BEFORE THE ILLINOIS COMMERCE COMMISSION

Docket No. 06-0029

Direct Testimony of Marvin Nevels
On Behalf of AT&T Illinois

AT&T Illinois Exhibit 2.0

February 1, 2006

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SCHEDULES

DIRECT TESTIMONY OF MARVIN NEVELS

ON BEHALF OF AT&T ILLINOIS

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Marvin Nevels and my work address is Three Bell Plaza, 308 S. Akard, Dallas, TX 75202.

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am employed by AT&T Operations Inc. and my position is Area Manager – Network Regulatory.

Q. WHAT ARE YOUR RESPONSIBILITIES?

A. My primary responsibility is to represent the AT&T ILEC network organization on regulatory and wholesale market issues pertaining to collocation. This includes the collocation-related issues that impact AT&T Illinois.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I earned a Bachelors of Science degree in Sociology from Louisiana State University in Baton Rouge, Louisiana, and earned a Masters of Business Administration degree from The University of New Orleans in New Orleans, Louisiana.

Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE.

A. I began my telecommunications career in the wireless industry in September of 1995, working as a retail manager of cellular and paging equipment. I worked in wireless up until July of 2000, when I transferred from SBC Wireless to SBC Telecom where I worked in strategic alliances. My job responsibilities were to work with a network team to negotiate terms and conditions that would govern SBC Telecom's leasing of network facilities from CLECs and ILECs outside the SBC 13 State territory. This position required a working understanding of network facilities, CLEC collocation arrangements, and fiber routes. In this capacity I routinely visited CLEC and ILEC facilities to view and inspect potential collocation facilities for SBC Telecom.

In March of 2001 I accepted a position in SBC Network regulatory, working with emerging technologies. I supported the "Project Pronto" deployment on a 13 state basis and submitted testimony to the Michigan Public Service Commission in April of 2003 addressing unbundling, packet switching, fiber fed digital loop carriers, and subloops from the optical concentration device.

In September of 2003 I assumed collocation responsibilities for network regulatory. My responsibilities include providing testimony and support for the 13 AT&T ILECs on regulatory issues that pertain to collocation, negotiating collocation issues with CLECs, and providing regulatory guidance for AT&T 13 State network on regulatory issues surrounding collocation.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to support the "fiber based collocator" aspects of AT&T Illinois' wire center determinations. In particular, I explain how the FCC's counting rules for determining the number of fiber based collocators in a wire center are properly applied (i.e., the counting methodology) and I explain the activities associated with the fiber-based collocator count made by AT&T Illinois. My testimony supports the conclusions reached by Ms. Carol Chapman concerning the particular AT&T Illinois wire centers that satisfy the FCC's non-impairment criteria set forth in the Triennial Review Remand Order ("*TRRO*") and in Rule 51.5 of the FCC's rules.

II. STATEMENT OF ISSUES COVERED IN TESTIMONY

Q. WHAT SPECIFIC ISSUES DO YOU ADDRESS IN YOUR TESTIMONY?

A. I address the following "Fiber-Based Collocator" ("FBC") issues:

1. What facilities qualify as "comparable transmission facilities" under the definition of "FBC" in 47 CFR §51.5?

2. How should the phrase "terminates at a collocation arrangement within the wire center" (47 CFR §51.5) be construed and implemented? In particular, must a carrier counted as an FBC have fiber facilities that enter and exit its collocations? Under what circumstances, if any, should carriers cross-connected with another carrier be counted?

3. In determining whether dark fiber obtained from an ILEC qualifies as CLEC fiber for purposes of applying the FBC criterion, what constitutes an "indefeasible right of use" under 47 CFR §51.5 and what information should be used to identify an IRU? What criteria has AT&T Illinois applied in identifying IRUs?

These issues are also addressed by Ms. Chapman.

III. ANALYSIS OF METHODOLOGICAL ISSUES

Q. PLEASE PROVIDE AN OVERVIEW OF THE FCC'S DEFINITION OF A "FIBER BASED COLLOCATOR".

A. Ms. Chapman's Direct Testimony provides a broad overview of the applicable rules and the related discussion in the *TRRO*. I will simply note, for purposes of my Direct Testimony, that the FCC established a two-prong test to determine whether a particular wire center will be considered "non impaired" for purposes of determining an ILEC's obligation to provide DS1/DS3 loops and DS1/DS3/Dark Fiber dedicated transport. The first prong involves business lines counts; my testimony does not address any of those issues. The second prong involves the number of fiber-based collocators – as defined by FCC Rule 51.5 – that are present in a particular wire center. My testimony deals with this second prong.

