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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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

SUMMARY OF THE RECORD EVIDENCE

Before
Michael C. Schnierle
Administrative Law Judge

HISTORY OF THE PROCEEDINGS

This proceeding is an outgrowth of the Federal Communication Commission's *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338, Report and Order (rel. Aug. 21, 2003)(FCC 03-36), as corrected by errata, FCC 03-227 issued on September 17, 2003. (hereinafter "*Triennial Review Order*" or "*TRO*"). To put the balance of the discussion in this case into context, it is useful to quote from the Commission's order establishing this proceeding:

> In 1996, Congress adopted a national policy of promoting local telephone competition through the enactment of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), *codified at* 47 U.S.C. §§151, *et seq.* (TA-96). TA-96 relies upon the dual regulatory efforts of the Federal Communications Commission (FCC) and its counterpart in each of the states, including this Commission, to foster competition in local telecommunications markets by establishing broad interconnection, resale, and network access requirements designed to facilitate multiple modes of entry. To this end, Section 251 of TA-96 requires, among other things, an Incumbent Local Exchange Carrier (ILEC) to provide Competitive Local Exchange Carriers (CLECs) with non-discriminatory access to its network elements on an unbundled basis. *See* 47 U.S.C. §251(c)(3).

In determining what ILEC network elements are to be made available to CLECs on an unbundled basis, TA-96 provides that the FCC, at a minimum, must consider whether access to such unbundled network elements that are proprietary in nature is necessary and whether the failure to provide the unbundled network element would impair the ability of a CLEC to provide the retail services it seeks to offer. 47 U.S.C. §251(d)(2)(A) and (B). Initially, the FCC defined impairment so as to require unbundling if "taking into consideration the availability of alternative elements outside the incumbent's network, including self-provisioning by a requesting carrier or acquiring an alternative form from a third-party supplier, lack of access to that element materially diminishes a requesting carrier's ability to provide the services it seeks to offer." *Implementation of the Local Provisions of the Telecommunications Act of 1996*, 15 FCC Rcd 3696, 3725 (1999) (*UNE Remand Order*).

Under this "impairment" standard, the FCC required that an ILEC provide unbundled access to the following network elements on a nationwide basis in each geographic market: (1) loops (including dark fiber and high-capacity); (2) subloops; (3) network interface devices; (4) local circuit switching; (5) packet switching under certain circumstances (6) interoffice transmission facilities (including dark fiber); (7) signaling networks and call-related databases; and (8) operations support systems. *UNE Remand Order*, 15 FCC Rcd at 3771-3890. The FCC then added the high frequency portion of the loop to this list of UNEs that an ILEC must offer. *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Provisions of the Telecommunications Act of 1996*, 14 FCC Rcd 20912 (1999) (*Line Sharing Order*).

The *UNE Remand Order* also established that the FCC would revisit these unbundling rules every three years. *UNE Remand Order*, 15 FCC Rcd at 3766. In December of, 2001, the FCC released a Notice of Proposed Rulemaking (*NPRM*) initiating its first triennial review of its policies regarding unbundled network elements. *Review of the Section 251 Unbundling Obligations of Local Exchange Carriers,* CC Docket No. 01-338, et al., Notice of Proposed Rulemaking, FCC 01-361 (rel. December 20, 2001).

Meanwhile, sundry ILECs and the United States Telecom Association (USTA) filed an appeal of the FCC's *UNE Remand* and *Line Sharing* orders in the United States Court of Appeals for

the District of Columbia Circuit. On May 24, 2002, the D.C. Circuit Court remanded the FCC's unbundling rules established in the *UNE Remand Order*. *United States Telecom Ass'n v. Fed. Communications Comm'n*, 290 F.3d 415 (D.C. Cir. 2002), *cert. denied, WorldCom, Inc. v. United States Telecom Ass'n*, 155 L. Ed. 2d 344, 123 Sup. Ct. 1571 (2003). However, because the *UNE Remand Order* was not vacated, the FCC's unbundling rules for network elements were to remain in effect while the FCC re-examined its rules. In addition, the Court also vacated and remanded the FCC's *Line Sharing Order*. *Id.*

On February 20, 2003, the FCC adopted new rules concerning an ILEC's obligation to make UNEs available to competing carriers. On August 21, 2003, the FCC released its long-awaited *Triennial Review Order* that it adopted six months earlier on February 20. In the *Triennial Review Order*, the FCC adopts rules which establish a new standard for determining the existence of impairment under section 251(d)(2) of TA-96 and sets forth a new list of unbundled network elements (UNEs). Additionally, the FCC applies its unbundling analysis to individual elements in a more granular manner than before. Under this more granular approach, impairment varies by geographic location, customer class, and service, including a consideration of the type and capacity of the facilities to be used.

