

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

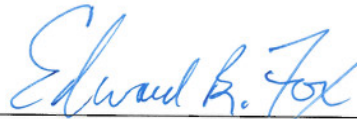
Petition of MCImetro Access Transmission )  
Services, L.L.C. d/b/a Verizon Access Transmission )  
Services for Arbitration of an Interconnection ) Case No. TO-2008-0037  
Agreement with Embarq Missouri, Inc. d/b/a Embarq )  
Under Section 252(b) of the Telecommunications Act )  
Of 1996 )

**AFFIDAVIT OF EDWARD B. FOX**

STATE OF KANSAS )  
 ) ss  
COUNTY OF JOHNSON )

I, Edward B. Fox, being of lawful age, and duly sworn, dispose and state on my oath:

1. I am presently Regulatory Manager for Embarq Management Company which provides management services to Embarq Missouri, Inc. d/b/a Embarq;
2. I have participated in the preparation of the attached testimony in question and answer form to be presented in the above entitled case;
3. The answers in the attached testimony were given by me; and
4. I have knowledge of the matters set forth in such answers and that such matters are true and correct to the best of my knowledge and belief.



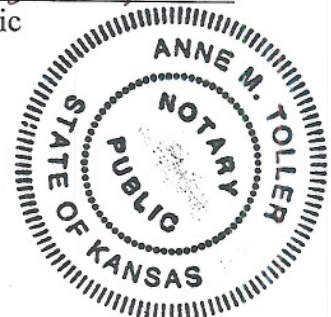
Edward B. Fox

Subscribed and sworn to before me this 11<sup>th</sup> day of September, 2007

  
Notary Public

My Appointment expires:

2/2/2010



**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

|  |   |                       |
|--|---|-----------------------|
| Petition of MCImetro Access Transmission Services    | ) |                       |
| L.L.C. d/b/a Verizon Access Transmission Services    | ) |                       |
| For Arbitration of an Interconnection Agreement with | ) | Case No. TO-2008-0037 |
| Embarq Missouri, Inc. d/b/a Embarq, Under Section    | ) |                       |
| 252(b) of the Telecommunications Act of 1996         | ) |                       |

**DIRECT TESTIMONY OF ED FOX**

**ON**

**BEHALF OF**

**EMBARQ MISSOURI, INC.**

**September 13, 2007**

1    **Q.    Please state your name, business address, employer and position.**

2    A.    My name is Edward (Ed) Fox. I am employed as Regulatory Manager for  
3        Embarq Management Company, which provides management services to Embarq  
4        Missouri, Inc. ("Embarq"). My business address is 5454 W. 110<sup>th</sup> Street,  
5        Overland Park, KS 66211.

6    **Q.    Please describe your educational background and business experience.**

7    A.    I received a Masters of Business Administration from Ashland University in 1989  
8        and a Bachelor of Science degree in history from Taylor University. In my  
9        current position, I am responsible for developing state and federal regulatory  
10       policy and legislative policy for Embarq for collocation and network  
11       interconnection issues. I am responsible for coordinating this policy across the  
12       multiple business units of Embarq, i.e. business, consumer, wholesale, and  
13       Embarq's Competitive Local Exchange Carrier ("CLEC") operations. I have  
14       been in this position since January 2001. For the four years prior, I served as the  
15       Network Policy Manager for Sprint's ILEC operations. Between 1977 and 1996,  
16       I held positions in sales, marketing, competitive analysis, and product  
17       management within Sprint's local telecommunications division.

18   **Q.    Have you testified before regulatory commissions before?**

19   A.    Yes. I have testified before the state regulatory commissions in Maryland,  
20        Massachusetts, Florida, Nevada, Ohio, Texas, and Minnesota on interconnection  
21        issues. I have also participated in mediation sessions before the Pennsylvania  
22        Public Utility Commission, North Carolina Public Utilities Commission, and the  
23        Nevada Public Utilities Commission, and at the United States Court of Appeals

1 for the Ninth Circuit involving interconnection matters. I have filed written  
2 testimony in Missouri and the District of Columbia.

3 **Q. What is the purpose of your Testimony?**

4 My testimony describes Embarq's position on Issue #1 that deals with the proper  
5 compensation for VNXX-enabled traffic.

