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# Direct Testimony of Marvin Nevels
# On Behalf of AT&T Missouri

March 30, 2007

Dallas, Texas

# TABLE OF CONTENTS

# DIRECT TESTIMONY OF MARVIN NEVELS

# ON BEHALF OF AT&T MISSOURI

## 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 AT&T's incumbent local exchange carriers, including AT&T Missouri, on network regulatory and wholesale market issues pertaining to collocation. This responsibility includes the collocation-related issues that impact AT&T Missouri.

**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. In July of 2000, I transferred from SBC Wireless to SBC Telecom where my primary 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 competing local exchange carriers ("CLECs") and incumbent local exchange carriers ("ILECs") outside of the SBC ILECs' 13-State territory. This position required a strong 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 throughout the SBC ILECs' 13-State territory. I also 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 my present collocation responsibilities for Network Regulatory. My responsibilities include providing testimony and support for the 13 AT&T ILECs (including AT&T Missouri) on regulatory issues that pertain to collocation, negotiating collocation issues with CLECs, and providing regulatory guidance to the 13 AT&T ILECs on regulatory issues that pertain to collocation.

**Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

A. By way of introduction, the purpose of this proceeding is to address issues related to the FCC's unbundling rules for DS1 and DS3 loops and DS1, DS3, and dark fiber dedicated transport. The FCC's rules assess whether unbundling is required in a given wire center, or between two wire centers, based on counting the number of business lines and "fiber-based collocators" in those wire centers, as explained in greater detail in the Direct Testimony of Ms. Carol Chapman,.

My Direct Testimony supports AT&T Missouri's counts of "fiber-based collocators," which AT&T Missouri used to determine that certain Missouri wire centers do not qualify for unbundling under the FCC's rules. In particular, I explain that AT&T Missouri properly applied the FCC's rules for determining the number of fiber-based collocators in a wire center (i.e., the counting methodology). My testimony supports the conclusions reached by Ms. Chapman concerning the particular AT&T Missouri wire centers that satisfy the FCC's non-impairment criteria set forth in both the FCC's Triennial Review Remand Order ("*TRRO*")[1] and in FCC Rule 51.5.[2]

[1] See, 20 FCC Rcd 2533 (2005), *aff'd sub nom.*, Covad Communications Co. v. FCC, 450 F. 3d 528 (D.C. Cir. 2006).
[2] 47 CFR § 51.5.

## II. STATEMENT OF ISSUES COVERED IN TESTIMONY

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

A. I first discuss the methodology that AT&T Missouri used to count and verify fiber-based collocators in the wire centers at issue in this proceeding. I then address the following "Fiber-Based Collocator" ("FBC") subjects:

1. Comparable Transmission Facilities;
2. Collo-to-Collo Cross-Connections; and,
3. Indefeasible Right of Use.

These matters are also addressed by Ms. Chapman.

## III. APPLICATION OF THE FCC'S PRESCRIBED FIBER-BASED COLLOCATOR "COUNTING" METHODOLOGY

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

A. As a preliminary matter, the FCC established a two-prong test to determine whether a particular wire center will be considered "non-impaired" and thus, not subject to unbundling requirements for DS1 or DS3 loops and DS1, DS3 or Dark Fiber dedicated transport. The first prong of the test involves counting the number of business lines in a wire center; my Direct Testimony does not address this subject. The second prong of the test involves counting the number of fiber-based collocators – as defined by FCC Rule 51.5 – that are present in a particular wire center. My testimony focuses on this subject, i.e., the second prong of the FCC's two-prong test.

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

A. The FCC's 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.

The rule states that 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 rule requires that 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. MUST THE FIBER-OPTIC CABLE OR COMPARABLE TRANSMISSION FACILITY 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. As the rule states, the "fiber-optic cable or comparable transmission facility" need merely be "owned by a party other than the incumbent LEC or any affiliate of the incumbent LECA fiber-based collocator" except where the rule specifies otherwise (e.g., an indefeasible right-of-use obtained from the "owning" ILEC).

**Q. HOW DID AT&T MISSOURI 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 Missouri then physically inspected these identified Missouri wire centers, to verify that the required number of fiber-based collocators were indeed present and that their collocation arrangements satisfied the FCC's rule.