. . . .

The purpose of this Procedural Order is to provide details regarding the process and procedure that will be used to implement the FCC's *Triennial Review Order*. This Procedural Order will serve as a guide by which the Commission will gather the information necessary to make its determination and set up the proceedings. The Commission also reserves the right to adjust the processes and procedures, as may be needed. (Footnotes omitted).

. . . .

In the *Triennial Review Order*, the FCC also provides that within 9 months of the effective date of the order (i.e., by June 2, 2004), state commissions may conduct a granular analysis to determine whether ILECs in that state must continue to provide access to certain network elements. To this end, the Commission must determine whether ILECs in Pennsylvania must continue to provide competing carriers with access to: (1) mass market high-

capacity loops; (2) mass market switching; and (3) dedicated transport.

Investigation into the Obligation of Incumbent Local Exchange Carriers to Unbundle Network Elements, Docket No. I-00030099 (Order entered October 3, 2003) at 1-4, 11. This proceeding was thus convened to determine whether CLECs were impaired, according to the standards set forth in the *TRO*, without access to mass market switching, dedicated transport, and mass market high-capacity loops.

Two other points are worth noting now. First, the Commission explicitly placed the burden of proof on an ILEC (Verizon here) seeking a finding of non-impairment. *Id.* at 12. Second, recognizing that some CLECs might choose not to participate, and recognizing that time was of the essence in obtaining certain critical information, the Commission directed certain CLECs to provide answers to certain questions at the outset of the proceeding, and regardless of whether they actually intended to participate. Those CLECs were listed in footnote 14 of the Commission's order and became known as the "Footnote 14 CLECs." They include the following: AT&T Communications of Pa., Inc.: Adelphia Business Solutions of Pa., Inc.; Allegiance Telecom of Pennsylvania, Inc.; ATX Licensing, Inc.; Cavalier Telephone Mid-Atlantic; CEI Networks, Inc.; Choice One Communications of Pa., Inc.; Comcast Phone of Pennsylvania; CTSI Incorporated, Inc.; CTC Communications Corp.; Focal Communications Corporation of Pa.; Intermedia Communications, Inc.; Level 3 Communications; MCI WorldCom Communications, Inc.; MCImetro Access Transmission Services, LLC; Metro Teleconnect Companies, Inc.; PECO Hyperion Telecommunications; Penn Telecom; RCN Telecom Services, Inc.; RCN Telecom of Phil.; Sprint Communications Company, LP; Talk America, Inc.; TCG Delaware Valley, Inc.; TCG Pittsburgh; XO Pennsylvania, Inc.; and Z-Tel Communications Inc., LLC.

On October 31, 2003, Verizon Pennsylvania, Inc. filed a petition to initiate this proceeding. Later it was clarified that the petition was intended to include Verizon North, as well as Verizon Pennsylvania. Henceforth, both companies will be referred to as "Verizon." Hearings were held and briefs were filed.

After the briefs were filed, the DC Circuit Court of Appeals overturned the *TRO* in certain critical respects. *United States Telecom Assoc. V. Federal Communications Commission*, 359 F.3d 554; 2004 U.S. App. LEXIS 3960 (DC Circuit, 2004) ("*USTA*"). Specifically, the Court vacated the FCC's delegation to the state commissions of the power to make determinations regarding whether CLECs would be impaired without access to unbundled mass market switching, and dedicated transport. *USTA*, 359 F. 3d at 568. It appears that the Court viewed high capacity loops as a subset of "dedicated transport." The Court also vacated the FCC's impairment decisions with respect to mass market switching and dedicated transport (DS1, DS3 and dark fiber—apparently including high capacity loops). *USTA*, 359 F. 3d at 594. Consequently, this proceeding lost any *raison d'etre*. The Court ultimately stayed this decision until June 15, 2004. On June 15, 2004, the stay expired, and with it the FCC's rules.

