to do the following in those out-of region markets:

* Install a local telephone company exchange switch;

* Provide facilities-based local exchange service to at least one unaffiliated business customer or one non-employee residential customer in that market. The term "facilities-based service" means service provided by SBC utilizing its own switch;

* Collocate facilities in at least 10 wire centers that can be used to provide facilities-based service to customers served by those wire centers; and

* Offer facilities-based local exchange service to all business and residential customers served by the wire centers in the market where SBC is collocated.

Failure to meet the FCC condition requirements could result in a payment of up to $40 (million) for each market.[59] Obviously, a company that is (in effect) bribed to enter a local market under a multimillion dollar penalty structure cannot reasonably be used as evidence of non-impairment by other providers, particularly when the company's "competitive activities" are as trivial as SBC Telecom's.

[59] SBC 2000 Annual Report, page 12.

In addition, SBC has made clear that its interest is with serving enterprise customers, not the mass market.

> Whitacre said the company's main focus in the business market is large enterprise customers.
>
> SBC will aggressively target the $140 billion enterprise market, of which the company controls a 10 percent share, Whitacre said. To better serve enterprises, SBC has built out-of-region networks and established itself in 30 markets outside of its 13-state territory, Whitacre said, and added single contracts and service level agreements.[60]

SBC also recently announced a "new" national strategy to utilize a digital connectivity and Voice over Internet Protocol (VoIP) technology to provide data and voice services outside of its region. As SBC explained:

> VoIP could be introduced anywhere, just by purchasing special access [i.e. a DS1 or T-1] from carriers – ILECs or CLECs. This approach is a lot easier than trying to enter another ILEC territory with traditional circuit switched service.[61]

Whether SBC Telecom's "VoIP strategy" ultimately proves as empty as its circuit-switched "national local" plan remains to be seen. What is clear, however, is that its current activities cannot plausibly be deemed "active competition" for mass market services.

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60 SBC Records Eighth Straight Quarter of Broadband Growth, Phoneplusmag.com, January 7, 2004 http://www.phoneplusmag.com/hotnews/41h784933.html.

61 *Communications Daily*, December 10, 2003 (quoting SBC Senior Vice-President Dorothy Attwood).

1 **Q. How should the Commission determine that the self-provisioning trigger**
2 **candidate is <u>likely to continue</u> actively providing POTS services to mass**
3 **market customers in the future?**
4
5 A. The TRO asks the Commission to determine whether the self-provisioning trigger
6 candidate is "likely to continue" offering and be able to provide voice POTS
7 services to mass market customers in the future. This determination requires that
8 the Commission make an informed assessment of the viability of the self-
9 provisioning trigger candidate's mass market offerings in the future. This
10 assessment, if it is to be meaningful, should include evidence regarding the
11 CLEC's future business prospects. If a CLEC is on the verge of exiting the market
12 for providing mass market services (or has already left it), then it is demonstrably
13 not "likely to continue" providing POTS services to mass market customers in the
14 future. Moreover, if a CLEC is competing using a mix of its own facilities and
15 UNE-P, then the Commission cannot determine that it would "likely continue" if
16 UNE-P were no longer available.
17
18 **Q. Has Verizon counted any carriers that are unlikely to continue to offer**
19 **service in the future?**
20
21 A. Yes. Recent information indicates that Allegiance Telecom is very likely to cease
22 competing for end-user services in the future. Even before its bankruptcy (and
23 expected exit from the end-user business), Allegiance's principal focus was on
24 providing "small to medium sized business and government organizations a

complete package of telecom services, including local, long distance, and international calling as well as high-speed data transmission and internet services,"[62] and not on servicing the mass market. For instance, it is my understanding that Allegiance does not offer any residential service, which represents the largest segment of the mass market. Most importantly, however, recent events indicate that the Commission cannot conclude that Allegiance is "likely to continue" to offer (even those limited) services that may be considered mass market today.

Q. Why is it uncertain that Allegiance will continue to offer service in the future?

A. On December 18, 2003, Allegiance announced that as part of its plan to emerge from Bankruptcy court protection, the company was being put up for auction with Qwest designated the "stalking horse" bidder for its assets.[63] Significantly, analysts predict a very different use for Allegiance's assets if acquired by Qwest than as they were used by Allegiance. As reported by TR Daily:

> Analysts from 2 Wall Street investment firms said the deal would give Qwest strategic access and cost advantages, viewing the proposed purchase more in terms of reducing access costs. "We view this as purely an access [reduction]-driven move and would not be surprised if significant portions of Allegiance's business fall

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62 Source: http://www.algx.com/about/investor_faq.jsp.

63 The initial bidder with whom the debtor negotiates a purchase agreement is called the "stalking horse" bidder.

> off over time and Qwest simply utilizes the assets for its own purposes" Frank Louthan of Raymond James & Associates.
>
> Frank Governali, telecom analyst with Goldman Sachs & Co. said "Qwest's long-term benefit from the acquisition would come mainly from lowered access costs, rather than revenue generated by Allegiance, which has mainly targeted smaller business accounts. From Qwest's perspective, Allegiance's attractiveness is on the cost savings side, not the revenue side. We would expect Allegiance's $550 million of revenues [from the smaller business accounts] to deteriorate quickly, as the target markets of the two companies do not overlap."[64]

Consequently, the expected outcome should Allegiance's assets be acquired by Qwest is that the company will shift its focus from end-user local services (which are generally enterprise in any event), and concentrate on providing local connectivity for Qwest's interLATA network.

Criterion 3: Self-Providers Should Exhibit a Ubiquity Comparable to UNE-P

Q. Why is it important that a self-provisioning trigger candidate exhibit a geographic reach (i.e., ubiquity) comparable to UNE-P?

A. The purpose of a qualifying trigger candidate is to demonstrate, through actual marketplace behavior, that other carriers are not impaired without access to unbundled local switching because the qualifying candidate has demonstrated an ability to serve the same market without the element. In order for the comparison to be valid, it is important that the trigger candidate actually cover a comparable geographic area with its services.

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[64] TR Daily, December 19, 2003.

Q. Does the TRO draw conclusions about impairment by evaluating whether alternatives exhibit a ubiquity comparable to that of the element under consideration?

A. Yes. In a number of instances, the FCC applied this reasoning in determining why an alternative claimed by the ILECs to demonstrate non-impairment should be rejected. For example, the ILECs argued that wherever the ILEC qualified for special access pricing flexibility, that the FCC should find non-impairment for transport. The FCC rejected this reasoning because its special access pricing flexibility scheme did not assure the availability of a ubiquitous alternative:

> [T]he pricing flexibility trigger based on alternative transport-based collocation requires no consideration of the ubiquity of the competitive transport facilities throughout an MSA.[65]

In addition, the FCC determined that CMRS is not an intermodal alternative to unbundled local switching, in part based on its view that CMRS is not sufficiently ubiquitous:

> [W]e note that CMRS does not yet equal traditional incumbent LEC services in its quality, its ability to handle data traffic, its ubiquity, and its ability to provide broadband services to the mass market.[66]

Ubiquity is clearly a critical dimension in the mass market, as the FCC already recognized with respect to unbundled local switching. A state clearly would be

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[65] TRO ¶ 397 (emphasis added).

[66] *Id.* at n. 1549 (emphasis added).

incorrect to count as a mass market trigger any provider with a ubiquity materially less than UNE-P, when the FCC already rejected CMRS as qualifying as a trigger, in part because of the limited ubiquity of that technology.

Criterion 4: Self-Providers Must Be Relying on ILEC Loops or Offer Service of Comparable Cost, Quality and Maturity

Q. The fourth criterion you reference is that self-provisioning trigger candidates should be relying on ILEC loops. What is the reference point in the TRO for this trigger criterion?

A. Although the FCC stated that the Commission should "consider" intermodal alternatives in the switching trigger analysis, it also indicated the states should review them carefully before determining whether (and how) they may legitimately qualify under the trigger standard. The TRO recognizes that for most entrants in a world without unbundled local switching, access to the ILEC's loops will be critical. It would make little sense, therefore, to eliminate unbundled local switching and UNE-P if the only alternative in a market was, for example, an entity that utilizes its own loops. That atypical situation would provide no meaningful evidence of whether impairment no longer exists and new entrants could compete on a UNE-L basis. The FCC made this point several times in the TRO. For example:

> Specifically, many of the [CLEC residential] lines cited by the incumbents are served by carriers that, for one reason or another, are able to use their own loops. We have made detailed findings

> that competitors are impaired without access to incumbents' voice-grade local loops. Indeed, no party seriously contends that competitors should be required to self-deploy voice-grade loops. Thus, for the typical entrant, entry into the mass market will likely require access to the incumbents' loops, using the UNE-L strategy. ... Indeed, as discussed above, a crucial function of the incumbent's local circuit switch is to provide a means of accessing the local loop."[67]
>
> ***
>
> "We note that an important function of the local circuit switch is as a means of accessing the local loop. Competitive LECs can use their own switches to provide services only by gaining access to customers' loop facilities, which predominantly, if not exclusively, are provided by the incumbent LEC. Although the record indicates that competitors can deploy duplicate switches capable of serving all customer classes, without the ability to combine those switches' with customers' loops in an economic manner, competitors remain impaired in their ability to provide service. Accordingly, it is critical to consider competing carriers' ability to have customers' loops connected to their switches in a reasonable and timely manner.[68]
>
> ***
>
> "We are unaware of any evidence that either [cable or CMRS] technology can be used as a means of accessing the incumbents' wireline voice-grade local loops. Accordingly, neither technology provides probative evidence of an entrant's ability to access the incumbent LEC's wireline voice-grade local loop and thereby self-deploy local circuit switches."[69]

Q. What does the TRO direct the Commission to do when considering evidence regarding switch-based CLECs that do not rely on ILEC unbundled loops?

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[67] *Id.* at ¶ 439, emphasis supplied

[68] *Id.* at ¶ 429, emphasis supplied.

[69] *Id.* at ¶ 446, emphasis supplied.

1 A. The TRO notes that the Commission may give such evidence less weight in the
2 trigger analysis than evidence regarding a self-provisioning trigger candidate that
3 relies on ILEC unbundled analog loops (i.e., a UNE-L based provider). In
4 describing the self-provisioning trigger, the TRO states: "We recognize that when
5 one or more of the three competitive providers is also self-deploying its own local
6 loops, this evidence may bear less heavily on the ability to use a self-deployed
7 switch as a means of accessing the incumbents' local loops."[70] Notably, a self-
8 provisioning switch trigger candidate that does not rely on the ILEC's loops
9 provides no evidence that problems with the hot-cut process (which formed the
10 basis of the FCC's national finding of impairment) have been addressed.

11
12 **Q. Has Verizon included any carriers that rely on their own loops?**

13
14 A. Yes. Verizon includes Comcast, which is currently providing service using its
15 cable facilities. There are a number of reasons why the Commission should
16 assign no weight (i.e, should not count) to Comcast as a self-providing switch
17 trigger. To begin, it is important to emphasize that the source of the national
18 finding of impairment (the hot-cut process) is not rebutted by the presence of a
19 CLEC that does not rely on access to incumbent loops. As the FCC found:

20
21 ...both cable and CMRS are potential alternatives not simply for
22 switching, but for the entire incumbent LEC telephony platform,
23 including the local loop. We are unaware of any evidence that
24 either technology can be used as a means of accessing the

[70] *Id.* at ¶ 501, n.1560.

> incumbents' wireline voice-grade local loops. Accordingly, neither technology provides probative evidence of an entrant's ability to access the incumbent LEC's wireline voice-grade local loop and thereby self-deploy local circuit switches. Rather, competition from cable telephony and CMRS providers only serves as evidence of entry using both a self-provisioned loop and a self-provisioned switch.[71]

First, Comcast does not generally "self-provide" its own local switching. Rather, in most instances, when Comcast acquired the cable properties of AT&T Broadband it also acquired a cable telephony customer base that it serves through a switch-leasing arrangement that AT&T Broadband had obtained from AT&T Local Services. That arrangement provides for AT&T Local Services to own and maintain the Local Class 5 circuit switch that previously served the AT&T Broadband (now Comcast) cable telephony customers. This unique circumstance is better seen as evidence of AT&T's withdrawal from cable telephony than Comcast's entry, which has been reporting a decaying telephony base for several quarters. Further, there is also the question as to whether Comcast is likely to continue offering POTs services (to the extent that it does so at all) in the future. Around the time of the announcement of Comcast's planned acquisition of AT&T Broadband it was reported:

> AT&T/Comcast should pass about 11.2 million telephony ready homes by the end of the year [2002]. Comcast, which is currently pushing video-on-demand, had been targeting telephony for 2003. 'They're not touching circuit switched telephony with a 10-foot pole ... They'll maintain what AT&T has done because ... the expense has already been incurred' [Kenneth Goodman, the

[71] *Id.* at ¶ 446, footnotes omitted.

> Yankee Group]. That expense doesn't include buying switches, which Comcast has repeatedly disdained.[72]

By year-end 2002, Comcast's intention to essentially abandon the analog telephony business became even clearer with the report that:

> Comcast will reverse AT&T Broadband's aggressive telephony acquisition policies and implement its own corporate policy of trailing and then deploying voice over IP services, a senior executive said today. AT&T enlisted more than 1 million telephony customers using conventional constant bit rate [CBR] phone technology. Comcast will maintain these customers, but it won't go looking for more, John Alchin, Comcast's executive vice president and treasurer, said during luncheon presentation at the Warburg Media day in New York City. 'There is an element of cutback on telephony', said Alchin, discussing Comcast's plans to spend more than $2 billion to upgrade AT&T Broadband plant next year. 'While we haven't yet shared with you the details of the capital plans for 2003, you should not expect us to take the telephony product into a whole host of new markets. It will be a case of supporting the product where it is today without expanding.'[73]

Comcast confirmed this view during the 1st quarter of 2003, announcing that the "number of Comcast Cable phone subscribers is expected to remain flat or decline by up to 150,000 during 2003.[74] In its Third Quarter 2003 Results, Comcast further reiterated its retrenchment from the provision of cable telephony utilizing circuit switched technology. "As a result of the Company's reduced marketing

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[72] Jan 7, 2002, Telephony Online "Comcast Pulls Telephony Turnaround." To the extent that Comcast offers VOIP based services in the future, such services are unlikely to satisfy the FCC's requirements concerning quality, cost and maturity for some time. In any event, a debate concerning VOIP alternatives is not ripe for this proceeding.

[73] "Comcast Curtailing AT&T Telephony Deployments," Dec 12, 2002, Telephony Online.

