BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

ROBERT J. KIRCHBERGER
AND
E. CHRISTOPHER NURSE

ON BEHALF OF
AT&T COMMUNICATIONS
OF PENNSYLVANIA, LLC.

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1 ***Witness background and qualifications***

2 **Q. MR. KIRCHBERGER, PLEASE STATE YOUR FULL NAME, ADDRESS**
3 **AND CURRENT RESPONSIBILITIES.**

4 A. My name is Robert J. Kirchberger. I am employed by AT&T, Inc. ("AT&T") at 1
5 AT&T Way, Bedminster, New Jersey. I am currently Director of Government
6 Affairs in the Law and State Government Affairs Division. I am responsible for
7 presenting AT&T's regulatory advocacy on a broad range of issues in
8 jurisdictions across AT&T's eastern region, including Pennsylvania. I have also
9 directed AT&T's participation in various industry collaborative work groups
10 addressing Verizon's unbundled network elements ("UNEs"), operational support
11 systems ("OSS") and performance measures and remedies.

12 **Q. MR. KIRCHBERGER, WHAT IS YOUR EXPERIENCE IN THE**
13 **TELECOMMUNICATIONS INDUSTRY?**

14 A. I have 34 years experience in the telecommunications industry – ten years with
15 New Jersey Bell and 24 years with AT&T. Over that span I have held positions
16 of increasing responsibility in a number of areas, including management of local
17 repair service centers and local switching offices, development of technical and
18 tariff support for pricing and marketing of both New Jersey Bell's and AT&T's
19 services, management of customized offerings and management of local service
20 initiatives. I have actively participated in state commission-sponsored oversight
21 of the testing of Verizon's OSS in Pennsylvania, Virginia, and New Jersey. I
22 have also participated on AT&T's behalf in the negotiation and arbitration of the
23 interconnection agreements with Verizon's predecessor, Bell Atlantic, in 1996
24 and 1997.

1 **Q. MR. KIRCHBERGER, HAVE YOU APPEARED AS A WITNESS IN**
2 **OTHER REGULATORY PROCEEDINGS?**

3 A. Yes. I have testified and/or participated in developing written comments and
4 testimony for AT&T on numerous regulatory issues in proceedings in
5 Pennsylvania and other Verizon states. Relevant to the issues in this case I
6 recently testified in proceedings in Maryland concerning access charge issues and
7 their implications for Verizon Maryland Inc.'s incentive regulation plan.

8 **Q. MR. NURSE, PLEASE STATE YOUR FULL NAME, ADDRESS AND**
9 **CURRENT RESPONSIBILITIES.**

10 A. My name is E. Christopher Nurse. I am employed by AT&T at 3033 Chain
11 Bridge Road, Oakton, VA 22185 as a District Manager in Law and Government
12 Affairs. I received a B.A. in Economics from the University of Massachusetts at
13 Amherst. In 1996, I received a Masters in Business Administration from
14 Southern New Hampshire University, in Manchester New Hampshire.

15 I am currently responsible for presenting AT&T's regulatory advocacy on
16 a broad range of issues, particularly focusing on issues supporting AT&T entry
17 into the local exchange market. I cover the state jurisdictions in the AT&T's
18 Eastern Region including Pennsylvania. My primary focus for the last several
19 years has been in the areas of § 271 Checklist compliance, Operating & Support
20 Systems (OSS) testing, Performance Metrics and Incentives, and Collocation.

21 **Q. MR. NURSE, WHAT IS YOUR EXPERIENCE IN THE**
22 **TELECOMMUNICATIONS INDUSTRY?**

23 A. I have 22 years experience in the telecommunications industry, including seven
24 years with AT&T through its acquisition of Teleport Communications Group, Inc.
25 (TCG). Prior to TCG, I was a Telecommunications Analyst with the New

Hampshire Public Utilities Commission from 1991 until February 1997, entrusted with a broad range of responsibilities. Assigned to the Engineering Department, I was the lead analyst or a contributing analyst to nearly all telecommunications matters before the New Hampshire Commission.

I regularly appear on behalf of AT&T in an array of industry workshops including the Pennsylvania Carrier Working Group. Also, I was AT&T's principal negotiator in developing performance metrics and the Performance Assurance Plan (PAP) in the Verizon East footprint.

Q. MR. NURSE, HAVE YOU APPEARED AS A WITNESS IN OTHER REGULATORY PROCEEDINGS?

A. Yes. I have testified before this Commission in several matters as well as in proceedings before state commissions in Delaware, Connecticut, the District of Columbia, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Virginia and West Virginia. I have testified in numerous dockets, including dockets addressing rates and terms for Unbundled Network Elements, Verizon's and other carrier's Chapter 30 Plans of Alternative Regulation, Section 271 Checklist compliance, collocation and reciprocal compensation.

Purpose, organization and summary

Q. MR. KIRCHBERGER AND MR. NURSE, WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The FCC's Triennial Review Order requires this Commission to determine, among other things, whether Competitive Local Exchange Carriers are impaired without access to Verizon unbundled network elements in relevant geographic markets. In the sections that follow, we will address how those markets should be defined, the standards set forth in the TRO for determining whether CLECs are

impaired, and how the Commission should apply those standards to the evidence discussed herein.

Q. HOW IS YOUR TESTIMONY ORGANIZED?

A. The following sections will address:

- The manner in which the TRO's "trigger" test is to be applied, and the results of applying it to Pennsylvania data;
- The benefits that Pennsylvania consumers (and Verizon) have derived from UNE-P competition;
- The manner in which this Commission should address the TRO's requirement that the states establish a "crossover" point at which it may be economic for a CLEC to serve a business customer with a DS1 loop rather than multiple DS0 loops (the so-called "DS0/DS1 crossover");
- The network architecture requirements -- and additional cost disadvantages -- facing a CLEC desiring to serve customers with its own switch;
- Whether Verizon has demonstrated, through the use of the FCC "triggers," – that CLECs are not impaired without access to unbundled high capacity loops;
- Whether CLECs are impaired on certain routes (for dedicated transport) and in certain locations (for high capacity loops) without access to unbundled high capacity loops; and
- The transition mechanisms the Commission should employ if it finds – which it should not – that CLECs are not impaired on certain routes (for dedicated transport) and in certain locations (for high capacity loops).

Q. PLEASE SUMMARIZE YOUR FINDINGS AND RECOMMENDATIONS.

A. Our detailed findings and recommendations are set forth in the sections which follow, and we refer the Commission to those sections for our substantive

recommendation. As a general matter, however, the evidence we present demonstrates that –

- The TRO's self-provisioning trigger for mass market switching – that three CLECs serve both business and residence mass market customers using their own switching -- is not met in any wire center in any of the eight Metropolitan Switching Areas at issue.
- UNE-P competition is widespread throughout the MSAs at issue and is providing substantial benefits to consumers (and to Verizon);
- There is no need for the Commission to establish a "crossover" point between DS0 and DS1 loops; consumers, rather than regulators, should decide how their service arrangements should be configured. If the Commission nevertheless decides to establish a crossover, it should be set at a level greater than a range of 14-16 DS0 lines.14 DS0 lines.
- CLECs face substantial economic and operational barriers in attempting to serve mass market customers using their own switching facilities;
- Verizon's dedicated triggers case is one of assumption and speculation rather than fact. Verizon has failed to demonstrate that the "triggers" have been met with respect to dedicated transport; and
- Verizon failed to provide any factual basis that would allow the Commission to find that the high capacity loop "triggers" were met at the specific Verizon-identified locations.

1 ***Interpreting the FCC Triggers For Mass Market Switching***
2
3 **Q. DOES THE TRO MAKE A NATIONAL FINDING THAT UNBUNDLED**
4 **MASS MARKET SWITCHING MUST REMAIN AVAILABLE IF CLECS**
5 **ARE "IMPAIRED" WITHOUT IT?**

6 A. Yes. The FCC made a national finding that CLECs are impaired in serving mass
7 market customers without access to unbundled local switching.[1] Its TRO
8 recognizes that "incumbent LECs [must] make an element available so long as
9 requesting carriers would be impaired without it."[2] Thus, any impairment
10 analysis for mass market switching must begin then with the FCC's finding of
11 nationwide impairment.

12 **Q. WHAT ROLE IS ASSIGNED TO THE STATES?**

13 A. The FCC delegated to the states the role of determining whether an exception to
14 the national impairment finding should be made for any particular area. The FCC
15 identified two processes the states are to use for making this investigation, one a
16 more streamlined determination of whether certain "triggers" have been met, and
17 the other a more nuanced analysis of the economic and operational barriers
18 CLECs face in attempting to serve mass market customers without access to
19 unbundled local switching.[3]

20 **Q. ARE BOTH THE STREAMLINED "TRIGGER ANALYSIS" AND THE**
21 **MORE ROBUST "POTENTIAL DEPLOYMENT" TESTS INTENDED TO**
22 **ANSWER THE SAME QUESTION?**

23 A. Yes. Both analytical processes are intended to – and indeed must – reach the
24 same answer to the same question, *i.e.*, whether the defined geographic area

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[1] *Id.* ¶ 502.

[2] TRO, ¶ 117.

[3] *Id.* ¶¶ 462, 463.

1 supports multiple, viable entrants that can serve mass market customers using
2 non-ILEC switching. Thus, both analytical processes are also part of the broader
3 analysis to determine "whether lack of access to an incumbent LEC network
4 element poses a barrier or barriers to entry, including operational and economic
5 barriers that are likely to make entry into a market uneconomic."[4]

6 Both the triggers and the full-scale impairment test are part of a holistic
7 approach to determining whether CLECs actually have (under the former test), or
8 reasonably could (under the latter test), overcome the general economic and
9 operational obstacles to entry without access to unbundled switching. Critically,
10 both tests, as all unbundling decisions, must yield results that are "economically
11 rational."[5]

12 **Q. WHAT IS THE FOCUS OF THE "TRIGGER" ANALYSIS?**

13 A. The trigger analysis focuses exclusively on the *actual* competition that exists
14 today.[6] It examines objective data to see whether and where qualifying CLECs
15 already serve mass market customers using their own switches, and whether they
16 are likely to continue doing so in the future. It looks only at *actual deployment*,
17 *i.e.*, the places and customers that a CLEC *currently* serves.[7]

18 It must be emphasized that the trigger analysis does not make any
19 assumptions regarding a CLEC's potential ability to serve other customers or
20 locations. Any conclusions about a CLEC's ability to expand its offering beyond

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[4] *Id.* ¶ 56.

[5] *Id.* ¶ 78.

[6] *Id.* ¶¶ 461 & 498.

[7] *Id.* n. 1561. *See also id.* ¶ 500 (requiring that trigger candidates be "currently" offering service)

1 the offices where it currently offers service necessarily require predictive
2 judgments that are solely a function of the "potential deployment" test.

3 **Q. WHAT IS THE "POTENTIAL DEPLOYMENT" TEST?**

4 A. The "potential deployment" test considers whether existing conditions would
5 allow an efficient CLEC to profitably enter a market without access to unbundled
6 switching. Under the test, "states must consider evidence of actual competitive
7 deployment of local circuit switches, operational barriers to competitive entry,
8 and economic barriers to competitive entry."[8] Thus, under this test, states
9 examine whether CLECs *could* overcome operational and economic barriers to
10 serve portions of the market that CLECs are not already serving. A finding that
11 CLECs could profitably serve those areas or customer groups, even though they
12 are not already doing so today, means there is "no impairment" and, thus, no
13 ongoing obligation for Verizon to make available unbundled switching at
14 TELRIC rates.

15 **Q. IS VERIZON RELYING IN ANY WAY ON THE "POTENTIAL**
16 **DEPLOYMENT" TEST?**

17 A, No. Verizon is relying entirely on the "trigger" analysis. It has described the
18 "potential deployment" analysis as an analytical "quagmire" that it is unwilling to
19 face in this proceeding.

20 **Q. DOES AT&T AGREE THERE IS NOTHING TO BE GAINED FROM A**
21 **"POTENTIAL DEPLYMENT" ANALYSIS?**

22 A. Yes, but for somewhat different reasons. As addressed in a subsequent section of
23 this testimony, any CLEC hoping to serve customers using a combination of its
24 own switches and Verizon loops must overcome substantial operational and

[8] *Id.* ¶ 463

1 economic barriers to do so. Taken together, the costs of establishing collocation
2 arrangements, plus the costs of installing and operationalizing the necessary
3 electronics, plus the costs of implementing the necessary trunking arrangements
4 between the collocation and the CLEC switch, collectively create substantial costs
5 and operational challenges for the CLEC – challenges and costs Verizon does not
6 face. And, it must be noted, these are the costs a CLEC incurs *before* it begins
7 paying Verizon to "hot cut" loops over to the CLEC's collocation space. AT&T
8 agrees that these costs can quickly create a "quagmire" for any CLEC hoping to
9 use UNE-L to serve its customers.

10 But that is a quagmire the Commission need not wade into here. Because
11 Verizon is relying entirely on the "triggers" test, the Commission's analysis in
12 this proceeding will be focused solely on where qualifying CLECs are already
13 providing service using their own switches, and whether they are using those
14 services to serve "the mass market" of both business and residence customers.[9]

15 **Q. WHAT ANALYTICAL STEPS SHOULD THE COMMISSION FOLLOW**
16 **IN CONDUCTING THE TRIGGER ANALYSIS?**

17 A. The first step is to define a "geographic market," a process that the FCC
18 recognizes must entail the gathering and analysis of detailed data.[10] Verizon
19 proposes to define the relevant geographic markets as being "Metropolitan
20 Statistical Areas," or "MSAs." Although AT&T believes that there are more
21 effective ways to define relevant geographic markets,[11] given the data Verizon has

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[9] *Id.* ¶ 127.

[10] *Id.* ¶ 495.

[11] For example, MSAs were not created with regard to ILEC serving areas and often result in overlaps or gaps in coverage. These problems can be avoided by using LATAs, which (1) were

1 presented here in this "trigger only" case, and with the qualification discussed
2 below, there is no need for AT&T to object at this time to using MSAs in this
3 proceeding.[12]

4 The next step is to apply the triggers to "objective" market data. If the
5 triggers are met, then the state commissions generally should conclude that a lack
6 of impairment exists unless exceptional barriers prevent other competitors from
7 entering without unbundled switching.[13]

8 If the triggers are not met, this Commission's inquiry is ended, because as
9 noted above, Verizon has not requested that this commission conduct a "potential
10 deployment" analysis to determine whether operational and economic conditions
11 in the defined geographic area allow multiple competitors to enter economically
12 without access to Verizon's unbundled switching.[14]

13 **Q. HOW ARE THE TRIGGERS FOR MASS MARKET UNBUNDLED**
14 **LOCAL SWITCHING DEFINED?**

15 A. The FCC has established two triggers for state commissions to use to determine if
16 CLECs have overcome the nationally identified impairment with respect to mass
17 market switching in a specific geographic area. The first trigger analyzes whether
18 at least three competitors are actively using their own switching to serve "the
19 mass market," *i.e.*, both residential and small business customers, throughout the
20 identified area. The second trigger examines whether at least two unaffiliated

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historically designed to reflect local calling areas and (2) are co-extensive with ILEC serving wire center boundaries. However, since the data on alternative CLEC use of switching is so meager, the difference in Pennsylvania appears to be immaterial.

[12] AT&T reserves, however, the right to propose other relevant market definitions in the future.

[13] *Id.* ¶ 462.

[14] *Id.* ¶ 463.

1 wholesalers are providing unbundled switching to serve the mass market, and
2 whether they are willing and operationally able to meet the switching needs of all
3 competing providers serving the mass market in the area.[15]

4 **Q. IS VERIZON CLAIMING THAT WHOLESALERS ARE PROVIDING**
5 **WHOLESALE SWITCHING IN ANY MSA AT ISSUE IN THIS**
6 **PROCEEDING?**

7 A. No, and that is not at all surprising. Although the FCC recognized that there is
8 little evidence that such wholesalers currently exist,[16] the *TRO* includes this
9 alternative trigger in anticipation of possible market changes and for potential
10 application in future impairment reviews.

11 **Q. EARLIER YOU SAID THAT UNDER THE LIMITED CIRCUMSTANCES**
12 **PRESENTED HERE, AT&T WILL NOT OBJECT TO VERIZON'S**
13 **PROPOSAL TO USE MSAs TO DEFINE THE RELEVANT**
14 **GEOGRAPHIC MARKET. DOES THAT MEAN AT&T AGREES**
15 **VERZION IS PRESENTING MSA DATA PROPERLY?**

16 A. No. Verizon proposes to exclude "Density Zone 4" wire centers from its
17 definition of the market wherever those wire centers are part of an MSA at issue.
18 Verizon Statement 1.0 at 13. One can fairly assume that Verizon has done so
19 because it wants to foster an impression that a greater portion of "the market" it
20 has defined is being served by CLECs using their own switches.

21 Verizon's approach is not supportable. The TRO's trigger analysis
22 requires a showing that at least three CLECs are using their own switches to serve
23 customers throughout the relevant market. But even assuming that the use of
24 MSAs arguably can satisfy the TRO's requirement (at ¶ 495) that markets be

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[15] *See Id.* ¶¶ 498-505.

[16] "[W]e have little to no evidence of a wholesale market for switching services from alternative vendors." *Id.* ¶ 113.

1 defined to "take into consideration the location of customers actually being served
2 (if any) by competitors, the variation in factors affecting competitors' ability to
3 serve each group of customers, and competitors ability to target and serve specific
4 markets economically and efficiently using currently available technologies,"
5 Verizon's efforts to *shrink* the MSA configurations do not. Specifically, Verizon
6 is proposing to exclude all Density Zone 4 exchanges from the MSAs it would use
7 to define the market. This exclusion – which in many cases constitutes a sizable
8 area within the MSA – would eliminate from Verizon's market definition areas
9 where consumers are most certainly ***not*** being served by three or more CLECs
10 using self-provided switches. Indeed, the proposed exclusion only highlights the
11 fact that the trigger is not met.

12 Moreover, the attempt to carve out that area, which represents relatively
13 sparsely populated areas in the state, leaves a separate "market" (*i.e.*, Density
14 Zone 4), which fails another requirement of the TRO. Markets may not be
15 defined so small that a competitive carrier *serving that area alone* would not be
16 able to take advantage of available scale and scope economies from serving a
17 wider market.[17]

18 **Q. WHAT IS THE MAGNITUDE OF VERIZON'S PROPOSED "DENSITY**
19 **CELL 4 EXCLUSION" IN EACH OF THE MSAs AT ISSUE?**

20 A. It is substantial in the aggregate and substantial in each MSA. Within the
21 Philadelphia-Camden-Wilmington MSA, 27 of 97 the Pennsylvania wire centers
22 are in Density Zone 4. Within the Pittsburgh MSA, some 54 of 99 are in Zone 4.

[17] TRO fn.1536 (emphasis added)

The numbers in the smaller markets are equally telling and equally problematic. In the Allentown-Bethlehem-Easton MSA some 14 of 20 wire centers are in Zone 4. For the Harrisburg-Carlisle MSA, 5 of 15. In the Lancaster MSA 2 of 6 wire centers are in Zone 4. For the Lebanon MSA, 6 of 7 wire centers are in Zone 4. For the Reading MSA it is 8 of 13. The Scranton-Wilkes-Barre has 11 Density Zone 4 wire centers out of 20.

Q. WHAT ARE THE NECESSARY IMPLICATIONS OF VERIZON'S PROPOSED ZONE 4 EXCLUSION?

A. Verizon will undoubtedly argue that the percentage of the customers residing in the Zone 4 wire centers is substantially smaller than the percentage of Zone 4 wire center to total wire centers. Even so, when considering the evidence regarding where, and whether, the self-provisioning trigger has been met, the Commission will need to keep in mind that for a sizable portion of each market Verizon is implicitly acknowledging there are not three independent, facilities-based CLECs providing voice service to mass market consumers. Those consumers deserve no less consideration from this Commission than the ones in the more populous Zones.

That fact matters. As explained below, the TRO's test for determining whether a trigger has been met focuses on whether three CLECs using self-provided switching are serving mass market customers, which includes both business and residence customers, throughout the relevant market. For a good-sized piece of each MSA, Verizon effectively has acknowledged that the trigger is not met.

Q. WHAT IS YOUR REACTION TO VERIZON'S SUGGESTION (BERRY (NOW WEST)/PEDUTO STATEMENT 1.0 AT 13) THAT "WITHIN THE MSAs, THE COMMISSION MAY CHOOSE TO DEFINE THE MARKET MORE NARROWLY, BY DIFFERNTIATING AMONG THE PRICING DENSITY CELLS WITHIN THOSE MSAs?"

A. The Commission can and should reject that suggestion. Density Zones are used to demarcate geographic areas where loop costs differ and do not reflect "markets" as such. In many instances, the wire centers associated with a particular Density Zone are so dispersed across an MSA that a CLEC could not market to a Zone effectively.

More to the point, it is not at all clear why Verizon would even make this suggestion for Pennsylvania. One could understand why Verizon would advance this suggestion if qualifying CLECs were disproportionately concentrated in one Density Zone. But even a cursory review of the Verizon's trigger data reveals no large variations in the proportion of CLEC lines between Zones 1 or 2 or 3. For Verizon to argue that the Density Zones "take into account 'variations of factors affecting competitors' ability to serve each group of customers'" is more than a bit odd, given that its own data suggests otherwise. In fact, and as shown in detail below, Verizon's own data prove the triggers are not being met in any Density Zone or MSA.

Finally, it is not at all clear how Verizon can propose to use Density Zones to define markets at the same time it is elsewhere urging the Commission to *combine* Density Zone 3 with Density Zone 4.[18] Combining them as Verizon

[18] Verizon Pennsylvania, Inc.' Petition for Reconsideration, Docket No. R-0016683, Generic Investigation Re: Verizon Pennsylvania, Inc.' Unbundled Network Element Rates, December 26, 2003, at 7.

1 proposes could only increase the level of impairment because, as AT&T noted in
2 its response to Verizon's proposal, merging the two cells would not make Density
3 Cell 4 more attractive to CLECs; rather, it would make Cell 3 less attractive.

4 **Q. IN THE PROCEDURAL ORDER (AT 14), THE COMMSSION INQUIRED**
5 **AS TO WHETHER IT HAS ALREADY ADOPTED AN APPLICABLE**
6 **MARKET DEFINITION IN THE GLOBAL ORDER. DOES THE**
7 **COMMISSION'S DETERMINATION IN THAT CASE PROVIDE A**
8 **USEFUL MARKET DEFINITION HERE?**

9 A. It would not appear so. Presumably this reference in the Procedural Order was to
10 the Commission's decision in the Global Order to require Verizon to make UNE-
11 P available for all residential customers and for those business customers
12 generating less than $80,000 in annual total billed revenue ("TBR") from local
13 exchange and intraLATA toll services.[19] The Commission subsequently defined
14 that TBR limitation by customer location, rather than account – that is, Verizon
15 was required to provide UNE-P to every business location at which the customer
16 generated less than $80,000 in annual TBR.[20] The Commission made clear that
17 this determination was intended to ensure the expanded availability of UNE-P,
18 especially for small business customers.

19 Having set that background, we have to admit to not being clear as to what
20 the Procedural Order intended. Certainly, if the Procedural Order was
21 contemplating establishing the geographic market for assessing impairment for
22 local switching by customer location, the Commission should reject that unduly
23 narrow definition for the reasons we have set forth above.

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[19] Global Order at 90.

[20] *Further Pricing of Verizon Pennsylvania Inc.'s Unbundled Network Elements*, Docket Nos. R-00005261 et al., Interim Opinion and Order, May 24, 2001, at 78-79.

At the same time, the pro-competitive rationale that motivated the Commission's previous determination to define the TBR limitation on a "by location" basis should govern the Commission's decision in this case as well. The Commission adopted that definition to ensure the widest possible availability of UNE-P as a way to extend the benefits of competition to the broadest number of customers possible. That same desire to secure the widest possible competitive choice for all customers warrants caution in the application of the TRO's triggers here.

Q. HOW MUCH DISCRETION DOES THE TRO GIVE THIS COMMISSION TO INTERPRET AND APPLY THE MASS MARKET SWITCHING SELF-PROVISIONING TRIGGER?

A. The TRO gives the states wide latitude in interpreting and applying the triggers. This Commission has ample authority to exercise its sound discretion in interpreting and applying the trigger aspect of the impairment analysis for mass market switching. Indeed, the FCC expressly stated:

> As we examine the evidence of facilities deployment by competitive LECs in the specific UNE discussions, we will give it substantial weight, but we do not agree that we must find it conclusive or presumptive of a particular outcome *without additional information or analysis.*[21]

In assigning the state commissions the responsibility of reviewing and applying the triggers, the FCC is looking squarely to the states to gather the "additional information" and to apply state commission judgment and perspective to the "analysis" required to determine whether a trigger has been met.

[21] *Id.* ¶ 94 (emphasis added).

1 This conclusion is further reinforced by the fact that the FCC recognized
2 that state commissions are best positioned to "gather and assess the necessary
3 information"[22] to make the "granular" reviews required by its decision and the
4 D.C. Circuit's prior ruling.[23] Thus, it is proper – and indeed essential -- that the
5 Commission exercise its expertise and judgment in applying the self-provisioning
6 trigger.

7 Indeed, Verizon cannot reasonably be heard to argue otherwise. In filings
8 with the Court of Appeals objecting to the FCC's decision, USTA, Verizon,
9 BellSouth and SBC claimed that the impairment analysis in the *Triennial Review*
10 *Order* represented a "blank check abdication" by the FCC of the unbundling
11 determinations to the state commissions.[24] Further, Verizon and the other ILECs
12 vigorously challenged whether the FCC's "competitive triggers" provide
13 "meaningful limits" on the discretion of state commissions.[25]

14 Thus, the Commission should not, as Verizon encourages, treat the trigger
15 analysis as some sort of mindless "count-to-three" exercise. Instead, it must apply
16 its experience and judgment to a rational set of criteria for reviewing the "trigger"
17 data, so that it can be assured that its decision based on those limited data will
18 yield the same result as a full economic and operational impairment analysis.

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[22] *Id.* ¶ 188.

[23] *Id. 493.*

[24] Reply Brief in Support of Petitions for Writ of Mandamus to Enforce the Mandate of this Court, *United States Telecom Assoc. v. FCC*, Nos. 00-1012, 00-1015, p.1 (Oct. 16, 2003).

[25] *Id.* at 9; *see also id.* at 9 n. 4 ("The Order abdicates to the states tasks that are far from 'mechanical.'")

1 **Q. DOES THE TRIGGER TEST HAVE AN IMPORTANT CONSUMER**
2 **WELFARE COMPONENT?**

3 A. Absolutely. This Commission cannot find that the trigger has been met in a given
4 market and, therefore, that Pennsylvania consumers will no longer be able to
5 receive competitive telephone service from CLECs utilizing UNE-P, unless and
6 until the Commission first finds that consumers throughout the market already
7 have at least three other facilities-based options available. Put more simply, an
8 appropriate application of the trigger test takes nothing away from consumers
9 unless those consumers already have multiple alternatives widely available.

10 Indeed, the FCC described as the "key consideration" of the self-
11 provisioning trigger whether the self-providers used in the trigger analysis "are
12 ***currently*** offering and able to provide service, and ***are likely to continue to do***
13 ***so***."[26] Actual self-provider presence "show[s] . . . whether new entrants, as a
14 practical matter, ***have surmounted barriers to entry*** in the relevant market."[27]
15 Thus, before the Commission determines that the trigger is met, it must require
16 firm proof that the market *is already supporting* at least three switch-based
17 carriers that provide meaningful competitive alternatives for all segments of the
18 mass market, and it must be confident that that market will *continue to support*
19 that level of facilities-based competition in the future if access to UNE-P were
20 eliminated.

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[26] TRO, ¶ 500.

[27] TRO, ¶ 93. This is consistent with the use of abbreviated versions of analysis in other legal contexts, which is justified only by a demonstration that the use of a "short form" analysis does not impact the reliability of results.

1 **Q. TO WHAT EXTENT ARE CLECS USING UNE-P TO SERVE MASS**
2 **MARKET CUSTOMERS TODAY?**

3 A. Today CLECs are using UNE-P to serve consumers throughout the MSAs in
4 which Verizon is challenging impairment. Exhibits 1 through 8 show, for each
5 MSA at issue, and for each wire center within those MSAs, where CLECs are
6 serving consumers using UNE-P. That Exhibit shows that UNE-P competition is
7 widespread throughout each MSA.

8 **Q. TO WHAT EXTENT ARE CLECS EXPECTED TO USE UNE-P TO**
9 **SERVE MASS MARKET CUSTOMERS IN THE FUTURE?**

10 A. Verizon, for one, certainly expects UNE-P competition to grow. Its response to
11 MCI – 42 (Exhibit 9} predicts that UNE-P competition **[BEGIN**
12 **PROPRIETARY]**

13

14

15 **[END PROPRIETARY].**

16 **Q. ARE CLECS TODAY USING UNE-P TO SERVE FAR MORE**
17 **RESIDENTIAL CUSTOMERS THAN BUSINESS CUSTOMERS?**

18 A. Yes. Exhibits 1 to 8 also show that CLECs are using use UNE-P to serve far
19 more residential customers than business customers. Over 70% of the UNE-P
20 arrangements provided within the MSAs at issue are residential – *i.e.*, UNE-P is
21 being used to meet the needs of 234,809 residential customers within the MSAs at
22 issue.

Q. WHAT IMPACT WOULD THE ELIMINATION OF UNE-P HAVE ON CONSUMERS WHO DO NOT HAVE THREE FACILITIES-BASED ALTERNATIVES READILY AVAILABLE?