On March 25, 2004, with notice to the parties, the Commission suspended activity in this proceeding. On June 3, 2004, the Commission, by Secretarial Letter, notified the parties as follows:

> All parties are hereby notified that the Commission has directed OALJ to prepare a summary of the record evidence, as the next step in this proceeding. The Commission anticipates that such summary will be useful to the Commissioners and staff, despite the legal uncertainty surrounding the TRO. At a minimum, the summary will enhance the Commission's understanding of the presence of facilities-based competition in Pennsylvania today.
>
> The summary will recite the party positions on each issue and provide any other useful information, such as explain points of debate among the parties as to alternative sources of facilities or explain why there are uncertainties as to what facilities exist to serve customers. It will summarize what the record shows as to the existence of alternative (non-Verizon) switches, transport and high capacity loops on a geographic basis to serve wireline customers.
>
> The summary of the record will not be a Recommended Decision because it will not be written to the Federal Communications Commission's legal standards promulgated in the Triennial Review Order.[1] For example, the assigned AU will not decide how the Commission should define "geographic market." Accordingly,

> exceptions and replies will not be required. The summary will be a public document, however, that will be subject to comment by the parties. (Footnote omitted.)

Since issuance of the Commission's letter, the stay of the Court's order has expired, and with it the FCC's unbundling rules and delegation of responsibility to the state commissions. For that reason, this summary will focus on the presence and use of competitive facilities, rather than on the extent to which those facilities may demonstrate lack of impairment under the FCC's vacated rules. To some extent, the FCC's standards will be discussed simply because those standards dictated, in part, the evidence that was produced.

While not, strictly speaking, background for this proceeding, I am reproducing here two tables from a textbook on digital telephony. There is much mention in this record of terms such as DS-0, DS-1, DS-3 and OCn (where n may be certain integers). These abbreviations refer to the transmission rates of certain telephone facilities. I am including the following tables in an attempt to clarify for the reader the meaning of these terms. "SONET" is an acronym for synchronous optical network. Where the term "OCn" appears in this Summary or the parties' briefs, etc., it refers to a high capacity circuit of the OC type; the "n" is a placeholder meaning any integer that describes one of the OC levels of capacity, e.g., OC-12 or OC-48.

Table 1-1 Digital Hierarchy

Digital Signal Level	Bit Rate	Equivalent 4 kHz Voice Channels[a]	Typical Transmission Media[b]
DS-0	64.00 kbps	1	TP
DS-1	1.544 Mbps	24	TP
DS-1C	3.152 Mbps	48	TP
DS-2	6.312 Mbps	96	FO, RD, CX
DS-3	44.736 Mbps	672	FO, RD, CX
DS-4	274.176 Mbps	4,032	FO, CX

[a]Using 64 kbps encoding.
[b]TP = twisted pair cable, FO = fiber optic cable, RD = radio, CX = coaxial cable.

Table 1-2 SONET Hierarchy

Optical Carrier Level	Optical Line Rate	Synchronous Transport Signal Level
OC-1	51.840 Mbps	STS-1
OC-3	155.520 Mbps	STS-3
OC-9	466.560 Mbps	STS-9
OC-12	622.080 Mbps	STS-12
OC-18	933.120 Mbps	STS-18
OC-24	1,244.160 Mbps	STS-24
OC-36	1,866.240 Mbps	STS-36
OC-48	2,488.320 Mbps	STS-48

Whitham D. Reeve, *Subscriber Loop Signaling and Transmission Handbook* 1995 at 7-9.

DISCUSSION

Because this proceeding was convened to determine whether CLECs were impaired, according to the standards set forth in the *TRO*, without access to mass market switching, dedicated transport, and mass market high-capacity loops, this discussion will be sectioned accordingly.

I. Mass market switching.

Initially, it is necessary to discuss here the meaning of the term "mass market." In its regulations, the FCC does not explicitly define mass market, but does seem to equate a mass

market customer with one taking service over a "DS0 capacity loop." 47 C.F.R. §51.319(d)(2). In the *TRO* itself, however, the FCC elaborated on this issue:

> The record demonstrates that customers for mass market services are different from customers in the enterprise market.[1402] The mass market for local services consists primarily of consumers of analog "plain old telephone service" or "POTS" that purchase only a limited number of POTS lines and can only economically be served via analog DS0 loops.[1403]

[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. Z-Tel Comments at 30-31. Mass market customers' accounts tend to be smaller, lower revenue accounts and are often serviced on a month-to-month basis and not pursuant to annual contracts.

[1403] Z-Tel Comments at 30-31.