[74] Source: http://www.cmcsk.com/phoenix.zhtml?c=118591&p=irol-newsArticle&t=Regular&id=445839&.

efforts and focus on telephone service profitability, Comcast now expects to lose approximately 175,000 Comcast Cable phone customers this year, a modest adjustment from the original expectation of up to a 150,000 telephone customer decline [announced in the February 27, 2003 guidance]."[75]

Q. If the Commission does evaluate whether to include a provider using its own loop facilities, what factors must it consider?

A. The TRO does permit states to consider intermodal alternatives, but it advises that: "In deciding whether to include intermodal alternatives for purposes of these triggers, states should consider to what extent services provided over these intermodal alternatives are comparable in cost, quality, and maturity to ILEC services."[76] Thus, any time an intermodal trigger candidate is considered, the Commission must first examine the nature of the mass market voice services it offers before declaring the company has satisfied the self-provisioning trigger.

As noted above, the FCC already conducted such an analysis in the TRO with respect to CMRS (wireless services) as an intermodal alternative. The FCC found that CMRS services do not meet the trigger standard. Accordingly, the FCC held, "just as CMRS deployment does not persuade us to reject our nationwide finding

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[75] 3 Q 2003 Earnings Release, October 30, 2003, at http://www.cmcsk.com/phoenix.zhtml?c=118591&p=irol-newsArticle&t=Regular&id=464588&.

[76] TRO ¶ 499, n.1549, emphasis supplied.

of impairment … at this time, we do not expect state commissions to consider CMRS providers in their application of the triggers."[77]

Criterion 5: ILEC Affiliates Do Not Qualify as Triggers

Q. The fifth trigger criterion you identify is that the self-provisioning trigger candidate not be affiliated with the ILEC or other self-provisioning trigger candidates. Please explain the TRO basis for this criterion.

A. The FCC held that the "competitive switch providers that the state commission relies upon in finding either trigger to be satisfied must be unaffiliated with the incumbent LEC and with each other."[78] The FCC added that affiliated companies will be counted together as a single entity in the trigger analysis. The FCC held that this restriction is necessary to prevent the ILECs from "gaming" the trigger criteria. It is important that "CLEC affiliates" of nearby ILECs also be carefully reviewed, to assure that the CLEC affiliate is not merely benefiting from its affiliation with an incumbent in a manner that no unaffiliated CLEC could match.

Criterion 6: De Minimus Competitive Activity Does Not Qualify as a Trigger

Q. Please explain the final trigger criterion you recommend the Commission apply: "The self-provisioning trigger candidate should be sufficiently large to

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[77] Ibid.

[78] TRO ¶ 499.

1 **offer sustainable broad-scale mass market competitive alternatives in the**
2 **designated market."**
3
4 A. The TRO establishes the trigger analysis as something of a "sudden death" round
5 of analysis, in which the outcome could potentially eliminate unbundled local
6 switching and UNE-P in a market without further analysis of economic and
7 operational impairment, at least under section 251 of the Act. When it established
8 the trigger analysis, the FCC pointed out that it believed the application of the
9 trigger-based analysis would identify where competition for mass market
10 customers by CLECs using their own switches and ILEC analog loops was
11 actually occurring, and thus it would achieve the policy goal of ensuring the
12 continued existence of mass market competition.[79] Therefore, it is critical that the
13 Commission not undertake its "trigger analysis" untethered from the reality of the
14 marketplace in Pennsylvania.
15
16 In addition, the FCC rejected ILEC attempts to have it conclude that impairment
17 had been overcome where there is only a relatively low level of competitive
18 penetration. Specifically, the FCC rejected ILEC arguments that CLECs were not
19 impaired in the mass market by noting the low relative number of residential lines
20 served by CLEC-deployed switches.[80] The FCC expressly dismissed the ILECs'
21 argument finding that, at best, "less than three percent of the … residential voice

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79 *See, e.g.*, TRO ¶ 501.

80 *Id.* at ¶ 438.

lines" were being served by CLEC switches. The FCC thus understood – and applied – the common sense notion that a de minimus level of competition is simply not a rational basis upon which to find that impairment has been overcome.

The need to recognize market reality in the trigger analysis is particularly acute here. Today, UNE-P (the bedrock of which is unbundled local switching) is responsible for the vast majority of the bundled services (local and long distance) competition that is reshaping the voice services marketplace. As shown above, only UNE-P has enabled competition to reach broadly and deeply into both urban and rural markets throughout Pennsylvania. Before determining that UNE-P availability should be diminished or eliminated based on evidence of "triggers," the Commission must have reasonable assurance from the record evidence that, in the real world, a UNE-L-only strategy would offer a comparable alternative (in terms of size and scale) to the statewide competitive choices that CLECs already offer to the mass market today using UNE-P.

The FCC could find no such assurances in its record when it rejected the ILEC arguments that there is "no impairment" with respect to mass market switching based on the presence of existing CLEC switches. In that context, the FCC made clear that it would not eliminate access to local switching as a section 251 UNE when the record showed only de minimus levels of mass market competition were being provided by alternative approaches.

Q. Must each of the trigger criteria be met before a State Commission declares that the "Self-Provisioning Trigger" is satisfied in a market?

A. Yes. Each of the trigger criteria for self-provisioning are rooted in the TRO. Each of them is tied to one of the specific rationales or findings the FCC made in establishing the trigger analysis as the "sudden death" playoff of the impairment analysis. It is up to the Commission to put give effect to the trigger framework, in the form of informed analysis of the trigger criteria established by the FCC. Only by applying judgment, experience and knowledge of local competitive conditions can the Commission implement the switching triggers as they are formulated in the TRO.

V. Next Steps

Q. Are there other issues that the Commission should prepare to address?

A. Yes, there are two follow-up proceedings that the Commission should prepare to conduct at the conclusion of this case. The first concerns how the "post-251" price of unbundled local switching is determined, should there be any circumstance where a finding of non-impairment applies (such as switching used to serve enterprise customers). The second concerns the procedures that should be used to develop prescribed filing windows and other requirements to govern future challenges to impairment (for switching or other network elements).

As to the first point, it is important to recall that Verizon (as a Regional Bell Operating Company providing in-region interlATA service) is required to provide meaningful access to switching at just and reasonable rates, terms and conditions under section 271 of the Act, irrespective of whether it is also required to be offered under section 251 of the Act. This is because Congress offered Verizon the opportunity to offer long distance services in those states where it was the incumbent local provider, but only if it accepted the separate obligation to offer items listed in the checklist, which includes the requirement to offer switching.[81] Although the FCC has determined that such rates need not necessarily adhere to the TELRIC pricing standard, they must still be "just and reasonable":

> Thus, the pricing of checklist network elements that do not satisfy the unbundling standards in section 251(d)(2) are reviewed utilizing the basic just, reasonable, and nondiscriminatory rate standard of sections 201 and 202 that is fundamental to common carrier regulation that has historically been applied under most federal and state statutes, including (for interstate services) the Communications Act.[82]

Even if one accepts the FCC's apparent view that there may be a difference between a just and reasonable TELRIC rate and a just and reasonable non-TELRIC rate, the difference surely cannot be more than a just and reasonable difference. For instance, the section 271 rate could be established to produce a higher profit (i.e., return on equity), so long as it remained within just and

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[81] This statutory framework demonstrates Congress' particular concern with the dominance of the RBOCs, which they partially addressed by requiring these carriers (as opposed to ILECs generally) to provide basic network elements, including switching, regardless of the necessary and impair standard in section 252.

[82] TRO ¶ 663.

reasonable levels.[83] To allow Verizon to impose a significantly higher rate would frustrate the important safeguard that Congress imposed by inserting section 271 into the federal Act.

For purposes of administrative efficiency, I recommend that the Commission initiate a new proceeding to establish the "replacement rate" and the terms and conditions for any network element that is no longer required under section 251 so as to avoid having to address these same issues in multiple, parallel arbitrations. Moreover, because the existing cost-based rate has already been found to be just and reasonable, that rate should remain in effect until the Commission establishes a new rate.

Q. How should the Commission approach developing procedures for subsequent hearings following this "9-month" case?

A. In addition to issues that the Commission must address within the 9-month proceeding, the FCC has also requested that states develop procedures to conduct periodic review of the incumbents' unbundling obligations.[84] Given the substantial requirements already outlined for the current proceeding, I recommend that the Commission take two actions here, to set the stage for any subsequent investigation.

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[83] As the Commission is aware, it was not uncommon for conventional regulation to approach rate-setting from the perspective that there was a range of acceptable return levels consistent with just and reasonable rates.

[84] TRO ¶ 424.

First, I recommend that the Commission initiate a rulemaking to determine the "pre-filing" requirements that an incumbent must satisfy before requesting a reduction in its unbundling obligation. Because the FCC generally requires that a state must complete its review of any such request within six months, it will foster administrative efficiency to have agreement in advance as to the information needed to conduct such a review.

Second, I recommend that the Commission adopt "prescribed filing windows" that specify when an incumbent LEC may first request a further reduction in its unbundling obligations. The FCC specifically invites states to establish "prescribed filing windows,"[85] and I recommend that the Commission do so here. By establishing specific windows for additional review, the Commission can provide needed certainty to the industry. Following the FCC's lead, I recommend a 2-year quiet period during which the incumbent LEC may not seek further reduction of its obligations at the conclusion of the 9-month proceeding:

> We [the FCC] conclude that reopening every issue on a biennial basis is not in the public interest because it would increase regulatory uncertainty unnecessarily in this area. We also note that in the period between biennial reviews, it will be the policy of this Commission not to entertain ad hoc motions or petitions to remove or add UNEs, and we will summarily dismiss such petitions to ensure certainty in the marketplace.[86]

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85 *See*, for instance, TRO, n.1291.

86 TRO ¶ 710.

By establishing a prescribed filing window for the "next round" of impairment analysis, the Commission and the industry can better anticipate their workload over the next two years.

VI. Summary

Q. Please summarize your testimony.

A. Pennsylvania is one of the nation's leaders in establishing a competitive local exchange market for mass market customers. Even so, competitors are only now beginning to make inroads into the local market, while Verizon has responded aggressively. A very simple truth is captured by the following quotation from John Gaule:

> A complex system that works is invariably found to have evolved from a simple system that works.

The reason that UNE-P is under pressure from the incumbents is because it works. Given time, local competition will transform industry pricing (through, for instance, the elimination of distance from telephone rates), and it will set the foundation for a competitive future using the legacy POTS network as its baseline.

In my testimony, I have explained that UNE-P is critical to POTS competition, and why POTS competition is critical to competition overall. No other strategy is

1 going to produce the competitive benefits in this market that have come from
2 UNE-P.
3
4 The Pennsylvania Commission should stay the course. There is no reason – and
5 no basis – to overturn the FCC's national impairment finding in Pennsylvania.
6
7 Q. **Does this conclude your initial testimony?**
8
9 A. Yes.

Direct Testimony of Joseph Gillan
on behalf of the CLEC Coalition
PA PUC Docket No. I-00030099
January 9, 2004

JPG – 1

Education

B.A. Economics, University of Wyoming, 1978.
M.A. Economics, University of Wyoming, 1979.

Professional History

Gillan Associates, Economic Consulting (1987-Present)

In 1987, Mr. Gillan established a private consulting practice specializing in the economic evaluation of regulatory policies and business opportunities in the telecommunications industry. Since forming his consulting practice in 1987, Mr. Gillan has advised business clients as diverse as AT&T and TDS Telecom (a small entrant seeking the authority to compete in a rural area).

Vice President, US Switch, Inc. (1985-1987)

Responsible for crafting the US Switch business plan to gain political acceptance and government approval. US Switch pioneered the concept of "centralized equal access," which positioned independent local telephone companies for a competitive long distance market. While with US Switch, Mr. Gillan was responsible for contract negotiation/marketing with independent telephone companies and project management for the company's pilot project in Indiana.

Policy Director/Market Structure - Illinois Commerce Commission (1980-1985)

Primary staff responsibility for the policy analysis of issues created by the emergence of competition in regulated markets, in particular the telecommunications industry. Mr. Gillan served on the staff subcommittee for the NARUC Communications Committee and was appointed to the Research Advisory Council overseeing NARUC's research arm, the National Regulatory Research Institute.

Mountain States Telephone Company - Demand Analyst (1979)

Performed statistical analysis of the demand for access by residential subscribers.

Professional Appointments

Guest Lecturer	School of Laws, University of London, 2002
Advisory Council	New Mexico State University, Center for Regulation, 1985 – Present
Faculty	Summer Program, Public Utility Research and Training Institute, University of Wyoming, 1989-1992
Contributing Editor	Telematics: The National Journal of Communications Business and Regulation, 1985 - 1989

Professional Appointments (Continued)

Chairman	Policy Subcommittee, NARUC Staff Subcommittee on Communications, 1984-1985
Advisory Committee	National Regulatory Research Institute, 1985
Distinguished Alumni	University of Wyoming, 1984

Selected Publications

"The Local Exchange: Regulatory Responses to Advance Diversity", with Peter Rohrbach, Public Utilities Fortnightly, July 15, 1994.

"Reconcentration: A Consequence of Local Exchange Competition?", with Peter Rohrbach, Public Utilities Fortnightly, July 1, 1994.

"Diversity or Reconcentration?: Competition's Latent Effect", with Peter Rohrbach, Public Utilities Fortnightly, June 15, 1994.

"Consumer Sovereignty: An Proposed Approach to IntraLATA Competition", Public Utilities Fortnightly, August 16, 1990.

"Reforming State Regulation of Exchange Carriers: An Economic Framework", Third Place, University of Georgia Annual Awards Competition, 1988, Telematics: The National Journal of Communications, Business and Regulation, May, 1989.

"Regulating the Small Telephone Business: Lessons from a Paradox", Telematics: The National Journal of Communications, Business and Regulation, October, 1987.

"Market Structure Consequences of IntraLATA Compensation Plans", Telematics: The National Journal of Communications, Business and Regulation, June, 1986.

"Universal Telephone Service and Competition on the Rural Scene", Public Utilities Fortnightly, May 15, 1986.

"Strategies for Deregulation: Federal and State Policies", with Sanford Levin, Proceedings, Rutgers University Advanced Workshop in Public Utility Economics, May 1985.

"Charting the Course to Competition: A Blueprint for State Telecommunications Policy", Telematics: The National Journal of Communications Business, and Regulation, with David Rudd, March, 1985.

"Detariffing and Competition: Options for State Commissions", Proceedings of the Sixteenth Annual Conference of Institute of Public Utilities, Michigan State University, held in Williamsburg, Virginia, December 1984.

Listing of Expert Testimony – Court Proceedings

Dwayne P. Smith, Trustee v. Lucent Technologies (Civil Action No. 02-0481 Eastern District of Louisiana)(Entry and CLEC Performance)

BellSouth Intellectual Property v. eXpeTel Communications (Civil Action No. 3:02CV134WS Southern District of Miss.)(Service definition, industry structure and Telecom Act of 1996)

CSX Transportation Inc. v. Qwest International, Inc. (Case No. 99-412-Civ-J-21C Middle District of Florida) (industry structure and wholesale contract arrangements).