A. Obviously those customers would be losing all of the benefits typically associated with competition – lower prices, a wider selection of services, more attentive customer service. Indeed, the prospect of such losses underscores the need for caution in applying the triggers. The Commission should be careful to ensure that in any market where it is willing to find the triggers are met, consumers who have been taking advantage of UNE-P based service in fact will have the requisite three alternatives available. Needless to say, the presence of three (or more) self-providers in one portion of the market means nothing to consumers located where ***no*** self-providers are present. Likewise, the presence of a self-provider serving only business customers (who are only a fraction of the mass market) means nothing to a residential customer losing his or her UNE-P-based service.

Q. HOW SHOULD THE COMMISSION EXERCISE ITS DISCRETION IN INTERPRETING AND APPLYING THE MASS MARKET SWITCHING TRIGGERS?

A. Perhaps the most critical area in which the Commission must exercise its judgment is in establishing the quantitative and qualitative criteria it will apply to the carriers that it will "count" for purposes of meeting the trigger. The TRO provides many guidelines to state commissions in this regard. In order for any carrier to count in the trigger analysis it must meet all qualifications outlined in the *Triennial Review Order*.

Q. WHAT CRITERIA MUST A CARRIER MEET IN ORDER TO "COUNT" AS A SELF PROVIDER UNDER THE FCC TRIGGERS FOR MASS MARKET UNBUNDLED SWITCHING?

A. As a threshold matter, any carriers relied upon in the self-provisioning trigger analysis must be unaffiliated with Verizon and with one another.[28] Assuming the affiliate test is met, a qualifying competitive switch provider must be using its own self-deployed, "separate switches" to "actively provid[e]" voice service to mass market customers.[29] Thus, for example, a carrier that is using its own switching only to serve "legacy" customers and not adding significant numbers of new UNE-L customers cannot be deemed to be "actively" providing service. Critically, any candidate CLEC also must be "currently offering and able to provide service, and [be] likely to continue to do so."[30] All three "trigger" carriers must be "serving mass market customers in a particular market with the use of their own switches."[31] And, each such provider must be a "true alternative" to Verizon.[32]

Any indication that a nominated carrier serves only a unique subset of customers or that it cannot sustain its market presence in a competitively meaningful way that places competitive pressure on Verizon casts substantial doubt on its viability as a "trigger" company.

The criteria have both *quantitative* and *qualitative* considerations. Simply counting the number of self-providing CLECs does not satisfy the Commission's

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[28] *Id.* ¶ 499.

[29] *Id.*

[30] *Id.* ¶ 500.

[31] *Id.* ¶ 501.

[32] *Id.* at ¶ 499.

1 obligations under the TRO. Some CLECs, for example, may have in the past
2 purchased only a limited number of unbundled analog loops to serve a small
3 number of customers, or may have offered only a basic analog POTS service.
4 The presence of such CLECs is not sufficient to determine if mass market POTS
5 customers in a locale both have and will continue to have competitive choices if
6 access to unbundled switching were eliminated. Rather, the Commission also
7 needs to employ a qualitative analysis that considers the current *extent* of a trigger
8 candidate's service (both geographically and in terms of the number of residential
9 and small business customers served), the *maturity* of the competition in the
10 market, and each trigger candidate's ability to *continue* to provide service in the
11 future is necessary to establish the criteria the Commission will use to review the
12 "objective" data that underlie a trigger finding.[33]

13 As noted above, the FCC expressly rejected arguments by the ILECs that
14 "evidence of facilities deployment by competitive CLECs" must or even can be
15 treated as "conclusive or presumptive of a particular outcome ***without additional***
16 ***information or analysis***."[34] Thus, although evidence of actual facility
17 deployment by CLECs "may indicate a lack of impairment," the FCC expressly
18 disagreed with ILEC assertions that such evidence should be "dispositive of [or
19 create] a rebuttable presumption of no impairment."[35] Instead, the FCC
20 acknowledged that "[i]n deciding what weight to give this evidence" -- and thus

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[33] In completing its trigger analysis, the Commission will ultimately make its trigger decision after applying "objective" evidence of actual use of alternative switching to these criteria.

[34] *TRO*, ¶ 94 (emphasis added). The FCC expressly declined to presume, for example, that the facilities deployment levels sufficient to support a grant of pricing flexibility in a market would require a finding of lack of impairment. *Id.* ¶ 104.

[35] *Id.* ¶ 94.

1 whether it is probative of a claim of non-impairment -- a Commission must
2 consider factors such as "***how extensively carriers have been able to deploy*** such
3 alternatives, ***to serve what extent of the market***, and ***how mature and stable*** that
4 market is."[36] Moreover, the FCC found that evidence that competitors using their
5 own switches for other purposes but who have not converted them to serve mass
6 market customers bolsters its findings that significant barriers make use of CLEC
7 switching to serve such customers uneconomic.[37] Thus, any notion that the
8 trigger analysis is simply a matter of counting switches or CLECs must be
9 soundly rejected.

10 **Q. DOES THE MERE FACT THAT A CLEC'S TARIFF PURPORTS TO**
11 **OFFER LOCAL TELEPHONE SERVICE IN A GIVEN GEOGRAPHIC**
12 **AREA AUTOMATICALLY QUALIFY THAT CLEC AS A TRIGGER**
13 **CANDIDATE?**

14 A. No. Under a trigger analysis, the focus is on where CLECs are *actually serving*,
15 not on where they wish to serve, or where they plan to serve, or where they claim
16 to be offering service but have no customers and no ability to provision service to
17 customers in a timely manner. Just because a CLEC has filed a tariff saying it
18 "offers" service in a particular area (or even statewide) or to a particular group of
19 customers does not mean the CLEC is *actually providing* service.

20 As the Commission well knows from its regulation of the interexchange
21 industry, it is not at all uncommon for carriers to file tariffs claiming to offer
22 service in Pennsylvania (or claiming an intent to begin offering service at some

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[36] *Id.* (emphasis added)

[37] *Id.* n. 1365 & n. 1371. Thus, a CLEC that operates an "enterprise" switch – one that is predominately used to serve enterprise, rather than mass market customers -- does not qualify as a trigger firm.

1 unspecified time) but then failing to follow through. To date the Commission has
2 issued certificates and accepted tariffs from a very large number of interexchange
3 carriers, but a large number of them are not serving any Pennsylvania customers.
4 A tariff is only a piece of paper until the CLEC begins offering service.
5 Under the TRO trigger analysis, the test is whether the CLEC is *actually* serving,
6 not whether it *claims* to be offering service.

7 **Q. DOES THE "MASS MARKET" INCLUDE BOTH RESIDENTIAL AND**
8 **SMALL BUSINESS CUSTOMERS?**

9 A. Absolutely. The TRO defines the "mass market" as consisting of both residential
10 ***and*** small business customers that are served using DS0 level loops.[38] It
11 acknowledges that there are "differences" between the two related to, among
12 other things, the types and levels of services and the levels of revenue each
13 generates.[39] Thus, in any instances where a CLEC has been able to serve only
14 small business customers using its own switching facilities, but has not been able
15 to serve appreciable volumes of residential customers (a point the TRO
16 acknowledges as generally true nationwide[40]), it is serving only a small potion of
17 the mass market. Thus, its presence does not demonstrate that it has been able to
18 surmount the barriers to serving the mass market generally, or that it would be

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[38] TRO ¶ 127 ("Mass market customers consist of residential customers **and** very small business customers.") (emphasis supplied); TRO n. 1402 ("Mass market customers are residential **and** very small business customers – customers that do not, unlike larger businesses, require high bandwidth connectivity at DS1 capacity and above. . . .") (emphasis supplied).

[39] TRO n. 432.

[40] TRO ¶ 438 (acknowledging that "only a small percentage of the residential voice market" is being served over CLEC switches, and that even those data may be "significantly inflated.").

able to survive by serving "typical" customers who generate only average revenues.[41]

Again, the trigger analysis is a surrogate for the results that would be obtained in a full review of operational and economic barriers faced by carriers serving both residential and small business customers. Thus, a trigger analysis that relied primarily on evidence of competing switch providers that serve only small business lines (with average revenues exceeding those of all mass market customers on average) would not provide an economically rational view of the impact of a determination that the trigger is met for the mass market as a whole, which predominantly includes residential customers. Thus, without convincing proof that three viable competitors are using their own switches today to serve residential customers generally, the Commission should not find that the trigger has been met. Indeed, the "clear and measurable benefit to consumers" unbundling standard[42] cannot be met if *either* residential *or* small business customers as a class are disregarded when applying the triggers.

Q. DID THE FCC'S *ERRATA* DRAMATCIALLY REDUCE THE SHOWING VERIZON MUST MAKE TO DEMONSTRATE THAT THE TRIGGER HAS BEEN MET?

A. No. The FCC's Errata modifies language in the *Triennial Review Order*, for example in paragraph 499, regarding application of the triggers within a geographic area. The FCC issued the Errata following outcries from Verizon and other ILECs complaining that the original language of the TRO would have required that *each* unaffiliated self-provider counted for a trigger be economically

[41] TRO, ¶¶ 472, 483.

[42] TRO n.1332.

1 and operationally capable of serving *each and every* customer within the defined
2 geographic area. This extreme reading of the original language, which assumed a
3 requirement of four facilities-based competitors (including the incumbent) of
4 "carrier of last resort" size to meet the trigger was hyperbolic. The Errata
5 addressed that concern, but it does not and cannot turn the entire order on its head.
6 Indeed, Verizon itself has argued to the FCC that the errata procedure itself,
7 which made unexplained ministerial textual changes in an already issued order,
8 cannot, under FCC rules, be relied upon to make substantive changes.[43] Nor, as a
9 matter of basic logic, could the removal of a few sentences change the entire tenor
10 of a 500-page order. All of the standards enumerated above remain in full force
11 and effect, just as they did before the Errata was issued.

12 **Q. MUST A CARRIER BE ACTIVELY PROVIDING VOICE SERVICE, AS**
13 **OPPOSED TO, FOR EXAMPLE, DATA SERVICE ONLY, IN ORDER TO**
14 **COUNT IN A TRIGGER ANALYIS?**

15 A. Yes. The FCC was explicit that "the identified competitive switch providers
16 should be actively providing ***voice service*** to mass market customers in the
17 market."[44] This requirement is consistent with the FCC's definition of the mass
18 market, which consists of "analog voice customers that purchase only a limited
19 number of POTS lines, and can only be economically served via DSO loops."[45]
20 Thus, a carrier that does not offer voice service, or that offers it only incidentally
21 as part of an offer focused on delivery of other services, should not be eligible to
22 satisfy the self-provisioning trigger. Under this analysis, a carrier using a DSO

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[43] *See* Ex Parte Letter from Joseph Mulieri, Verizon, to Marlene Dortch, FCC (filed CC Docket 94-157, July 21, 2003).

[44] *Id.* ¶ 318 (emphasis added).

[45] *Id.* ¶ 497.

loop to provide fax service or offering data service over analog DSL lines, for example, is not serving traditional POTS end users.

Q. HOW DOES THE "LIKELY TO CONTINUE" TO PROVIDE SERVICE REQUIREMENT APPLY IN IDENTIFYING SELF-PROVIDERS FOR THE TRIGGER ANALYSIS?

A. Absent the "likely to continue" requirement, there is no assurance that the switching self-provider has the sustained ability to serve the mass market economically without access to the incumbent's switching. Accordingly, the Commission cannot reasonably find that a carrier that has not executed a broad-based UNE-L entry strategy is likely to be able to continue to provide sustainable mass market alternative to the ILEC and should not qualify in the Commission's analysis.

Q. DOES A SWITCHING SELF-PROVIDER SERVING AN AREA MARKEDLY SMALLER THAN THE MARKET (DEFINED HERE BY VERIZON AS THE MSA) COUNT TOWARD MEETING THE TRIGGER?

A. No. Each carrier that "counts" toward the trigger must be "serving mass market customers in a particular market with the use of [its] own switch[]."[46] Thus, a carrier reaching customers on a facilities basis in an area considerably smaller than the defined geographic market does not qualify for purposes of determining whether the triggers are met in a larger area. Otherwise, the consumer welfare mandates of the *Triennial Review Order* discussed above cannot be satisfied, because there is no reasonable expectation that all customers within the defined area will have the benefit of multiple, alternative sources of facilities-based competition.

[46] *Id.* ¶ 501.

1 The implications of this interpretation are fully consistent with the effects
2 of the enterprise loop and dedicated transport triggers, which were unanimously
3 agreed upon by the entire FCC and are the model for the switching triggers.[47]
4 When those triggers are met, there is no question that all retail customers at a
5 particular location (for loops) have a reasonable opportunity to obtain loop
6 facilities from alternative suppliers.[48] Similarly, when the transport trigger is met,
7 all CLECs needing to transport traffic along a particular route will have actual
8 access to meaningful competitive alternatives to unbundled ILEC facilities.[49]
9 Notably, in that context as well, the FCC expressed concern that if the triggers are
10 met carriers must "remain capable of serving end-user customers in all areas."[50]
11 Thus, if the Commission were to use a less exacting standard in applying the mass
12 market switching triggers, the results will not be consistent with those flowing
13 from the use of the loop and transport triggers and would not be "economically
14 rational,"[51] because consumers would be left unprotected from Verizon's market
15 power.

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[47] The FCC majority emphasized that its approach to triggers for mass market switching is "essentially identical" to what the entire Commission agreed to with respect to the triggers for high capacity loops and dedicated transport. *Id.* n. 1315.

[48] The FCC's insistence that each end user should have the benefit of competitive alternatives is evident, for example, in its requirement that wholesale high-capacity loop providers have access to the entirety of a multiunit customer premises and that they offer alternative facilities on "a widely available wholesale basis." *Id* ¶ 337.

[49] *Id.* ¶¶ 329, 400-401.

[50] *Id.* ¶ 407.

[51] *Id.* ¶ 78.

Q. DOES A CLEC SERVING ONLY A SMALL NUMBER OF MASS MARKET CUSTOMERS WITH ITS OWN SWITCHING QUALIFY AS A TRIGGER CANDIDATE?

A. No. As noted above, a CLEC that only serves a small number or proportion of customers, or focuses only on a niche within the mass market is not serving a competitively meaningful number of customers. Its presence is not meaningful evidence of non-impairment.[52]

More to the point, a CLEC that lacks adequate scale in its current operations does not demonstrate a significant likelihood that it will be able to "continue" to offer facilities-based service,[53] especially in the mass market, which the FCC correctly recognizes is characterized by both low margins and substantial churn.[54] Indeed, scale is critical in the mass market, because competitors cannot rely on long term contracts to assure that they will recover the additional costs they must incur (a large portion of which are sunk) to provide service for each individual analog loop. Notably, the FCC recognizes that "if scale economies are present, it would be difficult for an entrant with a small market share to achieve costs as low as the TELRIC price."[55]

Nor does a carrier that serves only a niche demonstrate that it is capable of serving "the mass market." This is particularly important, because the FCC's test for economic impairment properly assumes that an efficient CLEC can only

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[52] *Id.* ¶ 438 (Bell Operating Company claim that three million residential lines were served using CLEC switches as of year-end 2001, even if accepted as true, represents only a small percentage (less than three percent of reported residential voice lines) and does not accurately depict entering competitors' abilities to overcome barriers to entry to serve the mass market using incumbent LEC loops).

[53] *See Id.* ¶ 500.

[54] *Id.* ¶¶ 471, 474.

[55] *Id.* n. 379.

expect to earn the "typical revenues gained from serving the average customers" in the mass market.[56] This requirement is sensible for many reasons, not the least of which is that any other standard (particularly one based on so-called "cherry-picking") would effectively prevent most mass market customers from enjoying the benefits of competition. Although all carriers (including Verizon) reasonably focus on attracting the highest revenue customers, no carrier can expect to win and retain a disproportionate share of the small number of high margin customers.[57] Accordingly, if a proposed "trigger" CLEC only serves customers with high revenues (such as, for example, business customers but not residential ones), its existence clearly does not demonstrate that it can (or would) serve the mass market in general.

Q. FOLLOWING UP ON THE LAST QUESTION, SHOULD CARRIERS DEPLOYING ENTERPRISE SWITCHES AND ONLY INCIDENTALLY SERVING A FEW ANALOG LOOPS COUNT IN THE TRIGGER ANALYSIS?

A. No. A CLEC serving predominantly enterprise customers over digital loops and using its enterprise switch only incidentally to provide a small number of analog lines (*e.g*,. for fax service) should not be counted for purposes of applying a trigger. The business plan of such a CLEC does not demonstrate it is economically feasible to serve typical mass market customers. Indeed, the FCC

[56] *Id.* ¶ 472.

[57] For example, if the efficient CLEC needs about a 10% market share in order to achieve its efficient scale and only 20% of customers qualified as the "high revenue" segment, that carrier would need to win -- and retain -- *half* of all those high value customers to achieve the necessary scale. Not only is this an irrational assumption with respect to initial customer acquisitions, it is even more irrational to assume that the ILEC would not take extraordinary steps to win those customers back.

1 explicitly concluded that "switches serving the enterprise market do not qualify
2 for the triggers."[58]

3 **Q. DO ILECS USING THEIR SWITCHES TO SERVE OUT-OF-**
4 **TERRITORY CUSTOMERS COUNT AS "TRIGGER CANDIDATES?"**

5 A. No. Any ILEC using its own switches to serve out-of-territory customers is not a
6 CLEC for purposes of the triggers. A qualifying competitive switch provider
7 must be using "separate switches" to "actively provid[e]" voice service to mass
8 market customers.[59] An ILEC engaging in "cross border raids" to connect
9 additional customers to its existing switch is simply looking to take advantage of
10 its unique economies of scale. Opportunistic expansion of an existing ILEC's
11 business, however, cannot serve as "examples of multiple competitive LECs using
12 their own switches to serve mass market customers. . ." [60] It proves nothing about
13 a true CLEC's ability to expand into a market using a combination of its own
14 switching and the ILEC's loops.

15 **Q. DO CABLE TELEPHONY PROVIDERS COUNT AS TRIGGER**
16 **CANDIDATES?**

17 A. The FCC defines "intermodal" as referring generally to facilities or technologies
18 "other than those found in traditional telephone networks"[61] and confirms that it
19 does "not find the presence of intermodal alternatives dispositive in our
20 impairment analysis. . . ."[62] Thus, providers of cable telephony services should
21 not be counted toward the trigger aspect of the impairment analysis unless they

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[58] *Id.* ¶ 508.

[59] TRO 499.

[60] *Id.* 498

[61] *Id.* n. 325.

[62] *Id.* ¶ 97.

1 are shown to provide "alternatives [that] are comparable in cost, quality, and
2 maturity to incumbent LEC services."[63] It must also be recognized that cable
3 providers do not – and cannot – provide service outside of their limited cable
4 footprint. All proposed trigger candidates that supply voice services using other
5 than circuit switches must also be reviewed under these criteria.[64]

6 The FCC found that "[c]able telephony and cable modem service, for
7 example have developed because cable operators have been able to overlay
8 additional capabilities onto networks ***that they built for other purposes***, often
9 under government franchises, and therefore have ***first-mover advantages*** and
10 ***scope economies*** not available to other new entrants, which lower their
11 incremental costs of providing the additional services."[65] Thus, the FCC correctly
12 stated that it "may give less weight to intermodal alternatives that do not provide
13 evidence that self-deployment of such access is possible to other entrants. In
14 addition, if the record evidence shows that there are limitations on the number or
15 types of customers that can be served by a particular technology, we will consider
16 whether an entrant could use this technology profitably to target only those
17 customers that can be served by the alternative technology."[66]

18 This is consistent with the FCC's directive that "when one or more of the
19 three competitive providers is also self-deploying its own local loop, this evidence
20 may bear less heavily on the ability to use a self-deployed switch as a means of

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[63] *Id.* & n. 1549.

[64] *Id.*¶ 97 ("[W]e do not find the presence of intermodal alternatives dispositive in our impairment analysis, as some commentators suggest") .

[65] *Id.* ¶ 98 (emphasis added).

[66] *Id.*

accessing the incumbent's loop."[67] In addition, the FCC notes that it "may give less weight" to intermodal alternatives that "do not provide evidence that self-deployment of such access is possible to other entrants."[68] Fundamentally, as the FCC recognizes, the ability of a competitor to enter using self-deployed switching is different if access to the incumbent's local loops is required.[69] The overwhelming majority of competitors serving the mass market still require connectivity to the incumbent's local loop facilities, a factor that must be accounted for in any impairment analysis. Thus, as the *Triennial Review Order* concludes, cable telephony facilities deployment "provides no evidence that competitors have successfully self-deployed switches as a means to access the incumbents' local loops."[70]

Q. DOES VOICE OVER INTERNET PROTOCOL (VOIP) COUNT AS A RELEVANT INTERMODAL TECHNOLOGY FOR THE MASS MARKET SWITCHING IMPAIRMENT ANALYSIS?

A. No, a point Verizon implicitly concedes by not identifying any VoIP providers as trigger candidates. Voice Over Internet Protocol (VoIP) is an example of an emerging technology that may become a promising alternative to traditional circuit architecture in some circumstances. Today, however, VoIP has not yet achieved the degree of substitutability necessary to have it weigh into or impact

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[67] *Id.* n. 1560. Moreover, in its analysis of CLEC impairment in the absence of the loop UNE, the FCC concluded, regarding cable systems: "[W]hile these systems are increasingly being used for the delivery of retail narrowband and broadband services (*e.g.*, telephony and high-speed internet access), the record indicates that such systems are not being used currently to provide wholesale local loop offerings that might substitute for access to the incumbent LEC's loop facilities." *Id.*, ¶ 222. Thus, it is clear that the FCC considered cable telephony *not* to provide evidence of a lack of CLEC impairment in the absence of *either* the switching *or* loop UNE.

[68] *Id.* ¶ 98.

[69] *Id.* ¶ 439.

[70] *Id.* ¶ 440.

1 the mass market unbundled switching impairment analysis. Its current limitations
2 as a substitute for delivery of voice service "comparable in cost, quality, and
3 maturity to incumbent LEC services"[71] are well known.
4 First, VoIP is not a "stand alone" local telephone service. Any mass market
5 customer wanting to use VoIP must *also* have – and pay for -- a broadband
6 connection to the internet. Thus, this is not a service for the "mass market," but
7 rather one limited to only that fraction of the market with high-speed internet
8 connections. Moreover, the penetration rates for VoIP services today are so small
9 that VoIP cannot yet be viewed as anything more than a niche play.
10 Second, VoIP has certain technical limitations.[72] Unlike with traditional
11 landline services, VoIP subscribers experience a loss of service in the event of any
12 power failure. This occurs because the end user must use AC power for the phone
13 adaptor unit that is necessary to convert the signal from the analog handset into
14 the IP packets required for transmission over the IP based data network.
15 Moreover, because phone service is provided through this power adaptor, the
16 customer's existing phone jacks and the "phone extensions" supported by those
17 jacks are rendered useless. As a result, end users who use jacks to provide access
18 through extensions must be willing to replace their existing "home network
19 architecture" with either cordless phones or wireless phone jacks, a transition that
20 can be costly.

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[71] *Id.* n. 1549.

[72] One technical difference is in the way callers connect with E911. Unlike with traditional E911 service where 911 calls automatically transmit to the PSAP the location, telephone number and billing name, to date VoIP callers to E911 must verbally communicate some of that information to the dispatcher.

Applying the FCC's Self-Provided Switching Trigger to Pennsylvania

Q. WHAT DATA SOURCES ARE YOU USING TO DETERMINE WHETHER THE SELF-PROVIDED SWITCHING TRIGGER IS MET IN ANY OF THE MSAs AT ISSUE?

A. Our conclusions, set forth below, are largely drawn from the information aggregated on Exhibits 1 through 8. Each exhibit summarizes, for a single MSA at issue, the data provided by Verizon and the "trigger candidate" CLECs.

Each exhibit presents four distinct sets of information. The first two columns identify the wire center location and the industry standard CLLI code for each Verizon wire center within the MSA. This information was extracted from Verizon's response to AT&T Set I-1.

The next two columns show the number of UNE-P arrangements being provided from each of those wire centers, separated by "Residence UNE-P" and "Business UNE-P." This information was taken from Verizon's response to MCI Set I-41. (Exhibit 10)

The next four columns reflect the "Verizon-Identified CLEC Data" for which AT&T lacks information to determine the appropriate "trigger status" at the time this testimony was being prepared. The first column shows the name of the "trigger candidate" CLEC, as shown on Verizon's response to AT&T 1-1. The second column shows unbundled DS0 voice grade loops being provided by "trigger" CLECs in each wire center, as shown on Verizon's response to AT&T I-1. Where Verizon failed in its response to AT&T I-1 failed to reflect unbundled loops for an MSA "Zone 3" wire center, but did report such loops in its response to Joint Parties Set I-2(a) & (b), we have included those loops in the second column, pending a determination of which CLECs are serving those loops and

1 under what circumstances. The last two columns show the breakout between
2 "business" loops and "residence" loops, where such information has been
3 identified on Verizon's Supplemental Response to AT&T Set I.
4 The last four columns address "Verizon-Identified CLEC Data To Be
5 Excluded From the Trigger Analysis." The first column identifies the CLEC
6 name. The second column reflects unbundled loops that cannot properly be
7 included in a trigger analysis. For the "trigger" CLECs serving only business
8 customers, the information is the same as Verizon reported in its response to
9 AT&T I-1. The third column is entitled "Cable Residential Per Verizon," and
10 includes the "E911 database" residential lines Verizon asserts are being served by
11 cable telephony providers that should not be counted towards the trigger. The line
12 count information for the cable telephony providers also is derived from
13 Verizon's response to AT&T I-1.
14 The last column provides a shorthand reference to the reasons why the
15 CLEC must be excluded from the trigger analysis: "ILEC" means that the carrier
16 is not a CLEC but rather an ILEC serving customers out of territory using ILEC
17 switching to do so. "No mass mkt" means that the CLEC does not serve mass
18 market customers. "Cable" means the carrier is a cable telephony provider, which
19 should not count toward the trigger. "Not active" means that the CLEC is not
20 seeking to grow its business and/or has such a small presence in the MSA that it
21 does not meet the TRO's requirement that a trigger candidate be "actively
22 serving" customers.

Q. ARE AT LEAST THREE QUALIFYING CLECS SERVING MASS MARKET CUSTOMERS USING THEIR OWN SWITCHES THROUGHOUT EACH OF THE MSAs VERIZON HAS IDENTIFIED?

A. No. After removing CLECs that don't "count" from the trigger analysis, there are no wire centers – much less MSAs -- where at least three CLECs are using their own switches to serve mass market customers. There are no "qualifying" CLECs at all in the 5 "Zone 3" wire centers of the Reading MSA, and none in the 4 in the Lancaster MSA. The same is true in the Harrisburg-Carlisle MSA, where none of the 10 Zone 3 wire centers has three facilities based CLECs present. None of the 9 Scranton MSA wire centers has three self-providing CLECs present, nor are there three CLECs serving mass market customers in the one Lebanon MSA wire center. The same is true of the 6 Allentown-Bethlehem-Easton MSA Zone 3 wire centers.

And even in Pennsylvania's two largest metropolitan statistical areas, there are no wire centers where three qualifying CLECs are serving mass market customers. In the Pittsburgh MSA, none of the 44 Zone 1, 2, and 3 wire centers have three or more qualifying self-providing CLECs present. Nor are there any in the Philadelphia MSA's 70 Zones 1-2-3 wire centers.

These data, taken both collectively and on an MSA-by-MSA basis, demonstrate there is no MSA in Pennsylvania where the self-provisioning trigger is met, because there is no MSA where at least three CLECs are serving mass market customers throughout the MSA using their own switches.

Q. DO YOUR EXHIBITS ACTUALLY OVERSTATE CLEC PRESENCE IN THE MSAs AT ISSUE?

A. Yes. Recall that Verizon wants to exclude the Density Zone 4 wire centers from the analysis. Adding them in would only underscore the lack of CLEC presence in the market being examined:

MSA	Number of Wire Centers with 3 or more qualifying CLECs	Number of Density Zone 1, 2 and 3 Wire Centers	Number of Density Zone 4 Wire Centers Verizon Excluded
ALLENTOWN-BETHLEHEM-EASTON	0	6	14
HARRISBURG-CARLISLE	0	10	5
LEBANON	0	1	6
LANCASTER	0	4	2
READING	0	5	8
SCRANTON-WILKES-BARRE-HAZLETON	0	9	11
PITTSBURGH	0	44	55
PHILADELPHIA	0	70	27

Q. CAN YOU COMPARE THAT INFORMATION WITH CLECS' UNE-P ENTRY ACROSS THE MSAs?

A. UNE-P entry has been very widespread across the MSAs. Exhibits 1 through 8 show, for example, that UNE-P competition is present in virtually every wire center in every MSA, for both business and residential customers. In the MSAs at issue UNE-P is being used to serve 234,809 residential customers and 94,542 business customers. Thus, unlike with UNE-L, CLECs are using UNE-P to meet

1 the telecommunications needs of large numbers of residential consumers,

2 scattered widely across virtually all wire centers in the MSAs at issue.