6  
7 **Issue 1 – What intercarrier compensation should apply to virtual NXX (VNXX)**  
8 **traffic under the ICA?**

9 **Q. Please describe the VNXX concept.**

10 A. "VNXX Service" means the assignment of a telephone number (NPA-NXX-  
11 XXXX) to a customer using an NXX Code associated with a Rate Center (as set  
12 forth in the LERG) that is different from the Rate Center (as set forth in the  
13 LERG) associated with the customer's actual physical location. The Second  
14 Circuit Court of Appeals defined VNXX service as:

15 Virtual NXX, or VNXX, refers to telephone numbers assigned to a  
16 customer in a local calling area different from the one where the customer  
17 is physically located in circumstances where the telephone company  
18 assigning the number is not using facilities of its own to transport the call  
19 from the calling area associated with the telephone number to the area  
20 where the customer is actually located.<sup>1</sup>

21  
22 In accordance with this definition, Verizon Access provides its ISPs a toll-free  
23 service so that Embarq's end users may dial a local number that Verizon Access

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<sup>1</sup> *Global NAPS, Inc. v. Verizon New England, Inc. et al*, 454 F.3d 91 at 93 (2<sup>nd</sup> Circuit 2006).



1 has assigned to an ISP physically located outside of Embarq's local calling area  
2 (including mandatory EAS calling areas).

3 **Q. Please describe the intercarrier compensation issue being disputed between**  
4 **Verizon and Embarq.**

5 **A.** Verizon does not base its entitlement to compensation on any legal basis, but  
6 solely on the precedent that other carriers have agreed to it. Verizon claims  
7 Embarq should compensate them accordingly. Even if Verizon were to argue that  
8 it had some legal basis for this compensation, it would be in contravention to  
9 established legal precedent that VNXX-enabled, ISP-bound traffic is subject to  
10 originating access, payable to the ILEC as described in my testimony below. Any  
11 traffic subject to reciprocal compensation must physically originate and  
12 physically terminate with the same Embarq local calling area. Intercarrier  
13 compensation obligations should not be determined based on the NPA/NXXs of  
14 the calling and called parties, and any traffic, including VNXX-enabled ISP-  
15 bound traffic, which physically originates in one Embarq local calling area and  
16 terminates in a different local calling area, is interexchange traffic that is subject  
17 to access charges. Therefore, VNXX-enabled traffic terminated by Verizon is  
18 interexchange traffic, and subject to Embarq's originating access rates. Simply  
19 put, Embarq cannot be asked to subsidize Verizon's toll-free dial-up business by  
20 paying reciprocal (or any other) compensation for this non-251(b)5 traffic.

1   **Q.   Why would a CLEC assign its customers NXX codes that are assigned to a**  
2       **central office switch outside of the local calling area in which the customer**  
3       **physically resides?**

4   **A.**   One of the primary uses of the VNXX concept is to give CLEC customers, which  
5       are ISP clients, access to Embarq's local customer base. Using VNXXs, a CLEC  
6       can assign telephone numbers to ISPs so that regardless of the location of the  
7       caller (end user), the numbers are perceived and billed as local calls. Many ISPs  
8       will not have a physical presence in each ILEC local calling area. Therefore, to  
9       make these actual interexchange calls appear "local" in nature, CLECs utilize  
10      these VNXX numbering schemes. By doing so, both the CLEC and its customers  
11      benefit. The CLEC's customer (typically an ISP) is able to offer all its  
12      subscribers a locally rated number without establishing a geographic presence.  
13      The CLEC benefits as the traffic, based on the originating and terminating  
14      NPA/NXXs, appears to be "local" in nature, potentially creating reciprocal  
15      compensation revenue. But this scheme also causes the originating carrier (in  
16      this case Embarq) to incur the cost to transport the traffic to a potentially distant  
17      POI outside the local calling area and to incur a compensation expense.

18  
19   **Q.   Why is Embarq's position reasonable?**

20   **A.**   Simply put, no carrier should be allowed to assign a number to a customer  
21       physically located outside the local calling area and expect to receive

1 compensation. The historic end-to-end analysis confirms that calls traveling to  
2 points beyond the local calling area are not local for intercarrier compensation  
3 purposes. Calls that originate and terminate within the mandatory local calling  
4 area of the ILEC, as set forth in Embarq's local tariffs, are local calls for purposes  
5 of intercarrier compensation. If it were not for this VNXX numbering scheme, the  
6 originating end user would incur a toll charge, and the originating carrier would  
7 collect originating access. If Verizon wants to provide a VNXX service to its  
8 customers, it should not be at the originating Embarq's expense. Embarq's  
9 position is that it is owed originating access for VNXX traffic just like any  
10 interexchange call. The numbers dialed are irrelevant.

