

# RECEIPT COPY

Exhibit No.:

Issue: Rates, Terms, and Conditions for Reciprocal  
Compensation Arrangements

Witness: Robert C. Schoonmaker

Type of Exhibit: Direct Testimony

Sponsoring Party: Petitioners

Case No TO-2006-0147, et al. (consolidated)

Date: January 6, 2006

## BEFORE THE PUBLIC SERVICE COMMISSION STATE OF MISSOURI

In the Matter of the Petition )  
for Arbitration of Unresolved )  
Issues in a Section 251(b)(5) )  
Agreement with T-Mobile USA, Inc. )

Case No. TO-2006-0147

In the Matter of the Petition )  
For Arbitration of Unresolved )  
Issues Pertaining to a Section 251(b)(5) )  
Agreement with Cingular Wireless )

Case No. TO-2006-0151

# FILED<sup>4</sup>

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**DIRECT TESTIMONY**  
**OF**  
**ROBERT SCHOONMAKERS** Missouri Public  
Service Commission

Jefferson City, Missouri  
January 6, 2006

Exhibit No. 1  
Case No(s) TO-2006-0147/116-2006-0151  
Date 1-25-06 Rptr RE

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

In the Matter of the Petition	)	
for Arbitration of Unresolved	)	
Issues in a Section 251(b)(5)	)	Case No. TO-2006-0147
Agreement with T-Mobile USA, Inc.	)	

In the Matter of the Petition	)	
For Arbitration of Unresolved	)	
Issues Pertaining to a Section 251(b)(5)	)	Case No. TO-2006-0151
Agreement with Cingular Wireless	)	


**AFFIDAVIT OF ROBERT C. SCHOONMAKER**

Robert C. Schoonmaker, of lawful age, being duly sworn, deposes and states as follows:

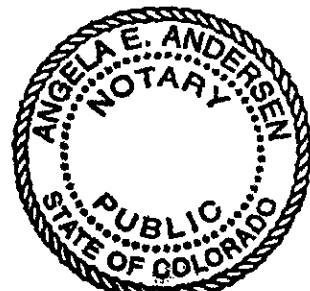
1. My name is Robert C. Schoonmaker. I am employed by GVNW Consulting, Inc. as President and Chief Executive Officer.
2. Attached hereto and made a part hereof for all purposes is my direct testimony with accompanying schedules.
3. I hereby affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief and that the information contained in the attached schedules is also true and correct to the best of my knowledge and belief.

  
Robert C. Schoonmaker

Subscribed and sworn to before me this 6th day of January, 2006.

 Notary Public

My Commission expires: 11/16/09



My Commission Expires 11/16/2009

DIRECT TESTIMONY OF ROBERT C. SCHOONMAKER

**Q. Please state your name and address.**

A. My name is Robert C. Schoonmaker. My business address is 2270 La Montana Way, Colorado Springs, Colorado 80918.

**Q. By whom are you employed and in what capacity?**

A. I am President and CEO of GVNW Consulting, Inc., a consulting firm specializing in working with small telephone companies.

**Q. Would you please outline your educational background and business experience?**

A. I obtained my Masters of Accountancy degree from Brigham Young University in 1973 and joined GTE Corporation in June of that year. After serving in several positions in the revenue and accounting areas of GTE Service Corporation and General Telephone Company of Illinois, I was appointed Director of Revenue and Earnings of General Telephone Company of Illinois in May, 1977 and continued in that position until March, 1981. In September, 1980, I also assumed the same responsibilities for General Telephone Company of Wisconsin. In March, 1981, I was appointed Director of General Telephone Company of Michigan and in August, 1981 was elected Controller of that company and General Telephone Company of Indiana, Inc. In May, 1982, I was elected Vice President-Revenue Requirements of General Telephone Company of the Midwest. In July, 1984, I assumed the position of Regional Manager of GVNW Inc./Management (the predecessor company to GVNW Consulting, Inc.) and was later promoted to the position of Vice President. I served in that position until October 1, 2003 except

1 for the period between December 1988 and November, 1989 when I left GVNW  
2 to serve as Vice President-Finance of Fidelity and Bourbeuse Telephone  
3 Companies. I was elected to the position of President and Chief Executive  
4 Officer effective October 1, 2003. In summary, I have had over 30 years of  
5 experience in the telecommunications industry working with incumbent local  
6 exchange carrier companies.