Winn v. Simon (No. 95-18101 Hennepin Cty. Dist. Ct.)(risk factors affecting small long distance companies)

American Sharecom, Inc. v. LDB Int'l Corp. (No. 92-17922, Hennepin County District Court) (risk factors affecting small long distance companies)

World Com, Inc. et al. v. Automated Communications, Inc. et al. (No. 3:93-CV-463WS, S.D. Miss.) (damages)

International Assignments

Recovering Contribution: Lessons from the United States' Experience, Report submitted to the Canadian Radio-television and Telecommunications Commission on behalf of CallNet.

Forcing a Square Peg into a Round Hole: Applying the Universal Service Cost Model in the Cayman Islands, Analysis Presented to the Government of the Cayman Islands on behalf of Cable and Wireless.

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
Georgia	Docket No. 17749-U	Switching Impairment	CLEC Coalition
Missouri	Case TW-2004-0149	Switching Impairment	CLEC Coalition
Michigan	Case No. U-13796	Switching Impairment	CLEC Coalition
Florida	Docket No. 030851-TP	Switching Impairment	FCCA
Ohio	Case 03-2040-TP-COI	Switching Impairment	AT&T/ATX
Wisconsin	05-TI-908	Switching Impairment	AT&T
Washington	UT–023003	Local Switching Rate Structure	AT&T/MCI
Arizona	T-00000A-00-0194	UNE Cost Proceeding	AT&T/WCOM
Illinois	Docket 02-0864	UNE Cost Proceeding	AT&T
North Carolina	P-55, Sub 1013 P-7, Sub 825 P-19, Sub 277	Price Cap Proceedings	CLEC Coalition
Kansas	02-GIMT-555-GIT	Price Deregulation	Birch/AT&T
Texas	Docket No. 24542	Cost Case	AT&T
North Carolina	Docket P-100, Sub 133d	UNE Cost Proceeding	CLEC Coalition
Georgia	Docket No. 11901-U	DSL Tying Arrangement	WorldCom
Tennessee	Docket No. 02-00207	UNE Availability/Unbundling	CLEC Coalition
Utah	Docket No. 01-049-85	Local Switching Costs/Price	AT&T
Tennessee	Docket No. 97-00309	Section 271 Compliance	CLEC Coalition
Illinois	Docket No. 01-0662	Section 271 Compliance	AT&T
Georgia	Docket No. 14361-U	UNE Availability/Unbundling	CLEC Coalition
Florida	Docket 020507-TL	Unlawful DSL Bundling	CLEC Coalition
Tennessee	Docket No. 02-00207	UNE Availability/Unbundling	CLEC Coalition
Georgia	Docket No. 14361-U	UNE Costs and Economics	AT&T/WorldCom
Florida	Docket 990649-TP	UNE Cost and Price Squeeze	AT&T/WorldCom
Minnesota	P-421/CI-01-1375	Local Switching Costs/Price	AT&T
Florida	Docket 000075-TP	Intercarrier Compensation	WorldCom
Texas	Docket No. 24542	Unbundling and Competition	CLEC Coalition
Illinois	Docket 00-0732	Certification	Talk America

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
Indiana	Cause No. 41998	Structural Separation	CLEC Coalition
Illinois	Docket 01-0614	State Law Implementation	CLEC Coalition
Florida	Docket 96-0768	Section 271 Application	SECCA
Kentucky	Docket 2001-105	Section 271 Application	SECCA
FCC	CC Docket 01-277	Section 271 for GA and LA	AT&T
Illinois	Docket 00-0700	Shared Transport/UNE-P	CLEC Coalition
North Carolina	Docket P-55 Sub 1022	Section 271 Application	SECCA
Georgia	Docket 6863-U	Section 271 Application	SECCA
Alabama	Docket 25835	Section 271 Application	SECCA
Michigan	Case No. U-12622	Shared Transport/UNEs	AT&T
Ohio	Case 00-942-TP-COI	Section 271 Application	AT&T
Alabama	Docket No. 25835	Structural Separation	SECCA
Alabama	Docket No. 27821	UNE Cost Proceeding	ITC^Deltacom
Louisiana	Docket U-22252	Section 271 Application	SECCA
Mississippi	Docket 97-AD-321	Section 271 Application	SECCA
South Carolina	Docket 2001-209-C	Section 271 Application	SECCA
Colorado	Docket 99A-577T	UNE Cost Proceeding	AT&T
Arizona	Case T-00000A-00-0194	UNE Cost Proceeding	AT&T
Washington	Docket UT-003013	Line Splitting and Combinations	AT&T
Ohio	Case 00-1368-TP-ATA Case 96-922-TP-UNE	Shared Transport	AT&T/PACE
North Carolina	P-100 Sub 133j	Standard Collocation Offering	CLEC Coalition
Florida	Docket 990649-TP	UNE Cost Proceeding	CLEC Coalition
Michigan	Case No. U-12320	UNE Combinations/Section 271	AT&T
Florida	Docket 00-00731	Section 251 Arbitration	AT&T
Georgia	Docket 5825-U	Universal Service Fund	CLEC Coalition
South Carolina	97-239-C	Universal Service Fund	CLEC Coalition
Texas	PUC Docket 22289/95	ETC Designation	Western Wireless
Washington	Docket UT-003013	UNE Costs and Local Competition	AT&T

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
New York	Docket 98-C-1357	UNE Cost Proceeding	Z-Tel
Colorado	Docket 00K-255T	ETC Designation	Western Wireless
Kansas	99-GCCZ-156-ETC	ETC Designation	Western Wireless
New Mexico	98-484-TC	ETC Designation	Western Wireless
Illinois	Docket 99-0535	Cost of Service Rules	AT&T/MCI
Colorado	Docket 00-B-103T	U S WEST Arbitration	ICG Comm.
North Dakota	PU-1564-98-428	ETC Designation	Western Wireless
Illinois	Docket 98-0396	Shared Transport Pricing	AT&T/Z-Tel
Florida	Docket 981834-TP	Collocation Reform	CLEC Coalition
Pennsylvania	M-00001353	Structural Separation of Verizon	CompTel/ATX
Illinois	Docket 98-0860	Competitive Classification of Ameritech's Business Services	CompTel/ AT&T
Georgia	Docket 6865-U	Complaint re: Combinations	MCIWorldcom
Virginia	Case No. PUC 990100	GTE/Bell Atlantic Merger	AT&T
Florida	Docket 990649-TP	UNE Cost and Pricing	CLEC Coalition
Nebraska	Application C-1960/PI-25	IP Telephony and Access Charges	ICG Communications
Georgia	Docket 10692-U	Pricing of UNE Combinations	CLEC Coalition
Colorado	Docket 99F-141T	IP Telephony and Access	Qwest
California	Case A. 98-12-005	GTE/Bell Atlantic Merger	AT&T/MCI
Indiana	Case No. 41255	SBC/Ameritech Merger	AT&T
Illinois	Docket 98-0866	GTE/Bell Atlantic Merger	AT&T
Ohio	Case 98-1398-TP-AMT	GTE/Bell Atlantic Merger	AT&T
Tennessee	Docket 98-00879	BellSouth BSE	SECCA
Missouri	Case TO-99-227	§ 271 Review: SBC	AT&T
Colorado	Docket 97A-540T	Stipulated Price Cap Plan/USF	CLEC Coalition
Illinois	ICC Docket 98-0555	SBC/Ameritech Merger	AT&T
Ohio	Case 98-1082-TP-AMT	SBC/Ameritech Merger	AT&T
Florida	Docket 98-1121-TP	UNE Combinations	MCI WorldCom
Georgia	6801-U	§ 251 Arbitration: BellSouth	AT&T

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
Florida	92-0260-TL	Rate Stabilization Plan	FIXCA
South Carolina	Docket 96-375	§ 251 Arbitration: BellSouth	AT&T
Kentucky	Docket 96-482	§ 251 Arbitration: BellSouth	AT&T
Wisconsin	05-TI-172/5845-NC-101	Rural Exemption	TDS Metro
Louisiana	U-22145	§ 251 Arbitration: BellSouth	AT&T
Mississippi	96-AD-0559	§ 251 Arbitration: BellSouth	AT&T
North Carolina	P-140-S-050	§ 251 Arbitration: BellSouth	AT&T
Tennessee	96-01152	§ 251 Arbitration: BellSouth	AT&T
Arizona		§ 251 Arbitration: US West	AT&T Wireless
Florida	96-0883-TP	§ 251 Arbitration: BellSouth	AT&T
Montana	D96.11.200	§ 251 Arbitration: US West	AT&T
North Dakota	PU-453-96-497	§ 251 Arbitration: US West	AT&T
Texas	Docket 16226	§ 251 Arbitration: SBC	AT&T/MCI
Alabama	Docket 25703	§ 251 Arbitration: BellSouth	AT&T
Alabama	Docket 25704	§ 251 Arbitration: GTE	AT&T
Florida	96-0847-TP	§ 251 Arbitration: GTE	AT&T
Kentucky	Docket 96-478	§ 251 Arbitration: GTE	AT&T
North Carolina	P-140-S-51	§ 251 Arbitration: GTE	AT&T
Texas	Docket 16630	§ 251 Arbitration: SBC	LoneStar Net
South Carolina	Docket 96-358	§ 251 Arbitration: GTE	AT&T
Texas	Docket 16251	§ 271 Review: SBC	AT&T
Oklahoma	97-0000560	§ 271 Review: SBC	AT&T
Kansas	97-SWBT-411-GIT	§ 271 Review: SBC	AT&T
Alabama	Docket 25835	§ 271 Review: BellSouth	AT&T
Florida	96-0786-TL	§ 271 Review: BellSouth	FCCA
Georgia	Docket 6863-U	§ 271 Review: BellSouth	AT&T
Kentucky	Docket 96-608	§ 271 Review: BellSouth	AT&T
Louisiana	Docket 22252	§ 271 Review: BellSouth	AT&T
Texas	Docket 16226	UNE Cost	AT&T/MCI

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
Colorado	97K-237T	Access Charges	AT&T
Mississippi	97-AD-321	§ 271 Review: BellSouth	AT&T
North Carolina	P-55 Sub 1022	§ 271 Review: BellSouth	AT&T
South Carolina	97-101-C	§ 271 Review: BellSouth	AT&T
Tennessee	97-00309	§ 271 Review: BellSouth	AT&T
Tennessee	96-00067	Wholesale Discount	AT&T
Tennessee	97-00888	Universal Service	AT&T
Texas	Docket 15711	GTE Certification as CLEC	AT&T
Kentucky	97-147	BellSouth BSE Certification	SECCA
Florida	97-1056-TX	BellSouth BSE Certification	FCCA
North Carolina	P691 Sub O	BellSouth BSE Certification	SECCA
Florida	98-0696-TP	Universal Service	FCCA
New York	97-C-271	§ 271 Review: Bell Atlantic	CompTel
Montana	D97.5.87	§ 271 Review: US West	AT&T
New Mexico	97-106-TC	§ 271 Review: US West	AT&T/CompTel
Nebraska	C-1830	§ 271 Review: US West	AT&T
Alabama	Docket 25980	Universal Service	AT&T
Kentucky	Admin 360	Universal Service	AT&T
North Carolina	P100-S133B	Universal Service	AT&T
North Carolina	P100-S133G	Universal Service	AT&T
Illinois	95-0458/0531	Combined Network Elements	WorldCom
Illinois	96-0486/0569	Network Element Cost/Tariff	WorldCom
Illinois	96-0404	§ 271 Review: Ameritech	CompTel
Florida	97-1140-TP	Combining Network Elements	AT&T/MCI
Pennsylvania	A-310203-F0002	Local Competition	CompTel
Georgia	6415-U/6527-U	Local Competition	CompTel
Illinois	98-NOI-1	Structural Separation	CompTel/Qwest
New York	98-C-690	Combining Network Elements	CompTel
Texas	Docket 17579	§ 251 Arbitration: SBC (2nd)	AT&T/MCI

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
Texas	Docket 16300	§ 251 Arbitration: GTE	AT&T
Florida	Docket 920260-TL	Price Cap Plan	IXC Coalition
Louisiana	Docket U22020	Resale Cost Study	AT&T/LDDS
California	Docket R.93-04-003	Rulemaking on Open Network Architecture	LDDS/WorldCom
Tennessee	Docket 96-00067	Avoidable Cost/Resale Discount	AT&T
Georgia	Docket 6537-U	Unbundled Loop Pricing	CompTel
Georgia	Docket 6352	Rules for Network Unbundling	AT&T
Pennsylvania	Docket A-310203F0002	Introducing Local Competition	CompTel
Florida	Docket 95-0984-TP	Interconnection Terms and Prices	AT&T
Kentucky	Case No. 365	Local Competition/Universal Service	WorldCom
Mississippi	Docket 95-UA-358	Introducing Local Competition	AT&T/WorldCom
Florida	Docket 95-0984-TP	Interconnection Terms and Prices	AT&T
Illinois	Docket 95-0458	Wholesale Local Services	WorldCom
California	Dockets R.95-04-043/044	Local Competition	WorldCom
Florida	Docket 95-0696-TP	Universal Service and Carrier of Last Resort Obligations	IXC Coalition
Georgia	Docket 5755-U	Removing Subsidies from Access	AT&T
South Carolina	Docket 95-720-C	Price Regulation	ACSI
Michigan	Case No. U-10860	Interconnection Agreement	WorldCom
Mississippi	Docket 95-US-313	Price Regulation Plan	WorldCom/AT&T
Missouri	Case TR-95-241	Expanded Local Calling	MCI
Washington	Docket UT-941464	Interconnection Complaint	IXC Coalition
Maryland	Case No. 8584 – Phase II	Introducing Local Competition	WorldCom
Massachusetts	DPU 94-185	Introducing IntraLATA and Local Competition	WorldCom
Wisconsin	Docket 6720-TI-111	IntraLATA Equal Access	Schneider Com.