11  
12 **Q. Does Verizon's proposal mischaracterize the traditional polarized CLEC-**  
13 **ILEC debate that surrounds compensation for VNXX traffic?**

14 **A.** Yes. Verizon simply wants money for terminating a type of traffic that does not  
15 qualify for compensation under any regulation that governs intercarrier  
16 compensation. Accordingly, Verizon's "market-based" theme is best practiced as  
17 long as Embarq is willing to send money to Verizon simply because other carriers  
18 have agreed to such a "market-based" approach. There is nothing "market-based"  
19 about Verizon's position just because it claims to have agreements that provide it  
20 compensation for VNXX traffic.



1   **Q.   Verizon discusses industry trends and various settlements they have reached**  
2       **with other carriers regarding compensation for its toll free, ISP-bound,**  
3       **VNXX-enabled information access traffic. Does Verizon provide any**  
4       **meaningful facts or terms and conditions of these agreements that Embarq**  
5       **can use for guidelines to resolve this issue with them?**

6   **A.**   No. Verizon Access provides no meaningful information other than that the  
7       parties achieved agreement. Anyone familiar with the contract negotiating  
8       process knows that there are many points of negotiations and frequent trade-offs  
9       on specific issues, such as getting terms and conditions you may like in one area  
10      and compromising in others. The overarching goal of negotiating is to reach an  
11      agreement that is consistent with each party's business objectives. Verizon's  
12      proposed "market-based" solution is only market-based between Verizon and  
13      Embarq if the two parties voluntarily agree to it, not if it is imposed by the  
14      Commission. The fact that others may have agreed to it means it is market-based  
15      only for those who agreed, not for Embarq.

16   **Q.   Verizon Access claims its "compromise" position "appropriately balances the**  
17       **parties' respective interests" because the CLEC is committed to accepting**  
18       **greater responsibility for transporting traffic from the ILEC's originating**  
19       **end office. Is this true?**

20   **A.**   No. Verizon Access's language requires Embarq to subsidize Verizon Access's  
21      toll-free product that it provides to its ISPs so that those ISPs' customers located



1 in Embarq's territory may dial them via a local telephone number. Verizon offers  
2 to establish interconnection trunks as a "compromise" in order to receive this  
3 subsidy. This is a self-serving proposal by Verizon Access. Verizon Access must  
4 interconnect with Embarq anyway if it wants to receive Embarq's traffic. Verizon  
5 has already agreed to "establish a minimum of one POI within each LATA, at any  
6 technically feasible point, on Embarq's network for telecommunications traffic."  
7 §54.2.1 of ICA. At §54.2.1.1 Verizon Access has agreed to "establish a direct end  
8 office trunk at an Embarq end office when total traffic volumes exchanged  
9 between that particular Embarq end office and CLEC exceeds a DS1 equivalent  
10 ... ." The nature of the traffic means that under Verizon Access's proposal,  
11 assuming a POI at each tandem area where it assigns telephone numbers, Embarq  
12 is required to pay Verizon Access for all of Verizon Access's VNXX traffic. This  
13 is egregious on two counts. First, Verizon Access avoids the cost of switching  
14 and transport. Second, Verizon Access is demanding compensation for each  
15 minute of use, which is clearly not applicable.

16  
17 **Q. Does Verizon have any direct interconnection with Embarq in Missouri?**

18 A. No. Currently, the parties exchange all traffic indirectly through the SBC tandem  
19 in Kansas City, MO. Virtually all of the traffic exchanged between the parties  
20 originates with Embarq and terminates to Verizon. Because of this imbalance,  
21 Embarq believes all of this traffic is VNXX-enabled, ISP-bound traffic. There are

1       only three Embarq offices from which traffic originates, each of which is within  
2       LATA 524 (Ferrelview, Kearny, and Warrensburg). The traffic volume for two of  
3       these offices has already exceeded a DS1 level. Verizon and Embarq have agreed  
4       that for those offices where indirect traffic exceeds a monthly DS1 level of usage,  
5       Verizon will establish a direct connection to that office. With Verizon's proposed  
6       VNXX compensation plan, that would immediately qualify them for  
7       compensation of such traffic. Directly interconnecting on the ILEC's network is  
8       an obligation of CLECs. To additionally compensate Verizon for interexchange  
9       traffic that does not qualify for compensation simply by establishing a mandatory  
10      connection is grossly inequitable.