Q. HOW DOES THE FCC DEFINE A 'FIBER-BASED COLLOCATOR" IN RULE 51.5?

A. Rule 51.5 states:

> A fiber based collocator is any carrier, unaffiliated with the incumbent LEC, that maintains a collocation arrangement in an incumbent LEC wire center, with active electrical power supply, and operates a fiber-optic cable or comparable transmission facility that (1) terminates at a collocation arrangement within the wire center; (2) leaves the incumbent LEC wire center premises; and (3) is owned by a party other than the incumbent LEC or any affiliate of the incumbent LEC, except as set forth in this paragraph. Dark fiber obtained from an incumbent LEC on an indefeasible right

of use basis shall be treated as non-incumbent LEC fiber-optic cable. Two or more affiliated fiber-based collocators in a single wire center shall collectively be counted as a single fiber-based collocator. For purposes of this paragraph, the term affiliate is defined by 47 U.S.C. § 153(1) and any relevant interpretation of this Title.[1]

Under this rule, a collocation arrangement that "counts" for purposes of applying the FCC's non-impairment criteria must have active power and the carrier must operate a fiber-optic cable or comparable transmission facility. In addition, the transmission facility must:

(1) terminate at a collocation arrangement within the wire center;
(2) leave the ILEC wire center premises; and
(3) be owned by a party other than the ILEC or any affiliate of the ILEC, unless it is dark fiber obtained from an ILEC on an indefeasible right of use ("IRU") basis.

Q. DOES THE FIBER-OPTIC CABLE OR COMPARABLE TRANSMISSION FACILITY HAVE TO BE OWNED BY THE COLLOCATING CARRIER?

A. No. For an arrangement to qualify as a fiber-based collocation under the *TRRO*, the fiber-optic cable or comparable transmission facility can be owned by the collocating carrier or it can be owned by another party.

ISSUE 1 - COMPARABLE TRANSMISSION FACILITIES

1. What facilities qualify as "comparable transmission facilities" under the definition of "FBC" in 47 CFR §51.5?

[1] 47 CFR § 51.5.

Q. WHAT IS YOUR UNDERSTANDING OF THIS ISSUE?

A. Under the plain language of Rule 51.5, a CLEC collocation arrangement with "fiber-optic cable" clearly counts as a "Fiber-Based Collocation" arrangement for purposes of determining non-impairment. Rule 51.5 also includes carriers with "comparable transmission facilities". By raising this issue, CLECs presumably want the Commission to identify the specific non-fiber-based facilities that qualify as "comparable transmission facilities".

Q. DOES THE FCC IDENTIFY THE NON-FIBER-OPTIC CABLE FACILITIES THAT QUALIFY AS "COMPARABLE TRANSMISSION FACILITIES" UNDER THE DEFINITION OF "FIBER BASED COLLOCATOR" IN RULE 51.5?

A. The *TRRO* provides some guidance as to what "comparable transmission facilities" are. At paragraph 102 of the *TRRO*, the FCC said that "[b]ecause fixed-wireless carriers' collocation arrangements may not literally be fiber-based, but nevertheless signal the ability to deploy transport facilities, we include fixed-wireless collocation arrangements at a wire center if the carrier's alternative transmission facilities both terminate in and leave the wire center." Accordingly, at the very least "comparable transmission facilities" include fixed microwave radio facilities. This is only an example provided by the FCC. The standard is an open-ended one that includes any transmission facility that is "comparable" to fiber-optic cable.

Q. WHAT IS A DS-3 LEVEL OF TRANSMISSION CAPABILITY?

A. DS-3 is a standard transmission level in the North American Digital Hierarchy. As the chart below depicts, DS-3 is equivalent to 672 simultaneous voice grade telephone calls.