7 **Q. What are your responsibilities in your present position?**

8 A. In my current position I have overall responsibility for the management and  
9 direction of GVNW Consulting, Inc. In addition, I consult with independent  
10 telephone companies and provide financial analysis and management advice in  
11 areas of concern to these companies. Specific activities which I perform for client  
12 companies include regulatory analysis, consultation on regulatory policy,  
13 financial analysis, business planning, rate design and tariff matters,  
14 interconnection agreement analysis, and general management consulting.

15 **Q. Have you previously testified in regulatory proceedings?**

16 A. Yes, I have submitted testimony and/or testified on regulatory policy, local  
17 competition, rate design, accounting, compensation, tariff, rate of return,  
18 interconnection agreements, and separations related issues before the Illinois  
19 Commerce Commission, the Public Service Commission of Wisconsin, the  
20 Michigan Public Service Commission, the Iowa Utilities Board, the Tennessee  
21 Public Service Commission, the New Mexico Public Regulation Commission, the  
22 Public Utilities Commission of the state of South Dakota, the Public Service  
23 Commission of West Virginia, the Public Utility Commission of Texas, and the

1 Missouri Public Service Commission. In addition, I have filed written comments  
2 on behalf of our firm on a number of issues with the Federal Communications  
3 Commission and have testified before the Federal-State Joint Board in CC Docket  
4 #96-45 on Universal Service issues.

5 **Q. On whose behalf are you testifying in this case?**

6 **A.** I am testifying on behalf of the Petitioners in each of the cases. While many of  
7 the Petitioners are the same in each of the consolidated cases, they are not  
8 identical. Attached as Schedule RCS-1 to my testimony is a list of the Petitioners  
9 in each of the individual cases.

10 **Q. What is the purpose of your testimony?**

11 **A.** My testimony will provide information on the following issues:

- 12 1. The forward-looking cost of switching and transport and termination which  
13 supports Petitioners' proposed terminating rate of \$0.035 per minute  
14
- 15 2. The Petitioners' obligation to pay reciprocal compensation for landline-to-mobile  
16 calls that are carried by an interexchange carrier (IXC)  
17
- 18 3. The appropriate ratio of mobile-to-land/land-to-mobile traffic (i.e., traffic ratio)  
19
- 20 4. The appropriate percentages of interMTA traffic that are intrastate and interstate  
21
- 22 5. Net billing of traffic by the Petitioners  
23
- 24 6. The inclusion of provisions for direct interconnection  
25
- 26 7. Local dialing of Extended Area Service (EAS) calls from Petitioners' customers  
27 to Respondents' customers  
28
- 29 8. Dialing parity for calls from Petitioners' customers to Respondents' customers  
30 (a/k/a "Virtual NXX")  
31
- 32 9. Minimum billing amount  
33
- 34 10. Petitioners' rural exemption  
35

1 11. The appropriate compensation for the transit function performed by Citizens  
2 Telephone Company

3  
4 12. The appropriate terms/conditions for termination of service

5  
6 **1. THE FORWARD-LOOKING COST OF SWITCHING AND**  
7 **TRANSPORT AND TERMINATION**  
8

9 **Q. Can you describe the rate that the Petitioners propose to charge for**  
10 **switching and transport and termination to the Respondents?**

11 A. Yes. The rate, as proposed, is a single rate per minute of \$0.035 to be charged to  
12 each of the Respondents for terminating their traffic on an indirect connection  
13 basis in the Petitioners' operating areas and reciprocally to be charged to the  
14 Petitioners for traffic terminated by the Petitioners for which they are financially  
15 responsible to the wireless carriers. This is the rate that was proposed for each of  
16 the Petitioners.