**Q. WHEN WERE THE PHYSICAL INSPECTIONS PERFORMED?**

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

**Q. PLEASE DESCRIBE THE PHYSICAL INSPECTION IN MORE DETAIL**

A. AT&T Missouri personnel determined whether each identified carrier's collocation arrangement in each of the identified wire centers: (1) had a fiber-based entrance facility that leaves the AT&T Missouri premises and that terminates to the carrier's collocation arrangement; and (2) had an active power supply to such arrangement. The AT&T Missouri personnel also identified situations in which a fiber-based collocator was connected to an unaffiliated carrier's collocation arrangement, such that the second carrier was capable of utilizing the first carrier's fiber-based entrance facility in its own

collocation arrangement. Those arrangements are addressed in more detail later in my Direct Testimony; however, they did not affect the end result of any of AT&T Missouri's non-impaired wire center designations.

**Q. WHAT DID NETWORK DO NEXT?**

A. Once the analysis was complete, the data were forwarded to AT&T Industry Markets for use in determining which wire centers satisfied the FCC's thresholds for fiber-based collocators. Ms. Chapman presents the results of that analysis in her Direct Testimony.

## IV. ANALYSIS OF METHODOLOGICAL ISSUES

### ISSUE 1 - COMPARABLE TRANSMISSION FACILITIES

**Q. WHAT IS YOUR UNDERSTANDING OF THIS ISSUE?**

A. Under the plain language of FCC Rule 51.5, a collocation arrangement by means of fiber-optic cable that meets the three criteria spelled out above clearly counts as a "Fiber-Based Collocation" arrangement for purposes of determining non-impairment. Additionally, FCC Rule 51.5 counts collocation arrangements with "comparable transmission facilities meeting the same criteria." The issue here has to do with what types of transmission facilities are "comparable" to fiber.

**Q. HAS THE FCC IDENTIFIED THE NON-FIBER-OPTIC CABLE FACILITIES THAT QUALIFY AS "COMPARABLE TRANSMISSION FACILITIES" UNDER RULE 51.5?**

A. Not specifically, but the *TRRO* provides guidance. In paragraph 102 of the *TRRO* the FCC stated 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.

**Q. DO OTHER TYPES OF TRANSMISSION FACILITIES QUALIFY AS "COMPARABLE" TO FIBER?**

A. Yes. The FCC's discussion of fixed wireless arrangements is only an example, and certainly not all-inclusive given the FCC's specific reference to "comparable transmission facilities meeting the same criteria." The FCC's rule would encompass any transmission facility that signals the carrier's ability to deploy transport facilities. In particular, AT&T Missouri contends that any transmission facility with a capacity of DS-3 or higher qualifies as "comparable" to fiber for purposes of the non-impairment analysis.

**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, a single DS-3 transmission facility allows transmission of 672 simultaneous calls over what are termed "voice grade equivalent" ("VGE") telephone lines.

| 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[3] | 1 DS-3 or 672 VGE | 51.84 Mb/s |

With appropriate equipment, these 672 VGE lines leaving the central office can be used to serve many times more than 672 voice grade calls. For example, most digital loop carrier ("DLC") equipment deployed today allows 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 lines leaving the office would in turn support 2,688 subscriber lines that are obtained from AT&T Missouri to serve end-users in that central office. This is a large capability.

**Q. WHY DOES AT&T MISSOURI CONSIDER A DS-3 OR HIGHER CAPACITY TO BE A "COMPARABLE TRANSMISSION FACILITY" FOR PURPOSES OF THE FCC'S DEFINITION OF A FIBER-BASED COLLOCATOR?**

A. A facility capable of DS-3 or higher capacity meets the "comparable transmission facility" standard because it provides substantial capacity to the CLEC or CLECs using it and signals a carrier's ability to deploy its own transport facilities as well. Thus, even though it could be argued that even smaller transmission capabilities are comparable to fiber-optic cables, at a minimum a DS-3 facility should count, regardless of whether the facility is fiber or coaxial cable. This logic is also supported by the fact that fixed wireless arrangements typically begin at DS-3 level transmission capabilities.

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

## ISSUE 2 – COLLO-TO-COLLO CROSS-CONNECTIONS

**Q. WHAT IS YOUR UNDERSTANDING OF THIS ISSUE?**

A. In some cases, a carrier collocated at an ILEC's wire center does not own the transport facility it uses to send traffic out of the wire center, but rather, leases capacity on another collocated carrier's transport facilities. The first carrier connects its collocation arrangement to the second carrier's by means of a cross-connect. These arrangements are referred to as collocation-to-collocation, or "collo-to-collo," arrangements. It is AT&T Missouri's position that when the transmission facility that leaves the wire center is a fiber-optic or "comparable" transmission facility and the cross-connect between the two collocated carriers is at the DS3 level or above, both carriers count as "fiber-based collocators" under the FCC's non-impairment criteria. As I describe further below, in connection with the AT&T/BellSouth merger, AT&T committed to the FCC (on a temporary basis) not to count both carriers in the above scenario as fiber-based collocators. AT&T Missouri's wire center designations in this proceeding reflect that commitment.