Level	Voice Grade Equivalents (VGE)	Data Rate
DS-0	1	64 Kb/s
DS-1	24	1.544 Mb/s
DS-3	672	44.736 Mb/s
OC-1[2]	1 DS-3 or 672 VGE	51.84 Mb/s

With appropriate equipment, the 672 voice grade equivalent lines leaving the central office can be used to serve many times more than that. For example, most digital loop carrier ("DLC") deployed today will allow concentration of 4:1 or higher. This equipment allows many subscribers to share the same trunk facilities, similar to what switches have done for decades. With a 4:1 concentration ratio, 672 trunks leaving the office could support 2,688 subscriber lines that are obtained from AT&T Illinois to serve end-users in that central office. This is a large capability.

Q. DOES AT&T ILLINOIS CONSIDER A DS-3 OR HIGHER CAPACITY TO BE A "COMPARABLE TRANSMISSION FACILITY", AS USED IN THE DEFINITION OF A FIBER-BASED COLLOCATOR?

A. Yes. Though it could be argued that smaller transmission capabilities are comparable to fiber-optic cables, at a minimum, a facility capable of DS-3 or higher capacity meets the "comparable transmission facility" standard. This "comparable transmission facility" can be either owned by the carrier or obtained from another carrier. This includes facilities that offer DS3 capability, regardless of whether the facility is fiber or coaxial cable.

Q. CAN YOU PROVIDE OTHER EXAMPLES OF COMPARABLE TRANSMISSION FACILITIES THAT TERMINATE IN AND LEAVE A WIRE CENTER?

A. As I mentioned above, one example of a "comparable transmission facility" terminating within and leaving the wire center is a fixed microwave radio system used by a collocated carrier in an ILEC wire center. Another example is the situation in which one carrier has a DS-3 or higher link to another carrier's collocation arrangement and the other carrier meets the criteria for a fiber-based collocator discussed above.

Q. WHAT OTHER GUIDANCE DID THE FCC GIVE REGARDING THE TYPES OF COLLOCATION ARRANGEMENTS THAT CAN BE INCLUDED IN AN ILEC'S WIRE CENTER COMPUTATIONS?

A. In the *TRRO*, at paragraph 102, the FCC states that in their wire center computations, ILECs can "…includ[e] less traditional collocation arrangements such as Verizon's CATT fiber termination arrangements." This cite is referenced back to the *TRO*, at paragraph 406, footnote 1257, which states:

[2] Not part of North American Digital Hierarchy, shown for illustrative purposes.

> Collocation may be in a more traditional collocation space or fiber can be terminated on a fiber distribution frame, or the like, to which any other competing carrier collocated in that central office can obtain a cross-connect under nondiscriminatory terms…. (Emphasis added)

Q. WHAT IS VERIZON'S CATT FIBER TERMINATION ARRANGEMENT?

A. The Verizon CATT arrangement provides third party fiber providers access to a shared alternate splice point. Verizon identifies this as a Competitive Alternate Transport Terminal ("CATT"). The CATT is located in or near a Verizon vault for the purposes of terminating fiber facilities of competitive fiber providers ("CFP") for distribution to collocation arrangements within a central office. Thus, the service Verizon provides allows a carrier, that is not itself a collocating carrier but is a wholesale transport facilities provider, to terminate fiber cables in a Verizon wire center, and then offer these transport facilities to other collocated carriers at that location. A complete description of the Verizon CATT service appears on the Verizon website.[3] This Verizon document is attached to my testimony as Schedule MN-1.

AT&T Illinois does not offer a CATT service, but does allow carriers to terminate their fiber cables at cross-connect facilities in their collocation arrangement and then make spare capacity available to third-party carriers collocated within the wire center. In this manner, AT&T Illinois allows collocated carriers to cross-connect their arrangements together. This meets the FCC's definition of collocation obtained through a cross-connect facility, and thus qualifies as a fiber-optic cable or comparable transmission

facility that terminates at the collocation arrangement and leaves the wire center. These arrangements can be counted by AT&T Illinois in its wire center computations.

ISSUE 2 – COLLO TO COLLO CROSS-CONNECTIONS

2. How should the phrase "terminates at a collocation arrangement within the wire center" (47 CFR §51.5) be construed and implemented? In particular, must a carrier counted as an FBC have fiber facilities that enter and exit its collocations? Under what circumstances, if any, should carriers cross-connected with another carrier be counted?