TRO at ¶ 459. Verizon reads this definition to mean that if a CLEC uses a switch to serve either residential customers or business customers with even one DS0, or analog voice line, that CLEC is serving the "mass market." (Tr. 94). To further elaborate on this interpretation, a CLEC is serving the "mass market" under Verizon's view even if it serves only business customers and even if most of the lines connected to the switch are high capacity digital circuits, as long as it provides at least one DS0. Since fax machines require analog lines, this means that under Verizon's view, a business customer such as the Commonwealth of Pennsylvania, that buys primarily high capacity services, would be a mass market customer if it purchased one or more analog lines for fax machines.

The other parties to this proceeding generally dispute Verizon's interpretation. They contend that to be a "mass market" switch, the switch must actually be serving residential as well as business lines; they also contend that small numbers of analog lines provisioned in connection with large numbers of high capacity digital lines generally do not count as serving the "mass market." I mention this issue not for the purpose of deciding whether the FCC's standards,

or "triggers" for a finding of non-impairment have been met, but simply to set the stage for a discussion of switches deployed by CLECs in Pennsylvania.

Specific switch locations and numbers of customers served are proprietary to the CLECs, consequently they will not be discussed in this Summary so as to avoid having to make the Summary proprietary. However, I will attempt to discuss the situation in such a manner as to provide a general feel concerning the presence of competitive switching across Pennsylvania.

The Commission, in its questions to the Footnote 14 CLECs, attempted to determine the locations of the switches operated by those companies to provide service to Pennsylvania and the number of lines served by those switches. Verizon also attempted to glean such information independently of the Commission's efforts. Verizon used its internal billing databases to determine where, and to whom, Verizon leases 2-wire and 4-wire stand-alone UNE loops (including EELs), without switching in Pennsylvania. Verizon used the E911 database to determine the number of residential customers served by carriers that bypass Verizon's network altogether to serve "mass market" customers over their own loop facilities (these would not show up in Verizon's study of its internal billing databases). Verizon provided the results of this combined analysis in Attachment 2 to Verizon Statement 1.0. Verizon also attempted to add to its exhibit the information reported by the Footnote 14 CLECs. (Verizon St. 1.2, Attachment 5). Finally, Verizon attempted to update its exhibit as Exhibit 1 to its Main Brief. The other parties have objected to this exhibit on various bases, and I will discuss those objections. Nevertheless, this exhibit, which is proprietary, is the most comprehensive compilation of this information that is in the record. The Footnote 14 responses were admitted into the record as ALJ Exhibits 1 through 17, inclusive.

The biggest single problem with Verizon's compilation is that it does not separate residential from small business lines. This treatment is consistent with Verizon's position that it is sufficient for a CLEC to be considered a trigger candidate for "mass market switching" for the CLEC to provide any service to businesses over DS0 lines. Thus, it is impossible to determine from Verizon's compilation those lines that serve residential customers.

The next biggest problem with the Verizon exhibit revolves around the treatment of "Adelphia." One of the Footnote 14 CLECs was Adelphia Business Solutions of Pennsylvania, Inc. To my knowledge, this is the company that holds the contract with the Commonwealth of Pennsylvania for the provision of telephone and data networks services to the entire Commonwealth government, as well as to local governmental entities, such as school districts and municipalities that choose to take service from it. It now does business as "TelCove." TelCove submitted a response that included its affiliates, including PECO TelCove, which was formerly known as PECO Hyperion Communications. (Ex. ALJ-15). When Verizon submitted its rebuttal testimony, it included large numbers of allegedly mass market lines for "Adelphia" in virtually every wire center. (Verizon St. 1.2, Attachment 5). Again, these numbers are proprietary so they will not be repeated here; but, for example, the number of lines reported for the Harrisburg Metropolitan Statistical Area (MSA) was so large in comparison to the population of the Harrisburg area that the reported lines had to include those under the Commonwealth contract. The numbers for other areas were similarly so large as to indicate that they included the phone lines of the Commonwealth government. The Verizon witness who sponsored this exhibit seemed to be unaware that Adelphia Business Solutions had the Commonwealth telecommunications contract, but he did acknowledge that the Commonwealth would likely be an enterprise customer and not a mass market customer. (Tr. 116-119).

A second problem with Verizon's "Adelphia" data is that it included lines that purportedly are attributable to Adelphia Communications Corporation, a cable television company. Although Verizon acknowledged in its rebuttal testimony that Adelphia (the cable company) might no longer be affiliated with TelCove, it included lines that Verizon attributed to Adelphia in the TelCove counts. (Verizon St. 1.2 at 22-23, n.5).