11  
12   **Q.   Does the presence of transport affect whether as carrier is entitled to**  
13   **compensation for VNXX-enabled calls?**

14   **A.**   No. The end-points of a call determine the jurisdiction of a call, for purposes of  
15       compensation. Verizon incorrectly claims that compensation is dependent upon  
16       its provisioning of transport for its VNXX calls within each Embarq tandem  
17       serving area. Verizon has the obligation to directly connect on Embarq's network  
18       in each LATA where it exchanges traffic. I have already pointed out that Verizon  
19       has agreed to establish a direct connection to any Embarq wire center where the  
20       indirect traffic levels have met the DS1 level. Under these terms, and due to the  
21       fact that the parties are exchanging traffic only in one LATA Verizon is obligated

1 to establish a POI at Warrensburg plus establish a direct interconnection at any  
2 other wire center where Verizon-Embarq traffic exceeds a DS1 level.  
3

4 **Q. From a network routing and call completion perspective, does it matter if**  
5 **these VNXX calls are voice calls or ISP-bound?**

6 A. No. Again, the jurisdictional nature of a call is determined on an end to end basis,  
7 not the artificial rating points of a call (to/from numbers). For ISP-bound traffic  
8 to be local, the ISP provider must be physically located in the same local calling  
9 area as the end user originating the call. Therefore, whether a call is a non-local,  
10 VNXX *voice* call or a non-local, VNXX *ISP-bound* call, the physical end points  
11 of the call should determine the appropriate intercarrier compensation. When a  
12 CLEC utilizes a VNXX numbering scheme to provision either voice or ISP-bound  
13 traffic, the originating ILEC incurs the same network utilization to deliver this  
14 non-local interexchange traffic to the CLEC.  
15

16 **Q. Do the parties have a workable solution to segregate the VNXX traffic from**  
17 **251(b)(5) traffic for compensation purposes?**

18 Yes. The parties can establish a factor that will determine the percent of traffic  
19 that is VNXX-enabled. Additionally, Embarq has the ability to determine VNXX  
20 traffic levels through network data analysis.  
21



1    **Q.     What is the correct resolution for Issue 1?**

2    A.    Because Verizon is offering a toll-free interexchange service and is essentially  
3           acting as an IXC, Embarq is entitled to receive originating access for all non-  
4           local, VNXX traffic originated by Embarq and terminated to Verizon Access.  
5           Verizon Access should not receive any terminating compensation because it is  
6           acting as an IXC and would be paying itself for terminating the traffic. The  
7           Commission should adopt Embarq's contract language:

8                 **55.4 Calls terminated to end users physically located outside**  
9                 **the local calling area in which their NPA/NXXs are homed**  
10                **(Virtual NXXs), are not local calls for purposes of**  
11                **intercarrier compensation and access charges shall apply.**  
12                **For Embarq-originated traffic terminated to CLEC's Virtual**  
13                **NXXs, Embarq shall not be obligated to pay reciprocal**  
14                **compensation, including any shared interconnection facility**  
15                **costs, for such traffic.**  
16

17   **Q.     Is Embarq willing to accept an alternate solution to this issue?**

18   A.    Yes. Embarq's primary position is that it should receive originating access for all  
19           VNXX-enabled ISP-bound traffic. But if the Commission does not adopt  
20           Embarq's position, Embarq expects that the Commission will adhere to the  
21           precedent it established in the recent Socket/Century Tel arbitration where it  
22           adopted a bill-and-keep arrangement for VNXX traffic. *Petition of Socket*  
23           *Telecom LLC for Compulsory Arbitration of Interconnection Agreements with*  
24           *CenturyTel of Missouri, LLC and Spectra Communications Group, LLC pursuant*



1        *to Section 251(b)(1) of the Telecommunications Act of 1996, Case No. TO-206-*  
2        *0299, Final Commission Decision, at 27-28 (June 30, 2006).*

3

4    **Q.    Does this conclude your Testimony?**

5    **A.    Yes.**