3 **Q. WHAT SHOULD THESE UNE-L AND UNE-P DATA MEAN TO THE**
4 **COMMISSION?**

5 A. The data raise a huge red flag. The Exhibits shows that in very large segments of
6 each MSA there are not enough "trigger" CLECs available to ensure that
7 consumers who today are benefiting from UNE-P competition would have the
8 requisite three alternatives available if UNE-P were eliminated. The Commission
9 will want to be sure before it takes any action that would affect the availability of
10 UNE-P, the consumers who have been served by UNE-P CLECs will have
11 available to them the real, immediate and tangible competitive alternatives that
12 the trigger test requires. The data Verizon has presented proves that would not be
13 the case. Rather, it proves that if UNE-P were no longer available, a very large
14 number of Pennsylvania consumers would not have *any* competitive alternatives
15 to Verizon. That is not what this Commission intended in establishing UNE
16 prices and terms and conditions for use of unbundled elements, and it is certainly
17 not what Congress intended when it made the provision of UNEs a central part of
18 the Telecommunications Act of 1996.

19 The bottom line is simply this – before the Commission "pulls a trigger"
20 and takes away the benefits of UNE-P competition from any Pennsylvania
21 consumer, it needs to be absolutely sure those consumers have readily available
22 the three alternatives the trigger test requires.

1 **Q. A NUMBER OF "NON-QUALIFYING" CLECS WERE REMOVED**
2 **FROM YOUR TRIGGER ANALYSIS. WHY?**

3 A. Some "CLECs" Verizon had identified are actually ILECs serving out-of-territory
4 customers with their ILEC switches. Others do not serve mass market customers
5 at all. Some are cable telephony providers that should not "count" because they
6 are not providing services comparable in "cost, quality and maturity" to those
7 provided by Verizon. Some are provide such minimal volumes of service or are
8 not seeking to add customers such that they cannot be deemed "actively serving"
9 the mass market.

10 **Q. WHICH CLECS ARE "OUT OF TERRITORY" ILECS?**

11 A. At least three of them, Commonwealth, D&E Systems and Penn Telecom do not
12 qualify as trigger candidates because they are not serving customers using CLEC
13 switching. Rather, those carriers are adjuncts of Incumbent Local Exchange
14 Carriers and are simply using their existing base of ILEC switches to serve out-of-
15 territory customers. As noted above, a qualifying competitive switch provider
16 must be using its own self-deployed "separate switches" to "actively provid[e]"
17 voice service to mass market customers.[73] An ILEC using its existing ILEC
18 switch to engage in cross-border service does not meet that test and, thus, does not
19 count in the trigger analysis. Unlike other CLECs, these carriers are leveraging
20 existing local exchange monopolies – which they enjoy because the
21 Telecommunications Act exempts them from opening their markets in the same
22 way Verizon must – by using their existing switches to serve new customers. No
23 "separate switches" are being utilized. Their use of existing monopoly switching

[73] TRO 499.

to reach new customers is not evidence of "commercial deployment of particular network elements by competing carriers," and, thus, does meet the intent of the trigger to show that new firms can sustain entry using new switching investment. Their presence is of no value in determining whether CLECs can enter the market with "separate" switches.

Q. WHICH CLEC DOES NOT QUALIFY AS "TRIGGER CANDIDATES" BECAUSE IT DOES NOT SERVE MASS MARKET CUSTOMERS?

A. Verizon identified XO Communications as a trigger candidate, but XO's response to "Joint Parties" Interrogatory 6 (Exhibit 11) asserts that **[BEGIN PROPRIETARY]**

[END PROPRIETARY] Thus, it is fair to assume either that Verizon is wrong about the number of DS0 loops being provided to XO or that XO is making some use of them other than providing voice service to mass market customers.

Q. ARE THERE OTHER CLECS THAT DO NOT QUALIFY BECAUSE THEY OFFER ONLY *DE MINIMUS* MASS-MARKET SERVICE?

A. Yes. An important trigger requirement is that the CLEC be "actively" serving the market, which means, among other things, that the CLEC is promoting its services, that it is adding new customers to its existing base, and that it serves a commercially reasonable number of loops. Here, however, Verizon has counted among the trigger candidates CLECs who are serving on a small handful of loops. In the Pittsburgh MSA, for example, Verizon counts among the "trigger candidates" **[BEGIN PROPRIETARY]**

[END PROPRIETARY] These small numbers mean, necessarily, that these CLECs are not serving "the mass market" throughout the identified MSAs. Indeed, these trivial numbers do not demonstrate anything about whether a CLEC can overcome the many barriers to serving the mass market. Until a CLEC reaches a market penetration level that provides some hope for long term survivability, it cannot be considered "actively serving" the market. A CLEC cannot be considered a trigger candidate unless and until it is serving a far greater number of loops than these trivial amounts.

Q. WHY HAVE YOU EXCLUDED THREE CABLE TELEVISON COMPANIES (RCN, ADELPHIA AND COMCAST) FROM THE TRIGGER ANALYSIS?

A. As noted above, cable telephony providers do not count because they are simply "overlay[ing] additional capabilities onto networks ***that they built for other purposes***, often under government franchises, and therefore have ***first-mover advantages*** and ***scope economies*** not available to other new entrants. . ."[75] Moreover, the only customers they can serve are ones who subscribe (or who could subscribe) to their cable television service. Their provision of telephony

[74] Attachment 2 to the Berry (now West)/Peduto October 31, 2003 Direct Testimony and Exh. 1 Part A of Verizon's December 19, 2003 Supplemental Direct Statement 1.1.

[75] *TRO* ¶ 98 (emphasis added).

1 proves nothing about the ability of other CLECs to provide mass market service
2 using a combination of their own switches plus Verizon unbundled loops. "[76]
3 The FCC acknowledges that states can "give less weight" to intermodal
4 alternatives that "do not provide evidence that self-deployment of such access is
5 possible to other entrants."[77] As the *TRO* concludes, cable telephony facilities
6 deployment "provides no evidence that competitors have successfully self-
7 deployed switches as a means to access the incumbents' local loops."[78]

8 Beyond that, these firms do not provide local telephone service that is
9 comparable in "cost, quality and maturity" to that of Verizon.[79] For example,
10 cable telephony generally requires the installation of a backup power source at the
11 customer's premises, because the cable system is not powered in the same way as
12 the traditional telephone network. Many customers find that intrusive and
13 inconvenient. Moreover, in most instances cable telephony customers do not
14 subscribe on a stand-alone basis, but, rather, obtain service as part of a larger (and
15 higher priced) package of services that include cable TV and broadband. Indeed,
16 RCN has acknowledged that in the two markets its serves **[BEGIN**
17 **PROPRIETARY]**
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[76] *Id.*
[77] *Id.* ¶ 98.
[78] *Id.* ¶ 440.
[79] *Id.* n. 1549.

[80] **[END PROPRIETARY].** The fact that cable telephony is seldom provided on a stand-alone basis, but rather as part of a "package" of services, means it is not a "true alternative" to Verizon's local telephone services.[81]

Q. DOES COMCAST PROVIDE ITS OWN SWITCHING?

A. No, a point Comcast itself acknowledged in response to discovery. (Exhibit 28) Part of the transaction under which Comcast assumed ownership of AT&T Broadband's Pittsburgh cable telephony operations in November, 2002, obligated AT&T to provide and maintain the local switch Comcast uses to serve its Pittsburgh customers.

Q. IS COMCAST "ACTIVELY SERVING" TELEPHONY CUSTOMERS?

A. No. Shortly after the AT&T transaction was completed, Comcast announced that that is was scaling back its circuit-switched telephony operations and would concentrate instead on now packet switched technology. Thus, Comcast is not actively adding new customers to its base of circuit switched telephony subscribers, a point conceded in its 2002 Annual Report *Letter to Shareowners*:

> In 2003, we are turning first to improving the efficiency and profitability of this business before growing it again. At the same time, we are working to understand the needs of our phone customers and how best to distinguish our phone service offerings. This year, we will also test-market a new phone service that applies Internet protocol technology, which we believe could be an attractive service.

[80] Exhibit 12 (RCN Response to Joint Parties I-7)

[81] *Id.* at ¶ 499.

1 Thus, Comcast does not meet the trigger test requirement of "currently offering
2 and able to provide service, and [being] likely to continue to do so."[82]

3 **Q. IS ADELPHIA SERVING CABLE TELPHONY CUSTOMERS?**

4 A. **[BEGIN PROPRIETARY]**

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15 **[END PROPRIETARY]**

16 **Q. WHAT ABOUT THE OTHER "ADELPHIA" UNBUNDLED LOOPS**
17 **VERIZON HAS IDENTIFIED?**

18 A. Those appear to be provided to Adelphia Business Solutions. As the company
19 name suggests, it provides local voice and data services to business customers.
20 The Adelphia web page emphasizes the company's focus on business customers
21 of all sizes:

[82] *Id.* ¶ 500.

> We offer a broad range of local voice products that support your company's telecommunications strategy, including business lines (POTS), business trunks, ISDN and Centrex. We also deliver a suite of complementary features like advanced custom calling, voicemail and Auto Attendant
>
> http://www.adelphia.net/business_solutions/voice_services.cfm

Thus, Adelphia does not count as a trigger candidate, both because it is cable telephony provider with inconsequential volumes of service (or because Verizon has erred in its data collection) and because its "Business Solutions" group serves only business customers and not residential.

Q. ARE THERE OTHER VERIZON TRIGGER CANDIDATES THAT DO NOT SERVE THE ENTIRE MASS MARKET, INCLUDING BOTH SMALL BUSINESS AND RESIDENTIAL CUSTOMERS?

A. Yes. A case in point is AT&T, which serves **no** residential customers through unbundled loops. All of the loops Verizon claims to be providing to AT&T are limited to serving business customers, and limited to only the Philadelphia and Pittsburgh MSAs. The volumes are insubstantial, ranging from a mere handful in some wire center to no more than a few hundred in the largest. This sheds a good deal of light on AT&T's views towards its UNE-L entry strategy.

Q. DOES MCI SERVE RESIDENTIAL CUSTOMERS USING UNE-L?

A. No. MCI has explicitly indicated in discovery that it does not currently provide any local exchange service to residential customers in Pennsylvania using stand-alone analog voice grade loops – and, indeed, does not appear to have done so at any time in the past several years.[83] Here again, MCI's UNE-L volumes bear that

[83] Exhibit 13 (MCI Response to Joint Parties I-6 and OCA I-1(a)).

1 out. MCI has UNE loops in even fewer wire centers than AT&T in the
2 Philadelphia and Pittsburgh MSAs, and in smaller volumes.

3 **Q. DO OTHER VERIZON TRIGGER CANDIDATES NOT SERVE MASS**
4 **MARKET CUSTOMERS?**

5 A. Yes. Many "trigger candidates" identified by Verizon serve business customers
6 exclusively, and in some cases serve *only* enterprise customers. This is certainly
7 the case with XO, which indicated in response to discovery that **[BEGIN**
8 **PROPRIETARY]**
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10 .[84] **[END**
11 **PROPRIETARY]**
12 Similarly, Allegiance has represented that **[BEGIN PROPRIETARY]**
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14 [85] **[END PROPRIETARY]** Moreover,
15 Allegiance represented to the FCC that its "business model calls for it to use its
16 own switching with unbundled high capacity loops, usually DS1s, to provide
17 innovative integrated access services to small- and medium-sized enterprises."[86]
18 And, it must be noted, Allegiance has just announced that it is selling its major
19 assets to Qwest and effectively exiting the marketplace.
20 Likewise, discovery data concerning Choice One reflects that it serves
21 **[BEGIN PROPRIETARY]** **[END PROPRIETARY]** residential customers

[84] Exhibit 14 (XO Pennsylvania Responses to OCA I-1 and Joint Parties I-6).

[85] Exhibit 15 (Allegiance Response to Joint Parties I-6(a)).

[86] Allegiance's Reply Comments, CC Docket No. 01-338, filed July 22, 2002 at 39.

1 in Pennsylvania, which is consistent with its acknowledged exclusive focus on
2 business customers.[87]

3 Still other companies do not provide residential local exchange services
4 through UNE-L arrangements in MSAs in which Verizon has identified them as
5 trigger candidates. CTSI, for example – which, as explained elsewhere in our
6 testimony, should not be counted towards the triggers for other reasons – has
7 indicated that it has no residential UNE-L lines (or residential "on net" lines) in
8 either **[BEGIN PROPRIETARY]**
9 ,[88] **[END PROPRIETARY]** despite the fact that Verizon has
10 listed them as a trigger candidate in both MSAs.

11 **Q. ARE THERE OTHER "TRIGGER CANDIDATES" WHICH ARE NOT**
12 **SERVING MASS MARKET CUSTOMERS IN A MEANINGFUL WAY?**

13 A. Yes. **[BEGIN PROPRIETARY]**
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[87] Exhibit 16 (Choice One Response to PUC Preliminary Data Request #5). Indeed, Choice One's website essentially dismisses residential subscribers a s a distraction. (Exhibit 17)

[88] Exhibit 18 (CTSI Response to OCA 1-1).

[89] Exhibit 19 (Cavalier Response to OCA I-1).

[90] Exhibit 20 (D&E response to OCA II).

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10 **[END PROPRIETARY]** Verizon declined to check its own records to

11 determine that information, and, for some reason, while Verizon attempted to

12 subpoena that type of information from other carriers who, like SBC, are not

13 parties to this case, it chose not to pursue any discovery of SBC to find out.[92] In

14 any event, SBC Chairman Ed Whitacre pronounced just this week that "SBC has

15 built out-of-region networks and established itself in 30 markets outside of its 13-

16 state territory" so that SBC is able "[t]o better serve enterprises. . ." and not mass

17 market customers.[93]

18 **Q. ARE THERE TRIGGER CANDIDATES USING UNE-L TO PROVIDE**
19 **BOTH RESIDENTIAL AND BUSINESS SERVICES?**

20 A. Yes. But even those candidates, by and large, appear to have a heavy

21 preponderance of business customers. For example, **[BEGIN PROPRIETARY]**

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[91] Exhibit 21 (CEI Response to OCA I-1).

[92] That is also the case with "Fibernet," which Verizon lists as a trigger candidate in the Pittsburgh MSA with just 35 lines.

[93] Jan. 7, 2004, *SBC Records Eight Straight Quarter of Broadband Growth*, Phone+, www.phoneplusmag.com/hotnews

1 **[END PROPRIETARY]** of the UNE-L loops served by

2 Broadview, a trigger candidate in the Philadelphia MSA, are business lines.[94]

3 **Q. IS THERE OTHER FACTUAL EVIDENCE PROVING THAT A**
4 **SUBSTANTIAL PORTION OF THE UNE-L SERVICE IS, IN FACT,**
5 **ONLY BEING PROVIDED TO NICHE MARKETS?**

6 A. Yes. Verizon's response to a joint data request from Broadview, Bullseye

7 Telecom, Infohighway Communications, McGraw Communications and

8 Metropolitan Communications (collectively, the "Joint Parties"; response attached

9 as Exhibit 23) reveals that **[BEGIN PROPRIETARY]**

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13 **[END PROPRIETARY]** are being provided at

14 locations with more than 24 lines.

15 Verizon wants to treat all of these lines as "mass market" for trigger

16 purposes. Clearly that is not the case. Many of these lines are serving fairly

17 sizable businesses. CLECs that are targeting only a high-volume, high-revenue

18 niche do not represent a CLEC's ability to overcome the barriers to entry to serve

19 "typical" mass market customers who generate "average" revenues. It would be a

20 gross misapplication of the trigger to find "no impairment" when in fact CLECs

21 are impaired under the FCC's economic test.

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[94] Exhibit 22 (Broadview Response to OCA I-1). Penn Telecom, which has been identified as a trigger candidate in the **[BEGIN PROPRIETARY]** , **[END PROPRIETARY]** and CTSI also are serving residential customers using Verizon's unbundled loops, but , as noted above, they appear to be using ILEC switching to do so. Thus, they do not qualify as trigger candidates. Even if they did, however, the number of UNE-L residential customers served is relatively so small, and confined to such a limited geographic area, that it would not affect the conclusion that the trigger is not met.

Q. YOU INDICATED EARLIER THAT IN MANY LOCATIONS, BUT IN PITTSBURGH AND PHILADELPHIA IN PARTICULAR, MUCH OF THE "MASS MARKET" SERVICE IS, IN FACT, SERVICE TO LARGER BUSINESSES NOT REFLECTIVE OF A TYPICAL MASS MARKET CUSTOMER. DOES THE DATA RESPONSE YOU JUST DESCRIBED SUPPORT THAT CLAIM?

A. Yes. It shows, for example, that a sizable percentage of the unbundled loops CLECs have obtained in "downtown" wire centers are serving customers with 10 or more lines at a single location:

[BEGIN PROPRIETARY]

[END PROPRIETARY]

Q. HAS VERIZON BEEN ABLE TO IDENTIFY *ANY* WIRE CENTERS WHERE AT LEAST THREE FACILITIES-BASED CLECS ARE SERVING RESIDENTIAL CUSTOMERS?

A. No. Verizon has not been able to identify a single wire center where at least three facilities-based CLECs are serving residential consumers.

1 In fact, Verizon has steadfastly refused to provide any information separating its
2 unbundled loops between business and residence locations. AT&T asked for the
3 information in discovery, but Verizon argued that it was unavailable.[95] Even
4 when compelled by the presiding ALJs to provide the information, Verizon
5 refused to gather any information from its systems and instead simply served
6 discovery on the CLECs.[96]

7 AT&T has again served discovery asking Verizon to provide the
8 business/residence split for the most recent six month period data are available
9 from the Local Service Requests ("LSR") Verizon receives from the CLECs.
10 Verizon concedes that it requires CLECs to indicate on the LSRs whether an
11 unbundled loop will be used for business or residence.[97] It also admits it does not
12 "archive" LSRs for six months.[98]

13 AT&T has also asked Verizon to explain why it cannot retrieve the
14 "archived" information from its systems.

15 We will supplement our testimony if and when Verizon responds.

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[95] See AT&T's December 9, 2003, *Motion to Overrule Objections and to Compel Responses*; Verizon's December 15, 2003 *Response*. In addition, the joint data request from Broadview, Bullseye Telecom, Infohighway Communications, McGraw Communications and Metropolitan Communications also asked Verizon to separate unbundled loops between business and residence, but, as reflected on Exhibit 23, Verizon refused to provide the information to them as well.

[96] *See* AT&T's December 19, 2003 letter to ALJs Schnierle and Colwell.

[97] Verizon's December 15, 2003 Response to AT&T's Motion to Overrule Objections and Compel Responses, at 4.

[98] *Id.* at fn. 7.

1 **Q. WHY IS INFORMATION REGARDING THE BUSINESS/RESIDENCE**
2 **SPLIT CRITCIALLY IMPORTANT TO THE COMMISSION?**

3 A. The implicit promise of the trigger test is that consumers will not lose the benefits
4 of UNE-P competition unless a replacement is already available. As explained
5 above, the "objective" and "bright line" TRO trigger test is not met unless mass
6 market customers have choices from among at least three facilities based carriers
7 *already* serving the market. The Commission cannot eliminate – and certainly
8 would not want to eliminate – the consumer benefits of UNE-P competition
9 unless and until it is assured that all mass market customers, *both* the residential
10 *and* business, have real, actual, sustainable facilities-based alternatives available
11 to them.

12 Thus, the Commission will want to focus on two factors key in evaluating
13 whether a trigger is met. One is whether the trigger-candidate CLECs are
14 providing services throughout the MSA. It is self-evident that a self-providing
15 CLEC's presence in only a small handful of wire centers does not demonstrate
16 that it can serve a wider area. Moreover, the ability to provide service in a
17 relatively small area is of no value to the bulk of customers in a geographic
18 market who are not served by those wire centers.

19 The other key is ensuring that the all mass market customers in a market,
20 both business and residential have service alternatives, both now and in the future,
21 if unbundled switching were removed as a UNE. Otherwise, a decision not to
22 require unbundling will have serious anticompetitive consequences for
23 Pennsylvania consumers.

1 **Q. CAN YOU PLEASE SUMMARRIZE THE RESULTS OF YOUR**
2 **ANALYSIS FOR EACH MSA?**

3 A. Yes. A brief summary for each of the eight MSA follows **[BEGIN**

4 **PROPRIETARY]**.

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[END PROPRIETARY]

<u>UNE-P has been beneficial for Pennsylvania consumers</u>

Q. YOUR TESTIMONY SHOWS THAT VERIZON HAS NOT MET ITS BURDEN OF PROVING THAT THE SELF-PROVIDED SWITCHING TRIGGERS HAVE BEEN MET ANYWHERE IN PENNSYLVANIA. IN LIGHT OF THAT TESTIMONY, WHAT WOULD BE THE CONSEQUQNCE OF A FINDING THAT THE TRIGGERS HAD IN FACT BEEN SATISFIED?

A. Any Commission decision that the TRO's triggers for self-provided mass market switching have been met in a particular geographic market will mean that CLECs will no longer be able use UNE-P to provide a competitive alternative for

customers in those areas. That would be a significant loss not just for the CLEC community that, as the data shows, are using the platform to offer meaningful competitive alternatives to Verizon in large areas of the Commonwealth, but also for the consumers who are the beneficiaries of that competition.

Q. HAS THE COMMISSION FOUND THE PLATFORM TO BE BENEFICIAL TO COMPETITION IN PENNSYLVANIA?

A. Yes. The Commission has a long standing commitment to ensuring that competitors have access to the unbundled network elements they need to compete effectively for residential and small business customers in Verizon Pennsylvania Inc.'s local exchange market. The foundation of these efforts has been the establishment of the unbundled network elements platform as a mechanism for offering customers a meaningful competitive choice. In fact, over four years ago the Commission, declaring that the "importance of a CLEC's ability to obtain UNEs as a 'platform' cannot be overemphasized," rejected Verizon's efforts to constrain the availability of unbundled network switching and the UNE platform.[99] Instead, the Commission, applying the standards established in the Telecommunications Act of 1996 and relying on a massive evidentiary record, held that "UNE-P is the only effective way for CLECs to begin immediately offering competitive local exchange services to a broad range of customers, particularly residential and small business customers," and directed Verizon make UNE-P immediately available.[100]

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[99] *Joint Petition of Nextlink Pennsylvania, Inc., et al.*, Docket Nos. P-00991648 and P-00991649, Sept. 30, 1999 ("Global Order"), at 87.

[100] *Id.* The Commonwealth Court subsequently held in rejecting Verizon's challenge to this determination that the Commission's decision to make UNE-P available was "clearly in

1 **Q. HAS THE COMMISSION SHOWN ANY SIGN OF DEPARTING FROM**
2 **THIS DECISION?**

3 A. No. To the contrary, in its recent decision in Docket. No. I-00030100 the
4 Commission found that the Global Order's requirement that Verizon make the
5 platform available continues to exist, even in the context of service to what would
6 generally be considered "enterprise" level customers.[101]

7 **Q. ARE CLECS USING UNE-P TO SERVE PENNSYLVANIA**
8 **CONSUMERS?**

9 A. Yes. As discussed previously in our testimony, Pennsylvania CLECs are serving
10 over **[BEGIN PROPRIETARY]**
11
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13 **[END PROPRIETARY]** are being used to provide
14 service to residential customers.
15
16 **Q. WHAT SHOULD THAT MEAN TO THIS COMMISSION?**

17 A. It means, simply, that this Commission needs to be extremely careful in its
18 analysis of the TRO triggers. The Commission will want to ensure that it does not
19 inadvertently find that the triggers have been met in an MSA where there are not
20 sufficient competitive alternatives available.
21 The need for caution is particularly acute with respect to the residential
22 segment of the mass market. The evidence discussed below shows that there are

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accordance" with the requirements of both federal and state law. *Bell Atlantic-Pennsylvania, Inc. v. Pennsylvania PUC*, 763 A.2d 440, 513 (Pa. Cmwlth. Ct. 2000).

[101] *Investigation into the Obligations of Incumbent Local Exchange Carriers to Unbundle Local Circuit Switching for the Enterprise Market.* Docket No. I-00030100, Order, Dec. 18, 2003, at 15.

1 ***no*** instances where at least three CLECs are using their own switches to serve
2 residential subscribers within a wire center. Thus, those residential customers
3 who today are being served by CLECs using UNE-P would be out of luck if
4 UNE-P were no longer available – they would lose service from their existing
5 carrier with inadequate alternatives available. The Commission should be
6 extremely careful to ensure that residential subscribers are not put through that
7 ordeal.

8 **Q. DID VERIZON RELY ON THE EXISTENCE OF UNE-P COMPETITION**
9 **IN ORDER TO WIN ENTRY INTO THE PENNSYLVANIA LONG**
10 **DISTANCE MARKET?**

11 A. Yes. Section 271 of the Telecommunications Act gave Verizon and the other
12 RBOCs an opportunity to re-enter the long distance market, but only on a state-
13 by-state showing that they had opened local exchange markets to competition.[102]
14 Verizon's presentation to this Commission, seeking support for its Section 271
15 application, specifically relied on the fact that competitors were providing service
16 over 174,000 UNE-P lines as support for its claim that the Pennsylvania local
17 exchange market was open.[103] And the FCC subsequently approved Verizon's

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[102] The Act envisions three modes of competitive entry: (1) building competing networks in those limited instances where they are economically and technically feasible and obtaining interconnection from the incumbents, (2) leasing network facilities from the incumbent monopolies to provide a platform for providing competing services (i.e., UNE-P), and/or (3) reselling the incumbents' retail services. The Act specifically recognizes that granting CLECs the ability to lease Verizon's network is essential to the development of competition in local telecommunications, because without such access, CLECs would have to replicate existing networks in order to compete, even in those markets where such duplication was clearly inefficient. The United States Supreme Court has affirmed that competitors may provide service relying solely on elements of the incumbents' networks. *AT&T Corp. v. Iowa Utilities Bd*, 525 U.S. 366 (1999) at 392-3.

[103] *In the Matter of Application of Verizon Pennsylvania, Inc for Authorization under Section 271*, CC Docket No. 01-138, Consultative Report of the Pennsylvania Public Utility Commission, June 25, 2001, at 20.

271 application on September 19, 2001, in part based on a finding that "[a]t the time of its application, Verizon had provisioned over 220,000 UNE platform combinations. . . "[104] It is thus the height of hypocrisy for Verizon to be contending that, now that it has achieved long distance entry, a key factual underpinning for that entry should be eliminated altogether.

Q. IS THAT THE ONLY HYPOCRITICAL ASPECT OF VERIZON'S EFFORTS TO ELIMINATE UNE-P IN THE WAKE OF ITS LONG DISTANCE ENTRY?

A. No. Weighed against Verizon's efforts to now rid itself of UNE-P obligations, it is a bitter irony that Verizon has been able to quickly penetrate the long distance market due to the availability of the "long distance" equivalent of UNE-P -- willing wholesale providers that offer end-to-end transmission and long distance switching at competitively driven cost-based rates. Indeed, Verizon is entering the long distance market in much the same way MCI and Sprint did over twenty years ago – by reselling capacity of existing carriers while it develops its own network. This clearly makes any arguments about the impropriety of UNE-P and CLEC investment "disincentives" ring hollow.

It is equally ironic that Verizon has been able to acquire long distance customers using a fully automated provisioning system (the "PIC change" process) that rapidly, inexpensively and reliably migrates customers. CLECs using UNE-P can acquire local customers on a comparable basis, but CLECs attempting serve customers on a UNE-L basis have no analog. As explained

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[104] *In the Matter of Application of Verizon Pennsylvania, Inc for Authorization under Section 271*, CC Docket No. 01-138, Memorandum Opinion and Order, Sept. 19, 2001, ¶74.

below, any CLEC using UNE-L must incur a substantial "backhaul penalty" to connect a Verizon unbundled loop to the CLEC switch.

Q. DOES VERIZON'S LONG DISTANCE ENTRY UNDER SECTION 271 HAVE ANY OTHER RELEVANCE TO THE CONTINUED AVAILABILITY OF THE PLATFORM?

A. Yes. As the Commission found in its order in the "90 day" case, the decision to maintain a requirement for Verizon to provide UNE-P "is further supported by VZ-PA's undisputed continuing obligation under 47 U.S.C. §271(c)(2)(B)(vi) to provide access to local circuit switching."[105]

Q. HAS VERIZON BEEN SUCCESSFUL IN THE LONG DISTANCE MARKET?

A. Yes. Verizon is rapidly acquiring significant market share in the long-distance market. At the end of September 2003, Verizon had 15.9 million long distance subscribers across its multi-state footprint. This equates to 28.6% of its retail lines, and those figures continue to grow. For 3Q03, Verizon reported a 35.9% increase in lines over 3Q02.[106] Verizon now claims to be the third largest long distance provider nationally, and reports a market share of about 40% in its existing customer base, and as high as 50% in some states.[107] Thus, in less than five years Verizon alone has garnered a market share substantially greater than MCI and Sprint *together* took more than *two decades* to achieve.[108]

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[105] *Investigation into the Obligations of Incumbent Local Exchange Carriers to Unbundle Local Circuit Switching for the Enterprise Market,* Docket No. I-00030100, Order, Dec. 18, 2003, at 15.

[106] Doreen Toben, Verizon CFO, 3Q03 Analyst Call (October 28, 2003).

[107] Doreen Toben, Verizon CFO, 3Q03 Analyst Call (October 28, 2003).

[108] At the end of 1996 (approximately 20 years after MCI first introduced its Execunet Service), MCI and Sprint together had 21.9% of the market. Source: *Long Distance Market Shares* (4th Quarter 1998), Federal Communications Commission, March 1999.

Q. DOES VERIZON'S SUCCESS IN THE LONG DISTANCE MARKET HAVE ANY SPECIAL SIGNIFICANCE FOR THE ISSUES FACING THE COMMISSION IN THIS PROCEEDING?