Verizon attempted to recover from these Adelphia related problems by revising its compilation when it filed its Main Brief. Attached to Verizon's Main Brief as Exhibit 1 is a new version of the compilation of lines that Verizon characterizes as "mass market." In this compilation, Verizon has attempted to separate out the Adelphia cable and the Commonwealth

contract lines from other lines provided by TelCove. According to Verizon, the number it attributes now to Adelphia Cable are those that it gleaned from the E911 residential listings. Also according to Verizon, it has removed the lines reported by TelCove, but retained the lines that Verizon claims that it leases to PECO TelCove, a TelCove affiliate, as standalone voice grade UNE loops. (Verizon Main Brief at 33-35).

The other parties raise various objections to Verizon's compilation. Some of those objections concern whether or not certain CLECs or specific lines should be counted as "trigger candidates" under the FCC's standards. For example, the non-Verizon parties generally oppose the counting of cable telephony providers such as Comcast and RCN as trigger candidates, as well as affiliates of small ILECs, such as CTSI (which is affiliated with Commonwealth Telephone), Penn Telecom (an affiliate of North Pittsburgh Telephone), and CEI Network (an affiliate of Denver and Ephrata telephone). (E.g., AT&T Main Brief at 48-53, 57-61). Other objections concern the accuracy of Verizon's counts. Considering that the FCC's standards are not "operative," I will not discuss those objections that concern whether certain CLECs or lines should be counted as trigger candidates. I will discuss, however, those that concern the accuracy of the counts.

There is a dispute between AT&T and Verizon over the line counts provided by Verizon for XO. (Compare AT&T Main Brief at 46 with Verizon Reply Brief at 20-21). Verizon's explanation of the discrepancy between its count for XO (which counted all of the DS0s that it leases to XO) with XO's count (which counted only those DS0s used to serve customers who took only DS0s (and no higher capacity services) appears to adequately resolve this issue. While I do not endorse Verizon's method, it is consistent with Verizon's position that any DS0 lines served count as "mass market" lines, even if they are served to enterprise customers.

OCA has raised an issue regarding Verizon's use of the E911 database to ascertain the presence of lines used to serve mass market customer who are not served by Verizon lines. OCA argues that the E911 database does not distinguish between residential customers served by

individual lines and residential customers buying service purchased by a landlord, for example, and resold to tenants. OCA argues that such service would be properly classified as enterprise rather than mass market. (OCA Main Brief at 40-42). Although Verizon responds to this objection in its Reply Brief at 13-14, it does so very summarily. In any event, there appears to be no way to quantify whatever difference this may make, although it appears unlikely to be large.

On balance, except for the PECO-TelCove and Adelphia cable issues, the failure of Verizon to identify residential as opposed to business lines, and the extent to which it includes DS0's provided to enterprise customers, Exhibit 1 to Verizon's Main Brief appears to be a reasonably accurate "snapshot in time " of the non-enterprise lines served by other than Verizon switching. Reference to the responses of the Footnote 14 CLECs to the Commission's interrogatories (Exhibits ALJ-1 through ALJ-17) provides some information on the residential/business question. Generally speaking, there appear to be only four companies that are providing facilities based service to residential customers (of greater than *de minimis* numbers of lines). Comcast in the Pittsburgh area and RCN in the Philadelphia area are serving substantial numbers of residential customers using cable telephony. CTSI and CEI are serving much smaller, but not insignificant, numbers of customers, apparently using the switches of their ILEC parents in conjunction with Verizon loops. Notwithstanding Verizon's claims, I do not believe that Adelphia, the cable company, is providing local exchange service. The number of lines attributed by Verizon to Adelphia is extremely small, suggesting that they may be from a trial of some sort that may or may not be active.

On the business side, there are significant numbers of DS0 lines being served by non-ILEC switches in the Allentown-Bethlehem-Easton, Harrisburg-Carlisle, Philadelphia-Camden-Wilmington, Pittsburgh, and Scranton--Wilkes-Barre Metropolitan Statistical Areas (MSAs). There are smaller, but not *de minimis*, numbers in the Lancaster, Lebanon, and Reading MSAs. Some of these lines are, undoubtedly, being provided to enterprise customers along with higher capacity lines. Again, it is necessary to emphasize that I am making no findings regarding whether the FCC's standards have been met, and that I am not quoting numbers here because they

are proprietary. Readers with access to the proprietary record are urged to view Exhibit 1 to Verizon's Main Brief and Exhibits ALJ-1 through 17 for more detailed information.