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
North Carolina	Docket P-100, Sub 126	Expanded Local Calling	LDDS
Georgia	Docket 5319-U	IntraLATA Equal Access	MCI/LDDS
Mississippi	Docket 94-UA-536	Price/Incentive Regulation	LDDS
Georgia	Docket 5258-U	Price Regulation Plan	LDDS
Florida	Docket 93-0330-TP	IntraLATA Equal Access	IXC Coalition
Alabama	Docket 23260	Access Transport Rate Structure	LDDS
New Mexico	Docket 94-204-TC	Access Transport Rate Structure	LDDS
Kentucky	Docket 91-121	Alternative Regulation Proposal	Sprint, AT&T and LDDS
Texas	Docket 12784	Access Transport Rate Structure	IXC Coalition
Illinois	Docket 94-0096	Customer's First Proposal	LDDS
Louisiana	Docket U-17949-D	Alternative Regulation	AT&T, Sprint and LDDS
New York	Case No. 93-C-0103	Rochester Plan-Wholesale/Retail	LDDS
Illinois	Dockets 94-0043/46	Access Transport Rate Structure	IXC Coalition
Florida	Docket 92-1074-TP	Expanded Interconnection	Intermedia
Louisiana	Docket U-20800	Access Transport Rate Structure	LDDS
Tennessee	Docket 93-008865	Access Transport Rate Structure	LDDS
Ohio	Docket 93-487-TP-ALT	Alternative Regulation	Allnet/LCI/LDDS
Mississippi	Docket 93-UN-0843	Access Transport Rate Structure	LDDS
South Carolina	Docket 93-756-C	Access Transport Rate Structure	IXC Coalition
Georgia	Docket 4817-U	Access Transport Rate Structure	IXC Coalition
Louisiana	Docket U-20710	Pricing and Imputation Standards	LDDS
Ohio	Case 93-230-TP-ALT	Alternative Regulation	MCI/Allnet/LCI
New Mexico	Docket 93-218-TC	Expanded Local Calling	LDDS
Illinois	Docket 92-0048	Alternative Regulation	LDDS
Mississippi	Docket 93-UN-0038	Banded Rates for Toll Service	LDDS
Florida	Docket 92-1074-TP	Expanded Interconnection	Florida Coalition
Louisiana	Docket U-20237	Preferential Toll Pricing	LDDS, MCI and

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
			AT&T
South Carolina	Docket 93-176-C	Expanded Local Calling	LDDS & MCI
Mississippi	Case 89-UN-5453	Rate Stabilization Plan	LDDS & ATC
Illinois	Docket 92-0398	Local Interconnection	CLEC Coalition
Louisiana	Docket U-19993	Payphone Compensation	MCI
Maryland	Docket 8525	Payphone Compensation	MCI
South Carolina	Docket 92-572-C	Payphone Compensation	MCI
Georgia	Docket 4206-U	Payphone Compensation	MCI
Delaware	Docket 91-47	Application for Rate Increase	MCI
Florida	Docket 88-0069-TL	Comprehensive Price Review	Florida Coalition
Mississippi	Case 92-UA-100	Expanded Local Calling	LDDS & ATC
Florida	Docket 92-0188-TL	GTE Rate Case	MCI & FIXCA
Wisconsin	Docket 05-TI-119	IntraLATA Competition	MCI & Schneider
Florida	Docket 92-0399-TP	Payphone Compensation	MCI & FIXCA
California	Docket I,87-11-033	Alternative Regulation	Intellical
Florida	Docket 88-0068-TL	Rate Stabilization	Public Counsel and Large Users
New York	Case 28425, Phase III	Access Transport Rate Structure	Empire Altel
Wisconsin	Docket 05-TR-103	Intrastate Access Charges	MCI & CompTel
Mississippi	Docket 90-UA-0280	IntraLATA Competition	Intellicall
Louisiana	Docket U-17949	IntraLATA Competition	Cable & Wireless
Florida	Docket 88-0069-TL	Rate Stabilization	Florida Coalition
Wisconsin	Docket 05-TR-103	Intrastate Access Charges	Wisconsin IXCs
Florida	Docket 89-0813-TP	Alternative Access Providers	Florida Coalition
Alaska	Docket R-90-1	Intrastate Toll Competition	Telephone Utilities of Alaska
Minnesota	Docket P-3007/NA-89-76	Centralized Equal Access	MCI & Telecom*USA
Florida	Docket 88-0812-TP	IntraLATA Toll Competition	Florida Coalition
Wisconsin	Docket 05-TR-102	Intrastate Access Charges	Wisconsin IXCs

Summary of Expert Testimony and Affidavits – Regulatory Proceedings

State	Docket/Case	Topic	Sponsor(s)
Wisconsin	Docket 6655-NC-100	Centralized Equal Access	Wisconsin IXCs
Florida	Docket 88-0069-TL	Rate Stabilization	Florida Coalition
Wisconsin	Docket 05-NC-100	IntraLATA Toll Competition	Wisconsin IXCs
Florida	Docket 87-0347-TI	AT&T Regulatory Relief	Florida Coalition
Illinois	Docket 83-0142	Intrastate Access Charges	Illinois Consolidated
Texas	Docket 8218	WATS Prorate Credit	TEXALTEL
Iowa	Case RPU 88-2	Centralized Equal Access	MCI & Teleconnect
Florida	Docket 87-1254-TL	Regulatory Flexibility for LECs	Microtel
Wisconsin	Docket 05-TR-5, Part B	IntraLATA Competition and Access Charges	Wisconsin State Telephone Assc.
Florida	Docket 86-0984, Phase II	Intrastate Loop Cost Recovery	Florida Coalition

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[PROPRIETARY]

Direct Testimony of Joseph Gillan
on behalf of the CLEC Coalition
PA PUC Docket No. I-00030099
January 9, 2004

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STATE OF CLEC COMPETITION

Introduction

Understanding precisely how CLECs offer competitive services is made difficult by the lack of public data on network operations. To provide greater understanding in this area, CCG Consulting, Inc. of Riverdale, Maryland was retained to develop survey data on CLEC network operations in six markets: Albany, NY, Augusta, GA, Boston, MA, Chicago, IL, Corpus Christi, TX and Portland, OR. These cities were selected because they represented a fairly broad cross-section of populations, business concentrations and serving incumbents.

CCG collected data from as many network-based competitors as possible in each of these markets. To protect the confidentiality of each CLEC, survey data was collected and aggregated by CCG Consulting. Companies that agreed to participate in the survey (in one or more markets) include:

Allegiance Telecom
AT&T
Birch Telecom
Broadview Networks
Choice One Communications
Conversent Communications
Covad
Electric Lightwave
Eschelon Telecom
Focal Communications
Ionex Communications
KMC Telecom
MCI Metro
McLeodUSA
New Edge Networks
NewSouth Communications
PacTec Communications
TDS Metrocom
WorldCom
XO Communications

State of CLEC Competition

Although the survey does not include every provider in each market, we believe the sample to be sufficiently large to be representative of CLEC network operations in the market overall. For five of the markets we collected data for the entire MSA. In Boston, the MSA was so large that the CCG collected data for the area inside of Interstate 495. The number of CLEC Class 5 switches in each market is as follows:

	Albany	Augusta	Boston	Chicago	Corpus	Portland
Number of CLEC Switches[1]	5	1	17	15	1	7

The selection of the "market footprint" for analysis was made more difficult by the wide variation in the statistical areas (such as the MSA) defined by the Census Bureau, as well as the variation in the market focus of the individual CLECs. Although individual CLECs do not generally define their target market to match MSA boundaries, we worked with each CLEC to make sure that the data was compiled across the same footprint for each participant. This issue foreshadows a characteristic that is common to each of the following summaries: each market is unique, with different factors, geographies and competitive conditions influencing CLEC activity.

Although this summary of the data collected by CCG is intended to be presented in as a neutral a manner as possible, we are compelled to report one common finding: Competitive facilities development is not only modest (compared to the incumbent and the market), it is kaleidoscopic with no clear pattern that applies to all markets. What the data confirms is that emerging investment strategies of the competitive industry are nearly as diverse as the industry itself. While the majority of competitors in each market rely extensively on incumbent facilities, there is nearly always an exception to this rule. Such diversity is to be expected in a competitive environment, particularly one in which no single strategy has shown itself to be inherently superior to all others. With this overall conclusion in mind, the following summarizes the data we collected.

[1] None of the CLECs in any of these markets offer wholesale switching to any other CLECs.

State of CLEC Competition

Leased Customer Access

The starting point for our survey focused on how CLECs are leasing loops to gain access to end-user customers. We asked each CLEC to identify and quantify the different sources for leased facilities to end-user premises. The results are presented in Table 1.

Table 1: Source of Leased Loop Facilities by Surveyed CLECs

	Albany	Augusta	Boston	Chicago	Corpus	Portland
CLECs in Study	4	3	11	10	4	8
Total Market Voice Access Lines	560,487	270,157	3,567,497	5,688,622	220,866	762,382
Voice Grade 2-Wire UNE Loop	27,380	2,472	57,433	82,446	1,715	9,976
DSL UNE Loop	851	74	12,145	37,248	258	3,837
T1 UNE Loop	13	208	1,375	5,073	255	533
Retail T1 from ILEC	162	92	5,972	10,833	7	1,601
Retail T1 from 3rd Party[2]	7	0	422	2,161	0	0
DS3 UNE Loop	3	0	56	5	6	1
Retail DS3 from ILEC	17	0	217	501	0	128
Total	28,433	2,846	77,620	138,267	2,241	16,076

Table I relies on the following definitions of each loop type:

- **CLECs in Study.** This is the total number of CLECs who provided data for each of the markets.
- **Total Market Voice Access Lines.** This is the combination of the RBOC and the CLEC voice access lines for the study area. RBOC access lines came from HAI Model: Release FCC, loop counts as of 10/99. CLEC access line counts are roughly from the first quarter of 2002 (slightly different months for various CLECs). We did not have reliable RBOC data loop counts by MSA so we used voice access lines in order to demonstrate the relative size of the total market. However, the lack of data access lines understates total access lines.
- **Voice Grade 2-Wire UNE Loops** are Unbundled Network Element loops purchased directly from the ILEC from an interconnection agreement. A CLEC must be collocated to be able to order a 2-wire UNE Loop.

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[2] This category includes DS-1s where the billing entity differs from the ILEC, but where the DS1 facility itself may be provisioned using the ILEC network facility. Thus this category is the maximum *potential* number of DS1s obtained from 3rd parties in that market and may, or may not, indicate the emergence of a nascent market in that MSA.

State of CLEC Competition

- **Digital Subscriber Line (DSL) UNE Loop** consists of a 2-wire clean copper DSL-capable loop. These quantities include DSL with and without line-sharing. Without line-sharing the CLEC gets a copper pair certified to have unimpeded signal to at least 12,000 feet. With line-sharing the CLEC gets the ability to offer DSL over a pair that is also providing ILEC voice service to the subscriber. These lines can be used to support a variety of types of DSL and the lines can often support data or voice. The use of these loops requires the collocation of DSLAMs, or DSL base stations.
- **T1 UNE Loop** consists of a 4-wire 1.544 Mbps capable unbundled loop purchased from an interconnection agreement. The CLEC must be collocated in order to utilize T1 UNE loops. The ILEC supplies these loops with T1 capable electronics.
- **T1 Retail Loop from the ILEC** consists of a 4-wire 1.544 Mbps retail circuit purchased from ILEC's retail tariff or access tariff. As a retail purchaser the CLEC is treated like any other ILEC customer in terms of product, price and term.
- **T1 Retail Loop from a 3rd Party** is a 4-wire 1.544 Mbps retail circuit purchased from a carrier other than the ILEC. The other providers in these particular markets are always interexchange carriers. None of the CLECs in these particular markets sell wholesale loops of any kind to other CLECs. We believe that the majority of these loops are ultimately served by and resold from the ILEC local network. Purchasing from a third party does not automatically equate to using an alternate network from the ILEC. In fact, we believe that the majority of these loops are really RBOC loops.
- **DS3 UNE Loop** is a UNE fiber loop cable of supporting a DS3 purchased from the ILEC from an interconnection agreement. These loops come with ILEC-provided electronics.
- **Retail DS3 from the ILEC** is a retail DS3 purchased from ILEC's retail tariff or access tariff. As a retail purchaser the CLEC is treated like any other ILEC customer in terms of product, price and term.

State of CLEC Competition

Table 2: Relative Size of the Largest CLEC for each Loop Category

	Albany	Augusta	Boston	Chicago	Corpus	Portland
Voice Grade 2-Wire UNE Loop	85%	100%	50%	31%	100%	77%
DSL UNE Loop	100%	100%	84%	94%	96%	91%
T1 UNE Loop	100%	71%	81%	80%	100%	47%
Retail T1 from ILEC	62%	96%	33%	44%	100%	55%
Retail T1 from 3rd Party	100%	N/A	93%	99%	N/A	N/A
DS3 UNE Loop	100%	N/A	84%	100%	100%	100%
Retail DS3 from ILEC	100%	N/A	82%	62%	N/A	47%

CLECs vary significantly in the manner in which they conduct business and thus in the way that they use loops. Table 2 shows the relative size of the single largest CLEC in each market for each loop category. This table is driven from the loop numbers presented in Table 1 above. As an example, Table 2 shows that in Albany that one CLEC uses 85% of the 27,380 voice grade 2-wire UNE loops shown in Table 1. Since the business plans of CLECs vary so widely, the CLEC that uses the greatest number of one type of loop may not necessarily use loops of other types. Again, using Albany as an example, the CLEC who uses 85% of the voice grade 2-wire UNE loops may not be the same CLEC who uses 100% of the DSL UNE loops.

State of CLEC Competition

On-Net Customer Access

In addition to relying on leased facilities, some CLECs have developed limited fiber networks that enable them to reach some buildings entirely over their own facilities. In our survey we define On-Net facilities to be those facilities where the CLEC owns both the physical loop and the electronics at both ends of the loop.

We have quantified CLEC On-Net opportunity by the number of buildings connected, the potential capacity of these systems and the number of T1 equivalents actually operating in Table 3. In addition, we have analyzed the geographic focus of CLEC facilities, which generally serve limited portions of each market (discussed below).

Table 3: On-Net Capability of Surveyed CLECs

	Albany	Augusta	Boston	Chicago	Corpus	Portland
Fiber CLECs/Total CLECs	1/4	1/3	4/11	5/10	1/4	4/8
Number of Connected Buildings	24	13	473	390	18	183
Buildings with Wholesale Loops	0	0	0	0	0	0
Buildings with Wholesale Dark Fiber	0	0	0	0	0	0
Number of Establishments in MSA	16,616	7,728	127,453	184,912	7,390	48,881
Number of Fiber Terminals	24	13	560	501	18	217
Fiber Terminal Capacity						
OC-48	0	0	224	236	1	47
OC-12	2	1	144	146	2	40
OC-3	22	12	192	118	15	130
Equivalent T1s Activated	85	66	4,332	4,394	125	551
Active T1s per Building	3.5	5.1	9.2	11.3	7.0	3.0

Following are the definitions of each line of the Table 3:

Fiber CLECs / Total CLECs. Fiber CLECs are those CLECs with at least one customer defined as an On-Net customer. On-Net is defined as a customer where the CLEC owns the loop and the electronics to reach the customer. All CLECs reported that On-Net customers in these markets were being served using fiber. Total CLECs are the total CLECs who participated in the survey for the given market.