17 **Q. Can you describe how the rate that was proposed was developed?**

18 A. Yes. The rate that is proposed is a rate that has been arrived at and agreed to via  
19 negotiations between many of the Petitioners (and other small telephone  
20 companies in Missouri) and several different wireless carriers. This rate is lower  
21 than the rates approved by the Commission in the wireless terminating tariffs filed  
22 by the Petitioners and is lower than the average, forward-looking cost for the  
23 small Missouri companies in general. In the case of the Petitioners, it is also *less*  
24 *than* the average forward-looking cost for the Petitioners in each individual case.

25 **Q. Did the Petitioners look at other alternatives before proposing this rate?**

26 A. Yes. Other alternatives were considered. In particular, rates based on a forward-  
27 looking cost model were developed, reviewed, and considered before the final

1 rate proposal was made. This was done in recognition that the FCC rules  
2 regarding pricing in arbitration proceedings require that forward-looking costs be  
3 used. However, since the Petitioners had offered a rate of \$0.035 in negotiations  
4 with the Respondents to try to reach a settlement, Petitioners decided to continue  
5 to offer that rate in the context of this arbitration.

6 **Q. Are the costs that you have developed based on Total Element Long-Run**  
7 **Incremental Cost (TELRIC)?**

8 A. Yes, they are. The HAI model which I have used in developing these costs has  
9 been used in a number of states in developing the TELRIC, or forward-looking  
10 costs of service, for incumbent local exchange carriers (ILECs).

11 **Q. Can you briefly summarize the reasons why you have chosen to develop the**  
12 **economic costs presented in this case using the HAI Model?**

13 A. Yes. First, the model has been widely available throughout the industry and has  
14 been carefully studied by industry participants, the FCC and many state  
15 Commissions. Both its strengths and weaknesses are known and have been  
16 evaluated. Second, the HAI Model produces results in formats that are readily  
17 available to identify the cost of individual access cost elements (such as  
18 switching, transport, etc.). Third, because the model includes default input values  
19 necessary to produce cost results for each company, the cost of developing  
20 appropriate, or at least acceptable, cost inputs to run the model are minimized.  
21 Fourth, by reviewing and modifying a relatively small number of inputs, I felt we  
22 could develop adequate estimates of forward-looking costs to the meet the  
23 requirements of the FCC rules.

1   **Q.    Are there concerns about using the HAI Model to develop forward-looking**  
2       **costs for small rural LECs, such as the Petitioners?**

3   **A.    Yes. However, I have recommended to the Petitioners that they use the HAI**  
4       **Model as the most appropriate model available to develop forward-looking costs**  
5       **for arbitration proceedings. Following are the concerns for rural LECs:**

6           1)     Because of the required time and resources to fully explore all the  
7                 proposed default inputs, testing of such items as the cost of cable and  
8                 digital loop carrier equipment against the forward-looking costs for small  
9                 companies in Missouri is generally not feasible. Therefore, HAI costs  
10                may not reflect the economic costs of the Petitioners in all respects.

11          2)     The use of broad inputs and generalized formulas for all  
12                 companies, rather than specific inputs for individual companies, tend to  
13                 mask unique circumstances of individual companies, which may cause  
14                 differences in the costs in the real world.

15          3)     The model results for small companies from models like the HAI  
16                 Model may produce results which vary widely from comparable actual  
17                 data and in a manner inconsistent with forward-looking costs.

18          4)     Results from the model may likely be less accurate for smaller  
19                 geographic areas, such as an individual exchange or small companies with  
20                 a few exchanges, than for large companies such as SBC or Verizon who  
21                 have hundreds of exchanges. This is due to both the technique used to  
22                 generate customer locations and the data in the model. Also a recognition  
23                 that the law of averages leads to offsetting impacts between individual



1 areas within a large group of exchanges that may not occur in a small  
2 company or a single wire center. A review of the access lines developed  
3 by the model compared to actual company lines, for example, shows  
4 significant differences on an individual company level.