In terms of competition generally, it is important to note that these data do not reflect the extent to which CLECs serve enterprise (as opposed to mass market) customers with their own facilities. Nor do they reflect residential customers' use of cell phones in substitution for wireline service, or the use of Voice Over Internet Protocol (VOIP), either over public broadband connections or over enterprise data networks, as a substitute for wireline voice service.

II. Transport.

While this issue appears complex at first glance (especially if one reads the Verizon and AT&T Briefs), it is not so. However, due to the FCC's rules, the Commission's attribution of the burden of proof to Verizon, and the limited time available for the proceeding, the information obtained was somewhat less than comprehensive.

To understand the underlying problem it is necessary to first understand what is at issue here. It is useful to start with a quote from AT&T's Main Brief:

> First, it is critical to define what specifically is in issue here. In common industry usage, "dedicated transport" is any carrier transmission facility that is for the exclusive use of a particular customer for the provision of telecommunications services. This type of transport is "always on" and immediately available to the customer. It is contrasted to "common" or "shared" transport, which is a facility that may be shared among a number of customers and is dedicated to none. While common or shared transport may be switched, dedicated transport by definition never is, because when a circuit is switched it ceases to be dedicated to the use of a particular customer.
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> However, for purposes of this impairment proceeding, "dedicated transport " has a far narrower meaning. In the *TRO*, the FCC redefined dedicated transport to be "transmission facilities connecting incumbent LEC switches and wire centers within a LATA."[284] This definitional change means that "only those transmission facilities *within* an incumbent LEC's transport

> network, that is, the transmission facilities between incumbent LEC switches," fall within the incumbent LEC's unbundling obligation.[285] This new definition explicitly excludes "backhaul" facilities between an ILEC wire center and a CLEC location, such as a CLEC switching office, which CLECs use to aggregate and "backhaul" their traffic. These are sometimes known as "entrance facilities."[286]

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[284] *TRO* ¶ 365 (footnote omitted).

[285] *TRO* ¶ 366 (emphasis in original).

[286] Thus, whenever the term "dedicated transport" is used herein, it refers to the transport encompassed by the FCC's *TRO* redefinition, not to the broader sense generally used. Also, "wire center" and "central office" may be used interchangeably.

(AT&T Main Brief at 76). To summarize, then, before the *TRO*, the dedicated transport UNE included transport between an ILEC central office and a CLEC switch, as well as between ILEC central offices. In the *TRO*, the FCC found that CLECs were not, as a general rule, impaired by the unavailability of dedicated transport between their switches and the ILEC central offices; thus dedicated transport along those routes ceased to be available as a UNE.[1] On the other hand, the FCC found impairment for dedicated transport between ILEC central offices, but allowed the state commissions to rule otherwise in a proceeding such as this. The FCC also found that the CLECs were not impaired for dedicated transport at OCn levels of capacity, but only for dark fiber and the lower DS-1 and DS-3 levels of capacity. *TRO* ¶389. These distinctions are key to the balance of this discussion.

At this point, I should note that the FCC defined several separate issues regarding dedicated transport. Specifically, the FCC directed the states to consider whether competing carriers are already providing non-ILEC transport facilities to themselves (the "self-provisioning trigger) as either "dark fiber" or at the DS3 level of capacity, and whether competing carriers are

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[1] The CLECs challenged the FCC ruling on "entrance facilities" at the Circuit Court. The Court remanded without vacating that portion of the TRO on the ground that the FCC had not sufficiently explained its rationale for its ruling. *USTA*, 359 F. 3d at 585-586.

already providing non-ILEC transport facilities to others (the "wholesale trigger") as dark fiber or at the DS1 or DS3 capacity levels. *See generally. TRO* ¶¶ 400-416.[2]

Two other points must be observed to understand the balance of this discussion. First, the FCC directed that impairment be evaluated on a route specific basis. *TRO*, ¶401. Second, the FCC stated that a route need not be a direct connection between two points, but could connect the two points via a third. The specific language is as follows:

> We define a route, for purposes of these tests, as a connection between wire center or switch "A" and wire center or switch "Z."[1242] Even if, on the incumbent LEC's network, a transport circuit from "A" to "Z" passes through an intermediate wire center "X," the competitive providers must offer service connecting wire centers "A" and "Z," but do not have to mirror the network path of the incumbent LEC through wire center "X."

TRO, ¶401. The Court disagreed with the FCC's use of a route specific analysis to determine impairment in the context of dedicated transport. *USTA*, 359 F. 3d at 574-575. Consequently, it is doubtful that this method of determining impairment for dedicated transport will be of any usefulness in the future.