Number of Connected Buildings represents the number of discrete street addresses with On-Net customers. These are often referred to as "lit" buildings. Note that lit buildings

are lower than fiber terminals in markets where some buildings are served by multiple CLECs.

Buildings with Wholesale Loops. Of the connected buildings, these are the buildings where a CLEC offers wholesale loops to other CLECs. None of the CLECs in these markets offers wholesale loops to other CLECs.

Buildings with Wholesale Dark Fiber. Of the connected buildings, these are the buildings where a CLEC offers dark fiber to other CLECs. None of the CLECs in these markets offers dark fiber to other CLECs.

Number of Establishments represents the total number of businesses in the market. The source of the number is Census Bureau data of Business Establishments/MSA.

Fiber Terminal Capacity shows the quantity of various sizes of fiber terminals installed in the lit buildings. The CLECs all reported that very few of these facilities are fully equipped or are fully utilized. For example, a CLEC may have an OC-48 terminal in a building but only have it equipped with a few OC-3 cards.

Equivalent T1s Activated represents the active total equivalent T1s of service that are in place in lit buildings. We also show the number of equivalent T1s per lit building.

Location of On-Net Buildings

The On-Net locations tend to be in the downtown area where CLEC owned fiber networks are most likely to exist. As discussed below, nearly all On-Net buildings are located in very limited geographical sections and pockets in each MSA.

Albany

Of the 41 On-Net buildings in Albany, 37 are within the City limits. Of those, 32 are in the downtown area.

Augusta

In Augusta all of the On-Net buildings are downtown. Eleven of the thirteen lit buildings are on two city streets.

Boston

There are 473 lit buildings in Boston. Of these, 325, or 69% are located in the three exchanges serving the downtown area. The remaining buildings are scattered throughout the study area. However, there is a low density of lit buildings in suburban area and very

few exchanges outside of the downtown area have more than 2 or 3 lit buildings in the entire exchange.

Chicago

Chicago has 390 lit buildings. 190 of these buildings are within the city limits. The majority of the remaining lit buildings are relatively close to major highways (i.e., Interstate 90, Interstate 84, Interstate 88 and Interstate 290.

Corpus Christi

There are 18 lit buildings in Corpus Christi. 12 of these buildings are clustered downtown.

Portland

The Portland MSA has 183 lit buildings. 132 of the buildings are within the city limits or Portland. The remaining On-Net buildings are clustered at various locations around the MSA. For example, there are 27 buildings clustered close together in Beaverton and 11 buildings clustered together in Vancouver, Washington.

State of CLEC Competition

Network Connectivity

As indicated above, CLECs depend heavily on ILEC access to reach and serve customers. As shown in Table 4 below, CLECs facilities are predominately deployed in digital configurations.

Table 4: Comparing Analog and Digital Connectivity[3]

	Albany	Augusta	Boston	Chicago	Corpus	Portland	Overall
Analog Connectivity[4]	27,380	2,472	57,433	82,446	1,715	9,976	181,422
DS1 Connectivity	6,408	8,784	290,424	539,064	9,288	64,440	918,408
DS3 Connectivity	13,440	0	183,456	340,032	4,032	86,688	627,648
Percent Digital	42.0%	78.0%	89.2%	91.4%	88.6%	93.8%	89.5%

[3] The quantities in this table are Voice Grade Equivalents.

[4] CCG is aware that some analog loops are being used to provide xDSL services and, as such, should more properly be counted as a form of digital connectivity. CCG does not, however, have the data to identify the percentage of the purchased analog loops that have been configured to provide such service.

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INVESTIGATION INTO THE OBLIGATION OF INCUMBENT LOCAL EXCHANGE CARRIERS TO UNBUNDLE NETWORK ELEMENTS

DOCKET NO. I-00030099

ARC NETWORKS, INC., D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC. MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. (CLEC COALITION)

REBUTTAL TESTIMONY OF JOSEPH GILLAN

DATED: JANUARY 20, 2004

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Investigation into the Obligation of	)	
Incumbent Local Exchange Carriers to Unbundle	)	**Docket No. I-00030099**
Network Elements	)	**Filed: January 20, 2004**
	)	

REBUTTAL TESTIMONY OF
JOSEPH GILLAN ON BEHALF OF
ARC NETWORKS, INC. D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC., MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. D/B/A METTEL
(CLEC COALITION)

Q. Please state your name and party sponsoring your rebuttal testimony.

A. My name is Joseph Gillan. My rebuttal testimony is sponsored by the same coalition of CLECs that sponsored my direct testimony: ARC Networks, Inc. d/b/a InfoHighway Communications Corp., Broadview Networks, Inc., Bullseye Telecom, Inc., McGraw Communications, Inc. and Metropolitan Telecommunications of PA, Inc., d/b/a MetTel (CLEC Coalition).

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to briefly and narrowly respond to two areas addressed in the testimony of MCI:

* MCI's *recommendation* that the appropriate area to evaluate impairment for mass market local switching is the wire center, and

* MCI's *suggestion* that it may be appropriate to divide the analog mass market between business and residential customers.

As I understand MCI's testimony, each of the above is designed to address the same potential concern – that is, that the Commission may mistake some *limited* form of entry (either limited in terms of geography or customer class) as evidence of non-impairment, by counting as a trigger a company that does not provide service to the broad mass market, but may offer service in some limited area or to a select group of customers. Although I share MCI's concern in this regard, I do not agree with its proposed solutions. Rather, I recommend that the Commission address the concern directly, by correctly defining the mass market as a broad market comprised (in Pennsylvania) of millions of individually small analog phone customers, and by correctly applying the trigger analysis to only count as qualifying switch triggers those carriers that actually compete across that broad market.

Q. Why do you disagree with MCI's suggestion that the market be defined by each individual wire center?

A. I disagree with the approach because it ignores the defining feature of the mass market – i.e., that it requires *mass* for competition to succeed. No individual mass market customer is particularly large or exceptionally profitable to serve; as a result, competitors must be able to address a large base of potential customers in order to build a base of any size. Wire centers do not stand as independent markets, individually capable of supplying the mass needed for mass market competition to develop.

Moreover, mass market competition is interdependent – that is, it is not possible to eliminate switching in one part of a market without the consequences of that decision being felt throughout the entire area. If UNE-P is not available in the states' largest wire centers, the effect of that limitation will be felt not only in the area served by those wire centers, but in the other surrounding areas as well. Dissecting the market into hundreds of small wire centers runs counter to the type of wide availability needed to produce mass market competition – the ability to comprehensively offer service to millions of small users that live and work across a broad footprint. Mass market competition cannot coexist in a checkerboard of UNE-availability, which is what is implied by the suggestion that individual wire centers form independent markets.[1]

Q. Why has MCI suggested the wire center approach?

---

[1] Moreover, many small business customers have multiple locations, which cannot be served where UNEs are not uniformly available.

A. One reason is that MCI is concerned that, if the Commission adopts a broader area, it may mistakenly conclude that there are sufficient triggering CLECs to eliminate unbundled switching. As MCI explained:

> In contrast [to the wire center] a market definition based on a larger geographic area, such as the Metropolitan Statistical Area ("MSA"), creates a significant risk that trigger or potential deployment analyses based on such a market definition will result in a finding of no impairment even where multiple, competitive supply does not exist today and is unlikely to occur in the foreseeable future.[2]

Q, Has MCI correctly identified the source of its concern?

A. No, I do not think so. The risk that MCI cites – i.e., that a trigger will be satisfied even though impairment remains – does *not* result from the size of the geographic market, rather it is the result of a trigger (or potential deployment) analysis that does not recognize the importance of assuring that any alleged self-provider actually be serving the geographic area served by UNE-P before it qualifies as a trigger. So long as the Commission correctly applies the trigger (or potential deployment) analysis by requiring that trigger candidates offer service across the market before qualifying as triggering CLECs, then the Commission can correctly define the market without fear of mistakenly removing unbundled switching

[2] Direct Testimony of Michael D. Pelcovits on Behalf of MCI WorldCom Network Services, Inc. (Jan. 9, 2004) (hereinafter "Pelcovits") at 5.

where it is needed.[3] Rather than dividing the state into small areas in the hope that the Commission will be less likely to make errors, it is more important to directly confront the concern. After all, adopting a market definition that suggests that the mass market is divisible into very small areas is just as potentially harmful as defining the areas too large.

Q. What are the potential harmful consequences that follow from using the wire center as the geographic market?

A. Dissecting the mass market into hundreds of small wire centers implies that entrants can rationally compete with a checkerboard availability of the UNEs used to provide service. The Commission cannot eliminate UNE-P in some wire centers without affecting competitive activity in others because the mass market is *not* wire-center specific. In fact, UNE-L has failed to produce mass market competition, at least in part, because it necessarily represents a "one-wire-center-at-a-time" entry strategy and that characteristic is an impairment corrected by access to unbundled local switching. The mass market shouldn't be defined by UNE-L's weakness; it should be defined to appreciate the strengths of UNE-P – the one entry strategy that has succeeded in bringing competition to small business and residential consumers throughout Pennsylvania.

[3] I note that the need to make sure that the competitive footprint of potential triggering CLEC coincides with the defined market applies no matter what size market the Commission adopts. The principal difference introduced by using a larger (rather than smaller) area is not that the likelihood of an error increases, it is that the consequences of that error grow larger.

The correct approach is to define the mass market broadly because the mass market is by nature a broad market, and then to make sure that only carriers that offer service with a comparable geographic reach qualify as triggers. Punching holes in the mass market creates a checkerboard effect that inevitably dilutes the market, harming competition and customer choice. This effect will be felt not only in the areas that the Commission will have redlined and walled-off from competition, but to the market overall. The reality that wire centers are linked in this manner cannot be avoided by assuming, for purposes of UNE-availability, that each wire center is an independent island of competitive interest.

Q. Do you support MCI's suggestion that the Commission should consider dividing the analog market between residential and business customers?

A. No. Although I share the concern expressed by MCI, I believe that its suggested solution is in error.[4] As I explained in my direct testimony, the mass market is correctly defined by the TRO as a single market, defined by the underlying technology (analog voice service or POTS), and not by customer labels. One of the key goals of competition is to ferret out and eliminate unjustified legacy pricing practices that are the product of the industry's monopoly past. It would be

[4] As MCI states: "The Commission, therefore, must be prepared either to treat residential and small business customers as falling into two separate submarkets of the mass market or, in the alternative, to require that a competitor must serve both residential and small business customers to be considered as a potential triggering company." Pelcovits at 53.

inappropriate to (as MCI suggests) use UNE-availability to preserve price discrimination in monopoly tariffs, when the goal of UNE-competition should be to drive such distinctions from the market.

The TRO correctly defines the mass market in a more neutral and impairment-related manner, by focusing on the common denominator of mass market services, the analog loop at the customer premise. By defining the mass market in this way, the TRO sets the stage for a competitive check on the rate structures inherited from the very environment the Act seeks to replace, the era of the local monopoly. Moreover, it is useful to remember that the incumbent is able to use UNE-P to serve the entire mass market (both residential and business customers) and CLECs must have the same ability if they are to compete.

Q. Do you agree with MCI that an alleged self-provider must be serving residential customers in order to be counted as a mass market trigger?

A. Yes. The Commission should fully expect to see *some* overlap from other entry strategies into the mass market, for in the real world market boundaries are not perfect. The mass market served is geographically broad, but there are likely to be pockets served by alternatives; the mass market contains millions of customers, yet there will be some subgroups that attract more attention than others.[5] The

[5] For instance, as MCI notes, the fact that business customers generally pay higher rates under the ILEC's tariff may make them transitionally more attractive than residential customers

1 mass market itself cannot be defined by its exceptions, be they isolated
2 geographic areas or select customer groups. Only alternatives that compete at the
3 core of the mass market – offering service broadly to customers, including
4 residential customers – should be counted upon as evidence to support a finding
5 of non-impairment.
6
7 This is not a case where two wrongs can make a right. Subdividing the state into
8 individual wire centers is not the solution to avoid a trigger analysis that fails to
9 appreciate the importance of a competitor's footprint nor is splitting the analog
10 mass market into business and residential classes the correct response to the fringe
11 entry by some CLECs at the edge of the mass market. The only way that a trigger
12 analysis can be relied upon to demonstrate that "no impairment exists"[6] in the
13 mass market is for the Commission to assure that the only CLECs that count as
14 mass market switch triggers are those carriers actively serving analog mass
15 market customers (including the core of the mass market, residential customers)
16 across the broad geographic footprint that defines the mass market in
17 Pennsylvania.
18

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that purchase no vertical services. On the other hand, the average revenue for MCI's Neighborhood service is comparable to the rates paid by small businesses. This does not mean that Neighborhood customers should be viewed as a distinct market anymore than the Commission should view analog small business customers differently – each is a member of the mass market, and the Commission should conduct its trigger analysis in a manner that assures there is competition across the entire market through alternatives to UNE-P before it concludes that unbundled switching is no longer needed.

[6] TRO ¶ 494 "If the triggers are satisfied, the states need not undertake any further inquiry, because no impairment should exist in that market."

Q. Does this conclude your rebuttal testimony?

A. Yes.

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Direct Panel Testimony of Peter Karoczkai and Michael Hou
on behalf of the CLEC Coalition
PA PUC Docket No. I-00030099
January 9, 2004

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INVESTIGATION INTO THE OBLIGATION OF INCUMBENT LOCAL EXCHANGE CARRIERS TO UNBUNDLE NETWORK ELEMENTS

DOCKET NO. I-00030099

ARC NETWORKS, INC., D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC. MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. (CLEC COALITION)

DIRECT PANEL TESTIMONY PETER KAROCZKAI OF ARC NETWORKS, INC. D/B/A INFOHIGHWAY COMMUNICATIONS CORP. AND MICHAEL HOU OF BROADVIEW NETWORKS, INC.

WITNESS: PETER KAROCZKAI AND MICHAEL HOU

DATED: JANUARY 9, 2004

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Direct Panel Testimony of Peter Karoczkai and Michael Hou
on behalf of the CLEC Coalition
Docket No. I-00030099
January 9, 2004

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Investigation into the Obligation	)	
of Incumbent Local Exchange	)	I-00030099
Carriers to Unbundle Network Elements	)	
_____	)	

PANEL TESTIMONY ON BEHALF OF ARC NETWORKS, INC. D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC., MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. ("CLEC Coalition")

Panelists

Peter Karoczkai, Senior Vice President, ARC Networks, Inc. D/B/A InfoHighway Communications Corp.

Michael Hou, Senior Vice President, Broadview Networks, Inc.

Q. Mr. Karoczkai, please state your name, title and business address, educational background and related experience for the record.