5 **Q. Do you still support the forward-looking costs that you have developed, even**  
6 **with the concerns you have listed?**

7 A. Yes. Given the requirements in the FCC rules to develop forward-looking costs  
8 and the current state of tools that are available to develop such cost results at a  
9 reasonable cost to the companies, I believe the costs developed are the best  
10 available forward-looking costs of these companies for meeting the requirements  
11 of the FCC rules. While individual company results have been developed for  
12 each of the Petitioners, I believe it is more appropriate to use an average of the  
13 companies as a proxy for each of the individual companies rather than using the  
14 individual company rates themselves. This average cost data would tend to be  
15 comparable to results for large companies that have many exchanges.

16 **Q. In the development of forward-looking costs for small companies, what are**  
17 **some of the factors that need to be considered in the development of such cost**  
18 **studies?**

19 A. One critical factor is the FCC requirement mentioned above to base the rates on  
20 forward-looking TELRIC studies. Thus, the cost studies need to fit within those  
21 requirements. I believe that the FCC established this requirement based on  
22 economic theory which indicates that such costs are the most appropriate for  
23 forward decision making. The economic theory generally presumes that such

1 information is available at a reasonable cost relative to the decisions for which it  
2 is being used. In the case of small companies, I believe this is not necessarily a  
3 valid assumption.

4  
5 That leads to the factor that must be considered in developing required cost  
6 studies -- the cost of the study in relationship to the revenues associated with the  
7 decision making process. In the case of many of the Petitioners, the revenues  
8 generated from individual contracts with wireless carriers may only be a few  
9 thousand dollars per year (in some cases less than a thousand dollars per year).  
10 Thus, care must be taken to produce a reasonable study to meet the FCC  
11 requirements, but at a reasonable cost in relationship to the revenues at stake. In  
12 developing the costs for the individual companies using the HAI model, I have  
13 tried to use methods that would accomplish this goal. More detailed and exacting  
14 studies may have been possible, but at a considerably greater cost than was  
15 incurred to arrive at the results used in these cases.

16 ***(a) OVERALL DESCRIPTION OF THE HAI MODEL***

17 **Q. Can you briefly describe the historical background of the HAI model?**

18 **A.** The HAI model was initially known as the Hatfield Model, developed by Hatfield  
19 Associates, Inc., a consulting firm in Colorado, at the request of AT&T. The  
20 model was developed with the intent of providing a tool to develop the forward-  
21 looking cost of the telephone network throughout the United States as the cost  
22 basis for universal service support and to develop the estimated cost of unbundled  
23 network elements ("UNEs") for interconnection proceedings under Section 252 of

1 the Telecommunications Act of 1996. As the model faced scrutiny in various state  
2 and federal proceedings, it underwent continued development and modification  
3 through a series of versions over a several year period of time. Generally, the  
4 later versions were more sophisticated in the cost development methods and  
5 techniques than were earlier versions of the model. Version 5.0a of the model,  
6 which has been used to develop the costs presented by the Petitioners in this  
7 proceeding, was the latest version presented in formal comments to the FCC in  
8 CC Docket #96-45, the federal Universal Service Fund (USF) proceeding.

9 **Q. Can you briefly describe the overall design of the model?**

10 A. Yes. The model is designed in several different modules that interact and are  
11 interconnected to produce the overall model results. The modules develop the  
12 costs for various network elements and for the overall cost of the firm. Modules  
13 include a module to develop the cost of distribution and feeder plant, a module for  
14 developing the cost of switching and interoffice plant, a capital cost module, and  
15 an expense module. Results of all these modules are fed into a series of model  
16 output reports. A much more complete description of the model design is  
17 included in the Model Description Manual developed by the model developers  
18 which was provided in conjunction with the filing of the Petitions in each of the  
19 cases and is incorporated here by reference.