Verizon's attempt to discover evidence on this issue is adequately described in its Main Brief:

> Verizon conducted physical inspections of all collocation arrangements included in its original triggers case, and determined where CLECs had powered equipment in place and non-Verizon fiber optic cable that both terminated in the collocation facility and left the Verizon wire center.

(Verizon Main Brief at 38). Verizon refers to this as its "pairing report." Verizon assumes that a particular CLEC that has lit fiber at two Verizon central offices is capable of providing transport between those offices. In the most simplistic sense, Verizon assumes that a CLEC that has lit fiber in Verizon central office A and lit fiber in Verizon central office B either does or can

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[2] I will not discuss the "wholesale" issue here. Although the parties spent considerable ink and paper on this issue, I am concerned here only with what facilities may be identified as in place, not with whether the owners are trying to market them to others.

provide dedicated transport between A and B. Although much time was spent on this issue, most it was spent arguing about the meaning of the FCC's standards, and about who bore the burden of proof and/or the burden of going forward with evidence. Nevertheless, Verizon's pairing report does not establish how the fiber is being used today, but merely how it might be used. Essentially, much, if not most, of this fiber, is likely being used for other purposes, including the CLEC entrance facilities for which UNEs are no longer available.

Verizon also assumed that even if the fiber is being operated at an OCn level of capacity, it may be used to provide DS-1 and DS-3 circuits by "channelizing" the higher capacity OCn circuit into lower capacity DS-1 and DS-3 circuits. Under Verizon's interpretation of the *TRO*, it doesn't matter whether this fiber is actually being used for transport between Verizon central offices as DS-1 or DS-3 circuits, only that it could be so used with minimal to moderate network modifications on the part of the CLECs. (See, e.g., Verizon Main Brief at 59-62).

As far as what facilities are actually in place, it is important to realize that Verizon's essential position (that this fiber is available for dedicated transport even if it is not being so used today) actually involves several assumptions, including, at minimum: that the fiber on any given "route" has spare capacity, and that the CLEC has in place (or can put into place on very short notice) the electronics to properly channelize the circuit from an OCn level down to DS1 or DS3, as well as electronics needed to use the fiber for transport that does not terminate at the CLEC switch, such as add-drop multiplexers in Verizon's central offices (where additional collocation space may be required), and digital cross-connect equipment in the CLEC switching center. (See, e.g., Verizon Reply Brief at 38-40).

While Verizon's "pairing report" shows where various CLECs have fiber in place, it does not necessarily show where they can actually transport traffic between two Verizon central offices today, but merely where they potentially could do so. No party chose to present more detailed evidence on this issue; each side was, apparently, willing to rest on its interpretation of the *TRO*, coupled with an argument that the other side had the burden of proof, or the burden of going forward with the evidence, on this issue. While the FCC's standards are

now defunct, a collateral consequence of the litigation strategies followed by all sides here is that the resulting evidence is of limited use in determining what is in place today.

Attached to Verizon's Main Brief as Exhibit 2, Attachment A is Verizon's list of routes on which it claims that various CLECs can self-provision DS3 circuits. This is an updated version of the exhibit that Verizon offered in the hearings. Most of the information is proprietary. The most that one can conclude from it is that in the Philadelphia, Pittsburgh, Allentown and Harrisburg areas, there is considerable non-Verizon fiber that might be used to interconnect Verizon central offices. The responses of the Footnote 14 CLECs are not useful here because the question merely asked them to list "transport facilities" generally, and not dedicated transport between ILEC central offices.

Regarding "dark fiber", Verizon assumed that where a CLEC has lit fiber, it also has dark fiber. The rationale behind this assumption is that when a carrier installs fiber, it installs more than enough to meet its presently existing demand. (Verizon Main Brief at 45-46). The updated version of this list is Exhibit 2, Attachment B to Verizon's Main Brief. While I am inclined to agree with Verizon's rationale that carriers install more fiber then they need at the time of installation, nothing in the record here tells you when the fiber on any particular "route" was installed, and whether usage on that route has since increased to exhaust the original excess capacity. In the proceeding, this issue also degenerated into an argument about who bore the burden of proof and who was in the best position to present evidence, which are nice legal arguments but do not assist in understanding what is presently in place.

The transport issue also revealed a problem with the Commission's initial interrogatories. Those questions were directed at 14 named companies, each of which is, to my knowledge, a CLEC. Much of the non-Verizon fiber is provided by other companies, such as City Signal, which does not appear to be a CLEC but rather a competitive access provider. Because City Signal, for example, was not sent the Commission's interrogatories and chose not to participate, the record is silent as to its description (as opposed to Verizon's) of its own facilities.