A. Unquestionably, yes. In an environment where customers clearly desire bundled packages of services offered by one provider, preferably on one bill, Verizon's overwhelming local service market power in Pennsylvania provides an enormous ability to leverage into related services such as long distance. The potential harm to emerging competition in long distance was clearly contemplated at the time of the Bell System divestiture, and was part of the rationale behind divesting AT&T and the Bell companies and barring the Bell companies from offering long distance services. Now that Verizon has been permitted to offer long distance services, it has an incentive to harm long distance competition as well. Thus, re-monopolization of all telecommunications markets by Verizon is not mere speculation, but rather extrapolation – *unless* competition can be fostered and sustained in the local market. So far, UNE-P competition is the only way CLECs have been able to serve both residential and business customers throughout the market.

Q. WHAT WOULD THE INDUSTRY LOOK LIKE IF UNE-P IS ELIMINATED?

A. In a recent report by Consumer Federation of America (CFA), "Competition at the Crossroads: Can Public Utility Commissions Save Local Phone Competition?", Dr. Mark Cooper estimates that as many as 30 million households have benefited from competition that has brought about discounted bundles of local and long distance phone service, while millions more have been able to choose alternative local service. Consumer savings from local telephone

competition have mounted sharply in recent months to as much as $5 billion per year.[109] Dr. Cooper has concluded, however, that "[t]he tremendous gains that competition and consumers have made recently will be short-lived if the incumbent carriers succeed in undermining UNE-based competition, and forcing weakened competitive carriers to build redundant telecommunications networks. If this happens, it will spell the end of local phone competition, and the real savings being enjoyed by consumers across the country will disappear."[110] These benefits can be expected to grow substantially in the future – but only if UNE-P is permitted to continue. Restricting the availability of unbundled mass market switching now would eliminate those benefits and further entrench – and expand – Verizon's monopoly.

<u>The Commission can adopt Verizon's proposal that customers, rather than regulators, decide whether they want to be served with multiple unbundled loops at a single location: there is no need to mandate a DS0/DS1 "crossover" point.</u>

Q. WHAT IS VERIZON'S PROPOSAL REGARDING THE DS0/DS1 CROSSOVER POINT?

A At pages 17-18 of the Berry (now West)/Peduto October 31, 2003 Direct Testimony (Verizon Statement 1.0), Verizon argues that the Commission need not establish any particular cutoff point at all. Rather, according to Verizon (at 17), "it is the objective behavior of the CLEC that should drive the determination of

[109] Consumers Federation of America, "Competition at the Crossroads: Can Public Utility Commissions Save Local Phone Competition?" at p. 7 (Oct. 7, 2003) ("CFA Report"). This calculation does not include savings for consumers who have not taken bundles, but have switched providers. A copy of the report can be found online at http://www.consumerfed.org/unep_200310.pdf.

[110] Consumer Federation of America Press Release, "Study Shows Incumbents' Arguments for Higher Wholesale Prices, Reduced Access to UNEs Don't Stand Up to Scrutiny," Oct. 7, 2003. A copy of this release can be accessed online at http://www.consumerfed.org/pr10.07.03.html.

1 whether or not it 'makes economic sense' for the CLEC to serve particular
2 customers over DS1 loops." Verizon goes on to say (at 18) that "If the CLEC has
3 made the economic decision to treat the customer as a mass market customer and
4 to serve the location using voice-grade loops, then the DS0 lines at that customer
5 location should be counted as such for purposes of the switching impairment
6 analysis."

7 Put simply, Verizon's position appears to be that it is the CLECs (and by
8 necessary inference their customers) who determine whether a customer is "mass
9 market" or "enterprise," depending upon whether the customer is to be served
10 over DS0 or higher capacity loops.[111] There is no need, according to Verizon, for
11 the Commission to establish a fixed DS0/DS1 crossover point. Instead, Verizon's
12 proposal is that each CLEC (and its customers) that determine their own crossover
13 points based on their own business needs. We term this the "Self-Decided"
14 market definition as between the mass market and enterprise markets.

15 **Q. IF THE COMMISSION ADOPTS VERIZON'S PROPOSAL TO**
16 **"DETERMINE THE APPROPRIATE CUT-OFF FOR MULTILINE DS0**
17 **CUSTOMERS" (TRO ¶ 497) AS BEING "SELF-DECIDED," SHOULD**
18 **THAT SAME DEFINITION APPLY FOR ALL OTHER MARKET**
19 **DETERMINATIONS REQUIRED UNDER THE TRO?**

20 A. Yes. The TRO (at ¶ 495) provides that "[T]he state commission must use the
21 same market definitions for all of its analysis."

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[111] Although Verizon focuses on the CLEC's supposed "choice," in fact customers principally make these decisions. It is they who must decide whether they want to allow new CPE to be deployed at their premises and whether they are willing to go through the cutover of their service from DS0 loops to higher capacity facilities.

Q. WHAT IMPACT WOULD VERIZON'S MARKET DEFINITION HAVE, FOR EXAMPLE, ON A CLEC'S ABILITY TO OBTAIN MULTIPLE UNE-P ARRANGEMENTS AT A SINGLE LOCATION?

A. Under Verizon's "Self-Decided" approach to the mass market definition, a CLEC would be able to provision as many UNE-P arrangements at a single location as the CLEC found to be economically and/or operationally feasible. It would be entirely the CLEC's (and its customer's) decision.

This would override the FCC's tentative suggestion in its *UNE Remand Order* that, under certain conditions, an ILEC might be relieved of its obligation to make UNE-P lines available at locations served by four or more lines in density zone one in the top 50 Metropolitan Statistical Areas (MSAs).[112] As the TRO explains, where the states utilize their authority "to determine the appropriate cross over point" the UNE Remand Order's suggested four-line limitation would not apply. (TRO ¶ 497 and Footnote 1546)

This would not be a change for Verizon. Although the UNE Remand Order afforded it the opportunity to do so, Verizon to date has not enforced any limits on the number of UNE-P arrangements a CLEC could obtain at an individual location. Under the "Self-Decided" market definition that Verizon proposes here, that would continue to be the case. However, Verizon should not be allowed to manipulate its proposal to support a claim that if a CLEC serves only a market niche of multi-line business customers it may be found to be a viable trigger firm under the trigger analysis.

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[112] In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Third Report and Order and Fourth Further Notice of Proposed Rulemaking ("UNE Remand Order"), Decision FCC 99-238, released November 5, 1999, ¶ 278 and 281.

Q. IS VERIZON'S PROPOSAL FOR A "SELF-DECIDED" CROSSOVER POINT WARRANTED BY THE FACTS?

A. Yes. Even a simplified analysis shows that the appropriate cross-over point between DS0 and DS1 loops is sufficiently high such that there is no practical need for the Commission to draw a line at some arbitrarily low number.

Q. IF NONETHELESS THE COMMISSION DECIDES TO ESTABLISH A CROSSOVER POINT, HAVE YOU ESTIMATED WHAT THE CROSSOVER POINT SHOULD BE?

A. A conservative and simplified comparison was made of the cost of providing multiple DS0 UNE-loops with the costs of serving that customer with a DS-1 UNE-loop. This type of comparison was contemplated by the FCC in Footnote 1544 of the TRO but did not take into account all costs that a CLEC will incur in provisioning a multi-line customer by means of a DS1 facility. For Pennsylvania, this conservative and simplified comparison shows that the crossover would be not less than the range of 14 to 16 lines. The cost study methodology and inputs used in the calculation for this comparison appear in Exhibit 24 to this testimony.

Q. WHY DID YOU STATE THAT YOUR COMPARISON WAS CONSERVATIVE AND SIMPLIFIED?

A. The analysis only compared the costs a CLEC would incur in serving a multiple-line customer using DS0 loops versus using a DS1 loop and providing associated customer premises equipment. The study did not include the additional costs of marketing and engineering. Looking at those and other economic factors would indicate an even higher crossover point, one consistent with the 19-line limit that has been in place in New York for the last several years. If the Commission concludes that a crossover level should be established, despite the contentions of both Verizon and AT&T that there should be no limit, the level should be set

1 sufficiently high so that, as practical matter, CLECs can continue to choose, based
2 upon the totality of circumstances related to serving each multiple-line customer,
3 whether it is economic to provide service using DS0 loops or a DS1 loop.

4 **Q. PLEASE DESCRIBE YOUR COST-COMPARISON ANALYSIS.**

5 A. A CLEC will incur substantial non-recurring and recurring and investment costs
6 in deciding to serve a customer by means of DS1-service. This is partly due to
7 the fact that it generally costs a CLEC roughly the same to serve a customer with
8 a DS1-based facility whether the customer has one voice-grade-equivalent line or
9 twenty-four.[113] By contrast, a CLEC's costs to order and provision DS0 UNE-
10 Loop service include no CPE investment. Further, a CLEC's monthly recurring
11 costs are directly related to the number of loops served at a location.[114] For
12 example, if an ILEC's wholesale rate for a DS0 UNE-L service is about $14 per
13 line per month, then the purchasing CLEC's total monthly loop cost to serve its
14 retail customer with five UNE-L lines is $70. The simplified cost analysis
15 calculates the total monthly loop cost to sell, install, and maintain a DS1-based
16 service at a customer's location and then divides that result by the monthly UNE-
17 L costs of serving that same customer. This result, rounded to the next higher
18 whole number, yields the number of UNE-L lines at which the CLEC should be
19 economically indifferent as to whether DS0 loops or a DS1 loop is used to

[113] A DS1 loop can serve up to 24 voice grade equivalents.

[114] A CLEC that provides a customer with service using UNE-L will certainly incur some non-recurring expenses for activities such as creating an internal order once the customer has agreed to subscribe to the CLEC's service and submitting an order to the ILEC. However, those expenses would also occur if the CLEC served the customer using a DS1 based service. To simplify the analysis, CLEC costs to order either UNE-L or DS1 loops are excluded from the analysis.

provide service. The simplified cost study only considered the costs of providing service by means of a DS1 from the customer's location to the CLEC's collocation arrangement at the ILEC's central office.

Q. HOW DOES YOUR COST ANALYSIS ACCOUNT FOR THE DIFFERENT UNE RATE ZONES IN THIS STATE?

A. The costs for a DS1-capable loop and a DS0 UNE-L line can vary substantially by rate zone. For the sake of simplicity and administrative efficiency, the cost analysis develops a weighted average of the crossover points for the individual zones based upon the percentage of loops that are found in each zone.

Q. HAS THE FOUR-LINE LIMIT PRESENTED IN THE UNE REMAND ORDER BEEN IN EFFECT IN THIS JURISDICTION?

A. No. To the best of my knowledge, the limit has never been imposed in Verizon's eastern region, encompassing the former Bell Atlantic and NYNEX states. Apparently, Verizon has not been harmed by the lack of "cut-off" limits.

Q. SHOULD THE COMMISSION MAKE AN AFFIRMATIVE FINDING THAT THERE SHOULD BE NO CUT-OFF NUMBER OF UNE-P LINES THAT MAY BE AVAILABLE TO A CLEC TO SERVE A CUSTOMER IN A GIVEN LOCATION?

A. Yes. As Verizon appears to agree, the absence of a "cut-off" level for obtaining UNE-P lines has allowed CLECs to determine, on a case-by-case basis, where the true economic crossover point is in serving each multi-line customer. The establishment of any "cut-off" level creates the risk that multi-line customers currently subscribing to a greater number of DS0 lines, and therefore having the opportunity to choose from among numerous carriers offering DS0-based service, will find themselves with no competitive alternative to ILEC-provided service. While the Commission can use its regulatory power to protect captive customers

from the effects of an absence of market forces, it is far better to allow market forces to discipline prices and induce service quality improvements, as occurs when customers have meaningful choices of service providers. For these reasons, the Commission should affirmatively find that there should be no cut-off of UNE-P lines, and thereby preserve the status quo. Alternatively, if the Commission decides to establish a cut-off, the level should be sufficiently high so as to minimize the adverse impact upon customers.

CLECs face substantial operational and economic barriers to the expansion of their facilities-based services.

Q. YOUR TESTIMONY HAS EXPLAINED THAT THE TRO'S MASS MARKET SWITCHING SELF-PROVISIONING "TRIGGER" IS NOT MET ANYWHERE, IN PART BECAUSE CLECS ARE NOT USING THEIR OWN SWITCHES TO SERVE CUSTOMERS THROUGHOUT ANY OF THE SEVEN MSAs AT ISSUE. WHILE A DETAILED ANALYSIS OF WHETHER CLECS *COULD* EXTEND UNE-L INTO ADDITIONAL AREAS WOULD BE PART OF A "POTENTIAL DEPLOYMENT" INVESTIGATION – SOMETHING WELL BEYOND THE SCOPE OF THIS DOCKET – PLEASE BRIEFLY ADDRESS WHY CLECS HAVE NOT EXTENDED UNE-L MORE BROADLY.

A. The trigger analysis presented in the first section of this testimony demonstrates that the "trigger" for mass market switching has not been met. That is the end of the inquiry for purposes of this "triggers only" proceeding.

That being said, AT&T recognizes that the Commission may also want to understand ***why*** the trigger is not being met. The testimony below briefly addresses the types of economic and operational barriers CLECs face to serve mass market customers using their own switching facilities.

This testimony in no way attempts to quantify the additional costs and economic barriers that are precluding CLECs from reaching more customers on a UNE-L basis. The precise quantification of such costs will be the subject of a potential deployment proceeding, should Verizon attempt to bring such a case in the future.[115]

Rather, our purpose here is merely to familiarize the Commission with the types of additional costs and operational issues any CLEC must overcome to serve mass market customers with its own switching facilities.

Q. DOES THE TRO RECOGNIZE THE COST DISPARITIES AND OPERATIONAL BARRIERS CLECS FACE IN SERVING MASS MARKET CUSTOMERS WITH THEIR OWN SWITCHES?

A. Yes. Among the types of barriers to entry that the FCC expressly recognized in the TRO are "absolute cost advantages" enjoyed by ILECs like Verizon, or absolute cost disadvantages experienced by the CLEC. That is, competitors will be impaired if, in the absence of unbundling, an efficient CLEC would incur substantially higher costs than do the ILECs in order to self deploy the network facility in question. Thus, as the FCC observed, "[w]hen the incumbent LEC has absolute cost advantages, other firms may be deterred from entering the market." TRO, ¶ 90 and n. 302. This is particularly so if the ILEC is providing service at rates close to its average cost. *Id.*

More to the point here, and starting from its basic premise that an <u>economic</u> connection between the local loop and a CLEC switch is a condition of

[115] We note that the Commission believed it "most appropriate to consider potential deployment as part of any continuing review. . . ." and accordingly suggested that, if Verizon wished to pursue relief under a "potential deployment analysis," Verizon should "file for appropriate relief upon the conclusion of [the] 9 month investigation." Procedural Order at 16.

non-impairment, the FCC noted the evidence in its record indicating the large disparity between the cost that CLECs incur to connect their end-users' loops to their own switches and the significantly lower cost that the ILECs incur to do the same thing.[116] Although the FCC ultimately did not adopt specific studies attempting to quantify these costs as a basis for a national finding of impairment "on the basis of non-hot cut factors alone," it did find that the studies provided "significant evidence that competitors operate at a cost disadvantage compared to the incumbent."[117]

Indeed, those submissions – which included evidence concerning the disparity between the CLEC, which faced the "cost of backhauling the voice circuit to their switch from the customer's end office" where his/her loop terminates, and the ILEC, whose switches are located where the customers' loops end and thus does not experience such costs[118] -- persuaded the FCC that "other economic factors, in addition to the economic and operational barriers associated with the current hot cut process, may make entry uneconomic without access to the incumbent's switch." [119]

Q. WHAT "OTHER" ECONOMIC FACTORS WAS THE FCC REFERRING TO?

A. The FCC was referring to the additional costs CLECs would incur to "backhaul" a loop to their switch. As the FCC summarized the evidence on this point, the CLECs requirement to backhaul the circuit to their switches, *i.e.*, to extend the

[116] TRO, at ¶¶ 479-481.

[117] TRO at ¶ 483.

[118] *Id.*, at ¶ 479.

[119] TRO at ¶ 484.

customer's loop beyond the point where it had connected to the ILECs switch, gives rise to "costs of collocating in the customer's serving wire center, installing equipment in the wire center in order to digitize, aggregate, and transmit the voice traffic, and paying the incumbent to transport the traffic to the competitor's switch," all costs that "put [CLECs] at a significant cost disadvantage to the incumbent."[120]

Q. WHY DOESN'T AN INCUMBENT PROVIDER LIKE VERIZON FACE THE SAME COSTS AS A CLEC WHEN IT USES ITS OWN SWITCHES?

A. As the FCC itself found,[121] Verizon's legacy network architecture was designed to support a single regulated monopoly provider, not a competitive market with multiple service providers seeking access to Verizon's loops. This architecture allows Verizon to efficiently connect its legacy loops to its own switches within the wire center to provide service to end user customers. However, the legacy Verizon network architecture provides an inefficient and uneconomic means for a CLEC that tries to connect those same loops to its switch that is always remotely located from the Verizon central office where these loops terminate. This fundamental structural difference creates overwhelming operational and economic advantages for Verizon, advantages that make it both impractical and uneconomic for CLEC competitors to compete with Verizon to serve mass market customers using an UNE-L architecture.

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[120] TRO at ¶ 480 (citations omitted).

[121] See TRO at ¶ 465 ("Specifically, the ***incumbent LECs' networks were designed for use in a single carrier, non-competitive environment*** and, as a result, the incumbent LEC connection between most voice-grade loops and the incumbent LEC switch consists of a pair of wires that is generally only a few feet long and hardwired to the incumbent LEC switch.") (emphasis added).

Q. HOW DOES VERIZON'S NETWORK DESIGN GIVE IT A COST ADVANTAGE OVER CLECS?

A. Verizon's network was designed and built based upon analog (and largely copper-based) technology. Because analog signals degrade over distance, copper loops could not exceed relatively short lengths without the need for expensive equipment to ensure that the voice signal could travel from the caller to the called party. As a result, Verizon deployed – and by virtue of its historical monopoly position it was able to deploy – a relatively large number of local switches, each of which served a relatively small geographic area limited generally to an area determined by the length of copper that could practically support voice services. Even as the ILECs have deployed increasing amounts of fiber optic equipment in the "feeder" portion of the loop in recent years, the "distribution" portion of loop plant – that connecting to the customer's premises – remains almost entirely copper, and the basic architecture characterized by a high density of local offices/switches where customer loops are terminated remains the same.

Furthermore, because a switch was placed at the termination point for these analog loops, Verizon could inexpensively connect its customers' loops to its switches by using a simple – and short -- set of "jumper" wires across the main distribution frame ("MDF"). And for the vast majority of mass market customers, those jumper pairs are left in place even when a customer moves, so that when a new customer moves in to this same residence or small business location, Verizon can re-activate service through the use of software commands from a service representative without the need for any physical work.

1 **Q. COULDN'T A CLEC SIMPLY DUPLICATE THIS NETWORK DESIGN?**

2 A. No. In contrast to Verizon, new entrants do not have the opportunity to achieve
3 scale economies for their switches *and at the same time* minimize loop distances
4 and costs by locating their switches where these loops terminate. The FCC
5 summarized the problem as follows: "The [CLECs'] need to backhaul the circuit
6 . . . effectively requires competitors to deploy much longer loops than the
7 incumbent". [122] The FCC's rules do not permit a CLEC to place a circuit switch
8 in a collocation.[123] And in all events, even if a new entrant were allowed to place
9 a circuit switch in every local serving office, it could not achieve the same scale
10 economies as the ILEC unless it possessed the same market share as the
11 incumbent did in that particular office. This situation is, of course, a practical
12 impossibility. Facing such market uncertainties, CLECs can at best expect to be
13 able to serve only a fraction of the total end-users in any ILEC wire center.

14 The local network architecture employed by an efficient CLEC that is self-
15 providing switches thus is very different from the ILEC network. Because
16 CLECs are attempting to enter markets that have long been dominated by a single
17 monopoly provider, they are unlikely – even in the medium to long term – to be
18 able to generate sufficient customer volume for it to make economic sense to
19 place their own switches at locations close to each ILEC central office. Instead, a
20 CLEC must provide service to customers from multiple ILEC central offices with
21 a single switch in order to generate a sufficient volume of customer line

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[122] TRO at ¶ 480

[123] 47 CFR 51.323 (ILEC may refuse to permit collocation of equipment not necessary for access to UNEs or interconnection).

terminations and calls per switch that is comparable to the customer line terminations and call volume on a switch that is on average achieved by ILECs.

Q. WHAT DOES THIS MEAN FOR THE CLEC'S NETWORK?

A. It essentially means that the CLEC must create an overlay network infrastructure that is largely dedicated to the subset of customers won from the incumbent in a specific wire center in order to "backhaul" those customers' loops to its switch. Stated another way, the CLEC must add a very long, costly and dedicated "extension cord" in order to connect its end-users' loops to its switches. This requires the CLEC to:

(1) establish and maintain collocations at Verizon's wire centers, where customers' loops are "collected;"

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

(3) establish the necessary transport facilities that provide the physical path connecting the CLEC's collocations and its switch.

Only after all of this infrastructure and these functionalities are in place and operational in each Verizon wire center in which it wishes to compete can a switch-based CLEC begin to offer service to customers in those incumbent's wire centers. Thereafter, for each individual customer line it seeks to serve, the CLEC must arrange and pay for a manual, volume limited, and costly "hot cut" process to have the customer's loop connection transferred to its collocation, and the customer's telephone number ported to the CLEC's switch.

Q. ARE THERE COSTS OTHER THAN 'BACKHAUL" COSTS THAT ADVERSELY AFFECT CLECS TRYING TO USE UNE-L?

A. Yes. As we mentioned above, in addition to the backhaul costs, a CLEC must incur the costs of "hot cuts" and number portability. "Hot cuts", as an example, are the transfer of the customer's active service with Verizon to the CLEC by transferring the customer's loop from the Verizon switch to the CLEC switch without interrupting the customer's service. Number portability is a critical capability established as a result of the Act. Number porting permits the customer to retain and freely move his/her telephone number among competing networks. Still other cost disadvantages may also exist for the CLEC, such as in customer acquisition cost or in OSS platform fixed costs, which may also add to the CLEC's disadvantage.

Q HOW DO THESE COST DISADVANTAGES AFFECT THE ABILITY OF CLECS TO SERVE CONSUMERS USING UNE-L GENERALLY OR FROM EXISTING ENTERPRISE SWITCHES IN PARTICULAR?

A. It lies at the very heart of the impairment CLECs would experience without access to unbundled switching and the unbundled network element-platform. In fact, the difference in the manner and cost of connecting loops to switches between Verizon and CLECs affects mass market customers, the consumers expecting to benefit from competition, in particular. The significant cost of the CLEC having to backhaul the loop, even after that cost is spread across all mass market customers that a CLEC can possibly serve, cannot be overcome by a CLEC being smarter or more agile in the market or by cutting corners on internal costs. It simply is too large.

1 **Q. DOES THE FCC AGREE WITH THAT CONCLUSION?**

2 A. Yes. For example, the FCC found that the failure of CLECs to utilize their
3 existing switches to provide UNE-L based service to residential customers "only
4 serves to demonstrate the barriers to such service." [124]

5 **Q. YOU'VE BEEN DISCUSSING THE CLECS' COST DISADVANTAGES.**
6 **IN CONTRAST, DOES VERIZON ENJOY ANY SPECIAL ADVANTAGES**
7 **THAT AGGRAVATE THE SITUATION?**

8 A. Yes. Verizon also significantly benefits from what economists might describe as
9 "first mover advantages" that translate into scale advantages. Because of its
10 status as the incumbent, monopoly provider, Verizon starts with all the customers
11 in a wire center, and each of them are already served by its switch and generating
12 revenue. Thus, Verizon does not have to expend resources attempting to persuade
13 customers to change carriers in order to acquire their business and revenues.
14 Unlike competitive carriers, Verizon does not need to "acquire" large numbers of
15 customers. It only needs to hold its existing customers while offering attractive
16 win-back offers to entice customers who left for a competitor to return.

17 **Q. HOW DO VERIZON'S FIRST MOVER ADVANTAGES AFFECT THE**
18 **CLECS' EXISTING COST DISADVANTAGES?**

19 A. Verizon's scale or share disadvantages multiply the backhaul cost disadvantage
20 described above. Switches are expensive, fixed cost investments and are thus

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[124] TRO, at ¶ 449, fn.1371 (citations omitted). The FCC made a similar finding with respect to the CLECs' inability to use existing enterprise switches to provide mass market service. "We found significantly more probative the evidence that in areas where competitors have their own switches for other purposes (e.g., enterprise switches), they are not converting them to serve mass market customers and instead relying on unbundled loops combined with unbundled local circuit switching. Given the fixed costs already invested in these switches, competitors have every incentive to spread the costs over a broader base. Their failure to do so bolsters our finding that significant barriers caused by hot cuts and other factors make such entry uneconomic." TRO, at ¶ 447, fn.1365.

subject to substantial economies of scale. Put simply, switches must be filled with the lines and traffic of paying customers in order to generate the revenues needed to recover the cost of these high fixed-cost investments. However, in order for a CLEC to achieve the same switch scale economies that Verizon achieves for a single switch at a single wire center, that CLEC must aggregate substantial quantities of loops from multiple central offices and bring the traffic from each of them back to its own switch. To do so, it must build and pay for multiple collocation and "backhaul" arrangements in order to achieve the same scale efficiencies that Verizon achieves at a single location.

For example, assume Verizon has 40,000 mass market voice grade lines terminating in its wire center and a switch in that wire center with the capacity to handle the quantity of traffic generated by these lines. Assume, also, Verizon will likely retain 80% of the customer lines while the CLEC community splits the remaining 20%. If a CLEC expected to serve 10% of the lines out of that wire center (or 50% of the aggregate CLEC market share), the CLEC would expect to serve 4,000 customer lines out of the wire center while Verizon would have the traffic and revenues from 32,000 lines to fill its switch and recover its costs.

In order for the CLEC to achieve the same 32,000 mass market lines on its (distantly located) switch, it would have to aggregate a similar percentage of the analog lines from approximately 8 Verizon central offices of equal size. (Alternatively, the CLEC would have to fill its switch by accessing loops from a larger number of smaller Verizon wire centers resulting in further increased backhaul costs.) To achieve this degree of switch usage (32,000 lines), the CLEC

would need to have 8 collocations and 8 backhaul arrangements, all just to have the same switch scale economies as Verizon in one single wire center.

Q. ARE THERE ADDITIONAL IMPAIRMENTS THAT RESULT FROM VERIZON'S DEPLOYMENT OF ENHANCED LOOP TECHNOLOGY?

A. Yes. CLECs are further impaired in offering service to mass market customers because Verizon is placing a growing portion of these customers' loops on integrated DLC ("IDLC") equipment. IDLC loop arrangements, where alternative spare capacity is not available, can practically foreclose CLEC access to the retail customer if they are denied access to UNE-P.

Q. WHY DOES THE PRESENCE OF AN IDLC LOOP CAUSE A PROBLEM?

A. Because the IDLC equipment multiplexes multiple customers' traffic onto a single loop "feeder" facility that feeds directly into Verizon's switch, and there is no simple way to segregate (or access) the traffic of a particular customer served with an IDLC loop. As a result, additional steps must be taken to segregate and access the traffic of a customer on an IDLC loop that desires to take service from a CLEC.

Q. WHAT ADDITIONAL STEPS ARE REQUIRED TO TRANSFER SERVICE WHEN VERIZON IS PROVIDING SERVICE OVER AN IDLC LOOP?

A. That depends upon a number of factors within Verizon's control, including the accuracy of its records (as to which loops are served by IDLC) and the existence of spare loop plant of the appropriate type in Verizon's network that would allow a competitor to provide a comparable level of service to Verizon's retail service. For example, if Verizon's database does not reveal the presence of IDLC before a

conversion date is committed to the customer, the CLEC must negotiate a new date with that customer, which of course makes a negative impression.

Where the presence of IDLC is identified before the confirmation of the conversion date, the customer must be transferred to alternative facilities, provided such facilities are available and provided acceptable service quality is possible. But even then, the process to transfer the customer will require a field dispatch to the remote end of the IDLC facility so that the customer's loop may be re-wired to spare copper or UDLC facilities. In cases where acceptable spare loop plant is not available, other customers who are not otherwise involved in the hot cut may be affected. In these cases Verizon might "swap-out" a retail customer's non-IDLC loop facilities with the IDLC facilities of the customer who wishes to change his/her local service provider.

Overall, the process to accommodate access to IDLC loops is resource intensive, costly, customer affecting and difficult to coordinate, even when compared to the "ordinary" hot cut process. Additionally, as competition increases, the CLECs may find situations where Verizon has neither spare facilities nor retail customers with non-IDLC facilities that can be used for a swap-out. In these cases the CLEC will be precluded from offering a competitive choice to these customers.

Q. CAN THE COST DISADVANTAGES THAT YOU HAVE DESCRIBED ABOVE THAT FACE CLECS FORCED TO USE UNE-L BE MITIGATED WITHOUT TECHNOLOGICAL CHANGE?

A. No. Until the underlying architecture of Verizon's network that has created these impairments is changed, CLECs will continue to face significant practical and economic impairments in serving mass market end-users on ILEC loops *via* their

1 own switches—impairments that make UNE-P the only viable entry method for
2 serving the mass market.