20 **Q. Can you briefly describe the default model inputs?**

21 A. Yes. The HAI model has well over a thousand different user changeable model  
22 inputs, including physical equipment characteristics, cost relationships to  
23 geographical factors, traffic characteristics, unit costs of telephone plant, costs of

1 installing telephone plant, depreciation factors, capital costs, and expense ratios.

2 To assist users in being able to use the models quickly, the developers have  
3 populated the model with default values that, based on their research, judgment  
4 and evaluation, represent appropriate values for each input element. These values  
5 are known as the default input values. When running the model, the user can  
6 either use these default values or individually change as many of the values as the  
7 user believes are appropriate. The HAI Inputs Portfolio is a document developed  
8 by the model developers that describes each individual input item, the default  
9 value, and the model developers' rationale and support for adopting the particular  
10 default value. This Portfolio was also provided at the time the Petitions were filed  
11 in each of the cases and is incorporated here by reference.

12 **Q. Can you describe these inputs in somewhat greater detail?**

13 A. Yes. The inputs are divided into several different groups including:

14 1. Distribution Inputs - 250 inputs – These include a variety of inputs for  
15 distribution cable sizes, cable costs, type of cable placement, terminal costs,  
16 network interface devices, etc. with many inputs varying based on nine different  
17 density areas.

18 2. Feeder Inputs – 177 inputs – These include a variety of inputs for feeder cables  
19 including cable sizes, copper and fiber cable costs, type of cable placement,  
20 terminals, etc. used in feeder cable.

21 3. Switching and Interoffice Inputs – 195 inputs – These inputs include costs for  
22 end office switching, power, end office cabling, tandem switching, SS7

1 equipment, interoffice cable costs, etc. for the cost of switching and interoffice  
2 facilities.

3 4. Expense Inputs – 134 inputs – These include specific factors for developing  
4 ongoing expenses of various investments and include factors for developing  
5 depreciation rates and the cost of capital. The structure sharing inputs are also  
6 contained in this category.

7 5. Underground Excavation/Restoration – 126 inputs – These include detailed  
8 factors and costs for performing various types of construction and in various  
9 physical conditions for underground cable.

10 6. Buried Excavation/Restoration – 172 inputs – These include detailed factors  
11 and costs for performing various types of construction in various physical  
12 conditions for buried cable.

13 7. Surface Texture Table – 257 inputs – This is a table of various soil conditions  
14 identified by the US Geological data with corresponding factors to adjust the cost  
15 of construction for given soil conditions.

16 8. Labor Adjustment Factors – 6 inputs – These are factors for making  
17 adjustments to the cost of labor in other inputs.

18 **Q. In developing the forward-looking costs for individual companies, would one**  
19 **need to adjust all of these default factors?**

20 A. No. While some factors could be adjusted on an individual company basis,  
21 particularly in studies of large companies, a large number of the factors are  
22 industry factors that are applicable for all ILECs. For smaller companies, while  
23 some of the factors could be based on recent individual company cost data, use of

1       such data might also be criticized as being too company specific and not  
2       representative of forward-looking costs. Thus, in the use of these factors there  
3       may be disagreement even among experts as to the appropriate factors to use.

4   **Q.   Can you give examples of default inputs that would be appropriate for all**  
5       **companies even when studied on an individual company basis?**

6   A.   Yes. One example would be the Surface Texture Table inputs. These inputs  
7       describe over 200 different soil types used in U.S. Geological Survey descriptions  
8       of soils throughout the United States and relate those soil types to cost on  
9       construction factors. Those factors are generalized factors to recognize the  
10      differences in the cost of constructing primarily underground and buried  
11      structures based on various soil types. In the input data bases used in the model,  
12      actual soil types for the physical geography of the company have been included  
13      for each cluster of lines that is input based on U.S. Geological Survey data for that  
14      particular area. The individual company inputs for soil types have been included  
15      in the data, and the cost study factors can be appropriately applied by the model.

16  
17      A second example that I can readily think of is in the switching and interoffice  
18      input area where a number of the factors are based on industry standard  
19      engineering data for trunk capacity, switch capacity, etc. are input. There has  
20      been general agreement on the appropriateness of many of these factors  
21      throughout the industry and there is little need to reexamine them or change them  
22      in a specific company study.