III. High Capacity Loops.

As explained in AT&T's Main Brief, the FCC found no impairment for CLECs needing loops of the OC3 capacity or higher, but found impairment for DS-1 and DS-3 loops, and dark fiber, subject to a state commission's contrary finding after a proceeding such as this. (AT&T Main Brief at 93-94). Like the dedicated transport UNE, the FCC defined self-provisioning triggers and wholesale triggers. (As in the case of dedicated transport, I am not going to discuss separate issues that relate only to wholesale).

As in the case of switching and dedicated transport, Verizon's Main brief contains an updated exhibit, Exhibit 3, listing those customer locations that Verizon claims meet the FCC triggers for a finding of no impairment. As in the case of the dedicated transport UNE, the FCC defined self-provisioning triggers and wholesale triggers. That exhibit, like the others listed herein, is proprietary. As in the case of dedicated transport, Verizon assumed (unless the carrier specifically denied it in testimony) that a carrier who had an OCn circuit running to a customer location could channelize it down to DS-1 and DS-3 levels, and that the presence of lit fiber meant the presence of dark fiber, as well as certain other assumptions that are of less importance. (Verizon Main Brief at 67-69). One of those assumptions is that a carrier that has fiber running to a particular building (or other single location, like a commercial park), can serve any customer at that location. Verizon used CLEC interrogatory responses to determine the location of CLEC high capacity loops. (Verizon Main brief at 66).

The CLEC objections to Verizon's data on this issue were concentrated in three areas. The CLECs attacked Verizon's assumption concerning the ability of each respective carrier to channelize OCn circuits to lower capacity levels. They also attacked Verizon's assumption that there is dark fiber wherever there is lit fiber. Finally, they attacked Verizon's assumption that a CLEC that has fiber going into a particular location can access customers throughout that location. (E.g., AT&T Main Brief at 96-103). The argument concerning whether a particular CLEC has access to an entire location if it has access at all, is primarily an argument over the meaning of the FCC's now defunct standards. (E.g., Sprint Main Brief at 31-32).

Ultimately, as in the case of dedicated transport, this argument also involves a burden of proof/burden of going forward with the evidence argument.

Verizon's assumptions here concerning the ability of carriers to channelize these circuits, and the presence of dark fiber, may be more defensible in the context of high capacity loops than in the context of dedicated transport, but they are still assumptions. The same may be said of the assumption that a CLEC with access to a location can serve every potential customer there. Even though these assumptions might be valid, they do not tell you what is in place today, as opposed to what might be in place, or what might be put in place. Subject to these caveats, Exhibit 3 to Verizon's Main Brief lists several locations, all in the Philadelphia Metropolitan Area or the City of Pittsburgh, to which a few CLECs have deployed their own high capacity loops.

SUMMARY

The information regarding the state of facilities based telephone competition that may be gleaned from this record is interesting but limited. It is limited by the time within which this proceeding was required to be completed, which, in turn, limited the parties' opportunities to use discovery to further explore ambiguous information provided by each other. It is limited also by the litigation strategies chosen by the parties. If, for any reason, the Commission decides it needs such information in the future, it should allow more time for its collection. Also, it might be prudent to send any Commission interrogatories to all actively operating telephone companies and not merely to a select few. It appears that the information that was sought here is more complex than was understood when the Commission's order was prepared. If this, or similar information, is expected to be needed on an ongoing basis, it would be prudent to engage in a rulemaking to require periodic reporting of such information in a standard format. Considering the potential usefulness of some of this information to persons of ill intent, it would also be prudent to limit access to it and not make it publicly available.

The Commission stated in its Secretarial Letter requiring the issuance of this Summary that the parties would be permitted to comment on this Summary. The Commission did not set a time limit for such comments. To implement this aspect of the Commission's Letter, I will order that such comments be filed with the Commission Secretary within 30 days of the date of this Summary, unless otherwise ordered by the Commission. Thirty days appears to be sufficient to allow the filing of such comments.

ORDER

THEREFORE,

IT IS ORDERED:

That the parties to this proceeding may file comments to this Summary within 30 days of the date of this Summary, unless otherwise ordered by the Commission. Such comments shall be filed with the Secretary of the Commission and served on the other parties to this proceeding.

Date: June 22, 2004

Michael C. Schnierle

MICHAEL C. SCHNIERLE
Administrative Law Judge