Q. WHAT IS YOUR UNDERSTANDING OF THIS ISSUE?

A. The Issue at hand is whether a CLEC that does not own transmission facilities leaving the wire center, and that obtains such facilities from another CLEC by cross-connecting at the other CLEC's collocation arrangement, should be counted as a fiber based collocator.

Q. WHAT HAVE CLECS ARGUED ELSEWHERE?

A. The CLECs have argued in other states that a CLEC that is connected, via a collocation to collocation cross-connection, to another CLEC that has fiber facilities should not be counted as a fiber based collocator. The CLECs apparently believe that because the cross-connected CLEC does not own the fiber cable leaving the wire center this CLEC does not meet the definition of a "Fiber-Based Collocator" under Rule 51.5.

Q. WHAT IS AT&T ILLINOIS' POSITION ON THIS ISSUE?

[3] http://www22.verizon.com/wholesale/local/collocation/detail/1,,anc_w_catt,00.html

A. A CLEC that does not own the fiber it uses to leave the wire center, but instead obtains that transmission capability from another carrier, still "maintains a collocation arrangement …and operates a fiber-optic cable or comparable transmission facility" that satisfies Rule 51.5. Rule 51.5 contains no prohibition on CLEC sharing of facilities to reduce their operating costs and no such requirement should be read into the rule. In other situations, the FCC has explicitly encouraged CLECs to share the expenses of providing facilities-based competition with other CLECs, such as the FCC requirement that ILECs make available to CLECs a "shared collocation" arrangement.[4] That is all that is happening here. In the situation as I understand it (without the benefit of reading any CLEC testimony on this issue in Illinois) CLEC A is collocated in a wire center and desires to purchase transport capacity from CLEC B, who is also collocated in that wire center. CLEC B has established transport facilities that leave the wire center and has excess capacity on those facilities. Rather than incur the expense of installing its own fiber, CLEC A leases capacity from CLEC B. CLEC A still has an independent, fully-functioning network, complete with a separate collocation arrangement and its own telecommunications equipment.

Q. CAN YOU POINT TO ANYTHING IN THE *TRRO* THAT SUPPORTS YOUR POSITION?

The *TRRO* says that less traditional collocation arrangements such as Verizon's CATT fiber termination arrangements can be considered as collocation arrangements for

[4] *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, 14 FCC Rcd 4761 (1999), ¶ 41. See also FCC Rule 51.323(k)(1).

determining fiber-based collocators.[5] The CATT offering by Verizon allows multiple collocated carriers to utilize the fiber facilities of a third party provider to connect their individual networks to their collocated arrangements. These arrangements could not count as qualifying collocation arrangements under Rule 51.5 (and they clearly do) if a CLECs use of another CLECs transmission facility was a disqualifying factor.

Q. CAN ONE FIBER NETWORK SUPPORT MORE THAN ONE FIBER-BASED COLLOCATOR?

A. Yes. A single fiber optic cable leaving an AT&T Illinois wire center will contain several hundred fiber strands which can easily support up to 20 carriers. These 20 carriers can all have four fiber strands dedicated for their use. These four fiber strands could support an OC-192 system which could in turn support multiple collocated carriers. AT&T shares fiber with other providers via Dark Fiber and transport facilities. This is also a practice of other companies in the telecommunications industry, such as with Verizon's CATT fiber termination arrangements.

Q. CAN MORE THAN ONE CARRIER "OPERATE" AND "TERMINATE" A NETWORK OVER A SINGLE FIBER CABLE?

A. Yes. Many carriers utilize the facilities of other carriers. In the case of the Verizon CATT offerings, or similar arrangements, multiple carriers will share the capacity of the fiber optic cable.

[5] *TRRO* ¶ 102.

Q. CAN MORE THAN ONE CARRIER "OPERATE" AND "TERMINATE" A NETWORK OVER A SINGLE FIBER STRAND?

A. Technically, yes. Through the use of wave division multiplexing ("WDM") or dense wave division multiplexing ("DWDM") multiple networks can share one fiber strand. In this form of multiplexing, multiple optronic systems share the same fiber strand(s), much in the same way multiple electrical signals can share a higher speed signal. The difference is that one is multiplexed using optical signals and one is multiplexed using electrical signals. Both electrical and optical signals are types of electromagnetic radiation.[6]

Q. HOW HAS AT&T ILLINOIS TREATED THE COLLOCATOR-TO-COLLOCATOR CROSS-CONNECTED FACILITIES IN ITS ANALYSIS?

AT&T Illinois counted carriers that utilize the fiber facilities of other carriers as separate fiber-based collocators, assuming they meet the other requirements of the definition.