3 **Q. IN WHAT WAYS MUST VERIZON'S NETWORK ARCHITECTURE**
4 **CHANGE?**

5 A. It has to be modernized so as to establish a packetized network that would assist
6 in making voice-grade loop migration more efficient. Specifically, Verizon must
7 implement a network that will provide all carriers with efficient and equal access
8 to customer loops through a process known as electronic loop provisioning, or
9 ELP.

10 **Q. WHAT IS ELP?**

11 A. ELP can best be thought of as the local service counterpart of "equal access" in
12 the long distance market. As the name itself, indicates, ELP permits carriers to
13 seamlessly provision loops through an electronic, rather than manual process. In
14 other words, it eliminates the need for the time-consuming and labor-intensive hot
15 cut process that the FCC found supported a national finding of impairment.[125]

16 **Q. BUT ISN'T ELP A SPECULATIVE DEPLOYMENT OF UNTESTED**
17 **TECHNOLOGY?**

18 A. Not at all. It can be provided using equipment that is available from vendors
19 today, and technology and functionality that carriers are using today. Moreover,
20 large portions of the current outside plant deployed in Verizon's distribution and
21 feeder systems will remain in place, unchanged. Best of all, carriers will remain
22 free to stick with current, circuit-switching technology, migrate to advanced
23 switching, including so-called "soft switches," or use any combination of
24 technologies that they find practical and economic.

[125] See TRO, ¶¶464 et seq.

Q. IS VERIZON TAKING ANY STEPS THAT WOULD ASSIST IN THE IMPLEMENTATION OF ELP?

A. Yes, albeit undoubtedly inadvertently. Like the other RBOCs, Verizon is increasingly deploying Next Generation Digital Loop Carrier ("NGDLC") technology, to enable it to provide both advanced services, like Digital Subscriber Line ("DSL") and plain old telephone service ("POTS") on the same copper loop. These NGDLC systems ultimately will provide a software-controlled cross-connection between an input and output port based, in part, on an internal -- but updateable -- table that identifies which two ports should be connected. The physical circuits attached to the ports need not change, but the destination of the traffic they carry can be changed by software commands.

In short, in an NGDLC network the physical loop connections essentially become "virtual," permitting traffic destinations and, thus, routing, to be changed electronically through the use of software commands, rather than by "hands on the network" (*i.e.*, the dispatch of technicians to undertake the physical rearrangement of circuits).

Q. WHAT IS YOUR UNDERSTANDING OF VERIZON'S PLANS FOR UPGRADING ITS NETWORK ALONG A CONTINUING PATH TO ITS PACKETIZATION?

A. Initially, Verizon indicated that it would only digitize its data traffic. Last year, however, Verizon announced that it will deploy new technology that will digitize both voice and data traffic. In fact, within just a day before this testimony was scheduled to be filed Verizon announced that it "will dramatically accelerate the evolution of its nationwide wireline network to packet-switching technology," leading to the development of what Verizon anticipates "will be the nation's

largest converged network, capable of simultaneously handling voice, data and video transmissions."[126]

Q. WHY IS IT SIGNIFICANT THAT VERIZON HAS ANNOUNCED THAT IT IS MOVING TOWARDS THE PACKETIZATION OF BOTH VOICE AND DATA TRAFFIC?

A. This demonstrates that equal competitive access to loops through electronic loop provisioning is a realistic goal that would use current and currently-planned ILEC facilities and technology to facilitate the migration of voice-grade loops to, from, and among CLECs, without the need for costly, inefficient and error-prone manual processes, such as today's "hot cuts." Electronic Loop Provisioning would use NGLDC equipment that would digitize and packetize all end-user communications signals, thus extending the benefits of this technology to traditional POTS service. Once all loops are controlled by software, there would be no need for manual intervention to switch loops from one carrier to another, and the transition from ILEC service to CLEC service (or among CLEC providers) would be as efficient, inexpensive and timely as it now is for customers to switch long distance carriers.

Q. ARE THERE ANY CONCERNS RAISED BY THE WAY VERIZON IS CURRENTLY IMPLEMENTING NETWORK PACKETIZATION?

A. Yes. Obviously, Verizon is not necessarily undertaking this activity with a view towards its potential for easing the implementation of ELP. Thus, Commission intervention may be necessary to ensure that Verizon engineers its transition to a packet-based architecture in a manner that contemplates multiple carriers, rather

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[126] Press Release, "Verizon Outlines Leadership Strategy for the Broadband Era: Announces Major New 3G Mobile Data and Wireline IP Network Expansions," Jan. 8, 2004 (attached as Exhibit 25).

than creating a two-class system in which Verizon's retail service is provided over modern, digital and packetized access facilities while CLECs – and their customers -- are relegated to the oldest and least efficient facilities.

Q. BUT WON'T THE IMPLEMENTATION OF ELP BE INORDINATELY TIME-CONSUMING AND EXPENSIVE?

A. No. It is an easy out for the RBOCs to exaggerate the costs of changes to their networks that they do not originate themselves – especially ones that will facilitate competition. As we noted above, however, ELP can be implemented with technology that already is available today, and would build on changes to the legacy network that Verizon already has begun to implement.

At the same time, loop equal access need not be accomplished in a "flash cut." It took years for long distance equal access to be fully implemented (and hundreds of millions of dollars of investment), but the rewards in lowered prices and, even more important, explosive innovation and growth in the use of telecommunications have tremendously benefited state and local economies. A similar cost-benefit analysis clearly weighs in favor of ELP.

Q. WHAT EXACTLY WOULD ELECTRONIC LOOP PROVISIONING ACCOMPLISH?

A. Nothing less than "loop equal access"; that is, the ability for a customer to choose any facilities-based local exchange carrier without excessive delays in effecting a change of carrier, without losing service for any period of time, and without degrading service quality. As with long distance equal access, this can be anticipated to unleash a flood of investment by those eager to capitalize on a truly open telecommunications market, significant competitive pressure on market

1 prices for all telecommunications services, and a wave of innovation that matches
2 or surpasses the "cyber-revolution" of the 1990s.

3 **Q. WOULD ELP BENEFIT VERIZON?**

4 A. Yes. Even from Verizon's narrow perspective, current, manual methods of
5 shifting loops from one carrier to another violate a basic rule of telephone
6 engineering: "no hands on the network." It is a well-established decision rule in
7 telephone engineering that, whenever possible, it is preferable to implement a
8 system that requires less, rather than more, manual intervention – since such
9 intervention is costly, slow, and prone to introduce errors and problems into the
10 network that would not have occurred if there were no "hands on the network."
11 Moreover, in these days of heightened sensitivity to national security, fewer
12 "hands on the network" also mean fewer opportunities for security issues.

13 From the perspective of overall network efficiency – as well as of each
14 carrier's individual efficiencies – ELP also provides a big advantage. Under
15 current conditions, where Verizon has placed Digital Loop Carrier ("DLC") in its
16 distribution network, there is inefficient repeated multiplexing and demultiplexing
17 when a CLEC receives the traffic from Verizon at its collocation space. Under
18 ELP, a CLEC can receive its traffic in a fully multiplexed form and transport it in
19 that form as far into its network as it finds desirable and economic. Thus, there is
20 no need for separate DLC equipment in collocation space in a Verizon Central
21 Office ("CO"). This has the additional advantage for Verizon (and all other
22 carriers) of relieving CO space exhaustion, especially in COs in densely populated
23 areas – lowering both Verizon's and the CLECs' expenses and delaying required
24 construction of new COs.

And another, and similar, benefit to all carriers is the fact that, in many COs, CLECs will simply not need any collocation space. To transport traffic to their switches, they can simply build, purchase or lease transmission to the ATM modules in a number of Verizon COs, concentrate their traffic as they collect it, and then deliver it to their serving switch. Again, this reduces the demand for CO floor space, as well as the expense CLECs incur in renting and maintaining collocation space. If Verizon established a fiber ring to connect all ATM modules in a given geographic area, CLECs would need only "tap into" one spot on the ring to collect their packetized traffic from all COs on the ring. This would be efficient for both CLECs and Verizon, and would reduce wasteful, duplicative and costly "backhaul" that CLECs using UNE-L must now undertake, and which we described above.

Q. HOW WOULD ELP BENEFIT TELECOMMUNICATIONS CONSUMERS?

A. In a number of ways. For example, electronic loop provisioning would permit customers to have better access to higher-speed and advanced services, which CLECs need not forgo because of the impracticability of replicating some or all of the existing ubiquitous loop distribution network. There are no services that ELP would eliminate – and many that it would enable. In addition, ELP of the kind we have described would permit the potential standardization of wireline broadband interfaces, which, in turn, could encourage new broadband applications and new advanced services networks.

However, the fundamental benefit to consumers from the implementation of a seamless electronic loop provisioning system is in establishment of a modern,

fully competitive telecommunications market – one in which customers can choose a provider for local exchange and advanced services with the same ease and reliability with which they can choose their long distance provider today, and in which those services are delivered at the lowest cost, in the most efficient manner, and with the fastest pace of innovation that the economy can support.

Q. IS AT&T ASKING THE COMMISSION TO DIRECT VERIZON TO IMPLEMENT ELP IN THE CONTEXT OF THIS CASE?

A. No. The issues concerning the implementation of ELP are too important to be lost in the swirl of the extreme time constraints and complex evidentiary review that is attendant with the review of Verizon's "triggers" petition. We expect that the issue will initially be addressed in the staff collaborative that the Commission has commenced at Docket No. M-00031754.[127] Nevertheless, it is essential that the Commission understand the necessity for ELP in the context of the decision that Verizon is seeking here – that is, to overturn the FCC's finding of impairment in the absence of unbundled switching, and thus to eliminate UNE-P as a vehicle for competitive choice. Our discussion above shows that without fundamental changes to the way in which the ILECs permit CLECs to gain access to the consumers' loops, the impairment found by the FCC will continue. This Commission thus should not permit Verizon to eliminate UNE-P until loop equal access is made available. Only *then* will it be possible to assert credibly that CLECs are not impaired in their ability to enter local telephone markets and compete successfully.

[127] See Procedural Order at 21-24.

The triggers are not met with regard to dedicated transport

PURPOSE OF TESTIMONY.

Q. PLEASE STATE THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY.

A. In its *Triennial Review Order* ("*TRO*"),[128] the FCC determined that incumbent local exchange carriers ("ILECs") must provide competitive carriers with unbundled access to dedicated transport. In other words, the FCC made a national finding that CLECs are impaired without access to DS1, DS3 and dark fiber dedicated transport. ¶ 359.[129] However, the FCC empowered state commissions to evaluate any specific claims that an ILEC might advance, on the basis of specific criteria to be assessed on a particular route, that show competing carriers are not impaired without unbundled access to that element on that route and at a specific speed (DS1, DS3 and dark fiber). The purpose of our testimony is, first, to assist the Commission to implement a workable framework to evaluate Verizon's claims of non-impairment that is faithful to the principles and requirements set forth in the *TRO*. Second, our purpose is to demonstrate that Verizon's claims of non-impairment on certain dedicated transport routes, as defined by the FCC, are bogus.

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

[129] All paragraph ("¶") citations in this testimony are to the *TRO*, unless otherwise noted.

1 **Q. HOW IS THIS SECTION OF YOUR TESTIMONY ORGANIZED?**

2 A. Section II below summarizes the reasons the FCC continues to require the ILECs
3 to provide unbundled access to dedicated transport. Section III then sets forth the
4 analysis that the Commission should undertake to determine if certain "triggers"
5 have been met – *i.e.*, that certain conditions exist on a specific transport route that
6 indicate a CLEC is not impaired without access to UNE dedicated transport at that
7 route. If -- and only if -- the triggers are met, the Commission may lift the
8 unbundling obligation for dedicated transport between specific Verizon wire
9 centers, at that specific transport speed. We also explain the specific criteria that
10 the FCC requires Verizon to meet and the evidence Verizon must present before
11 this Commission may find that the dedicated transport trigger has been satisfied.
12 In Section IV, we address the claims of Verizon with respect to the extent to
13 which Verizon alleges that AT&T is a trigger candidate for routes in
14 Pennsylvania.

15 **THE FCC FOUND THAT COMPETITIVE CARRIERS ARE**
16 **IMPAIRED NATIONWIDE WITHOUT UNBUNDLED ACCESS TO**
17 **DEDICATED TRANSPORT.**

18 **Q. WHAT WAS THE FCC'S FINDING WITH RESPECT TO DEDICATED**
19 **TRANSPORT?**

20 A. After extended proceedings and after considering an enormous factual record, the
21 FCC determined that competitive carriers are impaired nationwide in their ability
22 to provide local telecommunications services without access to dedicated
23 transport, assessed on a route-specific capacity basis and subject to defined limits.
24 ¶¶ 359, 381-93. The FCC assessed impairment emphatically on a capacity basis
25 "[b]ecause a carrier using higher capacity levels of transport has a greater

1 incentive and broader revenue base to support the self-provisioning of transport
2 facilities." ¶ 377 (footnote omitted).

3 It is not possible to understand disputes among the parties over whether a
4 trigger has been satisfied on any specific route without a grounding in the
5 impairments that cannot be overcome without unbundled access to the UNEs
6 being investigated. Thus, it is appropriate to summarize these impairment
7 characteristics at the outset, because these are the factors that the trigger analysis
8 must show have been overcome.

9 **Q. PLEASE EXPLAIN THE REASONS FOR THE FCC'S FINDING OF**
10 **IMPAIRMENT WITH RESPECT TO DEDICATED TRANSPORT.**

11 A. The principal factors in the Commission's deliberations with respect to dedicated
12 transport facilities are that such facilities engender substantial fixed and sunk
13 costs and their provisioning creates substantial delays in providing services to
14 CLECs' customers.[130] The FCC determined that there is an important and
15 continuing need for the incumbent LECs to continue to provide competitors with
16 unbundled access to high-capacity dedicated transport. The FCC found that
17 "[d]eploying transport facilities is an expensive and time-consuming process for
18 competitors, requiring substantial fixed and sunk costs." ¶ 371. The costs of self-
19 deploying transport facilities include "collocation costs, the costs of fiber, the cost
20 of physically deploying the fiber, and the cost of the optronics necessary to light
21 the fiber." *Id.* In addition, the FCC recognized that a "substantial part of the

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[130] The FCC began its analysis by limiting the definition of dedicated transport "to only those transmission facilities connecting incumbent LEC switches or wire centers." *TRO* ¶ 359; *see also* ¶ 366. This definition excludes backhaul facilities between a CLEC location and an ILEC wire center. It means that "only those transmission facilities *within* an incumbent LEC's transport network" fall within the incumbent LEC's unbundling obligation. *Id.* (emphasis in original).

costs of deploying transport is in the sunk cost of burying, or otherwise deploying the fiber," including costs of "obtaining rights of way, digging up streets or attaching cabling to poles." ¶ 382.

Given these costs, the FCC concluded that, to avoid impairment, competitive carriers continue to need access to unbundled dark fiber transport, DS3 transport (up to a maximum of twelve unbundled DS3 transport circuits along a single route) and DS1 transport. ¶¶ 359, 388.

DS1, DS3 AND DARK FIBER DEDICATED TRANSPORT TRIGGERS.

Q. WHY DID THE FCC DELEGATE TO STATE COMMISSIONS THE TASK OF ADDUCING EVIDENCE OF A LACK OF IMPAIRMENT WITH RESPECT TO DEDICATED TRANSPORT ON A GRANULAR ROUTE AND SPEED-SPECIFIC BASIS?

A. In making its national findings of impairment, the FCC recognized that there might be specific routes where CLECs might not be impaired if dedicated transport at specific capacities were available as UNEs. The record before the FCC, however, did not permit the FCC to determine where, if anywhere, such routes might be. The FCC thus delegated to the states the task of determining, upon a petition from an ILEC, whether that ILEC could be relieved of its obligation to provide unbundled access to its facilities for a given route.

Q. WHO HAS THE BURDEN OF COMING FORWARD WITH EVIDENCE OF LACK OF IMPAIRMENT, AS WELL AS THE BURDEN OF PERSUASION?

A. We are advised by counsel that as the only party in this proceeding challenging the findings of impairment, Verizon is the party with the responsibility to introduce that evidence into the record. The Commission only needs to make such a determination for routes for which Verizon has presented "relevant

evidence" that competing carriers would not be impaired if access to UNE dedicated transport were eliminated. In other words, the FCC's impairment findings for dedicated transport are controlling unless Verizon has introduced evidence that meets the requirements set forth in the *TRO* for demonstrating non-impairment on a route-specific basis. To guide state commissions' determinations, the FCC set forth "triggers" that could be used to establish exceptions to the incumbent LEC's dedicated transport unbundling obligations in particular cases. Verizon's petition must be denied unless it meets the heavy burden of providing evidence sufficient to overcome the affirmative findings by the FCC of impairment and enable the Commission to make an affirmative finding of non-impairment. Verizon has failed to meet its burden of persuasion of non-impairment in this proceeding.

Q. PLEASE PROVIDE AN OVERVIEW OF THE FCC'S SELF-PROVISIONING TRIGGER WITH RESPECT TO DEDICATED TRANSPORT.

A. The FCC found that CLECs are impaired on a route-specific basis without access to unbundled DS1, DS3 and dark fiber interoffice transport. ¶¶ 381, 386, 390. This means ILECs must provide unbundled access to DS1, DS3 and dark fiber transport absent a route-specific proof of non-impairment. The FCC capped CLEC access to DS3 UNE transport at 12 DS3 circuits per route per carrier, reasoning that demand for greater capacities would justify the high sunk costs of a CLEC establishing its own interoffice transport on such routes. ¶388. Of course, that also means that the FCC found that demand for capacity below 13 DS3 circuits would not justify the costs to a CLEC of establishing its own interoffice transport on a route.

The FCC adopted two triggers to be used to identify where CLECs are not impaired without access to ILEC transport: a self-provisioning trigger and a wholesale facilities trigger. ¶ 399. The self-provisioning trigger applies only to DS3 and dark fiber dedicated transport-- it does not apply to DS1 transport because the FCC specifically found that CLECs cannot economically self-provision transport at such a low capacity level. ¶ 409. Critically, the Commission must perform the transport trigger analysis on a route-specific basis, with "routes" defined as specific pairs of ILEC central offices. ¶ 401.

Q. DOES VERIZON HAVE TO PROVE THAT CLECS ARE NOT IMPAIRED WITHOUT ACCESS TO DEDICATED TRANSPORT ON A SPECIFIC ROUTE AND AT SPECIFIC TRANSPORT CAPACITIES?

A. Yes. It is important to understand that, as with high capacity loops, the Commission's transport trigger analysis is more than a mere counting exercise. The FCC found that CLECs are impaired without access to ILEC dark fiber, DS1 and DS3 dedicated transport (up to 12 DS3s per route per carrier). *See* 47 C.F.R. §51.319(e)(2)(iii). To reverse that finding for any specific transport route, the ILEC must prove that CLECs are not impaired on that route *at the identified capacity levels*. For example, a showing that a provider has OCn-level capacity at two Verizon wire centers, without more, as Verizon does, proves nothing. The proof must demonstrate to the Commission's satisfaction that the provider has "operationally ready" connectivity between the Verizon wire centers, and has self-provisioned on specific routes at the DS3 (up to 12 DS3s) or dark fiber capacity levels, or offers to "immediately" provide wholesale transport at the DS1 or DS3 capacity levels or in the form of dark fiber. ¶ 400. This Verizon has not done.

SELF-PROVISIONED TRANSPORT TRIGGER: KEY CRITERIA.

Q. WHAT ARE THE KEY CRITERIA FOR THE APPLICATION OF THE SELF-PROVISIONING DEDICATED TRANSPORT TRIGGER?

A. The FCC expressly delegated to state commissions the authority to find that competitors are not impaired without access to UNE dedicated transport "when there is sufficient evidence that facilities deployment is possible on a particular route." ¶ 405. The best evidence of that is actual competitive deployment of transport facilities on the route in question, at the capacity in question. In order to meet the "self-provisioning trigger" for a specific route, Verizon must demonstrate that three or more unaffiliated and competing carriers have each deployed transport facilities on that route. ¶ 405. To qualify as "trigger-eligible," each self-provisioned facility on the route must be operationally ready to provide transport between specific ILEC central office pairs at the specific capacities. ¶ 406.

The FCC's reasons for requiring three competitive facilities for the self-provisioning triggers are instructive. Underlying the FCC's reasoning is the principle that actual availability of competitive alternatives at specific speeds and on specific routes is of paramount importance to making a non-impairment finding. This principle is what must guide the Commission in its trigger analysis. First, the FCC wanted "to be assured that the route can support 'multiple, competitive transport networks.'" ¶ 407. Second, the FCC increased the trigger quantity from the two required to pass the wholesale trigger, recognizing that some network owners may not want to provide wholesale services. *Id.* Third, the FCC explained that, because of the sunk costs associated with installing transport,

1 the transport facilities would remain on a route even if the competitive provider
2 exits the market itself. ¶ 407.

3 Performing the self-provisioning trigger analysis requires the Commission
4 to apply a number of key criteria, discussed below.

5 **a.** ***Providers Must be Unaffiliated*** – Alternative self-providers of
6 transport must be unaffiliated with each other and with the ILEC. Thus, to
7 "prevent gaming," the same affiliate rules apply as for self-provisioned loops.
8 *See, e.g.*, ¶¶ 405, 408, 414, 408 n. 1263. In applying this standard, the FCC
9 observed that "when a company has acquired dark fiber from another carrier on a
10 long-term IRU basis *and activated that fiber with its own optronics*, that facility
11 should be counted as a separate, unaffiliated facility." ¶ 408 (emphasis added).

12 **b.** ***Providers Must Own Facilities*** -- The unaffiliated carriers must
13 own the transport facilities. The key question is whether three carriers "have each
14 made sunk investment in transport facilities on a route," thus permitting the
15 Commission to conclude "that sunk costs, economies of scale, and other barriers
16 to deploying transport facilities do not present an insurmountable barrier [to self-
17 provisioning transport] on a particular route . . . ." ¶ 405. The exception is for
18 dark fiber obtained from an ILEC or other carrier subject to long-term IRUs,
19 provided however that the fiber is lit with the IRU-holder's own optronics. ¶ 408.

20 **c.** ***Specific Capacity Levels Must be Considered***– The trigger
21 analysis must be performed for each particular capacity of transport (*i.e.*, DS1,
22 DS3, and dark fiber). The FCC organized its transport impairment analysis based
23 on capacity level "because it is a more reliable indicator of the economic abilities

1 of a requesting carrier to utilize third-party alternatives, or to self-deploy." ¶ 376;
2 see *also* ¶¶ *380-393* (setting forth "Capacity-Based Impairment Analysis" for
3 dedicated transport). As the FCC also explained, the requirement of a separate
4 application of the trigger analysis for each capacity level of transport means that if
5 impairment at a particular capacity of transport on any one specific route is no
6 longer found, transport at other capacities might still be available. ¶ 407. This
7 consideration was designed to recognize the CLECs' important need for
8 continued access to some appropriate ILEC dedicated transport in order to
9 continue to provide competitive services to Pennsylvania customers.

10 The relevant threshold inquiry for the self-provisioning transport trigger
11 for any single route, therefore, is whether three carriers have self-provisioned
12 dedicated transport at a particular relevant DS3 or dark fiber UNE capacity level.
13 The relevant capacity level for this self-provisioning trigger inquiry ranges
14 between a floor of 1 DS3 circuit up to no more than 12 DS3 circuits. The lower
15 bound (one DS3) of this range reflects the fact that the self-provisioning trigger
16 does not apply to dedicated transport at the DS1 level. ¶ 409. The upper bound
17 (12 DS3s) reflects the FCC's view that above that level of capacity the economics
18 would allow self-provisioning by a CLEC. ¶ 388.

19 Therefore, if Verizon sought to establish a finding of no impairment for
20 DS3 circuits, it would have to show that three carriers had self-deployed transport
21 facilities of no greater than 12 DS3 circuits. A carrier that had deployed transport
22 at a capacity level of, for example, OC48 transport facilities, would not count for
23 purposes of the self-provisioning transport trigger. Deployment at such higher

capacity levels would permit a carrier far greater volumes of traffic than would 12 or fewer DS3 circuits, and thus deployment at higher levels would not show that it was economically feasible for a carrier to self-deploy along that route at a level of 12 DS3 or below.

Verizon's showing is limited to OCn fiber deployment by CLECs at common collocations, coupled with the *assumption* that the OCn fiber is then channelized into other transport capacity levels, such as DS1 and DS3, to provide transport.[131] Verizon relies solely upon the premise "that fiber transport facilities are *capable* of operating at various levels of capacity," rather than a showing of actual transport deployment.[132]

For dark fiber, on the other hand, no capacity levels apply. Rather, the capacity will be determined by the optronics used to light the fiber. The relevant inquiry is simply whether the three carriers (that meet the other requirements) have deployed dark fiber along the relevant route. Again, Verizon simply *assumes* such deployment, without a showing that it actually exists.

d. ***Route-Specific Review*** - The FCC requires that the transport trigger analysis must be performed on a route-specific basis. ¶ 401. It defines a transport route as a complete "*connection* between [ILEC] wire center or switch 'A' and [ILEC] wire center or switch 'Z.'" ¶ 401 (footnote omitted, emphasis supplied). The example given by the FCC is that "if, on the incumbent LEC's network, a transport circuit from 'A' to 'Z' passes through an intermediate wire

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[131] Direct Testimony of Debra M. Berry and Carlo Michael Peduto, II (October 31,2003) ("Verizon Direct Testimony") at 48-49.

[132] Verizon Direct Testimony at 49.

1 center 'X,' the competitive providers must offer service connecting wire centers
2 'A' and 'Z,' but do not have to mirror the network path" through X." ¶ 401.[133]
3 The question, then, is whether the CLEC identified as a trigger candidate has
4 dedicated transport operationally ready facilities that connect the two specific
5 ILEC wire centers and/or switches within a LATA.

6 At the same time, however, the FCC limits qualifying providers (whether
7 self-provisioning or wholesale) to those who provide transport for the *entire* route
8 between A and Z. The FCC specifically rejected ILEC claims that competitors
9 could be forced to use a "daisy chain" of links provided by different carriers, and
10 thus managed by multiple providers, between intervening wire centers. ¶ 402.[134]
11 Thus, any evaluation of impairment with respect to transport has to focus, first
12 and foremost, on whether three other providers are each providing transport
13 services that provide a complete connection between the two wire centers at issue.

14 The FCC's emphasis on *connecting* wire centers in the new definition of
15 dedicated transport (¶ 365), and its emphasis on *offering services connecting* wire
16 centers in its example of a transport route (¶ 401), are also instructive as to what
17 does *not* constitute a route. It should be self-evident, for example, that a SONET
18 ring that passes by wire center "A", but is not connected to wire center "A",

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[133] While the FCC placed no defined limitation on the number of hops (*i.e.*, passes through an office and/or intermediate electronics) a transport circuit might make between end points and still be considered a route between 'A' and 'Z', it bears noting that transport circuits offered by a CLEC that make many hops may not offer the same quality of service as ILEC transport with fewer (or no) hops. The introduction of every intermediate office or additional electronic device between points 'A' and 'Z' adds more potential points of failure and potential degradation of service.

[134] The FCC found this definition necessary to "avoid the costs and operational problems associated with cobbling together multiple vendor links to complete a route between two incumbent LEC central offices." *Id.* ¶401.

1 cannot count as a trigger for transport routes including wire center "A."
2 Likewise, a SONET ring that collects traffic from both wire centers "A" and "Z"
3 and carries that traffic to a CLEC point of presence ("POP") not located in either
4 wire center "A" or "Z" does not qualify as a trigger if it does not provide transport
5 services connecting "A" to "Z."[135] This principle is also tied to the notion of
6 operational readiness, which we will discuss next.

7 **e.** ***The Dedicated Transport Must Be In Operational Readiness*** - To
8 be counted as trigger-eligible, a self-provisioned facility "must be operationally
9 ready to provide transport into or out of an incumbent LEC central office." ¶ 406.
10 This means, at a minimum, that the facility must begin *and* "terminate in a
11 collocation arrangement" in an ILEC wire center, and that the collocation must be
12 fully provisioned (*i.e.,* with both space and power) before the facility is
13 considered complete. ¶ 406, fn. 1256. Facilities that terminate in so-called
14 "collocation hotels" are outside the ILEC's network and therefore do not qualify.
15 This is another reason why a SONET ring would not constitute a trigger as
16 between wire centers "A" and "Z" even if it collects traffic from both: So long as
17 it does not terminate traffic in "A" and "Z" it is not operationally ready to provide
18 transport services between those two wire centers.

19 **f.** ***Waiver*** – Evidence that the self-provisioning trigger has been met
20 does not necessarily end the Commission's impairment inquiry. The Commission

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[135] This is true because such rings would not fit the new definition of "dedicated transport" set out by the FCC. That definition makes clear that the two end points of a qualifying route must each lie in an ILEC central office or ILEC switch location. In the SONET ring example in the text above, by contrast, transport is provided only to and from the CLEC POP. *See, e.g.*, ¶¶ 365-66, 401. It is also true because SONET rings are limited in the number of nodes that can be placed on a particular physical ring and the maximum distance that can exist between any two nodes.

can and should seek a waiver of non-impairment where the self-provisioning triggers are facially met, but where a significant barrier to entry, such as a moratorium on rights-of-way, precludes deployment of additional facilities. ¶ 411.