A. My name is Peter Karoczkai. I am Senior Vice President, Sales and Marketing, of ARC Networks, Inc. d/b/a InfoHighway Communications Corp. ("InfoHighway"). My business address is 1333 Broadway, Suite 1001, New York, New York 10018. I have a Bachelor of Science degree in Business Administration from the University of North Carolina at Greensboro and a Master of Business Administration in Marketing and International Affairs degree from

New York University. My current responsibilities include managing InfoHighway's sales and marketing functions, including channel development, pricing and product development. In addition, I am involved in the company's business development activities and certain, mostly major, regulatory proceedings. Prior to joining InfoHighway, I was Vice President of Marketing and Product Management for Verizon's (previously Bell Atlantic) Wholesale Services business unit. My responsibilities included the implementation of the 1996 federal Telecommunications Act ("federal Act") and the opening of Verizon's network for local competition. In this role, I managed the product development efforts for Resale, UNE-P, Collocation, EELs, Shared Transport, Unbundled IOF, and Unbundled Loops. I have over 15 years experience in telecommunications and have held a variety of positions in marketing, product management, channel and business development, sales and operations.

Q. Mr. Hou, please state your name, title and business address, educational background and related experience for the record.

A. My name is Michael Hou and my title is Senior Vice President at Broadview Networks, Inc. ("Broadview"). My business address is 744 Broad Street, 10th floor, Newark, NJ 07102. I have a Bachelor of Science and a Master of Science degree in Electrical Engineering and Computer Science, both with Honors, from M.I.T. My current responsibilities include managing Broadview's Wholesale Services business which includes providing network, provisioning and other

system capabilities for other carriers, including managing the hot cut process for AT&T. I have over 15 years of experience in the telecommunications business and have held a variety of positions in carrier sales, product management, finance, regulatory, systems development, operations, and network planning.

Q. On whose behalf are you testifying?

A. We are testifying on behalf of a coalition of competitors who provide service in Pennsylvania: InfoHighway and Broadview as well as BullsEye Telecom, Inc., McGraw Communications, Inc. and Metropolitan Telecommunications of PA, Inc.

Q. What is the purpose of your testimony?

A. The purpose of our testimony is to address an argument often raised by Verizon and other ILECs that the availability of UNE-P in a given market discourages investment in "facilities."[1] The "unbundling discourages investment" argument is a bogeyman used by Verizon to wrap its narrow self-interest in the public interest. There is no evidence that unbundling local switching discourages the deployment

[1] *See e.g.*, Brief for ILEC Petitioners and Supporting Intervenor at 11, *United States Telecom Ass'n v. FCC*, No. 00-1012 (D.C. Cir. Dec. 1, 2003) ("To the extent competitors are not using [ ] intermodal and intramodal alternatives even more widely to serve the mass market, it is because the availability of UNE-P at TELRIC rates creates a massive disincentive to facilities-based competition for mass-market customers.").

of new facilities or the introduction of advanced services. For its part, the FCC, in the Triennial Review Order ("TRO") *rejected* the incumbent claims that unbundling discourages investment, finding no conclusive evidence in the voluminous record that that was the case. To the contrary, unbundling the legacy network encourages competition, and the more competition that exists for *today's* customers, the more investment will occur to retain these customers in the *future* as their needs and options change. Although we would *also* disagree with the incumbents that unbundling discourages them from investing in new technologies, it is important to leave that debate for a future date. The issue here concerns access to the legacy circuit switched network to offer the most basic of telecommunications services to mass market consumers.

Q. Please summarize your testimony.

A. Verizon would greatly benefit financially by a shift of UNE-P lines to UNE-L because Verizon expects a return of UNE-P lines to its retail services, thereby strengthening its local monopoly. If the lines were to shift to UNE-L, Verizon would see a significant reduction in its wholesale revenues.

Verizon's network would be significantly disrupted by a sudden shift of a large number of UNE-P lines to UNE-L. Verizon's interoffice network is

designed to handle the majority of traffic from its retail and UNE-P lines through a network of first-route and final trunk groups starting at the originating end-office, with the filter of the initiating end-office directly terminating all traffic to nearby subscribers without ever relying on interoffice facilities. If the base of UNE-P lines were shifted to UNE-L, this traffic would re-enter the Verizon network at a different point in the interoffice network, increased by the minutes that must be returned to their initial end-office for termination, thus requiring augments to the interoffice network.

The deployment of competitive advanced services to the consumer/small business market would be reduced substantially without access to unbundled local switching, in direct conflict with the *only* facilities-goal in the federal Act (i.e., to encourage the deployment of *advanced* technologies). With the elimination of line-*sharing* by the FCC, the only meaningful vehicle to market competitive DSL services to smaller users is through line-*splitting*. The effect has been to reduce the addressable market for a competitive xDSL provider (such as Covad) from the 4.9 million lines served by Verizon, to the 442,000 lines served by UNE-P providers. If UNE-P is eliminated, the mass market closes entirely.

1 **Q. Before you address each of these points in more detail, does it make sense for**
2 **an incumbent to want its competitors to develop duplicative networks?**
3
4 A. No, not at all. The Commission should be highly suspicious of any claim by
5 Verizon that it supports the elimination of unbundling so as to "encourage" CLEC
6 investment. Why would an ILEC desire the replication of its network, when the
7 effect of such a strategy (if successful) would be loss of revenue, and the very real
8 possibility of excess capacity that produces a permanent reduction in the value of
9 its network?
10
11 There is *already* sufficient local switching capacity across the state. The issue
12 here is whether Verizon should make available to competitors local switching
13 capacity at cost-based, wholesale rates (which generate a reasonable profit for
14 Verizon) so that competitors may offer competitive analog voice services to mass
15 market customers.
16
17 **Q. Are you saying that a CLEC would never choose to install a competitive**
18 **switch?**
19
20 A. No, not at all. There are a number of reasons why a CLEC would decide to install
21 and use a local switch if it were otherwise economically and operationally viable;

1 my point is that there is no reason for the ILEC to encourage that result unless it
2 stood to gain financially by forcing its rival into such an investment.
3
4 One reason that a CLEC would install its own switch is to realize the same cost-
5 structure as the incumbent. Because the ILEC leases switching at its forward
6 looking average total cost (i.e., TELRIC), the additional cost to the CLEC is the
7 *same* for each and every switch port that it orders. As a result, a CLEC that leases
8 unbundled local switching pays the average cost for every switch port. This
9 means that the CLEC's variable and marginal cost of switching is the same as its
10 average cost (a fixed cost per port) and, unlike the ILEC, under TELRIC it never
11 gets the benefit of pricing down to its marginal cost.
12
13 The point is that a CLEC leasing switching would still face the appropriate
14 economic incentive to invest, even with the option of unbundled local switching
15 (assuming that the cost to move a loop to a new switch were, at a minimum, as
16 low as acquiring lines via UNE-P).
17
18 **Q. Are entrants precluded from offering new services when they lease switching**
19 **capacity from the incumbent?**
20
21 A. No. First, it is important to emphasize that this proceeding is fundamentally about
22 competition – more precisely, the impairments that would otherwise prevent

1 competition – in the POTS market. The reason that the market is known as "plain
2 old telephone service" is because it is provided over technically standardized
3 facilities, including the circuit switches that have been deployed in the ILEC
4 network. These are *generic* facilities, deliberately engineered to provide a
5 uniform, reliable and predictable customer experience. Whether a carrier leases
6 capacity in a Lucent 5E, Nortel DMS 500, etc. – or purchases and installs an
7 essentially identical Lucent 5E, Nortel DMS 500, etc. – does not fundamentally
8 change the services that can be offered.
9
10 It is important to understand that most new services in the POTS marketplace
11 have generally been the product of pricing and service innovations unrelated to
12 the underlying legacy network. Network-related innovations generally remove
13 the customer from the POTS market, which is defined as basic voice service. The
14 major consumer benefits that result from pricing and service-related innovations –
15 bundling, the elimination of distance from landline pricing, and more personalized
16 customer service, not to mention lower prices - are useful and highly valued by
17 customers. Moreover, competition is showing that there are ways to derive
18 additional value from the existing network, by integrating other services with
19 basic POTS.
20
21 **Q. What are some of the new and different services entrants who lease switching**
22 **capacity from the incumbent offer today?**

A. CLECs offer services utilizing advanced billing and provisioning systems as well as services that cross ILEC service territories. Some competitors offer a single price for a local minute of usage, while the ILEC only offers a different price for the first minute and subsequent minutes. Other CLECs offer message-rate or flat-rate pricing in which unlimited local, regional, and long distance minutes are included. Importantly, Verizon now offers a flat-rate service (its Freedom Plan) only after CLECs began offering such pricing plans. CLECs have also began offering innovative value-added services such as voicemail with unified messaging features which allow customers to receive, store and forward voice messages and faxes in voicemail boxes. These offerings go well beyond competing merely on price or by bundling local and long distance products. Even though the POTs market is shrinking, these integrated features and service plans are sufficient for those customers that only need or want basic telephone service. Without UNE-P, there would be no competition for that segment of the population and what is ultimately most important – customer choice – would be eliminated.

Q. Why would Verizon want to force its competitors to install their own switches, thereby increasing the excess supply of switch ports in the market?

A. Obviously, an ILEC would not want to force its competitor to make any investment that *improved* its rival's competitive position. The only reason an ILEC would want to encourage "facilities-based" competition would be if it believed that the result would be *less* competition, not more. Indeed, that is the great irony of the ILECs' arguments that additional CLEC investment, especially in current technology, is appropriate or required by the federal Act.

Thus, the only rational reason that the incumbents are so interested in forcing their rivals into a switch-based entry strategy is because they expect that the new entrants will fail, and that most UNE-P lines will return to them as retail lines if UNE-P were eliminated.

Q. Are there other effects on the ILEC from a forced UNE-P to UNE-L migration?

A. Yes. In Pennsylvania today, there are more than 442,000 UNE-P lines, spread over 387 wire centers. If each of those lines were actually forced to move to a UNE-L arrangement (assuming *arguendo* that Verizon's claims that it could actually be done successfully from the CLEC's – which is to say the customer's – perspective are correct), there would be a significant impact on Verizon's local network.

Verizon's network has been engineered with the expectation that all of the traffic from these 442,000 UNE-P lines will originate at the end-office currently serving the line today. Verizon has engineered its interoffice network recognizing that much of this traffic will originate and terminate on lines served by that same end-office (and, therefore, requiring the use of no interoffice facilities). For minutes that do require interoffice transport to other end-offices, Verizon has engineered the shared transport network to efficiently use "first-route" dedicated facilities where justified, with "overflow" traffic relying on tandem-routes during peak periods (or for all traffic from very small end-offices).

If these minutes are forced into a UNE-L arrangement, however, they would no longer "originate" at the existing ILEC end-office, but instead would "reappear" on interconnection trunks that are located elsewhere in Verizon's network. Suddenly, the minutes that had terminated directly on lines connected to the same end-office as the customer had been served by, and which had required <u>no</u> interoffice transport, would now need to be transported back to the original end-office. Moreover, the remaining minutes would require that the existing interoffice facilities be augmented to reach destination end-offices, and would frequently rely on tandem-switched transport facilities due to the relatively (compared to the ILEC) small traffic volumes of the CLEC.

Once again, the bottom line is clear: Verizon would only want to eliminate UNE-P if it was confident that significant impairments actually exist and that the *primary* consequence of a forced migration to UNE-L would be the return of (former) UNE-P lines to Verizon's retail monopoly.

Q. In your view, does the availability of UNE-P encourage investment?

A. Yes. This proceeding is about whether CLECs should be allowed to use the legacy LEC network to offer conventional POTS services. Although we disagree generally with the claim that unbundling discourages investment, there should be no debate that sharing the inherited legacy network to offer conventional POTS does not have that effect.

First, a UNE-P entry strategy (like any business) requires investment – investment in billing systems, computer systems, operational systems, offices and, perhaps most importantly, human capital (or, more colloquially, jobs). There is nothing magical about Class 5 circuit switching equipment that makes having more such investment socially desirable. These switches perform a commodity switching function that is necessary to offer basic POTS, but it is not a facility investment endowed with any particular opportunity for creativity. Indeed, the most useful new function offered by the circuit switch is its important

role "... as a means of accessing the local loop" – i.e., the access to customers that makes POTS competition possible through UNE-P.

Second, where new investment does hold the opportunity of dramatically changing the types of services that a customer receives (such as broadband capability), UNE-P is now the primary voice option for carriers (such as Covad) that are making just such an investment. With the elimination of line-sharing, providers of advanced services can no longer provide their data service over the same loop as the incumbent provides its voice service. Consequently, in order to approach the mass market, these providers require a different "voice partner" so that they may offer data in combination with voice over the same facility (as so many mass market customers desire). Only UNE-P provides that capability in a commercially reasonable manner for the mass market.

Third, some carriers such as Broadview have built an infrastructure to support customers on UNE-L, but rely on UNE-P to ensure that they can serve all customers in a geographic area, market to customers in areas where they do not have facilities (with the intent of building once densities and economics justify doing so), and support customers whose lines cannot be hot-cut due to feature and/or service limitations, lack of hot-cut processes or the unavailability of copper facilities.

1 Finally, the mere fact that a carrier does not invest in Class 5 circuit switching
2 does not mean that it is not investing in other facilities. As noted earlier, AT&T
3 and MCI are two of the largest UNE-P purchasers in the nation, and each have
4 invested billions of dollars in (what are commonly called) long distance
5 networks. Ironically, the RBOCs compete in long distance in *exactly* the same
6 manner that AT&T and MCI (and now Sprint) compete in local markets: leasing
7 wholesale services that provide the generic capability of switching and
8 transmitting voice calls.
9
10 UNE-P is central to mass market competition for basic POTS in the same way
11 that wholesale long distance is central to mass market competition for long
12 distance services. The POTS market is shrinking as customers choose (for
13 themselves, and not under regulatory direction) to move to more advanced
14 services. There is no valid policy reason to encourage additional investment in
15 the generic local exchange facilities that underlie UNE-P. POTS competition is
16 essential, however, to the development of competition for more advanced
17 services where investment is likely. Thus, the relevant question is "will there be
18 more advanced services investment if the POTS market is competitive, or less?"
19
20 **Q. Should the Commission expect more investment in advanced services if the**
21 **POTS market is competitive?**
22

A. Yes. First, the initial focus of mass market competition is bundling – offering consumers "packages" that combine local and long distance services into a seamless offering. Over time, however, this form of differentiation will reach a competitive balance, and companies will need to find other ways to differentiate themselves and their services. Moreover, as noted earlier, the POTS market is shrinking, with a natural evolution towards more advanced digital services. Consequently, with the market moving away from POTS, and the principal source of POTS differentiation (bundling) losing its advantage, companies will have to respond with different strategies. But it is critical to recognize that the more companies there are in the POTS market today, the more companies there will be who need to differentiate their services in the future, and the more investment (in new technologies, not duplicative facilities) that will result.