**Q. DOES THIS ISSUE AFFECT ANY OF THE SPECIFIC WIRE CENTERS AT ISSUE HERE?**

A. No, but it may affect future wire center designations by AT&T Missouri after the merger commitment expires.

**Q. PLEASE EXPLAIN.**

A. Although I am not an attorney and I am not an expert on the merger, it is my understanding that AT&T agreed that, for a period of approximately 42 months after the close of the merger, it would not "count" as a fiber-based collocator a carrier that cross connects to a second carrier's fiber-based collocation arrangement. Instead, in such a collo-to-collo cross connect arrangement, only one of the two carriers would be counted. AT&T Missouri has applied this commitment in the wire centers that AT&T Missouri has designated as "non-impaired" in this proceeding and, as Ms. Chapman explains, it does not make any difference to the non-impaired status of any of the wire centers at issue

**Q. WHAT HAVE CLECS ARGUED ELSEWHERE REGARDING COLLO-TO-COLLO ARRANGEMENTS?**

A. CLECs have argued in other states that a carrier that is connected, via a collocation-to-collocation cross-connection, to another carrier that has fiber facilities should not be counted as a fiber-based collocator. As I understand it, the CLECs assert that because the cross-connected carrier does not actually own the fiber cable leaving the wire center, that carrier's arrangement does not meet the definition of a "Fiber-Based Collocator" under Rule 51.5.

**Q. PLEASE EXPLAIN AT&T MISSOURI'S POSITION IN MORE DETAIL.**

A. The CLECs' argument cannot be squared with the rule's plain language. First, a carrier 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. Second, the single specific reference to ownership in the FCC's rule does not support the CLECs' argument. The rule merely requires that the "fiber-optic cable or comparable transmission facility" be "owned by a party other than the ILEC or any affiliate of the ILEC." A collo-to-collo cross connect arrangement between two CLECs clearly suffices.

In addition, FCC Rule 51.5 contains no prohibition on carriers sharing facilities to reduce their operating costs, which supports AT&T Missouri's position that the rule allows such arrangements to be counted in the manner AT&T Missouri as counted them. In fact, in other contexts, the FCC has encouraged carriers to share the expenses of providing facilities-based competition, one such example being the FCC's requirement that ILECs make available to carriers a "shared collocation" arrangement.[4] That is all that is happening here. Here, Carrier A is collocated in a wire center and desires to purchase transport capacity from Carrier B, who is also collocated in that wire center. Carrier 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, Carrier A leases capacity from Carrier B. Carrier A still has an independent, fully-functioning network, complete with a separate collocation arrangement and its own telecommunications equipment. While this may not be "traditional" collocation of the kind originally

[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, 47 CFR § 51.323(k)(1).

implemented many years ago, or even prior to the passage of the Act, it is collocation nonetheless.

In sum, the language of FCC Rule 51.5 does not support the CLECs' argument.

**Q. DOES THE *TRRO* SUPPORT YOUR POSITION?**

Yes. The *TRRO* expressly states that "less traditional collocation arrangements" such as Verizon's "CATT fiber termination arrangement" qualify as collocation arrangements for determining fiber-based collocators.[5] Those arrangements are as a practical matter no different than the collo-to-collo arrangements I have described.

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

A. The Verizon Competitive Alternate Transport Terminal ("CATT") arrangement allows collocated CLECs to connect their collocation arrangement to a shared alternate splice point, where they can connect to third-party fiber transport facilities out of the wire center. The CATT is located in or near a Verizon vault in the wire center. Thus, Verizon's CATT arrangement 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 description of the Verizon CATT service, as shown on the Verizon website as of March 29, 2007, is attached to my Direct Testimony as MN-1.[6]

[5] *TRRO* ¶ 102.
[6] http://www22.verizon.com/wholesale/local/collocation/detail/1,,anc_w_catt,00.html

**Q. DOES AT&T MISSOURI OFFER A CATT ARRANGEMENT?**

A. AT&T Missouri does not offer an arrangement or service called CATT, but AT&T Missouri 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 Missouri allows collocated carriers to cross-connect their arrangements together and thus achieve the same result as Verizon's CATT arrangement. 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 should be counted as fiber-based collocations under the FCC's rule.