WHOLESALE TRANSPORT FACILITIES TRIGGER: KEY CRITERIA

Q. WHAT ARE THE KEY CRITERIA FOR THE APPLICATION OF THE WHOLESALE FACILITIES DEDICATED TRANSPORT TRIGGER?

A. The FCC also gave the states the role of identifying the transport routes, if any, on which requesting carriers are not impaired without access to UNE transport at a specific capacity because there are sufficient wholesale alternatives available to CLECs. The wholesale trigger for a finding of non-impairment is "when there is evidence that two or more competing carriers, not affiliated with each other or the ILEC, offer wholesale transport service completing that route." ¶ 412.

Determining whether the wholesale facilities trigger is met also requires the Commission to apply many of the same criteria as exist for the self-provisioning trigger:

a. ***The wholesalers must be unaffiliated with the ILEC and each other.*** As with the self-provisioning trigger for loops, the FCC applies the definition of "affiliate" from 47 U.S.C. § 153(1). ¶ 414, fn. 1276.

b. ***The unaffiliated wholesalers must own the facilities they use.*** ¶ 414. However, for purposes of DS1 and DS3 transport only, carriers offering transport at those capacity levels through the use of unbundled dark fiber obtained from the incumbent will count as wholesale providers, but only "if they activate and operate the unbundled dark fiber with their own electronic equipment." ¶ 414

1 n.1277. Carriers with rights to ILEC unbundled dark fiber do not count as
2 providers of wholesale dark fiber for purposes of the wholesale trigger for dark
3 fiber transport. *Id.*

4 **c. *The carrier must be operationally ready and willing to sell the***
5 ***particular capacity of transport wholesale along the route in question.*** The
6 critical bottom lines here are: (1) if the transport facility is not working and
7 immediately available, it does not count for purposes of a trigger analysis; and (2)
8 if the carrier does not generally offer access to other carriers, it does not count. ¶
9 414. With respect to wholesale availability, the FCC emphasized the need for
10 "safeguards against counting alternative fiber providers that may offer service, but
11 do not yet have their facilities terminated or collocated in the incumbent LEC
12 central office, or are *otherwise unable to immediately provision service* along the
13 route." *Id.* (emphasis added).

14 There is more to this standard than merely having lit fiber that connects
15 collocations in two different wire centers, as Verizon assumes. If the purported
16 wholesaler cannot connect with CLEC customers, for example, through CLEC-to-
17 CLEC cross-connects at the relevant Verizon central offices, then the wholesaler
18 would not be operationally ready to provide services to all CLECs. Similarly, if
19 CLECs cannot terminate their UNE loops directly with the wholesaler, then the
20 wholesaler is not operationally ready to provide a real alternative to ILEC
21 transport.

22 **d. *The wholesale services must be widely available.*** For example, a
23 carrier that sells transport to only one or two other companies but does not make

its services widely available would not qualify as a wholesaler. ¶ 414. Such a carrier also would be "unable immediately to provision service along the route," and the existence of such a carrier, though relevant to the self-provisioning trigger, would not qualify for the wholesale trigger. *Id.*

Likewise, a wholesaler's dedicated transport is not operationally ready or widely available if the wholesaler either lacks the operations support systems ("OSS") needed to support CLEC use, or lacks the collocation arrangements necessary to ensure that CLECs can readily cross-connect their facilities in the applicable ILEC end-offices that define the transport route. *See e.g.* ¶¶ 373, 414. In other words, for a wholesale carrier to qualify for trigger purposes, other CLECs must be able to access the alternative facilities by cross-connecting their collocations to the wholesaler's collocation (or to a fiber termination panel) "in a reasonable and non-discriminatory manner." ¶ 414 n.1279. In particular, the ostensible offer of wholesale transport must satisfy the FCC's collocation rules, which clarify "nondiscriminatory principles including the right to interconnect with other collocated competing carriers by cross-connection." *Id.* A carrier that cannot offer cross-connection that satisfies these requirements does not qualify as a wholesaler for purposes of the trigger, because "the wholesale trigger counts only wholesale offerings that are readily available." *Id.*

Q. MAY CLECS BE IMPAIRED EVEN IF A TRIGGER IS SATISFIED?

A. Yes. The FCC in the *TRO* recognizes that there may be situations where the triggers may be satisfied but a particular CLEC may still be impaired without access to ILEC dedicated transport because of factors unique to a carrier's ability to serve a transport route or to changed factual circumstances. For example, a

1 barrier to entry (such as a moratorium on obtaining new rights-of-way) imposed
2 on a particular route by a local government could prevent a CLEC from entering
3 that particular market. *See, e.g.*, ¶¶ 336, 411. In the event that the Commission
4 were to find non-impairment on a particular route, then the Commission should
5 establish a process to enable CLECs to demonstrate that a significant impediment
6 to facilities deployment or use remains even if a trigger were found to be satisfied,
7 because of unusual or exceptional circumstances. In addition, in cases where the
8 impediment affects a more substantial number of CLECs, the Commission should
9 utilize the waiver process specified in paragraphs 336 and 411 of the *TRO*.

10 **VERIZON'S CLAIMS AS TO SPECIFIC AT&T ROUTES ARE**
11 **UNFOUNDED.**

12 **Q. DOES VERIZON PROVIDE THE REQUIRED EVEDIENCE TO PROVE**
13 **ITS ASSERTIONS OF NON –IMPARIMENT?**

14 A. No. Rather than providing the required facts and evidence to prove its assertions,
15 Verizon expressly relies on various assumption and speculations.

16 **Q. PLEASE SUMMARIZE THE SET OF ASSUMPTIONS UPON WHICH**
17 **VERIZON PREDICATES ITS ASSERTED SHOWING OF LACK OF**
18 **IMPAIRMENT FOR DEDICATED TRANSPORT IN PENNSYLVANIA.**

19 A. Verizon makes a set of cascading assumptions about the self-provisioning and
20 wholesale triggers for dedicated transport, that are grounded upon its simplistic
21 view that if a CLEC has collocations at two Verizon wire centers (with apparently
22 powered equipment in place) and with non-Verizon fiber optic cable terminating
23 in the collocations and leaving the Verizon wire centers, then the CLEC is self-
24 provisioning both DS3 and dark fiber dedicated transport between the Verizon

1 wire centers, or is offering each of DS1, DS3 and dark fiber between the Verizon
2 wire centers at wholesale.[136]

3 Verizon *assumes* that all fiber optic based CLEC collocations in a market
4 are connected either directly or indirectly to each other and are therefore
5 "operationally ready."[137] But that may or may not be the case, depending upon
6 the design that a CLEC establishes for its fiber network, which of course depends
7 upon the needs that the CLEC fiber is designed to serve. Nor is it the case that a
8 "connection" through a CLEC switch at a CLEC point of presence ("POP")
9 provides operationally ready connectivity between the ILEC wire centers. Indeed,
10 such a connection through a switch cannot qualify as a "route" under the FCC's
11 definition. Thus Verizon is wrong because it assumes that every pair of a CLEC's
12 collocations with fiber must necessarily and always be connected to each other,
13 and Verizon fails to make the required distinction between switched and un-
14 switched connections. Both assumptions are fatal to Verizon's case.

15 Verizon further *assumes* that that the mere existence of a fiber connection
16 between two collocations means that the CLEC is operationally ready to either
17 self-provision or offer at wholesale transport services at the specific capacities
18 (DS1, DS3 and dark fiber) and on the specific routes that the FCC found relevant
19 to its impairment analysis.[138] This also is not necessarily the case, depending
20 upon the CLEC's service requirements for which it configured and constructed its
21 fiber network. The fact of the matter is that the portion of AT&T's network

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[136] Verizon Direct Testimony at 46.

[137] Verizon Direct Testimony at 47-48.

[138] Verizon Direct Testimony at 48-49.

relevant to the transport trigger is designed and constructed principally to backhaul traffic to AT&T's switch.[139] It is not designed and constructed to haul transport traffic between Verizon's wire centers.

Finally, Verizon also *assumes* that simply because a CLEC generally provides information on a website or in advertising material about DS1 and DS3 services it offers (subject to various conditions and limitations) at retail or wholesale, that that is granular evidence that the CLEC is operationally ready to provide dedicated transport on each of specific routes, at each of the specific capacities, and that the transport is operationally ready on a widely available basis, as the *TRO* rules require.[140] A claim in CLEC advertising that it is willing to provide dedicated transport generally says nothing about its ability to provide such transport on any particular route, which is, after all, the whole point of the FCC's triggers. Verizon cannot escape its obligation to demonstrate non-impairment by simply making uncorroborated assumptions.

Q. HAVE VERIZON'S ASSUMPTIONS OVECOME THE FCC'S FINDING THAT CLECS ARE IMPAIRED WITHOUT ACCESS TO DEDICATED TRANSPORT UNES?

A. No. Verizon has it exactly backwards—the FCC reached findings based on voluminous record evidence, while Verizon doesn't come close. Verizon's testimony is grounded upon assumptions, as if assumptions can overturn factual

[139] Verizon has recognized and affirmatively argued that " '[C]LECs deploy switches to serve broad geographic areas, and not within each specific rate center for which Verizon has built out its network.'" Verizon Direct Testimony at 15, ironically citing AT&T. See fn. 5. Verizon was correct to note and agree that CLEC switches span collocations in a large number of ILEC wire centers to aggregate or backhaul traffic on, *inter alia*, fiber. Verizon's failure to consider this switched traffic originating from collocations and backhauled to terminate on a CLEC's local switch shows the unreasonableness of Verizon's assumptions.

[140] Verizon Direct Testimony at 53-56.

1 evidence. Assumptions are not facts, as Verizon in effect concedes. Based upon
2 its set of assumptions, Verizon claims it has "come forward with evidence" and
3 now seeks to shift the burden onto the trigger CLECs to prove that they do not
4 either self-provide or not offer at wholesale capacity on a specific route at the
5 specific capacities that the FCC found relevant to an impairment analysis.[141] The
6 standard is clear and Verizon falls short. Verizon cannot simply speculate or
7 assume critical facts and prevail unless CLECs prove the proverbial negative.

8 If the analysis were as simple and ministerial as counting common
9 collocations, without more as Verizon assumes, then there would be no point to
10 this proceeding. Rather, the Commission has been delegated federal authority and
11 charged with reaching findings of fact as the *TRO* specifies—not making guesses.
12 The Commission must develop a record of factual evidence that each route at
13 each capacity is competitive, before it considers declaring that the FCC's finding
14 of impairment on that route is overcome.

15 The fact of the matter is that Verizon has failed to overcome the FCC's
16 clear finding of impairment.[142] It has not demonstrated that there is operationally
17 ready connectivity between the CLEC collocations, or that any CLEC--much less
18 the required number of CLECs--on its trigger list either self-provides or offers at
19 wholesale dedicated transport at the DS1 or DS3 capacity levels, or dark fiber.
20 Verizon's assumptions fall far short of the case that Verizon must make in order

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[141] Verizon Direct Testimony at 48, 51, 52, 54 and 56.

[142] If Verizon had actually marshaled a persuasive factual case, then its premature attempt to shift the burden onto CLECs to disprove what Verizon failed to prove would be unnecessary.

1 to shift the burden of coming forward with the evidence or the burden of
2 persuasion to opponents of Verizon's non-impairment argument.

3 **Q. HAS VERIZON MET ITS BURDEN OF PERSUASION WITH RESPECT**
4 **TO THE AT&T TRANSPORT ON SPECIFIC ROUTES THAT VERIZON**
5 **ASSUMES SATISFIES THE TRIGGER REQUIREMENTS?**

6 A. No. Given the short time available for analysis, we have not attempted to address
7 the facilities of the other CLECs advanced by Verizon as trigger candidates. [143]
8 We believe that if properly analyzed, the identification of other CLECs as trigger
9 candidates may likewise prove unfounded, and AT&T reserves the right to do so
10 as late filed discovery is received. We can, however, address AT&T's alleged
11 trigger candidate status. Given the nature of AT&T's network -- which is
12 deployed principally to concentrate and backhaul traffic from ILEC serving wire
13 centers to AT&T's switches, it is clear that Verizon's claims with regard to the
14 AT&T facilities that allegedly satisfy trigger requirements are without foundation.

15 **Q. HOW DO YOU RESPOND TO VERIZON'S CLAIM THAT "CLECS**
16 **BUILD OCN-LEVEL TRANSPORT FACILITIES CAPABLE OF**
17 **CHANNELIZATION TO DS1 OR DS3 CAPACITY SERVICES?"[144]**

18 A. Verizon seems to have forgotten that it has filed a triggers case and not a *potential*
19 deployment case. This case requires evidence of what exists *now*, not speculation
20 as to future possibilities. What Verizon has shown, at best, is that a number of
21 CLECs have deployed fiber facilities—not necessarily "transport" facilities as
22 defined by the FCC -- in Pennsylvania, terminating at CLEC collocations at
23 certain Verizon wire centers. Verizon's collocation survey, even if viewed in the

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[143] Verizon had over eight months, from February to October, to gather evidence and prepare its case, in contrast to the few weeks available to the CLECs to respond.

[144] Verizon Supplemental Direct Testimony at 14.

most favorable light, proves nothing more. Further, the deployment of fiber at SONET OCn levels is economically not the equivalent of deploying capacity at a lower level. It is realistic that an OC3 or higher fiber ring is built and not broken down by AT&T to DS3 or DS1, depending on particular customer or network applications. While deployment of OCn capacity fiber might well be economic in serving a high-demand customer, it is clearly not economical to deploy the same capacity fiber for a customer that had far less demand.

For example, AT&T has facilities in Pennsylvania that are served by fiber almost entirely at the OC48 level.[145] That deployment was made in order to meet planned customer needs. But OCn capacity is not the issue here. As already discussed, the FCC's trigger test for dedicated transport requires a very capacity-specific analysis, at the DS1 and DS3 capacity levels, and dark fiber. OCn-level capacity does not address this very specific analysis, nor does it address specific customer needs for service.

Indeed, the FCC has already found, on a national level, that OCn transport should not be an UNE because "requesting carriers are not impaired without access to unbundled OCn transport facilities." ¶ 359. The FCC went on to "find that requesting carriers are not impaired without lit transport beyond twelve DS3s on a route due to the ability to self-provision transport facilities, or to self-provision optronics equipment necessary to activate unbundled dark fiber." ¶ 389. Thus, a proof that capacity exists at the OCn level, without more, proves nothing of relevance to this proceeding. If by Verizon's logic any OCn transport

[145] A handful of AT&T's collocations in Pennsylvania are served at slower SONET levels.

1 evidences DS3, DS1, and dark fiber transport, then the FCC's nationwide finding
2 of no impairment regarding OCn transport would apply nationwide to DS3, DS1,
3 and dark fiber. Of course, such an interpretation is squarely inconsistent with the
4 FCC's analysis in the *TRO*.

5 Furthermore, while it is not a stretch to say that OCn fiber facilities are
6 "capable of channelization to DS1 or DS3 capacity services," as Verizon says,[146]
7 that is far from saying that AT&T does so on any particular route identified by
8 Verizon in its testimony. It is not the *capability* of channelization but the *actual*
9 channelization of facilities at the DS1 and DS3 levels – separately and on a
10 particular route -- that is the keystone of the FCC's dedicated transport triggers
11 analysis. We take note of the FCC's requirement that the CLEC be "immediately
12 capable and willing to provide" (¶ 400) and "[a]ble immediately to provision
13 service" (¶ 414).[147] Extrapolating on the mere fact that AT&T has OCn fiber
14 facilities terminating in collocation arrangements, Verizon asks the Commission
15 to make an assumption on top of another assumption in order to overturn the
16 FCC's national findings of impairment with respect to dedicated transport. This
17 is a far cry from the steep burden of persuasion that the Commission should insist
18 be met before it eliminates the availability of dedicated transport in the face of the
19 unambiguous impairment findings of the FCC. Verizon simply ignores a host of
20 inconvenient facts: it fails to distinguish switched from un-switched traffic; it
21 fails to distinguish transport from non-transport facilities, such as entrance or

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[146] Verizon Supplemental Direct Testimony at 14.

[147] The FCC described the requirement as being "readily available," only requiring the installation of a cross connect jumper cable. *See* fn. 1278.

interconnection facilities; and it fails to distinguish actual operational readiness from future, potential, or inherent capabilities.

Q. HOW DO YOU RESPOND TO VERIZON'S CLAIM THAT "CLECS DEPLOY THEIR DEDICATED TRANSPORT FACILITIES IN SUCH A WAY THAT TRAFFIC CAN FLOW TO ALL PARTS OF THEIR NETWORKS, INCLUDING TO AND FROM CLEC COLLOCATION ARRANGEMENTS AT VERIZON WIRE CENTERS?"[148]

A. Obviously, all LECs necessarily build their *switched* networks so that switched traffic can flow to all parts of their network, as well as directly or indirectly to the networks of other carriers. However, from the perspective of deployment of facilities for self-provisioned transport services, AT&T's fiber network is not principally configured to flow traffic from one ILEC wire center collocation to another ILEC wire center collocation. The network is more logically thought of as a hub and spoke arrangement, hauling local traffic from the CLEC's collocation to the central Tandem-area local switch. This is a central-point to any-point architecture, not an any-point to any-point architecture. There is insufficient demand for AT&T to self-provision DS1 or DS3 dedicated transport between Verizon wire centers; in fact, AT&T buys access from Verizon to connect many of its off-net collocations to AT&T's fiber network. Absent sufficient demand, it would in most instances be more economical to purchase facilities from the ILEC rather than to self-provision, given that any wire-center–to-wire-center demand is hardly likely to exceed 12 DS3s on any one particular route (this is illustrated by the FCC's finding that CLECs are impaired for transport below 13 DS3s per CLEC and per route). Rather, AT&T's fiber is

[148] Verizon Supplemental Direct Testimony at 14.

1 principally configured to flow traffic between an AT&T switch and either an
2 ILEC tandem or end office switch (for example for purposes of interconnection)
3 or an AT&T collocation arrangement at an ILEC wire center. This latter is
4 commonly known as "backhaul" of traffic, and is discussed at length in the *TRO*
5 UNE switching discussion.

6 The backhauling of traffic to a CLEC switch is the defining characteristic
7 of modern CLEC networks, as was shown previously in this testimony.[149] It is the
8 requirement to backhaul traffic to its switches that principally drives AT&T's
9 fiber network deployment design, as well as enterprise customer demand, and
10 certainly not the need to move dedicated traffic between Verizon wire centers.
11 The FCC has ruled that the facilities used by CLECs for backhaul are not
12 "dedicated transport" for purposes of access to UNEs under § 251(c)(3) of the
13 Act. ¶¶ 365-367.[150]

14 In terms of the FCC's self-provisioning triggers analysis, therefore, the
15 AT&T fiber facilities that are in place cannot reasonably be assumed to begin and
16 terminate at two collocation arrangement and thus fail the requisite definition of a

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[149] For a CLEC to achieve the same switch scale economics that Verizon achieves for a single switch at a single wire center, the CLEC must aggregate substantial quantities of loops from multiple central offices and bring the traffic from each of them back to its own switch. To do so, it must build and pay for multiple collocation and "backhaul" arrangements in order to achieve the same scale efficiencies that Verizon achieves at a single location. A CLEC must create an overlay network infrastructure in order to "backhaul" those customers' loops to its switch, which serves a far greater geographic area than the ILEC local switch, for reasons already discussed. This requires the CLEC to: (1) establish and maintain collocations at Verizon's wire centers; (2) install and maintain the equipment necessary to digitize and aggregate the traffic; and (3) establish the necessary transport facilities that provide the physical path connecting the CLEC's collocations and its switch.

[150] Thus, considerable portions of AT&T's fiber network have been rendered irrelevant to the transport trigger analysis by the FCC's *TRO*, such as entrance facilities to AT&T's POP or to AT&T's "local" switch.

"route," and likewise but for additional reasons there is no evidence that AT&T met the requisite need to be "operationally ready," (¶ 406) or is "immediately able to provision" (¶ 414) dedicated transport service between each of the collocation pairs claimed by Verizon.

Nor is it an answer to say that two such paths – say between collocation A and AT&T switch X, and between collocation Z and AT&T switch X – could be switched together at the location of switch X to constitute a route A to Z. A switched route does not fit the definition of "dedicated" transport, certainly not as the FCC defined it, nor as it is commonly understood in the industry. Dedicated transport does not include any switching in the middle.

By definition, and in all standard telecom parlance, a "dedicated" connection is one that is provided for a single customer's exclusive, uninterrupted, non-usage sensitive use (at either retail or wholesale) *without* the use of any switching. The inclusion of a switch in the middle of a transport circuit makes the connection between two points on opposite sides of the switch "switched" or "common" or "shared" transport. If the facilities that actually connect Points A and Z terminate on (and thus physically pass through) Switch X, in that situation there are (at least) *two* routes that meet end-on-end at the switch, and the connection between them is provided by the switch itself. The "end points" of those routes are A and X and X and Z. There is *no single* "transmission path" between A and Z, because the presence of the switch in the middle physically breaks any "path" that was formed.

A circuit that is routed *through* a switch is, by definition, never dedicated transport. If, on the other hand, a circuit merely passes through the "switching node", *i.e.*, the same *building* where the CLEC's switch is located, *without* terminating on the switch, then the circuit between A and Z is "dedicated," because it involves no switching. The two links, A-X and X-Z could be digitally cross connected at X making a transport route from A to Z.

To become operationally ready to provide dedicated transport between any of the collocations to any of the other collocations Verizon has pointed to, as transport is defined by the FCC, would require investment in product management; engineering; equipment EF&I; considerable operating support systems ("OSS") development, including billing systems; Element Management System development and integration for configuration, performance monitoring and fault management; as well as reviews, engineering, and augmentation applications for collocation arrangements, such as costly high-capacity "pre-cross connect" NRCs for 4-wire, coax, or fiber cabling from the collocation to the POT Bay, to the Main Distribution Frame ("MDF"), or the FDF. The extent of these activities and investments would depend upon the vendor make and model and utilization of the equipment already on site, the availability of spare capacity and the availability of collocation space, power, and cross connection. Each route and equipment configuration must be individually engineered and verified. The capital investment would be substantial.

However, such changes to achieve operational readiness to provide dedicated transport is beside the point, because this is a triggers case and not a

potential entry case, at Verizon's own volition. As such, the question is not whether AT&T could *potentially* self-provision dedicated transport, but whether it actually does so. AT&T could potentially be a credit card, leasing, oceanic construction, computer or video company, but it is not. The simple fact is that AT&T's fiber facilities – whether a SONET ring or otherwise – are not principally configured to enable such cross-connections in order to connect the A-X and X-Z paths into one "route" between the Verizon wire centers that Verizon has identified. AT&T's OCn-level fiber facilities therefore are not operationally ready to morph into self-provisioned dedicated transport routes.

Q. HOW DO YOU RESPOND TO VERIZON'S CLAIM THAT THE CLEC DISCOVERY RESPONSES "FURTHER VALIDATE[] VERIZON'S ASSUMPTION IN ITS INITIAL TESTIMONY THAT IF THE SAME CARRIER HAS OPERATIONAL, FIBER-BASED FACILITIES IN TWO OR MORE VERIZON WIRE CENTERS IN A LATA, THE COMMISSION SHOULD ASSUME THAT TRAFFIC CAN BE ROUTED AROUND THE RING FROM ONE VERIZON WIRE CENTER TO THE OTHERS?"[151]

A. A SONET ring is a common configuration for metro-based CLEC fiber facilities, and while quite useful in terms of providing redundancy, SONET rings are limited in the number of nodes that can be placed on a particular physical ring and the maximum distance that can exist between any two nodes. Thus, the capacity available to any node on the ring would be substantially reduced as AT&T adds nodes to the ring, necessary to self-provision multiple "routes" of transport between nodes serving multiple AT&T collocation arrangements at Verizon wire centers. Alternatively, as the number of rings multiply it becomes increasingly inefficient to provide ring-to-ring pathways necessary to connect to Verizon wire

[151] Verizon Supplemental Direct Testimony at 15.

1 centers on two different rings. Particularly in a large metro area, essentially the
2 type of areas in question in this case, Verizon's proposal would require any ring-
3 to-any ring interconnectivity, an expensive undertaking. If AT&T were
4 operationally ready to undertake such a network expansion, its special access
5 charges from Verizon would plummet, so while we have financial incentive to do
6 so if it were practical and economic, such has not been the case.

7 **Q. HOW DO YOU RESPOND TO VERIZON'S CLAIM THAT AT&T IS A**
8 **PROVIDER OF WHOLESALE DS1, DS3 AND DARK FIBER**
9 **DEDICATED TRANSPORT?**[152]

10 A. Here again, Verizon proffers a set of assumptions that it asks the Commission to
11 accept uncritically. In fact, those assumptions do not establish, even on a *prima*
12 *facie* basis, that AT&T is a provider of wholesale dedicated transport at the DS1,
13 DS3 and dark fiber level on the specific wire center-to-wire center routes on
14 which Verizon claims AT&T is a wholesale trigger candidate.

15 Verizon's assumption is that if any CLEC "holds itself out as a wholesale
16 provider on its website – and does not limit its representation to particular routes –
17 Verizon identified the carrier as a wholesale provider."[153] Verizon also points to
18 tariffs, such as special access tariffs, filed buy some CLECs, including AT&T.[154]
19 Further, Verizon claims wholesale provider status for any CLEC that supplies
20 transport facilities to Universal Access, Inc., "has a CATT arrangement in *any* of
21 Verizon's wire centers," or "is listed in the New Paradigm CLEC Report 2003 as

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152 Verizon Direct Testimony at 50.

153 Verizon Direct Testimony at 53.

154 Verizon Direct Testimony at 50.

1 offering dedicated access transport."[155] Each of these claimed evidences of
2 wholesale trigger candidacy proves nothing of the kind.

3 First, Verizon's assumptions are generalized and not route or speed
4 specific, contrary to the explicit requirements of the *TRO*. ¶ 414. Verizon simply
5 does not comply with the granular analysis required by the FCC. Verizon's
6 testimony at no point even attempts to assert that AT&T in fact provides
7 wholesale dedicated wire center-to-wire center transport on any specific route as
8 defined by the FCC. Rather, Verizon simply asks the Commission to assume that
9 AT&T provides wholesale services on all the routes associated by Verizon with
10 AT&T, solely on the assumed basis that some kind of wholesale transport service
11 is generally offered by AT&T. Indeed, Verizon concedes that there is no
12 specificity in its wholesale provider trigger candidate count, because it simply
13 assumes that "the same pairs of Verizon wire centers that meet the self-
14 deployment trigger also meet the wholesale trigger."[156] This assumption is wrong
15 because it turns the FCC distinction between self-provisioning and wholesale
16 provisioning—and importantly the lower number of required trigger candidates—
17 on its head. If all self-providers were wholesalers the separate trigger
18 requirements would be redundant. This is doubly troubling because Verizon's
19 claims of self-provisioning trigger candidates is itself constructed upon the
20 evidentiary quicksand of multiple uncorroborated assumptions, as we have
21 shown.

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155 Verizon Direct Testimony at 53 (emphasis supplied).

156 Verizon Direct Testimony at 45.

1 Second, Verizon's attempted showing that AT&T engages in wholesale
2 wire center-to-wire center dedicated transport activities entirely ignores AT&T's
3 own responses to this Commission about its wholesale wire center-to-wire center
4 dedicated transport offerings in replying to the Commission's discovery
5 questions. The Commission's Question 6, related specifically to transport, asked
6 AT&T to "[i]dentify and describe any arrangements into which you have entered
7 with another entity for such other entity's use of transport facilities in
8 Pennsylvania that you own or control, on a lease or other basis." This question
9 was clearly designed to address the issue of CLEC wholesale wire center-to-wire
10 center dedicated transport activity, and AT&T took it as such. In response,
11 AT&T answered "None." And that remains the case, because AT&T does not
12 provide on a wholesale basis dedicated transport as defined by the FCC in the
13 *TRO*. Verizon has not rebutted AT&T's clear statement contradicting Verizon's
14 speculative claim.
15 Given that the responses to the Commission's discovery were submitted
16 well before Verizon's Supplementary Direct Testimony was filed, this should
17 have been a dead giveaway to Verizon that it was barking up the wrong tree when
18 it asserted that AT&T was engaged in the wholesale dedicated transport trade.
19 Yet, Verizon failed to even address AT&T's response, let alone attempt to rebut
20 it. Indeed, Verizon compounded its error by continuing to insist that AT&T was a
21 wholesale supplier of dedicated transport in Pennsylvania. In its Supplemental
22 Direct Testimony Verizon identifies AT&T as a wholesale trigger candidate on
23 **BEGIN AT&T PROPRIETARY**

1 **END AT&T PROPRIETARY**.[157] There is no
2 plausible reason that AT&T should be fingered as a wholesale trigger candidate
3 on these routes.

4 Third, Verizon's assumption that AT&T holds itself out as a wholesale
5 supplier of dedicated transport between each of the Verizon wire center pairs
6 associated by Verizon with AT&T is predicated solely upon the misreading of
7 AT&T's Network Interconnect Services tariff. Verizon cites to AT&T PUC No.
8 17, § 10 for the proposition that "AT&T offers private line services at all speeds
9 up to OC192, including DS3."[158] However, that citation does not support
10 Verizon's claim that AT&T provides dedicated transport between Verizon wire
11 centers at wholesale, at any speed, as discussed *supra*.