**(b) DESCRIPTION OF DEFAULT INPUT CHANGES**

**Q. In the cost studies you present in this testimony, have you used the default values exclusively as the input values?**

**A.** No. While I have used the default values for a large portion of the inputs, I have not used them exclusively. Based on prior experience in other states and at the national level and based on testing individual inputs in conjunction with the cost development for this case, I have modified a number of the default inputs. In addition, I have modified the tandem assignment information for certain companies who provide tandem functions for IXCs, but do not provide that function for terminating wireless traffic.

**Q. Can you make some general observations with regard to why you modified some of the default inputs?**

**A.** Yes. There were a variety of reasons for modifying various inputs, which I will describe in detail later in this testimony. In some cases, inputs were modified to reflect the operation of rural companies as compared to the large, urban Regional Bell Operating Companies (RBOCs) whose operations are generally reflected in the default inputs. In other cases, inputs were modified to reflect the specific circumstances in Missouri rural areas as compared to the wide variety of geographic conditions throughout the United States. In other cases, inputs were modified to reflect judgmental differences with the HAI Model proponents regarding the forward-looking cost characteristics of certain inputs.

**Q. Did all of the input changes you propose increase the reciprocal compensation cost results?**

1 A. While many of them resulted in reciprocal compensation cost increases, others  
2 resulted in reciprocal compensation cost decreases. In each case that changes  
3 were made from the default inputs, they were made with the intent of better  
4 reflecting the forward-looking costs of the Petitioners based on circumstances  
5 within Missouri.

6 **Q. Have you prepared a description of the default inputs that you have**  
7 **changed?**

8 A. Yes. Schedule RCS-2 is a document outlining the input items that I changed from  
9 the default values in the development of the forward-looking costs for this case.  
10 Schedule RCS-3 is an output report from the HAI Model showing the specific  
11 model inputs changed and the specific values used for each of these inputs. In the  
12 following section of my testimony, I will discuss in greater detail the reason for  
13 each of the changes made in the default inputs. In total, I changed 185 of the  
14 default input values.

15 ***(c) HAI INPUT CHANGES***

16 **Q. Would you please describe the rationale for changing the plant type**  
17 **assumptions as outlined in Item #1 of Schedule RCS-2.**

18 A. Yes. The HAI Model develops costs of distribution and feeder plant in nine  
19 different density zones. One of the series of input items in these density zones are  
20 inputs to designate the type of plant (aerial, buried or underground) that is used  
21 for feeder and distribution plant. There is a similar input for the type of plant in  
22 interoffice facilities, as well. The default inputs for these items vary between  
23 density zones based on the model developers' estimates of the type of plant built



1 in these zones on a nationwide basis. Even in the most rural zones, the default  
2 inputs assume that a substantial amount of aerial plant will be constructed. In  
3 Missouri, based on a number of factors related to geography, weather and cost of  
4 construction, it has been standard practice in the smaller companies in the state to  
5 build primarily buried plant for distribution plant, feeder plant and interoffice  
6 plant. As one travels through the rural areas of the state served by the small  
7 ILECs, it is relatively rare to see aerial plant. In most areas, buried plant is used  
8 exclusively, although there are some in-town areas where underground plant is  
9 constructed in some circumstances and some areas of the state where some aerial  
10 plant is used.

11  
12 Based on these observations, the costs developed for the Petitioners reflected  
13 changes in the model inputs in all appropriate places to reflect a larger percentage  
14 of buried plant as the method of outside plant construction from that used in the  
15 default assumptions. In the five lowest density zones and for interoffice plant,  
16 buried plant has been assumed to be 95% of the plant constructed, with aerial  
17 plant the remaining 5%. In the remaining zones, 85% buried, 5% aerial and 10%  
18 underground plant has been assumed. I believe this is more reflective of Missouri  
19 circumstances than are the national default inputs.