Q. Assuming that UNE-P remains available, how would you expect to see the market evolve in the future?

A. As we indicated earlier, UNE-P is part of a natural market transition whose duration is unknown because it is in the hands of customers themselves. The POTS market is shrinking, as customers increasingly desire services with higher bandwidth (for data) or different features. As the market changes, carriers that rely on UNE-P (to one degree or another) will have to evolve in response.

There are two directions where the evolution appears most likely. The first will be a greater integration of voice/data customers onto shared platforms using soft-switch technology. In lay terms, soft-switches (i.e., software-defined switches) essentially treat voice conversations as a special type of "data" session that is governed by unique instructions. Second, there will be greater innovation in the use of the "advanced intelligent network" (AIN) architecture that Verizon has deployed, but which has not yet been fully exploited.

Q. Is the "integrated voice/data" evolution you refer to (i.e., VOIP), a part of that trend?

A. Yes. Voice over Internet Protocol (VOIP) refers generally to the provision of voice services in a packet format. While this innovation is clearly exciting, it is still unclear how quickly (and how deeply) the service will fundamentally change customer options. In the near term, for those customers with high-speed data connections, VOIP will likely provide inexpensive alternatives. But it is still unclear how VOIP will really change local market conditions. At this point, VOIP does not reduce the impairments that justify continued access to unbundled local switching to serve mass market customers. Thus, soft-switches and VOIP will become increasingly prevalent in the enterprise market because they (in the first instance) enable the digital pipe to the customer to be used more efficiently.

One consequence of this will be that more customers that are mass market today will choose to become enterprise-like customers in the future.

Q. Please explain the second evolutionary path you have identified – the use of AIN by UNE-P based CLECs.

A. AIN will make possible a different evolutionary path to serve the market of voice-oriented customers. Over the past several years, a silent transformation has been underway in the circuit switched network through the deployment of the "advanced intelligent network" (AIN) architecture. In lay terms, the AIN architecture is a system that moves the software that defines a particular service from the switch itself to a remote database. Various "triggers" (unrelated to those in the TRO) are incorporated into the traditional local switch that, when activated, suspend call processing and signal a remote database (a "Service Creation Point" or SCP) to request an instruction as to how it should proceed. In an AIN environment, service definition is no longer controlled by the switch manufacturer when it releases a generic upgrade to its switch, but rather can be developed by the incumbent or CLEC.

Q. Why do you characterize the AIN architecture as affecting a "silent" transformation of the network?

A. The reason we characterize this as a "silent" evolution is because the architecture is generally underutilized, with few new services being introduced despite the fact that the architecture is now widely deployed. The reason, however, is that the AIN architecture is not yet open to *competitive* innovation and the incentive to deploy new services is different for an incumbent than an entrant. To the incumbent, a new service should produce incremental revenues, largely from existing customers; for a new entrant, however, a service can be justified by its ability to attract new subscribers, even if no discrete revenues are the result.

For instance, AIN could be used to replace the familiar dial-tone with an announcement (of the time, the weather or even the number of voicemails awaiting action). It is unlikely that an incumbent could charge its customers a higher price based on a different dial tone, but a unique dial tone could be a way for an entrant to differentiate its services from the incumbent.

We offer these observations not as criticism of Verizon, but rather to again emphasize that competitive differentiation (and consumer benefit) can arise from a variety of strategies, almost none of which require duplication of the Class 5 switching hierarchy of the ILEC. It would be far more useful for regulators to assure that the AIN architecture is open. This would allow non-ILEC service-defining databases to be accessed by switch triggers activated on switch ports

1 leased from the incumbent, without creating uneconomic incentives for wasteful
2 duplication of circuit switching investment.
3
4 **Q. So far you have explained the benefits of a competitive POTS market. What**
5 **would be the consequence of Verizon maintaining a POTS monopoly?**
6
7 A. Having local competitors in the marketplace has forced Verizon to respond by
8 their presence by rolling out innovative services and pricing options. For
9 example, today, as a result of several CLECs having introduced flat-rate pricing
10 plans (including MCI, Z-Tel and InfoHighway), Verizon now offers its Freedom
11 Pricing Plans, which are clearly a response to the offerings provided by
12 competitors. This competition clearly benefits the consumers and businesses of
13 Pennsylvania. If Verizon regains its POTS monopoly, its incentive to deploy
14 service innovations will cease and it will enjoy a base of captive customers and
15 revenues that it will be able to leverage against rivals in those narrow submarkets
16 where other entry strategies are beginning to take hold. If the Commission wants
17 to see competition in all geographic areas of the Commonwealth, it cannot afford
18 to permit Verizon to leverage its inherited monopoly through narrowly targeted
19 rate reductions or other strategies that foreclose competition in other areas. The
20 only way that competition can thrive and endure is if the core of the incumbent's
21 monopoly – the POTS market – is the beneficiary of aggressive competition.
22

1 **Q. Does this conclude your testimony?**

2

3 A. Yes.

4

CLEC Coalitn #3

DOCUMENT

INVESTIGATION INTO THE OBLIGATION OF INCUMBENT LOCAL EXCHANGE CARRIERS TO UNBUNDLE NETWORK ELEMENTS

DK 1-29-04 H13

DOCKET NO. I-00030099

ARC NETWORKS, INC., D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC. MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. (CLEC COALITION)

DIRECT TESTIMONY OF REBECCA H. SOMMI

WITNESS: REBECCA H. SOMMI

DATED: JANUARY 9, 2004

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*** PUBLIC ***

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Investigation into the Obligation of Incumbent Local Exchange Carriers to Unbundle Network Elements	))))	**Docket No. I-00030099** **Filed: January 9, 2004**

DIRECT TESTIMONY OF REBECCA H. SOMMI ON BEHALF OF ARC NETWORKS, INC. D/B/A INFOHIGHWAY COMMUNICATIONS CORP., BROADVIEW NETWORKS, INC., BULLSEYE TELECOM, INC., MCGRAW COMMUNICATIONS, INC. AND METROPOLITAN TELECOMMUNICATIONS OF PA, INC. ("CLEC COALITION")

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Testimony of Rebecca H. Sommi
on behalf of the CLEC Coalition
PA PUC Docket No. I-00030099
January 9, 2004

I. INTRODUCTION AND PURPOSE OF TESTIMONY

Q. Please state your name, title, and business address.

A. My name is Rebecca H. Sommi. I am Vice President – Operations and Support for Broadview Networks, Inc. ("Broadview" or the "Company"). My business address is 400 Horsham Road, Horsham, Pennsylvania 19044.

Q. Please briefly describe your responsibilities at Broadview and outline your related experience.

A. In 1999, I joined Broadview as Vice President of Operations Support. My position manages regulatory/compliance functions, carrier relations with Verizon, vendor management (including contract negotiation and provisioning), and validation of all bills (including network and collocation costs). I represented Broadview in the Triennial Review proceeding at the Federal Communications Commission.

From 1982 to 1989, I held sales and marketing positions with Bell of Pennsylvania. In 1989, I joined Eastern TeleLogic Corporation as Manager of Marketing, and during my tenure my responsibilities expanded to include the carrier relations and regulatory areas. In 1993, I was promoted to Director of Regulatory Affairs, with responsibility for negotiating interconnection agreements with Bell Atlantic on behalf of the company following the adoption of the federal

1 Telecommunications Act of 1996, and participating in the 1996 Act proceedings
2 before the Pennsylvania Public Utility Commission.
3
4 **Q. What is the purpose of your testimony?**
5 A. The purpose of my testimony is threefold. First, I will provide some background
6 on Broadview and describe Broadview's market entry in Pennsylvania. In
7 particular I will focus on Broadview's activities in the Philadelphia-Camden-
8 Wilmington Metropolitan Statistical Area ("Philadelphia MSA"). Second, I will
9 explain why Broadview would be impaired without continued access to Verizon
10 unbundled local switching even though Broadview relies on its own switching to
11 the extent practicable. Third, contrary to the assertions of Verizon witnesses West
12 and Peduto, I will demonstrate that Broadview does not satisfy the Triennial
13 Review Order's ("TRO's") "self provisioning" switch trigger in the Philadelphia
14 MSA because of the limited reach of Broadview's existing facilities. Broadview
15 cannot provide facilities-based service beyond Broadview's collocation footprint,
16 which covers only **[BEGIN BROADVIEW PROPRIETARY]** **[END**
17 **BROADVIEW PROPRIETARY]** of the 70 Verizon wire centers in the
18 Philadelphia MSA in which Verizon is seeking a finding of non-impairment for
19 mass market circuit switching. Moreover, even in those **[BEGIN BROADVIEW**
20 **PROPRIETARY]** **[END BROADVIEW PROPRIETARY]** wire centers
21 where Broadview is collocated, ongoing impairments limit the ability of

Broadview to self-provision switching. Accordingly, the Commission should reject Verizon's effort to eliminate mass market switching as an unbundled network element ("UNE") in the Philadelphia MSA.

Before getting to the substance of my testimony, I would like to note that all of the market share and addressable market data contained herein is very conservative, as it takes as given the geographic market proposed by Verizon. In the testimony of Joseph Gillan, Mr. Gillan explains that LATA boundaries would be a more appropriate way to define geographic markets for evaluating impairment for UNE switching used to serve the mass market. Verizon has 121 wire centers in the Philadelphia LATA, which is approximately 75% more than the 70 wire centers that Verizon has included in its definition of the "Philadelphia MSA" for purposes of this proceeding.

II. BROADVIEW'S BUSINESS PLAN AND MARKET ENTRY IN PENNSYLVANIA

Q. Please describe Broadview and its business plan.

A. Broadview was founded in 1996, and the Company is based in New York City. The Company is a network-based electronically integrated communications provider ("e-ICP") serving small and medium-sized business and communications-intensive residential customers in the northeastern and Mid-Atlantic United States. Primarily, we rely on our own switches, collocated

1 facilities, and the UNE Platform ("UNE-P") to offer bundled packages of local,
2 long-distance, data, and dial-up Internet access, and high-speed Internet services
3 to our customers, which include small and medium-sized businesses and
4 residential consumers. Although Broadview provides some digital, high capacity
5 services (*e.g.*, DS1), Broadview's focus is on the analog market, which for
6 purposes of this proceeding constitutes the "mass market."
7 Broadview employs over 600 people. More than 100 employees are
8 located in Horsham supporting the Company's Network Operations Center,
9 customer CARE, city operations, and sales organizations. Broadview deployed a
10 local switch in Horsham in 2000. Including the Horsham switch, Broadview has
11 deployed a total of four local switches, built over 175 collocation cages, and
12 provisioned over 150,000 lines via UNE-Loops ("UNE-L") in Verizon's
13 Northeast footprint, which includes Pennsylvania.
14 In addition to building its own network in Pennsylvania, New Jersey, and
15 New York, Broadview has expanded its reach into Connecticut, New Hampshire,
16 and Rhode Island through acquisition and asset purchases from companies such as
17 Net2000 and Network Plus. Over the past year, Broadview's primary business
18 goal has been to reduce expenses while maintaining revenue levels, thereby
19 improving the Company's financial performance. To offset customer churn,
20 which is a constant challenge in the mass market, Broadview has continued its
21 sales efforts in order to maintain revenue at current levels.

Q. How does Broadview market its services?

A. For business services, Broadview utilizes a direct sales force as well as sales agents and outbound telemarketing. For residential services, Broadview utilizes outbound telemarketing.

Q. Does Broadview utilize print advertising or any other kind of mass media advertising (*e.g.*, radio, television)?

A. Broadview sometimes utilizes print advertising in a very selective manner to market to its business customers.

Q. Please describe the sources of mass market switching capacity that Broadview utilizes to provide local service in Pennsylvania.

A. Broadview relies primarily on its own DMS 500 switch and UNE switching purchased from Verizon in the form of the UNE Platform ("UNE-P") to provide service in Pennsylvania. Broadview establishes end user service using UNE-P, then migrates customers to the extent possible to our switch, which is commonly referred to as a UNE loop ("UNE-L") arrangement.

Q. Under what circumstances does Broadview utilize self-provisioned switching?

A. Broadview utilizes its DMS 500 switch to the extent possible to serve consumers in the **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]** Verizon wire centers in which Broadview has established active collocation arrangements. Broadview presently utilizes self-provisioned switching to serve loops in the following Verizon wire centers (all of which are in the Philadelphia MSA): **[BEGIN BROADVIEW PROPRIETARY]**

[END BROADVIEW PROPRIETARY] Broadview provided this information in response to various data requests in this proceeding. For ease of reference, I have appended hereto all of Broadview's data request responses as RHS-1.

Q. To what extent does Broadview utilize UNE-P in the [BEGIN BROADVIEW PROPRIETARY] [END BROADVIEW PROPRIETARY]Verizon wire centers in which Broadview has active collocation arrangements?

A. Broadview initially establishes service using UNE-P for virtually all of its analog customers, business and residential. In the **[BEGIN BROADVIEW PROPRIETARY] [END BROADVIEW PROPRIETARY]** wire centers in which we have active collocation arrangements, Broadview migrates the customer loops from the Verizon switch (in a UNE-P arrangement) to the Broadview switch (in a UNE-L arrangement) as quickly and efficiently as possible. As of September 30, 2003, Broadview's mix of UNE-P and UNE-L service (on an analog loop basis) in the **[BEGIN BROADVIEW PROPRIETARY]**

1

2 **[END BROADVIEW PROPRIETARY]**

3

4 **Q. If UNE-P is available, why does Broadview self-provision switching where it**
5 **has operational collocation arrangements?**

6 A. Broadview utilizes self-provisioned switching in instances where we have
7 established collocation arrangements because in those circumstances the
8 Company can earn a higher margin than through use of UNE-P purchased from
9 Verizon.

10

11 **Q. If that is the case, then why does Broadview use so much UNE-P in the wire**
12 **centers in which it has active collocation arrangements?**

13 A. As I noted above, Broadview uses UNE-P as a migration vehicle for moving
14 customers to the Broadview switch. In addition, however, there are cases where
15 an end user's loop simply cannot be migrated to the Broadview switch, and UNE-
16 P is the only available option for providing competitive service. I will discuss the
17 details of these issues in the next section.

18

19 **Q. Does Broadview utilize UNE-P for any other purposes?**

A. Yes. Broadview utilizes UNE-P for a number of purposes, and UNE-P is of critical importance to Broadview's overall business plan in Pennsylvania. In addition to the two uses outlined above, Broadview uses UNE-P to reach customers outside of our collocation footprint.

In some cases, Broadview utilizes UNE-P to serve multi-location businesses that have offices both outside of Broadview's collocation footprint and within Broadview's collocation footprint. To the extent possible, Broadview self-provisions switching to the wire centers in which Broadview has active collocation, but we will serve customers location outside of Broadview's collocation footprint using UNE-P. Without the ability to utilize a combination of UNE-P and UNE-L to serve multi-location customers in Pennsylvania, Broadview in all likelihood would not be able to serve multi-location customers in the Commonwealth that need telephone service beyond the reach of Broadview's network.