12 The wholesale trigger test set out by the FCC requires that AT&T "must
13 be operationally ready and willing to provide the particular capacity transport on a
14 wholesale basis along the specific route." ¶414. AT&T is not operationally ready
15 and willing to provide wire center-to-wire center dedicated transport, on a
16 wholesale basis, between the collocation pairs and at the speeds relevant to the
17 triggers analysis. As shown earlier, there is insufficient demand for such wire
18 center-to-wire center dedicated transport. Moreover, as we have also shown, the

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[157] Verizon Supplemental Direct Testimony, Exhibits 3 to 6, Attachments C and D. Verizon does not even pretend to separate out DS1 and DS3 dedicated transport, simply assuming that where one speed is provided so is the other. This flies in the face of the FCC's finding that "DS1 transport is not generally made available on a wholesale basis." ¶ 392. Verizon's simplistic assumption that DS1 follows DS3 and other wholesale offerings fails to overcome the specific findings by the FCC in the *TRO*.

[158] Verizon Direct Testimony at 50.

1 AT&T network is not principally configured to provide dedicated transport
2 between Verizon's wire centers.

3 What AT&T actually offers under the cited tariff – and what other carriers
4 might be interested in buying from AT&T – is Network Interconnection Services
5 that "is available only in connection with the termination of Local Traffic to End
6 Users to whom [AT&T] is able to terminate calls using Access Services as
7 provided elsewhere in this tariff."[159] The service interconnects a CLEC's network
8 to AT&T's network, rather than transporting between two wire centers on the
9 Verizon network. The Points of Interconnection ("POI") for the provision of the
10 Network Interconnection Services must be "at [AT&T's] End Office, and at any
11 other reasonable point on [AT&T's] network."[160] Notably, there is no mention in
12 the tariff of any point-to-point wholesale services between Verizon (or any other
13 ILEC) wire centers, and that is for a good reason -- as AT&T stated in response to
14 the Commission's discovery, AT&T does not provide such wholesale services.[161]

15 Finally, Verizon does not even claim that AT&T offers wholesale
16 dedicated transport to Universal Access, Inc., or is listed in the New Paradigm

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[159] AT&T Communications of Pennsylvania, LLC, Pa. PUC No. 17, § 10.1.

[160] *Id.*, § 10.2.2.

[161] AT&T does offer *retail* dedicated interoffice channels at DS1, DS3 and other speeds, but these are available only between two AT&T Central Offices or points of connection or combinations thereof, on AT&T's fiber network, *see*, for example, AT&T Communications of Pennsylvania, LLC, Pa. PUC No. 19, § 8.2.1 (ACCUNET T45 Interoffice Channel). For another retail example, see *Id.*, § 11.1.1, offering AT&T Private Line Interoffice Channel SONET Services at various speeds, "configured by combining service components at designated AT&T Central Offices." Notably, these tariffs do not offer such channels between Verizon (or any other ILEC) wire centers, since such wire centers are by definition not AT&T Central Offices. There is no holding out in these tariffs of dedicated transport between ILEC wire centers. In any event, these are retail, not wholesale, services and thus would not qualify as wholesale trigger candidates.

1 CLEC Report 2003 as offering dedicated access transport, or has a CATT
2 arrangement in any Verizon wire center. In any event, these reasons for
3 identifying wholesale trigger candidates suffer from the same fault as Verizon's
4 case as a whole – they do not provide any route-specific or speed-specific
5 evidence, as is required under the *TRO* to establish the wholesale provisioning of
6 dedicated transport at DS1and DS3 speeds, and as dark fiber.

7 Furthermore, the use of a CATT arrangement in *any* Verizon wire center
8 to denominate a wholesale trigger candidate on *all* routes – whether or not the
9 route touches the CATT arrangement – is disingenuous. Under Verizon's
10 assumption, a carrier with a CATT arrangement in a single Verizon wire center is
11 assumed to be a wholesale provider on all routes between Verizon wire centers at
12 which the carrier has active collocation arrangements, which is quite a stretch.
13 This is inconsistent with the required granular analysis.

14 Verizon's attempt to shift the burden of coming forward with evidence --
15 and by implication, the burden of persuasion – onto AT&T and the other CLECs,
16 based upon its generalized and non-specific assumptions as to wholesale triggers,
17 should be rejected out of hand by the Commission. Verizon seeks to turn this
18 proceeding on its head by attempting to force AT&T and other CLECs to prove
19 the proverbial negative, and do so on route-specific and speed-specific terms, in
20 the face of cascading general assumptions and speculations that do not address the
21 issues on a route-specific and speed-specific basis in the first place. The granular
22 findings and governing principles embodied in the *TRO* do not permit this result.
23

1 ***The triggers are not met with regard to high-capacity loops***
2
3 **HIGH CAPACITY LOOPS**

4 **Q. PLEASE STATE THE PURPOSE OF YOUR TESTIMONY ON HIGH**
5 **CAPACITY LOOP FACILITIES.**

6 A. In its *Triennial Review Order* ("*TRO*"),[162] the FCC determined that incumbent
7 local exchange carriers ("ILECs") must provide competitive carriers with
8 unbundled access to high-capacity loops.[163] In other words, the FCC made a
9 national finding that CLECs are impaired without access to DS-1 loops, DS-3
10 loops (up to two DS-3s per location). *TRO* ¶ 202. However, the FCC has
11 authorized state commissions to evaluate any specific claims that an ILEC might
12 advance, using specified criteria at particular locations, that show competing
13 carriers are not impaired without unbundled access to those elements. The
14 purpose of our testimony is to assist the Commission to implement a workable
15 framework to evaluate Verizon's claims of non-impairment that is faithful to the
16 principles and requirements set forth in the *TRO*.

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

[163] High capacity loops range in capacity from DS-1 to OCn. *TRO* ¶ 197 n. 624. DS-1 loops have the capacity to handle 24 voice grade equivalents. DS-3 loops can carry the equivalent of 28 DS-1s, or 672 voice grade equivalents. OCn circuits range from OC3 to OC192. The smallest capacity OCn circuit is an OC3, which is equivalent in capacity to three DS-3s, 84 DS-1s, or 2,016 voice-grade loops. *Id.* ¶ 315 n.931.

THE FCC FOUND THAT COMPETITIVE CARRIERS ARE IMPAIRED NATIONWIDE WITHOUT UNBUNDLED ACCESS TO HIGH CAPACITY LOOPS.

Q. WHAT WAS THE FCC'S PRINCIPAL CONCLUSIONS WITH RESPECT TO HIGH CAPACITY LOOPS?

A. After extended proceedings and after considering an enormous factual record, the FCC determined that competitive carriers are impaired nationwide in their ability to provide local telecommunications services without access to unbundled high-capacity loops up to specifically defined limits. *TRO* ¶¶ 202, 311-314, and 320-327. The FCC made a nationwide finding of impairment because the deployment of high-capacity loops involves characteristics "that do not vary significantly from area to area," but rather are applicable throughout the country, and that are inherent in the economics of network construction and market entry. *Id.* ¶ 202; *see also id.* ¶¶ 205, 206. It is not possible to understand disputes among the parties over whether a trigger has been satisfied in any specific location without a grounding in the impairments that cannot be overcome without unbundled access to the UNEs being investigated. Thus, it is appropriate to summarize these impairment characteristics at the outset, because these are the factors that the trigger analysis must show have been overcome.

Q. WHAT WAS THE PRIMARY BASIS FOR THE FCC'S DETERMINATION OF IMPAIRMENT?

A. The principal factor that should inform the Commission's deliberations with respect to whether or not CLECs are impaired without access to unbundled high-capacity loops is the inescapable fact of the high fixed and sunk costs of such loops. The FCC's impairment analysis for loops begins with its finding that "[c]onstructing loop plant is both costly and time consuming, regardless of the

type of loop being deployed." *Id.* ¶ 205; *see also id.* ¶ 303 ("the cost to self-deploy local loops at any capacity is great"). In particular, the FCC noted that "the loop itself can be overwhelmingly difficult for competitors to self-deploy due to the sunk and fixed costs associated with entry." *Id.* ¶ 348. The FCC also recognized that the high fixed costs of loops include "substantial fixed costs to obtain the rights-of way, dig up the streets, and trench the cable . . . ." *Id.* ¶ 312. As the United States Supreme Court explained while discussing the enormous competitive advantage held by the ILECs, "[a] newcomer could not compete with the incumbent carrier to provide local service without coming close to replicating the incumbent's entire existing network, the most costly and difficult part of which would be laying down the 'last mile' of feeder wire, the local loop to the thousands (or millions) of terminal points in individual houses and businesses."[164]

Q. WHAT ELSE DID THE FCC CONCLUDE IN ITS IMPAIRMENT ANALYSIS?

A. The FCC also found that "most of the costs of constructing loops are sunk costs." *TRO* ¶ 205. That is because "the distribution portion of the loop serves a specific location," and because "installing and rewiring that loop is very expensive." *Id.* As a result, a loop constructed for one customer cannot readily be redeployed to serve another customer. The FCC recognized – as should this Commission -- that "the ability to recover the high fixed and sunk costs [of loop construction] is the key factor to considering impairment." *Id.* ¶ 303, n.884. It further explicitly recognized that building a loop does not make economic sense unless the CLEC's customer has a high enough demand for services to "generate a revenue stream

[164] *Verizon Communications, Inc. v. F.C.C.*, 122 S.Ct. 1646, 1662 (2002) (footnote omitted).

that could recover the sunk construction costs of" building the loop. *Id.* As a practical matter, the FCC found that the only customers who could meet that profile are large enterprises that require "a very high-capacity loop facility." *Id.*

Q. ARE THE OBSTACLES TO LOOP DEPLOYMENT FACED BY THE CLECS SOLELY ECONOMIC ONES?

A. No, impairment is not limited to economic issues. Loop construction is not only expensive; it is also time-consuming. The FCC found that it "generally takes between 6-9 months without unforeseen delay" to construct such facilities, and there are numerous ways in which negotiations with, or objections from, local authorities and private right-holders can further delay loop construction and increase costs. *Id.* ¶ 304. Furthermore, as the FCC found, CLECs face still other obstacles in their efforts to deploy loops. *Id.* ¶ 303. These include "the inability to obtain reasonable and timely access to the customer's premises both in laying the fiber to the location and getting it into the building thereafter, as well as convincing customers to accept the delays and uncertainty associated with the deployment of alternative loop facilities." *Id.* Thus, even when it may be economically feasible to build a loop to a given customer, these other barriers may preclude a carrier from practically using its own facilities to compete with the incumbent.

Q. DO THE ILECS ALSO FACE THE SAME OBSTACLES TO LOOP DEPLOYMENT THAT THE CLECS FACE?

A. No. It is also important to recognize, as the FCC did, that these obstacles to loop self-deployment exist *only* for competitive carriers. The ILECs do not face the same obstacles, because they have enjoyed the protections of a long-lasting government-sanctioned monopoly that enabled them to build a ubiquitous

1 network at rate-payer expense, which CLECs cannot hope to duplicate in today's
2 competitive environment. Stated another way, the ILECs, such as Verizon, enjoy
3 the benefits of "their first-mover advantage." *Id.* ¶ 306. As legally protected
4 monopolists guaranteed a return on their investments, the ILECs were expected --
5 and affirmatively enabled by local governments and property owners -- to build
6 facilities to serve all current (and virtually all future) demand for
7 telecommunications services for every customer within their respective service
8 areas. This enabled ILECs to spread the high fixed costs of loop deployment over
9 time and over the entire universe of telecommunications customers, which
10 lowered their per-unit costs. And because they were the sole suppliers of an
11 invaluable service, municipal and private landowners had every incentive to
12 cooperate in providing the incumbents with rights of way and building access.

13 **Q. DO THOSE SAME INCENTIVES EXIST FOR CLECS?**

14 A. No, such incentives do not typically exist today with respect to competing
15 carriers. As a result, as demand increases and the need for service over larger
16 areas arises, the ILECs are able to add new services, capacity or customers by
17 using or leveraging existing facilities together with comparatively inexpensive,
18 incremental additions. The bottom line is that the ILECs not only have built, but
19 they also are able to maintain and expand, ubiquitous local networks without
20 facing the barriers that new entrants now confront. For all of these reasons, the
21 FCC found that "[m]any types of loops continue to represent an enduring 'last-
22 mile' bottleneck." *Id.* ¶ 348.

1 **Q. WHY DID THE FCC FIND NO IMPAIRMENT FOR THE PROVISION**
2 **OF LIT OCN LOOPS?**

3 A. There is only one type of loop for which the FCC found a lack of impairment: lit
4 OCN loops. *Id.* ¶ 315. The reasons for this specific finding of non-impairment
5 are instructive. The FCC found that the large enterprise customers which use lit
6 OCn loops not only provide the high demand and revenue stream needed to cover
7 construction costs, they also frequently enter into long term contracts with early
8 termination charges, thus providing some assurance to carriers that they will
9 recover the largely sunk costs of loop construction. *Id.* ¶ 316. The delays
10 inherent in loop construction are also less of an obstacle for large enterprise
11 customers, because "they begin the process of seeking a new or alternative service
12 provider well in advance of their actual need for service." *Id.* And as large
13 customers, they "may have the ability to exert greater influence over building
14 access," either through their own control of the premises or because landlords are
15 often willing to accommodate them. *Id.* ¶ 317.

16 The FCC further observed that competitive self-deployment of loops has
17 chiefly been to serve customers that required the capacity of an OC3 loop or
18 higher. *Id.* ¶¶ 299, 315, 342, 348. Although the record before the FCC confirmed
19 that competitive carriers prefer to self-deploy their facilities where they can, the
20 FCC found, as a general matter, that such self-deployment is economically and
21 operationally feasible only for the largest enterprise customers. *Id.* Indeed, the
22 FCC found that "[i]n most areas, competing carriers are unable to self-deploy and
23 have no alternative to the incumbent LEC's facility." *Id.* ¶ 314. The FCC thus
24 required incumbent LECs to provide competing carriers with access to unbundled

DS-1 loops, DS-3 loops (up to a maximum of two DS-3s per customer location), and to dark fiber loops. *Id.* ¶¶ 311, 324, 325, 328.

THE "TRIGGERS": ASSESSING IMPAIRMENT FOR HIGH CAPACITY LOOPS AT SPECIFIC CUSTOMER LOCATIONS.

Q. WHY DID THE FCC DELEGATE TO STATE COMMISSIONS THE TASK OF ADDUCING EVIDENCE OF A LACK OF IMPAIRMENT WITH RESPECT TO HIGH CAPACITY LOOPS[165] ON A GRANULAR LOCATION BASIS?

A. In making its national findings of impairment, the FCC recognized that there may be particular locations where an ILEC could potentially show that competing carriers were not impaired, either because they could self-deploy facilities necessary to replace high capacity loop UNEs or could obtain them from wholesale providers other than the incumbent LEC. The record before the FCC, however, did not permit the FCC to determine where, if anywhere, such locations might be. The FCC thus delegated to the states the task of determining, upon a petition from an ILEC, whether that ILEC could be relieved of its obligation to provide unbundled access to its loop facilities for a given location.

Q. WHO HAS THE BURDEN OF COMING FORWARD WITH EVIDENCE OF LACK OF IMPAIRMENT, AS WELL AS THE BURDEN OF PERSUASION?

A. As the only party in this proceeding challenging the findings of impairment, Verizon is the party with the responsibility to introduce that evidence into the record. The Commission only needs to make such a determination for locations for which Verizon has presented "relevant evidence" that competing carriers

[165] To be clear, because of the FCC's finding of no impairment with respect to OCn loops, the subsequent discussion of "high capacity loops" refers to dark fiber, DS1 and DS3 loops.

would not be impaired if access to UNE loops were eliminated. In other words, the FCC's impairment findings for loops are controlling unless Verizon has introduced evidence that meets the requirements set forth in the *TRO* for demonstrating non-impairment at specific customer locations on a location-by-location basis. To guide state commissions' determinations, the FCC set forth "triggers" that could be used to establish exceptions to the incumbent LEC's loop unbundling obligations in particular cases.

OVERVIEW OF THE HIGH CAPACITY LOOP TRIGGERS

Q. PLEASE EXPLAIN THE SELF-PROVISIONING "TRIGGER" FOR HIGH CAPACITY LOOPS.

A. The FCC established two triggers applicable to high capacity loops. The first is the "self-provisioning trigger." The purpose of this trigger is to identify customer locations where two independent CLECs have already demonstrated, through their own self-provisioning of loops to that location, that it is feasible to self-provision the high capacity facilities that would otherwise be available as UNEs.

Q. TO WHICH LOOP CAPACITIES DOES THIS SELF-PROVISIONING TRIGGER APPLY?

A. The self-provisioning loop trigger applies to DS-3 and dark fiber loops. However, it does not apply to DS-1 loops, because the FCC found so "little record evidence demonstrating that carriers construct facilities to serve customers *exclusively* at the DS-1 level, as well as the lack of economic evidence showing that such self-deployment is possible," that it determined "the Self-Provisioning Trigger *will not* be applied to DS-1 loops." *Id.* ¶ 334 (emphasis in original).

Q. PLEASE EXPLAIN THE COMPETITIVE WHOLESALE FACILITIES "TRIGGER" FOR HI-CAP LOOPS.

A. The second trigger is the "competitive wholesale facilities trigger." The purpose of this trigger is to identify customer locations where competing carriers can offer service using loops obtained from wholesale suppliers, and thus do not need to depend either on obtaining UNEs from the incumbent LEC or on their own construction. The wholesale facilities trigger is met when there are two or more wholesale alternatives to the ILEC's UNE loops.

Q. TO WHICH CAPACITY LOOPS DOES THE WHOLESALE FACILITIES TRIGGER APPLY?

A. The wholesale facilities trigger applies to both DS-1 and DS-3 loops. *See id.* ¶¶ 328, 329, 334, 337, 338.

Q. EVEN IF THE SELF-PROVISIONING OR WHOLESALE SERVICES TRIGGERS ARE SATISFIED, IS THERE A BASIS FOR FINDING IMPAIRMENT FOR LOOPS?

A. Yes. Even if an incumbent LEC has introduced evidence that demonstrates that one of these triggers is satisfied at a particular customer location, if the Commission finds "the existence of a barrier to further competitive facilities deployment at that location," it should file a petition for waiver with the FCC to maintain the finding of impairment until that barrier is removed. *Id.* ¶ 336. By giving states this flexibility in a manner sensitive to competitive reality, the *TRO* is designed to ensure that high-capacity loops will continue to be available on an unbundled basis unless there is clear, factual evidence that the myriad operational and economic barriers facing competitors who seek to provide a competitive alternative at a given location have been overcome, and that it is truly feasible to provide customers at that location with a real competitive alternative.

1 **APPLYING THE TRIGGERS TO HIGH CAPACITY LOOPS**

2 **Q. PLEASE DESCRIBE THE COMMISSION'S GRANULAR ANALYSIS OF**
3 **LOOP IMPAIRMENT.**

4 A. The Commission's granular evaluation of impairment "need only address specific
5 customer locations for which there is relevant evidence in the proceeding that the
6 customer location satisfies one of the triggers or the potential deployment
7 analysis" set forth in the *TRO*. *Id.* ¶ 339. The first step, therefore, is to determine
8 the specific customer locations where the incumbent LEC will attempt to
9 overcome the FCC's national finding of impairment. The next step, however, is
10 to determine whether the incumbent LEC's evidence in fact satisfies the criteria
11 set forth in the *TRO* for satisfying one of the triggers. Each of the triggers is
12 defined to provide assurance that the incumbent LEC's obligation to provide
13 UNEs is removed only for those customer locations that truly are available, as a
14 practical matter, to competitors. Therefore, the Commission must ensure that
15 *each* of the trigger criteria, is met before concluding that the evidence put
16 forward by the incumbent LEC demonstrates non-impairment for any given
17 customer location.

18

19 **SELF-PROVISIONED LOOPS TRIGGER – KEY CRITERIA:**

20 **Q. DOES THE COMMISSION NEED TO CONDUCT AN INQUIRY**
21 **REGARDING SELF-PROVISIONED DS-1 LOOPS?**

22 A. No. Because the record lacked any meaningful evidence that DS-1 loops either
23 are or economically could be self-provisioned by competing carriers, the FCC
24 concluded that there was no useful purpose to be served in having any state
25 engage in that inquiry. *Id.* ¶ 334.

Q. PLEASE EXPLAIN THE IMPAIRMENT CRITERIA FOR SELF-PROVISIONED DS-3 AND DARK FIBER LOOPS.

A. The FCC found that "[w]here two or more competitive LECs have self-provisioned loop transmission facilities, either intermodal or intramodal facilities, to a particular customer location *at the loop capacity level* for which the state impairment analysis is being conducted, competitive LECs are not impaired without access to unbundled incumbent LEC loops *at that capacity level* at those particular customer locations." *Id.* ¶ 332 (emphasis added; footnotes omitted). The *TRO* developed detailed criteria to serve as the filter to determine whether the carriers the ILEC identifies as self-provisioning trigger candidates in fact meet the FCC's requirements:

- The providers must be unaffiliated;
- The providers must own the loop facilities;
- The loop capacity must be specifically identified;
- A location-specific review must be conducted;
- The providers must be operationally ready (i.e., existing facilities must be in place); and
- The provider must have access to all of the location.

Q. PLEASE EXPLAIN THE REQUIREMENT THAT PROVIDERS MUST BE UNAFFILIATED.

A. The loops must be self-provisioned by two or more *unaffiliated* competitive LECs. The FCC emphasized that the two CLECs identified to satisfy this trigger must be "unaffiliated with the incumbent LEC and each other." *Id.* ¶ 333.

Q. PLEASE DESCRIBE THE REQUIREMENT THAT PROVIDERS MUST OWN THE LOOP FACILITIES.

A. The self-provisioning trigger is, of course, entirely defeated if the proposed self-provisioners are in fact using the facilities of the incumbent LEC or some other carrier's facilities to provide service to the location in question. For this reason, the FCC explained that carriers using the ILEC's special access facilities or other facilities owned or controlled by the ILEC -- or one of the other providers to a given location -- do "*not*" count for purposes of the self-provisioning trigger. *Id.* ¶ 333 (emphasis in original).

Q. WHAT EVIDENCE IS NECESSARY TO DEMONSTRATE SPECIFIC CAPACITY LEVELS?

A. The self-provisioning trigger for high capacity loops requires evidence that the two carriers upon which the ILEC relies have deployed "the specific type of high-capacity loop" for which the ILEC seeks a finding of non-impairment. *Id.* ¶ 328; *see also id.* ¶ 329 (trigger satisfied only by "facilities at the relevant loop capacity level"); *id.* ¶ 332 (trigger requires evidence of "facilities in place serving customers at that location over the relevant loop capacity level."). Thus, for example, a self-provisioning trigger candidate for DS-3 loops must be providing service at the DS-3 level, i.e., it must have deployed its own facilities to serve only one or two DS3s of demand. Accordingly, the existence of two or more unaffiliated carriers that are serving a given location with their own *OC3* (or higher capacity) loop facilities is irrelevant to the question of evidencing DS-3 loops.[166] As the FCC recognized: "Unlike deployment at even the lowest OCn

[166] Providers of OC-level facilities may, however, qualify under the wholesale trigger if they provide service at the relevant levels and meet the other requirements of that trigger.

level, the record indicates that a single DS-3 loop, generally, can not provide a sufficient revenue opportunity to overcome" the "barriers" to self-deployment of a loop. *Id.* ¶ 320; *see id.* n.945 ("The potential revenue stream associated with a customer commitment for a single DS-3 loop is far less than the revenue stream associated with an OCn loop, yet the cost to construct the loop facility is the same."). Conversely, the FCC found that "as a carrier approaches customer demand for three DS-3s at a particular customer location, it is feasible for that carrier to self-deploy its own high-capacity facilities." *Id.* ¶ 324. It is for this reason that the Commission limited the availability of unbundled DS-3 loops "to a total of two DS-3s per requesting carrier to any single customer location." *Id.* ¶ 324; *see also* ¶¶ 315-19 & nn. 931, 955 (explaining why carriers are not impaired without access to unbundled OCn lit loops, the smallest of which (OC3) is equivalent in capacity to three DS-3s). Thus, absent detailed and specific evidence that two unaffiliated carriers have self-provisioned one (or two) DS-3 loop(s) at a given location, the self-provisioning trigger for DS-3 loops is not satisfied.

Q. WHAT IS THE LOCATION SPECIFIC REVIEW?

A. The trigger analysis must be performed separately for each different customer location. Specifically, the FCC requires that state commissions apply the triggers "on a customer-by-customer location basis." *Id.* ¶ 328. The FCC's decision reflects the fact that loops can only be used to serve individual locations.

Q. HOW IS OPERATIONAL READINESS DETERMINED?

A. A qualifying self-provisioner must have "*existing* facilities in place *serving* customers at that location." *Id.* ¶ 332 (emphasis added). For that reason, the

1 FCC's self-provisioning trigger emphasizes the importance of ensuring that any
2 proposed self-provisioner is operationally ready; otherwise, it could not be
3 actually "serving customers" at the customer location under review. *Id.*

4 **Q. FINALLY, WHY IS ACCESS TO THE ENTIRE BUILDING**
5 **IMPORTANT?**

6 A. The record before the FCC demonstrated that CLECs' ability to "serve
7 customers" with alternative loop facilities is largely controlled by landlords.
8 Indeed, AT&T's evidence to the FCC was that "a substantial majority" of its high
9 capacity loops could only be used to serve a particular floor or floors of a
10 building.[167] The Commission should therefore insist that the alternative loop
11 facilities that "qualify" for a trigger are those for which the competitive carrier
12 has access to the entire premises, including access to the same common space,
13 house and riser cable and other building wiring that the incumbent uses, so it is
14 actually capable of serving all customers at the location.

15 **Q. DOES EVIDENCE THAT THE SELF-PROVISIONING TRIGGER HAS**
16 **BEEN MET NECESSARILY END THE COMMISSION'S IMPAIRMENT**
17 **INQUIRY?**

18 A. No. The Commission may – and should -- seek a waiver where the self-
19 provisioning triggers are "facially" met but where a significant barrier to entry
20 exists such that additional facilities cannot be deployed. *TRO* ¶ 336. An example
21 of such a barrier is "a long-term moratorium on granting additional rights-of-way
22 permits" needed to deploy new facilities. *Id.* In such circumstances, the

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[167] AT&T Reply Comments in CC Docket Nos. 01-338, 96-98, 98-1247, at 176; *see*, also, *TRO* ¶¶ 303-05 & nn. 889, 890, 895-97 (discussing building access problems and citing repeatedly to AT&T Reply Comments at pp. 174-79).

Commission should seek a "waiver" to "maintain the incumbent LEC's unbundling obligation" until the barrier "no longer exists." *Id.*

WHOLESALE FACILITIES TRIGGER - KEY CRITERIA:

Q. PLEASE DESCRIBE THE KEY CRITERIA FOR THE WHOLESALE FACILITIES TRIGGER.

A. The focus of the wholesale facilities trigger is on whether there are two or more wholesale alternatives to the ILEC's UNE loops. The FCC found that "[w]here *competitive LECs* have two alternative choices (apart from the incumbent LEC's network) to purchase *wholesale* high-capacity loops, including intermodal alternatives, at a particular premises, we conclude the impairment does not exist at that location for that type of high-capacity loop." *Id.* ¶ 337 (emphasis added). To be counted for the wholesale trigger, a wholesaler (like a self-provisioner) must be unaffiliated with either the ILEC or another purported trigger company, and it must offer the "specific type of high capacity loop" in question over its "own facilities."[168] *See id.* ¶ 337-38. Thus, the key criteria set forth above for the self-provisioning trigger also apply to the wholesale trigger.[169]

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[168] The FCC noted that a wholesaler (unlike a self-provisioner) is deemed to satisfy the "own facilities" requirement for dark fiber if that carrier has not only obtained it from the incumbent LEC through an IRU, but also if that carrier has obtained "on any other lease/purchase basis," including as a dark fiber UNE. *TRO* ¶ 337, n 987. Of course, in order to operate as a wholesaler the carrier must have "attached its own optronics to 'light' the dark fiber in order to make 'lit' fiber loops available to competitive LECs on a wholesale basis." *Id.*

[169] This is appropriate, because in some circumstances a wholesaler will also count as a self-provider under the FCC's rules. For example, a carrier unaffiliated with the ILEC that offers CLECs access to loops over its own facilities will qualify as both a self-provider and a wholesaler. In contrast, a carrier that obtains unbundled dark fiber from the ILEC, attaches its own optronics, and then offers wholesale "lit" loop capacity may satisfy the wholesale trigger, but will not satisfy the self-provisioning trigger. *TRO* ¶ 329 & n. 973.

1 **Q. ARE THERE ANY ADDITIONAL CRITERIA APPLICABLE TO**
2 **WHOLESALERS INDENTIFIED BY THE INCUMBENT LEC?**

3 A. Yes. The wholesaler must "offer an equivalent wholesale loop product at a
4 comparable level of capacity, quality, and reliability" as the ILEC. *Id.* ¶ 337; *see*
5 47 C.F.R. § 51.319(e)(1)(ii) (the facility must be fiber transport or be "comparable
6 in quality" to that provided by the ILEC).[170] If the wholesale facilities that the
7 ILEC proposes to rely upon are of lesser quality than the ILEC's own facilities, or
8 if they are less reliable than, or lack the capacity of, the ILEC's facilities, then any
9 CLEC forced to rely upon them would be impaired in attempting to provide
10 services in competition with the ILEC. Such lesser facilities do not count for
11 purposes of the wholesale trigger.

12 **Q. WHAT IS AN "EQUIVALENT WHOLESALE LOOP PRODUCT?"**

13 A. An "equivalent wholesale loop product" is one that terminates in the same central
14 office where the ILEC loop serving the same customer premise is available. If it
15 does not – if, for example, the loop terminates at the wholesaler's point of
16 presence – then the CLEC will not have the equivalent ability to access the loop
17 as the ILEC (or as the CLEC would if the UNE were available).