Q DO YOU HAVE ANY ADDITIONAL THOUGHTS ON THIS ISSUE?

A. At a minimum, a facility capable of DS-3 (e.g. coaxial cable) or higher capacity meets the comparable transmission facility standard. The FCC could have excluded the words "comparable transmission facility" in its definition, but it chose to include the term. AT&T Illinois has taken a rational approach to incorporate this term in its fiber-based collocator determination and wire center analysis. In keeping with this approach,

[6] See http://en.wikipedia.org/wiki/Electromagnetic_radiation.

collocator-to-collocator cross-connect fall under the classification of "comparable transmission facilities" and CLECs with such arrangements should be classified as fiber based collocators under Rule 51.5.

ISSUE 3 - INDEFEASIBLE RIGHT OF USE

3. In determining whether dark fiber obtained from an ILEC qualifies as CLEC fiber for purposes of applying the FBC criterion, what constitutes an "indefeasible right of use" under 47 CFR §51.5 and what information should be used to identify an IRU? What criteria has AT&T Illinois applied in identifying IRUs?

Q. WHAT IS YOUR UNDERSTANDING OF THIS ISSUE?

A. Rule 51.5 excludes (i.e. does not count) CLEC collocation arrangements that leave the wire center through a transmission facility provided by the ILEC. This exclusion does not apply, however, if the transmission facility provided by the ILEC is dark fiber provided to the CLEC on an indefeasible right of use basis. The issue raised by CLECs asks whether the Commission should establish a definition of an "indefeasible right of use".

Q. WHAT IS AT&T ILLINOIS' POSITION ON THIS ISSUE?

A. We do not believe that the Commission needs to establish any specific definition of an "indefeasible right of use" at this time, other than as discussed by Ms. Chapman in her Direct Testimony. AT&T Illinois did not include in its analysis and wire center compilation any instances where facilities were obtained from AT&T Illinois on an IRU basis. If AT&T Illinois does so in the future, the issue can be considered on the specific facts presented at the time.

IV. APPLICATION OF THE FCC'S RULES

Q. HOW DID AT&T ILLINOIS DETERMINE WHETHER THERE WERE QUALIFYING "FIBER BASED COLLOCATORS" IN ITS WIRE CENTERS?

A. First, the AT&T Industry Markets organization identified wire centers that potentially would meet the FCC's non-impairment criteria. This identification was based upon data such as business line counts, UNE-L counts and collocation records. AT&T Illinois then physically inspected these Illinois wire centers that were identified as potentially meeting the *TRRO*'s criteria for non-impairment. No AT&T affiliated carriers, such as Cingular, the long-distance affiliate or the advanced data services affiliate were counted in AT&T Illinois' non- impairment analysis.

Q. WHEN WERE THE PHYSICAL INSPECTIONS PERFORMED?

A. In February 2005, AT&T personnel intimately familiar with collocation arrangements and fiber facilities completed physical site inspections at each of the identified wire centers in Illinois. Between July and August 2005, and between November and December 2005, additional physical site inspections were completed by AT&T personnel.

Q. PLEASE DESCRIBE THE PHYSICAL INSPECTION IN MORE DETAIL

A. Through these reviews, the AT&T Illinois personnel determined whether each CLEC collocation arrangement in each of the identified wire centers: (1) had a fiber-based entrance facility that leaves the AT&T Illinois premises and that terminates to the CLEC's collocation arrangement; and (2) had an active power supply to such

arrangement. The AT&T Illinois personnel also identified situations in which a fiber-based collocator was connected to an unaffiliated CLEC's collocation arrangement, such that the second CLEC was capable of utilizing the first CLEC's fiber-based entrance facility in its own collocation arrangement. When such an arrangement was identified, the AT&T Illinois personnel identified both CLECs as collocators meeting the FCC's criteria, subject to confirmation of an active power supply.

Q. WHAT DID NETWORK DO WITH THIS COMPILED DATA?

A. Once the analysis was complete, the data was forwarded to AT&T Industry Markets for fiber based collocator calculation.

V. CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.