20 **Q. Why have you set the Fraction of Buried Plant Available for Shift**  
21 **parameters to zero as discussed in Item #2 of Schedule RCS-2?**

22 **A.** These inputs are included in the model to allow the model to change the  
23 assumption regarding the amount of buried plant that would be constructed, as

1 discussed in my previous answer, based on internal cost calculations made by the  
2 model. The model would substitute aerial plant for buried, if based on model  
3 calculations, aerial plant was less expensive. I am proposing that this value be set  
4 at zero so the model reflects the buried plant construction types as discussed  
5 above. Some of the factors that lead to the large proportion of buried plant  
6 construction in Missouri may not be fully reflected in the default cost  
7 assumptions; and without this change, the model might not construct the full level  
8 of buried plant we believe is appropriate.

9 **Q. Item #3 of Schedule RCS-2 discusses changes made in the structure sharing**  
10 **default assumptions. What is meant by "structure sharing"?**

11 A. In the HAI Model, the costs of the cable and its installation are separated from the  
12 cost of the structures (poles for aerial cable, trenches and plastic tubing for buried  
13 cable, and conduit for underground cable) built to "carry" the cable from one  
14 location to another. The structure costs are developed using separate input  
15 amounts and are calculated separately. The structure sharing assumptions are  
16 built into the model to reflect circumstances where these structures may be able to  
17 be used by a utility other than the telephone company; and the costs of the  
18 structures may be borne by these other companies, thus reducing the effective cost  
19 to the telephone company.

20 **Q. Can you give some real world examples where structures might be shared?**

21 A. Yes. The most common example is probably with the use of pole lines. In many  
22 locations, particularly in-town locations, one utility builds a pole line and other  
23 utilities rent space on the poles to place their own facilities. Where an aerial plant

1 is used by both electric and telephone utilities, they frequently share a single pole  
2 line. In addition, in many in-town situations, a cable TV company may also place  
3 its facility on some of the same pole lines.

4  
5 In some new subdivision construction, trenches dug for utilities may be shared by  
6 electric, telephone and cable TV companies. When electric facilities are involved  
7 in sharing of trenching, there is typically a significantly increased cost to the cost  
8 of the trench to meet safety code requirements for separation of electric cables  
9 from telephone and cable TV facilities.

10  
11 In urban locations, conduit facilities may be placed to service multiple utilities in  
12 order to minimize the street disruption of placing additional facilities in the future  
13 and to maximize the use of below street surface land space.

14  
15 **Q. Can you, in general terms, describe the conceptual assumptions underlying**  
16 **the HAI default structure sharing assumptions?**

17 **A.** Yes. There are several key conceptual assumptions that are inherent in the HAI  
18 default assumptions regarding structure sharing. First, the modelers assume that  
19 not only is the telephone network being hypothetically totally reconstructed but  
20 the electric, cable TV and competitive telecommunications services networks are  
21 being constructed at the same time so that structure sharing of trenches, conduit,  
22 etc. can take place. Second, the modelers assume that, in the future, there will be  
23 high motivations for these various utilities to share structures and build facilities

1 using the same kind of plant in the same areas. Third, the modelers assume that  
2 the cost of structure construction will be unchanged from typical telephone plant  
3 construction even with the addition of other utility facilities associated with the  
4 structure. While this may be reasonably true for aerial construction, it is not true  
5 for buried construction where safety code requirements for buried electric service  
6 generally require significantly deeper construction for electric plant than for  
7 telephone plant.

8 **Q. Can you describe the specific assumptions encompassed in the HAI Model**  
9 **regarding structure sharing for buried plant?**

10 A. Yes. The HAI Model default assumptions assign 33% of the cost of the structure  
11 to the telephone company for buried structures in the lower density bands. This  
12 presupposes that in these density bands, buried telephone company plant will be  
13 accompanied by a buried electric facility and a buried cable TV facility, with no  
14 increase in the cost of the facility because of the presence of the other two  
15 facilities.