In other cases, Broadview utilizes UNE-P to reach new customers in areas in which Broadview has no collocation. The revenue generated by these end users helps support Broadview's network investment in collocation and self-provisioned switching. Over time, Broadview hopes to expand the reach of its collocation facilities both within the Philadelphia MSA and in other areas of Pennsylvania.

1 **Q. To what extent does Broadview utilize UNE-P outside of its collocation**
2 **footprint?**
3 A. At present, Broadview has in service over **[BEGIN BROADVIEW**
4 **PROPRIETARY]** **[END BROADVIEW**
5 **PROPRIETARY]** Verizon wire centers outside of our **[BEGIN BROADVIEW**
6 **PROPRIETARY]** **[END BROADVIEW PROPRIETARY]** Verizon wire
7 center collocation footprint. UNE-P gives Broadview the ability to reach
8 customers throughout Pennsylvania, not just Broadview's relatively small
9 network of collocation arrangements. Again, access to UNE-P enables
10 Broadview to expand its existing collocation footprint and serve a broader
11 addressable market with self-provisioned switching.
12
13 **Q. Does Broadview have any collocation applications pending with Verizon in**
14 **Pennsylvania?**
15 A. No.
16
17 **Q. Does Broadview have any plans to submit an application for a new**
18 **collocation arrangement with Verizon in Pennsylvania?**
19 A. No.
20

III. BROADVIEW WOULD BE IMPAIRED WITHOUT ONGOING ACCESS TO VERIZON UNE SWITCHING IN THE PHILADELPHIA MSA AND THROUGHOUT OTHER AREAS OF PENNSYLVANIA

Q. In the previous section you suggested that Broadview would be impaired without access to UNE switching to serve mass market customers in the Philadelphia MSA and elsewhere in Pennsylvania even though Broadview utilizes its switch to provide service in [BEGIN BROADVIEW PROPRIETARY] END BROADVIEW PROPRIETARY]Verizon wire centers. Can you elaborate on this?

A. Yes. I would like to distinguish between impairment that remains in wire centers in which Broadview is collocated and impairment in wire centers in which Broadview is not collocated.

In wire centers in which Broadview has active collocation arrangements, Broadview self-provisions switching to the greatest extent possible. For some end user loops, however, it is not feasible to utilize a UNE-L arrangement. That is, it is not feasible to move the end user's analog loop(s) from Verizon's switching to Broadview's switching. There are a number of reasons for this. Customers may have a feature or service that is not supported by Broadview. Some end users have services (*e.g*, off-premise extensions) that are not currently supported by the hot-cut process. Verizon may lack spare loop facilities to make available to Broadview to serve the end user. In those cases, although Broadview would like

1 to serve the end user (business or residential) with our existing switch and
2 collocation facilities, it simply is not possible to do so.
3 In wire centers in which Broadview is not collocated, it simply is not
4 economically feasible to provide service to customers through any means other
5 than UNE-P. Accordingly, without UNE-P, Broadview could not provide service
6 beyond the footprint of the Verizon wire centers in which Broadview is
7 collocated.
8 Importantly, the impairment that affects Broadview in areas in which it
9 does not have collocation adversely affects Broadview's ability to serve end users
10 within its collocation footprint. Medium-sized businesses with multiple locations
11 are some of the most attractive customers that Broadview targets. Without the
12 availability of UNE-P outside of Broadview's collocation footprint, these
13 customers would be unlikely to purchase service from Broadview because
14 Broadview would lack the ability to provide all of the end user's
15 telecommunications services. If such a multi-location customer stayed with
16 Verizon, by contrast, the customer would be able to obtain all of its
17 telecommunications services from a single company.
18 Moreover, UNE-P enables Broadview to gain customers and revenues
19 outside of our collocation footprint to support our investment in facilities. As
20 everyone knows, Verizon inherited its ubiquitous local exchange network. UNE-
21 P provides Broadview with ubiquity similar to that possessed by Verizon, which

enables Broadview both to justify its existing facilities and to expand those facilities over time. Broadview would not even be able to bid for or offer services to multi-location business customers, and our growth would be constrained. Elimination of UNE-P would tend to devalue Broadview's facilities by limiting the Company's addressable market to only those customer locations within our collocation footprint. Moreover, without the revenue generated by UNE-P, it would be difficult to recover the cost associated with Broadview's planned investment in switching and collocation.

Q. Doesn't the availability of loop transport combinations (so-called "EELs") enable Broadview to extend the reach of its switch to wire centers without the need for collocation?

A. Although EEL arrangements may be effective for enterprise services (*e.g.*, DS1s), Broadview has not determined that DS0 EELs are economically or operationally viable to serve mass market customers (*i.e.*, customers that rely on analog loops). In fact, I am not aware of Verizon provisioning any DS0 EEL arrangements in Pennsylvania.

Q. Could you elaborate on some of the issues you foresee in any effort to provision DS0 EEL arrangements to serve analog customers?

A. Yes. First let me note that Broadview is interested in utilizing any type of arrangement that would enable us to expand the reach of our facilities. As I noted above, the primary reason we self provision switching to end users within our collocation footprint is because it allows Broadview to reduce the cost of providing service and to have greater control over customer service provisioning and maintenance. If we had other operationally and cost effective means of access to Verizon's loops, we would pursue them.

From an economic perspective, Verizon's pricing precludes Broadview from even attempting to provision a DS0 EEL. Verizon's Tariff Pa. P.U.C. 216 contains the following rates associated with DS0 EELs:

DS0 EEL Pricing
Pa. P.U.C. -No 216

Service Order Processing Charge		$1.06
Dedicated Transport		
Facility	$9.75	$357.97
Add'l Facility if purchased at the same time		$24.97
Per Mile	$0.03	
Entrance Facility		
Facility	$14.04	$503.05
Add'l Facility if purchased at the same time		$292.96
Loop		
Cell 1	$10.25	$3.01
Cell 2	$11.00	$3.01
Cell 3	$14.00	$3.01
Cell 4	$16.75	$3.01

[illegible]	[illegible]	[illegible]
Cell 1	**$34.19**	**$865.09**
Cell 2	**$34.94**	**$865.09**
Cell 3	**$37.94**	**$865.09**
Cell 4	**$40.69**	**$865.09**

Note: NRCs for loop assume no premise visits or hot cuts

The nonrecurring charges alone make it impossible for Broadview to utilize a DS0 EEL, even if Verizon could effectively provision one. It simply is not possible to incur well in excess of $800 in nonrecurring charges for the provision of a single residential or business line on a DS0 EEL versus a nonrecurring charge of $4.06 to provision a line on UNE-P. The added recurring charges associated with the DS0 transport and entrance exacerbate the unworkable economics of Verizon's DS0 EEL offering. Given these rates offered by Verizon, it is not at all surprising to me that I am unaware of Verizon provisioning any DS0 EELs to competitors in Pennsylvania.

Q. Does Verizon use DS0 EELs or analogous arrangement that you are aware of?

A. No. To the best of my knowledge, Verizon serves all of its analog end users with loops connected directly to Verizon's switches at the home wire center. I have no knowledge of Verizon employing DS0 EEL-type arrangements to provide service to its end users.

IV. BROADVIEW DOES NOT SATISFY THE TRO'S SELF-PROVISIONING SWITCH TRIGGER IN THE PHILADELPHIA MSA

Q. Verizon claims that Broadview satisfies the TRO's self-provisioning switch trigger criteria for the Philadelphia MSA. Do you believe that to be correct?

A. No. Broadview does not satisfy the TRO's self-provisioning switch trigger, and as I explained above, Broadview would be impaired without access to UNE switching from Verizon. As explained in detail in the testimony of Joseph Gillan, the FCC's self-provisioning trigger requires detailed analysis of whether and to what extent a competitor is utilizing self-provisioned switching to provide mass market service. The FCC's required trigger analysis amounts to much more than just "counting noses." Indeed, if the triggers were merely a counting exercise, this Commission would not need to conduct a granular analysis.

The Commission must not lose sight of the FCC's express "national finding that competitive carriers providing service to mass market customers are impaired without unbundled access to local circuit switching."[1] Although the FCC concluded that its "analysis could end with this conclusion,"[2] the FCC established the self-provisioning trigger in order to identify discrete areas of a state in which CLECs may not be impaired without access to mass market

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1 TRO, ¶ 422.

2 *Id.*, ¶ 423.

switching as a UNE. The self-provisioning switch trigger, in effect, is designed to differentiate from the mere existence of switches to the use of switches in a way that demonstrates impairment does not exist in a geographic area defined by the Commission.

Q. How has Verizon defined the mass market associated with the Philadelphia MSA?

A. Verizon has defined the mass market in the Philadelphia MSA as all analog lines in Verizon wire centers in UNE cell zones one, two, and three (but not UNE cell zone four). In total, 70 Verizon wire centers comprise the mass market in the Philadelphia MSA. I have attached hereto as RHS-2 Verizon's response to AT&T I-26 and 27, which lists these wire centers.

Q. Do you agree with that definition?

A. For purposes of this testimony, I utilize Verizon's definition, however, I believe the Commission should adopt LATA boundaries as the appropriate geographic market for the reasons contained in the testimony of Joseph Gillan.

Q. How many of the relevant Verizon wire centers in the Philadelphia MSA are addressable by Broadview's existing network?

A. With **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]** active collocation arrangements in the Philadelphia MSA, Broadview's facilities reach less than **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]** of the relevant Verizon wire centers in the Philadelphia MSA.

On an analog line basis, Broadview can reach barely **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]**of Verizon lines with its active collocation footprint. I have attached hereto as RHS-3 a chart based on discovery responses in this proceeding that conservatively estimates Broadview's addressable market. As a practical matter, some significant percentage of lines cannot be migrated from Verizon's switches to Broadview's switch. Even assuming Broadview could migrate to self-provisioned switching all of Verizon's lines, Broadview's collocation footprint does not reach approximately **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]** of Verizon's mass market lines in the Philadelphia MSA.

Q. Are there any other limitations to lines addressable by Broadview with the facilities in your existing operational collocation arrangements?

A. Yes. Broadview's collocation arrangements were built/engineered to service a specified number of lines – or "voice grade terminations." In order to provision

additional voice-grade lines (*i.e.*, UNE-L) once a carrier gets close to that maximum number, the carrier has to "augment" the number of voice grade terminations and may also need to upgrade its power plant and purchase additional equipment. Broadview's available capacity for its active collocation arrangements is as follows: **[BEGIN BROADVIEW PROPRIETARY]**

[END BROADVIEW PROPRIETARY] This data was provided in Broadview's response to Joint Party discovery Exhibit A-4, which is attached hereto as part of RHS-1. The bottom line is that Broadview's existing collocation facilities could support approximately **[BEGIN BROADVIEW PROPRIETARY]** **[BEGIN BROADVIEW PROPRIETARY]**

additional lines before Broadview would have to augment its voice-grade terminations in its collocation arrangements. Although it may not have to augment its collocation arrangements, additional expenses would be incurred in order to support the increased lines from an equipment/care perspective. Put another way, although Broadview's existing collocation arrangements in some theoretical sense can reach over **[BEGIN BROADVIEW PROPRIETARY]** **[BEGIN BROADVIEW PROPRIETARY]** Verizon lines, the fact remains that Broadview's existing collocation arrangements would require additional investment if Broadview were to obtain a **[BEGIN BROADVIEW PROPRIETARY]** **[BEGIN BROADVIEW PROPRIETARY]** market share in those addressable wire centers.

Q. On an actual competition basis, can you estimate Broadview's facilities-based market share in the relevant Verizon wire centers in the Philadelphia MSA?

A. Yes. Attached hereto as RHS-4, I have provided an estimate of Broadview's switch-based market share. For over **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]**of the Verizon wire centers that comprise the Philadelphia MSA, Broadview's market share is **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]**. In the wire centers in which Broadview does have active collocation arrangements, Broadview's market share runs from **[BEGIN**

BROADVIEW PROPRIETARY] **[END BROADVIEW PROPRIETARY]**. Across all of the relevant Verizon wire centers, Broadview's facilities-based market share is **[BEGIN BROADVIEW PROPRIETARY]** **[END BROADVIEW PROPRIETARY]**.

As noted above, these figures are very conservative, and take as given Verizon's geographic market definition. If the Commission were to adopt the Philadelphia LATA as the geographic area – as described in the Gillan testimony sponsored by Broadview and others – the addressable market of Broadview's facilities would be much lower than the already very low numbers presented herein.

Q. Based on the level of actual switch-based competition provided by Broadview and Broadview's addressable market in the Philadelphia MSA, do you believe that Broadview satisfies the TRO's self-provisioning switch trigger, such that this Commission can be assured that CLECs are not impaired without ongoing access to UNE switching to serve mass market customers in the Philadelphia MSA?

A. No. In fact, the data shows exactly the opposite. Broadview is clearly impaired without ongoing access to UNE switching (and therefore UNE-P) to serve mass market customers in the Philadelphia MSA as well as other areas in the Pennsylvania in which Broadview has no facilities.

V. CONCLUSION

Q. How would you describe the switch-based competition brought to bear by Broadview in the relevant portions of the Philadelphia MSA?

A. I believe that the switched-based competition offered by Broadview in the Philadelphia MSA is best described as nascent, fragile, and *de minimis*. The Commission must recognize that the network that Verizon inherited was financed by captive ratepayers, with the benefit of a government-protected monopoly. With those advantages, it took many decades to build the ubiquitous Public Switched Telephone Network.

Q. In your opinion, how would the elimination of UNE-P in the relevant portions of the Philadelphia MSA and/or elsewhere in the Pennsylvania impact the facilities-based competition offered by Broadview?

A. As I noted above, the availability of UNE-P enhances Broadview's ability to provide facilities-based service both within Broadview's collocation footprint and beyond Broadview's collocation footprint. This is especially true when it comes to Broadview's ability to serve end users whose loops cannot be migrated to Broadview's switch, or to serve multi-location businesses with offices outside of Broadview's collocation footprint. In sum, UNE-P maximizes Broadview's ability to use its facilities, and any reductions in the availability of UNE-P in the

Philadelphia MSA (or elsewhere in the Commonwealth) would limit Broadview's ability to utilize its existing facilities and our opportunity to deploy additional facilities in the Philadelphia MSA and in other parts of Pennsylvania.

Q. Does this conclude your testimony?

A. Yes.

RHS – 1

[PROPRIETARY]

RHS – 2

[PROPRIETARY]

RHS – 3

[PROPRIETARY]

RHS – 4

[PROPRIETARY]