18 For dark fiber, qualifying facilities must provide each competitor with the
19 ability to attach electronics that permit it to provide service at the level of its

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[170] The FCC also observes that "either intermodal or intramodal facilities" may qualify as owned facilities. *TRO* ¶ 332. Today, however, essentially only fiber facilities provide carriers with a level of quality comparable to unbundled DS3 and dark fiber loops. Fiber is the only transmission medium that is generally available, reliable and deployed to provide a complete range of telecommunications services to enterprise customers. Thus, essentially the only substitute that is actually "comparable in quality" to ILEC-provided DS1, DS3 and dark fiber loops are those facilities that have been deployed using CLEC-owned fiber. *See*, e.g., 47 C.F.R. § 51.319(c)(4)(ii). As a practical matter, then, only those unaffiliated carriers who have self-provisioned their own fiber facilities will qualify to meet the triggers.

1 choosing. *See* 47 C.F.R. § 51.319(a)(4)(ii)(A). This is essential, since the
2 assumption that CLECs could "light" such dark fiber is central to the FCC's
3 decision to deny CLECs unbundled access to optical level loops. The FCC
4 finding in this regard was not simply that CLECs could self-deploy their own
5 OCn loops, but that "[i]n circumstances where competitive LECs may be unable
6 to self-deploy the underlying OCn fiber loop, the record demonstrates that there is
7 no impairment with respect to obtaining and attaching the requisite optronics
8 necessary to light dark fiber at the OCn level to provide service." *Id.* ¶ 318; *see*
9 *also id.* ¶¶ 202, 315.[171]

10 **Q. IS THE WHOLESALE FACILITIES TRIGGER SATISFIED IF A**
11 **WHOLESALER HAS ACCESS TO ONLY A PORTION OF A MULTI-**
12 **UNIT PREMISES?**

13 A. No, and quite logically not. The FCC expressly stated that the wholesaler must
14 have "access to the entire multiunit customer premises." *Id.* ¶ 337. No
15 competitor can compete effectively for all potential customers at a given location
16 without access to all potential customers at a given location. The incumbent LEC
17 has such access, and access to the ILEC's unbundled loops provides a competitor
18 with equivalent access. For that reason, only facilities that provide access to the
19 entire customer location, including each individual unit within the location,
20 qualify for the trigger. *Id.*; 47 C.F.R. §51.319(a)(4)(ii)(B). In multi-tenant
21 buildings, this includes facilities that provide access to each individual unit as
22 well as the same common space, house and riser and other intra-building wire as
23 the ILEC. Unless a wholesaler also can provide competitors with equivalent

[171] Of course, if CLECs do not have reasonable access to dark fiber facilities to which CLECs can attach the necessary electronics, those facilities do not qualify for the trigger.

access to the entire customer location, that wholesaler is not offering a service equivalent to that of the incumbent, and thus it may not be counted for purposes of the wholesale trigger.

Q. MUST THE COMMISSION CONSIDER WHETHER THE WHOLESALER OFFERS ITS LOOPS ON A "WIDELY AVAILABLE" BASIS?

A. Yes. For Verizon to satisfy the wholesale trigger, it must also establish that the wholesaler offers its loops on "a widely available wholesale basis." *Id.* ¶ 337. The FCC recognized that some carriers may have (or be thought to have) spare capacity at a particular location, and may have even entered into an arrangement to provide some of that spare capacity to another carrier, but may have no intention of making its spare capacity "widely available." *Id.*; *cf. TRO* ¶ 407 n.1260. In those circumstances, other competitors cannot, as a practical matter, gain access on a wholesale basis to that alleged wholesaler's loop capacity. Such a wholesaler plainly should not and would not count for purposes of the trigger. Rather, for a wholesale service to be "widely available," its facilities should be immediately available through a contract, tariff, or other standard common carrier arrangement. Mere offers to negotiate or to provide individual rate quotes are insufficient to demonstrate that a wholesale service is widely available.

Q. DOES A WHOLESALER HAVE TO BE OPERATIONALLY READY TO SERVE AS A TRIGGER?

A. Yes. A wholesaler that merely aspires to provide service to a particular location, but has not completed the construction and connections needed to provide immediate service over those facilities also does not count. Such a wholesaler provides no practical alternative to use of the incumbent LEC's UNEs. For this

reason, a wholesaler also must have reasonable operations support systems ("OSS") that are ready to provide the pre-ordering, ordering, provisioning, maintenance and repair, and billing support that are vital to the provision of a wholesale service. The wholesaler must be able to provide those operations support services with respect to each of the potential customers at the location in question, and the capacity to serve reasonably foreseeable customer demand.

Q. WHAT OTHER CRITERIA MUST A WHOLESALER MEET BEFORE IT SATISFIES THE WHOLESALE TRIGGER?

A. The wholesaler must be operationally capable of providing the service for which it is nominated as a trigger candidate. The incumbent LEC must provide evidence sufficient to demonstrate a "reasonable expectation" that the wholesaler will "continu[e] to provide wholesale loop capacity to that customer location." ¶ 338. Although the state commission need not undertake a financial viability analysis with respect to each provider, the FCC recognized that state commissions must give weight to the competing providers' need for a reliable and stable wholesale partner that they and their customers can depend upon, both now and in the future. *Id.*

Q. PLEASE SUMMARIZE YOUR TESTIMONY REGARDING THE SELF-PROVISIONING AND WHOLESALE TRIGGERS.

A. The foregoing criteria are, in effect, the "filters" that the FCC has provided to the states to use to guide their determinations as to whether a given customer location is -- in fact -- being served by two carriers who may fairly be deemed to be self-provisioning, or offering at wholesale, loops that are equivalent to those the ILEC provides through UNEs. Carriers that do not meet the relevant criteria do not satisfy the FCC triggers. That is as it should be. The nationwide finding of

impairment is rooted in economic and operational factors that are fundamental – and in many ways unique -- to the provision of telecommunications services. Customers should not be denied the opportunity to take advantage of competing services offered through the use of UNEs when UNEs provide the only reasonable way to offer such competitive alternatives.

DISCUSSION OF SPECIFIC LOCATIONS

Q. PLEASE SUMMARIZE VERIZON'S CONTENTIONS REGARDING HIGH CAPACITY LOOPS.

A. Verizon asserts that it "has evidence" that 63 customer locations meet one or both of the FCC triggers in Pennsylvania. Specifically, Verizon claims that there are 3 locations that meet the DS1 wholesale trigger. Further, with respect to DS3 loops, Verizon contends that there are 61 locations meet the self-provisioning trigger and that 36 meet the wholesale trigger. Finally, with respect to dark fiber, Verizon claims that 57 customer locations meet the self-provisioning trigger.[172] West/Peduto Supp. Dir. at 22. Exhibit 7 of Messrs. West and Peduto's Supplemental Direct Testimony reflects this information in summary form. *Id.* (Exhibit 7).

[172] Many of these locations purportedly meet more than one trigger, such as a wholesale and self-provisioning trigger, or a trigger for DS-3 loops and dark fiber loops.

1

2 **SELF-PROVISIONED LOOPS**

3 **Q. PLEASE SUMMARIZE VERIZON'S TESTIMONY WITH RESPECT TO**
4 **THE SELF-PROVISIONING LOOP TRIGGERS FOR DARK FIBER AND**
5 **DS3.**

6 A. Based on the CLEC responses to Verizon interrogatories, Verizon claims that 61
7 customer locations in Pennsylvania meet the self-provisioning trigger for DS3
8 loops and 57 customer locations meet the self-provisioning trigger for dark fiber
9 loops. West/Peduto Supp. Dir. at 22 & Exhibit 7. Verizon, therefore, seeks a
10 finding that requesting carriers are not impaired without access to unbundled dark
11 fiber and DS3 loops to those specific locations

12 **Q. DO YOU AGREE WITH VERIZON'S CONCLUSIONS REGARDING**
13 **THE SELF-PROVISIONING LOOP TRIGGERS?**

14 A. No. Verizon has not even attempted to provide a compelling factual basis for the
15 Commission to determine that a carrier is not impaired without access to dark
16 fiber and DS3 loops. Instead, Verizon is trying to convince the Commission to
17 utilize a series of "assumptions" and "presumptions" to support its conclusory
18 Exhibit 7. Verizon's approach could not be further from the "granular" analysis
19 demanded by the FCC. Indeed, the very reason for the FCC's location-specific
20 approach was "[b]ecause the record [before the FCC in the *TRO* proceeding] does
21 not provide the specific information necessary to identify the precise customer
22 locations where this deployment occurred . . ." *TRO* ¶ 202. Using a series of

assumptions to determine impairment would be inconsistent with the FCC-directed granular analysis.[173]

Q. WHY IS VERIZON'S CONTENTION THAT 57 LOCATIONS MEET THE SELF-PROVISIONING TRIGGER FOR DARK FIBER FLAWED?

A. As we discussed earlier, the Commission may find that a requesting carrier is not impaired without access to a dark fiber loop at a specific location where two or more unaffiliated competitors have deployed their own dark fiber facilities at that specific location. 47 C.F.R. § 51.319(6)(ii). In this instance, Verizon apparently did not affirmatively determine, through discovery responses or otherwise, that specific CLECs offered dark fiber at particular locations. Rather, Verizon asked the Commission to accept a generalized presumption:

> Absent evidence to the contrary, it reasonably can be assumed that all self-provisioned loop facilities have dark fiber. Since dark fiber is simply fiber optic cable "that has not been activated through connections to optronics that light it, and thereby render it capable of carrying communications, . . . all fiber loop facilities, regardless of the capacities at which they now operate once consisted entirely of dark fiber. Put differently, evidence of "lit" fiber is also evidence that a carrier has self-provisioned dark fiber.

West/Peduto Supp. Dir. at 24-25.

Q. WHY IS VERIZON'S ASSUMPTION PROBLEMATIC?

A. Because of its proposal to base the Commission's finding of fact on "absent evidence." Verizon assumes, *admittedly without knowing*, that each of the 57 locations noted it its Exhibit 7 has spare dark fibers. Yet, when Verizon's witnesses testify that "*the vast majority* of self-provisioned fiber loop facilities

[173] The FCC rejected the "broad extrapolations" proposed by the ILECs in the *TRO* proceeding. *TRO* ¶ 323.

will have spare dark fibers" (West/Peduto Supp. Dir. at 25 (emphasis added)), Verizon is implicitly acknowledging that some fiber loop facilities *do not* have spare dark fibers. Unless Verizon can establish at each of the 57 loop locations that at least two CLECs have self-provisioned dark fiber (as the FCC has defined dark fiber loops), the Commission cannot make the requisite *location-specific* finding that a carrier is not impaired without access to dark fiber. In other words, Verizon cannot meet that requirement that two CLECs deployed "the specific type of high-capacity loop" – dark fiber loops – for which it seeks a finding of non-impairment. *Id.* ¶ 328.

Q. HAS VERIZON DEMONSTRATED THAT THE COMPETITIVE CARRIERS IT CLAIM ARE SELF-PROVISIONING DARK FIBER HAVE ACCESS TO ALL OF THE PARTICULAR LOCATIONS IDENTIFIED IN EXHIBIT 7?

A. No, Verizon did not. Out of the 52 AT&T dark fiber loop "locations" identified by Verizon in Exhibit 7 to the Supplemental Direct Testimony of Messrs. West and Peduto, AT&T does not have access to the whole building in 21 of those locations. *See* AT&T Exhibit 26 (modified Verizon Exhibit 7 showing loop locations where AT&T does not have access to the whole building).[174] In addition, in interrogatory responses, AT&T specifically informed Verizon of the specific locations where it did not have access to the whole building. *See* AT&T Response to Verizon's First Set of Interrogatories, No. 1 (spreadsheet). Furthermore, AT&T specifically explained:

[174] AT&T has taken Verizon's Exhibit 7, a document containing CLEC proprietary material, and simply added a new first column that indicates the locations were AT&T does not have access to the whole building.

> The listing of a location does not mean that AT&T's deployed high-capacity loop facilities at that location may be used to provide services to all potential customers at that location.

AT&T Exhibit 27.

Q. DO YOU HAVE ANY SPECIFIC INFORMATION AS TO WHETHER THE OTHER CARRIERS LISTED BY VERIZON AS CLECS COUNTING TOWARDS THE DARK FIBER TRIGGERS AT A PARTICULAR LOCATION HAVE ACCESS TO THE WHOLE LOCATION?

A. No, we do not have independent knowledge whether the other trigger CLECs have access to all of the building for each of the Verizon-identified buildings in Exhibit 7. Given that AT&T does not have access to the whole building for well over one-third of the identified locations where it serves at least one customer, however, it would not be surprising if the other "trigger" CLECs were just as limited. Indeed, other commenters in the FCC's proceeding indicated that they in fact faced similar problems.

Q. BUT AS LONG AS A CARRIER HAS SELF-PROVISIONED ONE DARK FIBER LOOP TO A CUSTOMER AT A LOCATION, DOESN'T THE CLEC EFFECTIVELY HAVE ACCESS TO THE ENTIRE LOCATION?

A. Certainly not. The FCC recognized that "if the entity or individual controlling access to the premises does not allow a competitor to reach its customer residing therein (or places unreasonable burdens on the competitive LEC as a condition of entry), the competitive LEC may be unable to service its customer via its own facilities." *TRO* ¶ 305.

Q. DOES VERIZON PROVIDE A SUFFICIENT BASIS TO SATISFY THE SELF-PROVISIONING TRIGGER FOR DS3 LOOPS?

A. Here again, Verizon tries to convince the Commission to rely on assumptions not facts. Verizon testified "based on one CLEC's representation that all customer

1 locations identified in response to the Commission's loop discovery questions
2 contain at least one OCn loop, Verizon *assumed* that each loop facility identified
3 as serving the CLEC's retail customers can do so at the DS1 or DS3 level."
4 West/Peduto Supp. Dir. at 23 (emphasis added). Such an assumption is plainly
5 insufficient under the FCC's rule implementing the *TRO.*[175] The FCC did not
6 structure the rule as Verizon implies, but to the contrary.

7 **Q. WHY IS VERIZON'S ANALYSIS ON SELF-PROVISIONING OF DS3**
8 **LOOPS LACKING?**

9 A. Verizon does not show a scintilla of evidence that the two trigger candidates have
10 deployed the "specific type of high-capacity loop," i.e., DS3, for which Verizon is
11 seeking a finding of non-impairment. *TRO* ¶ 328. To satisfy this trigger,
12 Verizon must provide evidence of "facilities in place *serving* customers at that
13 location *over the relevant loop capacity level. TRO* ¶ 332. Verizon has not
14 attempt to make such a showing.

15 **Q. HOW DOES VERIZON TRY TO SKIRT THIS ISSUE?**

16 A. Verizon again asks the Commission to rely on an assumption: "The Commission
17 therefore should find that CLECs who have deployed fiber optic loop facilities
18 have provisioned DS1 and DS3 circuits – unless a carrier shows, for a particular
19 customer location, that it does not have any DS1 or DS3 circuits at that location."
20 West/Peduto Supp. Dir. at 24. Verizon's further observation that this is the way
21 that fiber loop facilities are "commonly" constructed and operated should not give
22 the Commission any confidence. *Id.* But this merely avoids the issue. The FCC

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[175] If the trigger operated as Verizon supposes, then satisfying the trigger for dark fiber would automatically satisfies the trigger for at least DS-3 loops and, by extension, DS-1 loops as well. This, of course, is not the case.

has found that carriers may only obtain DS3 loops as UNEs if they require one or two such loops at a location. The central issue, then, is whether there are trigger candidates that have constructed loops *at that level of service* to the location in question. If Verizon cannot show that there are carriers who have constructed loops to serve *only one or two DS3s of demand*, then it has not met its burden under the triggers.

The burden in this case is certainly not on a CLEC to rebut Verizon's generalizations, extrapolations, and speculation. To the contrary, in order to comply with the self-provisioning trigger, Verizon must affirmatively demonstrate that two or more carriers are deploying loops that serve only one or two DS3s of capacity to the location in question.

Q. DID VERIZON DEMONSTRATE THAT THE CLECS LISTED FOR THE DS3 LOCATIONS HAVE ACCESS TO THE ENTIRE LOCATION LISTED?

A. Verizon did not make that showing. For 21 of the 57 AT&T self-provisioned DS3 loop locations, AT&T does not have access to the entire building. AT&T provided that specific information directly to Verizon through discovery. *See* AT&T Response to Verizon First Set of Interrogatories, No. 1. As we explained with respect to self-provisioned dark fiber loops, it would not be surprising if other "trigger" CLECs had less than complete access to the customer location.

1 **WHOLESALE LOOPS**

2 **Q. WHAT ARE VERIZON'S SPECIFIC ASSERTIONS WITH RESPECT TO**
3 **THE DS3 AND DS1 WHOLESALE TRIGGER?**

4 A. Verizon contends that there are three customer locations that meet the DS1
5 wholesale trigger and 36 customer locations that meet the DS3 wholesale trigger.
6 West/Peduto Supp. Dir. at 22.

7 **Q. DO YOU AGREE WITH VERIZON'S CONCLUSIONS REGARDING**
8 **THE WHOLESALE LOOP TRIGGERS?**

9 A. No. Verizon's conclusions are not supported with facts; Verizon again relies on
10 presumptions to make its case. As we have noted throughout this testimony,
11 reliance on presumptions and generalizations is not consistent with the FCC's
12 determination that the states much engage in a fact-specific analysis, not broad
13 presumptions, while performing a trigger analysis.

14 **Q. DID VERIZON CORRECTLY IDENTIFY CARRIERS OFFERING LOOP**
15 **FACILITIES ON A WHOLESALE BASIS AND THE CAPACITIES AT**
16 **WHICH THOSE FACILITIES ARE OFFERED?**

17 A. No. Verizon explained that it based its conclusion on CLEC interrogatory
18 responses that identified suppliers of wholesale facilities from a non-ILEC.
19 Verizon then assumed: "If a carrier is willing to offer loops at some customer
20 locations, the Commission should assume that it is willing to do so at all customer
21 locations – unless a carrier indicates that it is not." West/Peduto Supp. Dir. at 26.
22 This statement, of course, may or may not be true. In any event, it does not
23 provide sufficient information on which the Commission could conclude that DS1
24 and DS3 loop facilities are available at the specific locations noted by Verizon. In
25 fact, a carrier's decision as to whether to wholesale loop capacity may be based

on a number of factors, including its anticipated future needs for its existing facilities. Thus, Verizon has not presented sufficient evidence in this regard.

Q. DOES VERIZON'S CITATION TO CERTAIN CLEC WEBSITES PROVIDE ADDITIONAL SUPPORT FOR VERIZON'S CONCLUSION ON WHOLESALE FACILITIES?

A. Verizon merely cites general language from what appear to be nationwide websites for MCI, RCN and XO – hardly the location-specific, fact-specific analysis mandated by the FCC. Verizon reasoned that if a carrier holds itself out to be a wholesale provider anywhere in the country "and does not limit its representations to particular locations or to exclude loops" these carriers were properly identified as a wholesale provider. West/Peduto Supp. Dir. at 27. Certainly, the information gleaned from the websites does not provide any persuasive evidence that the specific facilities are available at any much less *each* of the locations denoted by Verizon in its Exhibit 7.

Q. SHOULD THE COMMISSION RELY ON VERIZON'S LISTING OF LOCATIONS WHERE DS1 AND DS3 LOOPS ARE AVAILABLE AT WHOLESALE BY CLECS?

A. Rather than standing by its fact-starved conclusions, Verizon suggests that "the burden" is on the other carriers to demonstrate that they *do not offer loop facilities* on a wholesale basis at the particular location. In other words, Verizon implicitly acknowledges that it has proffered a less than complete factual basis.[176] In any event, the Commission should be loathe to take away access to unbundled hi-cap

[176] A carrier that truly qualifies as a wholesaler would seem to have an incentive to concede that fact because such an admission would go towards eliminating UNE high capacity loop competition for the specific location.

loops at a particular location unless Verizon has presented all of the facts required to support its conclusion.[177]

Q. FOR THE LOCATIONS THAT VERIZON ASSERTS MEET THE DS1 AND DS3 WHOLESALE TRIGGERS, DOES VERIZON ESTABLISH THAT THE OTHER TRIGGER CLECS HAVE ACCESS TO THE ENTIRE CUSTOMER LOCATION?

A. The FCC rule requires that a competing provider "has access to the entire customer location, including each individual unit within that location." 47 CFR § 51.319(a)(4)(ii)(B). Verizon has correctly excluded the locations where AT&T indicated through discovery that it did not have access to the entire location. It is unclear, however, whether Verizon properly ascertained data from the other CLECs that would support a conclusion that the CLEC had access to the entire location.

Q. WHY DO YOU HAVE THIS CONCERN?

A. In its testimony, Verizon noted that two CLECs identified specific customer locations where they do not have access to the entire building. West/Peduto Supp. Dir at 28. AT&T was one of those CLECs. Verizon, however, suggests that another assumption is appropriate for those other CLECs that did not specifically indicate whether they had access. Verizon argued that "it is reasonable to assume that a carrier with fiber optic facilities into a large commercial building has access to the entire building." The fact that out of the 58 AT&T customer locations served in Exhibit 7, AT&T did not have complete access to 22 – over one-third – of those buildings demonstrates that Verizon's assumption must be rejected. This fact is consistent with the FCC's findings

[177] Verizon is, of course, free to file a new case when, and if, if obtains evidence necessary to meet the FCC's triggers.

regarding the barrier of building access. It is very likely that other CLECs – like AT&T – would have access limitations in more than a handful of the identified customer locations.

Q. DID VERIZON ADDRESS WHETHER THE WHOLESALERS IDENTIFIED OFFERED ITS LOOPS ON A "WIDELY AVAILABLE" BASIS?

A. No. Verizon did not provide testimony to demonstrate that the wholesalers identified were offering the DS3 or DS1 loops on a widely available basis. The closest Verizon came to addressing this issue was its presumption – without support – that if a carrier held itself out at a wholesale provider *anywhere* in the country – e.g., on a national website – it is providing wholesale DS3 and DS3 service *everywhere* at the cited Pennsylvania locations. Again, such a general presumption is not enough to satisfy the fact-specific analysis required by the FCC.

CONCLUSION – HIGH CAPACITY LOOPS

Q. WHAT IS YOUR OVERALL CONCLUSION WITH RESPECT TO VERIZON'S ASSERTIONS REGARDING THE SELF-PROVISIONING AND WHOLESALE HIGH CAPACITY LOOP TRIGGERS?

A. Verizon's case is based on very few facts and many assumptions. By relying on presumptions rather than facts, Verizon has not provided a sufficient factual basis to support its impairment analysis at each customer location. Therefore, it is certainly premature for the Commission to find no impairment at any of the customer locations proposed by Verizon. Before the Commission makes such a finding – a finding that would take away the access of CLECs to unbundled UNE

high capacity loops – it must be certain that record evidence supports this actions. Mere presumptions are not sufficient.

In the event the Commission finds that either the transport or high-capacity loop triggers have been met – which it should not – the Commission should establish an appropriate transition mechanism.

TRANSITION PROCESS

Q. WHAT TRANSITION MECHANISM SHOULD THE COMMISSION ADOPT IF IT FINDS THAT EITHER A HIGH-CAPACITY LOOP OR DEDICATED TRANSPORT TRIGGER IS SATISFIED?

A. The principal focus of this testimony, at this initial stage of the impairment proceedings, is on the criteria relevant to an evaluation of any incumbent LEC claim that competing LECs are not impaired with respect to a particular customer location (for loops) or a particular transport route. Nevertheless, the *TRO* assigns one further role to the state commission that merits mention here. Both for high capacity loops and for dedicated transport, the FCC "expect[s] that states will require an appropriate period for competitive LECs to transition from any unbundled loops that the state finds should no longer be unbundled." *TRO* ¶ 339; *see also id.* ¶ 417 (transition for transport). The FCC left it to the states to determine the parameters of an "appropriate" transition.

Q. WHAT PRINCIPLES SHOULD GOVERN A TRANSITION?

A. The principles that should guide the setting of an appropriate transition period are straightforward. At a minimum, the Commission should set a transition period that provides competing carriers a reasonable period of time to (1) self-provision the loops or transport in question and (2) continue to offer service using UNEs pursuant to existing contracts. The latter is essential because services to

1 enterprise customers are contract-based and not terminable by a carrier that might
2 face a sudden increase in costs. Because this is the first time that CLECs face the
3 loss of loops and transport as UNEs, they may face multiple situations where they
4 must migrate customers off such arrangements. Adjusting to such multiple
5 changes will require some time, as well as substantial capital.

6 **Q. WHAT ARE YOUR RECOMMENDATIONS CONCERNING A**
7 **TRANSITION?**

8 A. We recommend that the Commission develop a multi-tiered transition process
9 such as the one applicable to mass market switching. First, there should be a
10 transition period of nine months in which CLECs may order "new" UNEs on
11 routes where the Commission finds a trigger is met.[178] Second, CLECs should
12 have a transition period equal to that applied to line sharing and mass market
13 switching, with reasonable partial milestones for intermediate periods.[179] Third,
14 and in all events, a CLEC should not be required to migrate any customer to non-
15 UNE facilities until the end of an existing service contract term. Fourth, until
16 migrated, all loop and transport UNEs should remain available at the state-defined
17 TELRIC rate. Finally, the Commission should also adopt an exception process
18 that accounts for the multitude of potential operational problems that may occur
19 when CLECs attempt to construct facilities. If a carrier demonstrates that it is
20 attempting in good faith to construct facilities on a route for which UNE facilities

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[178] The FCC noted that "the statutory maximum transition period of nine months will ensure an orderly transition to the new rules" and "is reasonably consistent with the transition period sought by the parties." TRO ¶ 703.

[179] Thus, for example, assuming that the Commission issues its decision in July of this year, except for grandfathered contracts, all loops and transport UNEs should be migrated from the specified routes by October 2006, with one-third of UNE facilities transitioned within 13 months of a finding of no impairment, one-third within 20 months and the remainder within 27 months. Compare ¶ 532 (timeline for mass-market switching).

have been eliminated and that it is incurring a specific problem that makes construction within the applicable timeframe unachievable (for example, issues with rights of way or building access), it should be permitted to seek an exception from the Commission consistent with the problem it faces. The CLEC should be permitted to continue to purchase the identified facility as a UNE until the Commission acts on its request.

Conclusion

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

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A circuit that is routed *through* a switch is, by definition, never dedicated transport. If, on the other hand, a circuit merely passes through the "switching node", *i.e.*, the same *building* where the CLEC's switch is located, *without* terminating on the switch, then the circuit between A and Z is "dedicated," because it involves no switching. The two links, A-X and X-Z could be digitally cross connected at X making a transport route from A to Z.

To become operationally ready to provide dedicated transport between any of the collocations to any of the other collocations Verizon has pointed to, as transport is defined by the FCC, ~~w~~could require investment in product management; engineering; equipment EF&I;~~ considerable operating support systems ("OSS") development, including billing systems; Element Management System development and integration for configuration, performance monitoring and fault management as well as reviews, engineering~~, and commensurate augmentation applications for collocation arrangements~~, such as costly high-capacity "pre-cross connect" NRCs for 4-wire, coax, or fiber cabling from the collocation to the POT Bay, to the Main Distribution Frame ("MDF"), or the FDF~~. The extent of these activities and investments would depend upon the vendor make and model and utilization of the equipment already on site, the availability of spare capacity and the availability of collocation space, power, and cross connection. Each route and equipment configuration must be individually engineered and verified. The capital investment ~~w~~could be substantial.

However, such changes to achieve operational readiness to provide dedicated transport is beside the point, because this is a triggers case and not a

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Q. PLEASE DESCRIBE THE REQUIREMENT THAT PROVIDERS MUST OWN THE LOOP FACILITIES.

A. The self-provisioning trigger is, of course, entirely defeated if the proposed self-provisioners are in fact using the facilities of the incumbent LEC or some other carrier's facilities to provide service to the location in question. For this reason, the FCC explained that carriers using the ILEC's special access facilities or other facilities owned or controlled by the ILEC -- or one of the other providers to a given location -- do "*not*" count for purposes of the self-provisioning trigger. *Id.* ¶ 333 (emphasis in original). The FCC went on to note, however, that "when a competitive carrier has obtained dark fiber on a long-term indefeasible-right-of-use (IRU) basis, that dark fiber facility can be counted as a separate, unaffiliated facility for self-provisioning determination purposes." *Id.*

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Q. WHAT EVIDENCE IS NECESSARY TO DEMONSTRATE SPECIFIC CAPACITY LEVELS?

A. The self-provisioning trigger for high capacity loops requires evidence that the two carriers upon which the ILEC relies have deployed "the specific type of high-capacity loop" for which the ILEC seeks a finding of non-impairment. *Id.* ¶ 328; *see also id.* ¶ 329 (trigger satisfied only by "facilities at the relevant loop capacity level"); *id.* ¶ 332 (trigger requires evidence of "facilities in place serving customers at that location over the relevant loop capacity level."). Thus, for example, a self-provisioning trigger candidate for DS-3 loops must be providing service at the DS-3 level, i.e., it must have deployed its own facilities to serve only one or two DS3s of demand. Accordingly, the existence of two or more unaffiliated carriers that are serving a given location with their own *OC3* (or higher capacity) loop facilities is irrelevant to the question of evidencing DS-3 loops.[166] As the FCC recognized: "Unlike deployment at even the lowest OCn

[166] Providers of OC-level facilities may, however, qualify under the wholesale trigger if they provide service at the relevant levels and meet the other requirements of that trigger.