**Q. CAN A SINGLE FIBER OPTIC CABLE SUPPORT MORE THAN ONE FIBER-BASED COLLOCATOR'S NETWORK?**

A. Yes. A single fiber optic cable leaving an AT&T Missouri wire center may contain several hundred fiber strands that can easily support up to tens of carriers' networks. Any one or more (in fact, all) of these carriers can 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 Missouri shares fiber with other providers via Dark Fiber and transport facilities. Other companies in the telecommunications industry, such as Verizon with its CATT fiber termination arrangements, also follow this practice.

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

A. Yes. In fact, many carriers utilize the facilities of other carriers. In the case of Verizon's CATT arrangement, or similar arrangements, multiple carriers will share the capacity of the fiber optic cable. By finding that carriers using Verizon's CATT arrangement qualify as fiber-based collocators, the FCC has necessarily held that more than one carrier can be deemed to "operate" and "terminate" a network for purposes of the non-impairment test.

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

A. Yes. Through the use of wave division multiplexing ("WDM") or dense wave division multiplexing ("DWDM"), multiple networks can share a single fiber strand. In this form of multiplexing, multiple optronic systems share the same fiber strand (or strands); much in the same way radio stations share the same airwaves in a metropolitan area. The difference is that the former is multiplexed using optical signals and the latter is multiplexed using electrical signals. Nevertheless, both electrical and optical signals are types of electromagnetic radiation.

**Q. HOW DID AT&T MISSOURI TREAT COLLOCATOR-TO-COLLOCATOR CROSS-CONNECTED FACILITIES IN ITS ANALYSIS?**

A. AT&T Missouri's original wire center designations treated carriers that utilize the fiber facilities of other carriers through a cross-connect at the DS-3 level or above as separate fiber-based collocators, as long as they also met the other requirements of the definition. AT&T Missouri identified 2 coaxial cross connected facilities which were connected to

another carrier's fiber facility for purpose of wire center classification. ** (_____ _____)**. However, even if both of these coaxial collocation to collocation arrangements were to be excluded from the overall count in each of the wire centers, the exclusion would not change the classification of these wire centers, because the number of fiber based collocators remaining in each wire center would still be sufficient to satisfy the FCC's rules.

**Q DO YOU HAVE ANY FINAL THOUGHTS ON WHY AT&T MISSOURI'S APPROACH IS FAITHFUL TO THE FCC'S *TRRO* WITH RESPECT TO THIS ISSUE?**

A. At a minimum, a facility capable of transmission at the DS-3 or higher level (e.g. coaxial cable) capacity meets the FCC's comparable transmission facility standard. The FCC could easily have limited the standard to apply only to "a fiber-optic cable" but it did not; instead, it chose to add the phrase "or comparable transmission facility." This added language cannot be ignored; instead, it must be given effect. AT&T Missouri did so by taking a rational approach to account for this added language in its fiber-based collocator determination and wire center analysis. In keeping with this approach, collocator-to-collocator cross-connect arrangements fit squarely within the classification of "comparable transmission facilities" and carriers with such arrangements should be classified as fiber-based collocators under FCC Rule 51.5.

**"NON-PROPRIETARY"**

**ISSUE 3 - INDEFEASIBLE RIGHT OF USE**

**Q. WHAT IS YOUR UNDERSTANDING OF THIS ISSUE?**

A. FCC Rule 51.5 specifically excludes (i.e., the rule does not permit counting) collocation arrangements with facilities that leave the wire center through a transmission facility provided by the ILEC, with one exception. Specifically, the rule provides that the fiber-optic cable or comparable transmission facility must be "owned by a party other than the incumbent LEC or any affiliate of the incumbent LEC." However, the same quoted passage ends with the phrase "except as set forth in this paragraph." The rule next states the exception: "Dark fiber obtained from an incumbent LEC on an indefeasible right of use basis shall be treated as non-incumbent LEC fiber-optic cable." In other words, the exclusion stated by FCC Rule 51.5 does not apply if the transmission facility provided by the ILEC is dark fiber provided under an indefeasible right of use.

**Q. WHAT IS AT&T MISSOURI'S POSITION ON THIS ISSUE?**

A. AT&T Missouri's current designations did not consider any AT&T-owned fiber provided to a carrier on an IRU basis. However, in order to prevent future disputes, the Commission should determine that any AT&T-owned dark offered to a non-affiliated carrier by means of a contract stating that the offering is made on an IRU basis may be counted as part of a fiber-based collocation arrangement.

## V. CONCLUSION

**Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

A. Yes.