16 **Q. Do you believe this assumption is at all realistic?**

17 A. No. My opinion is that it has little relationship to reality. To put this assumption  
18 into perspective, let me first indicate for the four lowest density bands the size of  
19 an average "lot" that would be inherent at the maximum level of the density band  
20 assuming all households had equal size lots. They would be as follows:

21	Band 1	0-5 lines/sq. mile	128.0 acres
22	Band 2	6-100 lines/sq. mile	6.4 acres
23	Band 3	100-200 lines/sq. mile	3.2 acres
24	Band 4	200-650 lines/sq. mile	.98 acres

1 From my experience in talking with clients about their communities throughout  
2 the mid-western and western parts of the country, there would be no cable TV  
3 provider in at least the first two density bands; and the provision of cable TV  
4 service in Band 3 areas would be spotty. There would probably be a cable TV  
5 provider in many, though not all, of the Band 4 areas. However, in these areas, a  
6 large portion of the cable TV is aerial and constructed using the electric poles.  
7 The likelihood of the cable TV provider sharing buried structures with the  
8 telephone company in any of these areas is remote.

9  
10 As to the electric utilities, my experience in driving through rural areas is that  
11 electric service is provided primarily by the use of aerial plant while the  
12 telecommunications facilities use primarily buried facilities. My impression is  
13 that there are strong economic reasons, as well as safety reasons, why electric  
14 plant is generally aerial while the telephone plant is buried. I do not see any  
15 evidence to suggest that in rural areas this difference in plant construction will  
16 suddenly change in the electric industry. Thus, there is little reason to believe that  
17 there will be any appreciable structure sharing with the electric industry.

18 **Q. Based on your observations, what assumptions have been made regarding**  
19 **structure sharing?**

20 A. Based on my perception of the limited to non-existent likelihood of sharing buried  
21 structures, I have assumed that the structure sharing for buried and underground  
22 plant for all density zones and for interoffice plant should be set at 100% - - that is  
23 the full cost of the buried structures are assigned to the telephone company. For  
24 aerial cable, a 100% structure sharing assumption is assumed for the first three

1 zones, but a 50% assumption is used in Zone 4 and higher where telephone  
2 company aerial cable, if built, frequently shares poles with the electric company.

3 **Q. Why are you proposing to change the end office switching investment input,**  
4 **Item #4 on Schedule RCS-2?**

5 A. My analysis indicates that the default input value is not representative of the cost  
6 of end office switching equipment for small companies and small switches. The  
7 default switching input value that is used by the HAI modelers is based on an  
8 analysis of switch costs for larger companies (Bell Operating Companies and  
9 GTE) that were publicly available. The input value is used in a fairly straight line  
10 formula based on number of lines. In viewing results of the default analysis, it is  
11 clear that the input does not correctly estimate the cost of switching for small  
12 offices.

13  
14 I also did an analysis comparing the default model results with the actual  
15 investments incurred by companies for COE switching in Missouri. With the  
16 default inputs, the COE switching investments produced by the HAI Model were  
17 about 45% less than the actual COE switching investments for the small Missouri  
18 companies. I believe that is a strong indicator that the default input is generating  
19 inappropriate results for these companies.

20 **Q. Are comparisons between model results and actual investments and expenses**  
21 **always an appropriate test of the model results?**

22 A. No, not always. Since the model is developing a cost for a forward-looking  
23 network, comparisons would not be valid if the network elements being  
24 developed are of a different design than that actually being used. Since the model

1 is generating forward-looking costs, there may be differences between the model  
2 and actual results because of differences in cost (either up or down) when actual  
3 plant was purchased as compared to the forward-looking cost of the plant. There  
4 may also be differences between costs developed by the model and actual costs  
5 because the model does not develop costs for all of the functions that an actual  
6 company may be performing. In making comparisons between model results and  
7 actual results, all of these factors need to be taken into account.

8 **Q. What is your assessment of the validity of comparing the cost of central office**  
9 **switching equipment from the model to actual costs?**

10 A. This is one area where I believe comparisons are relatively meaningful. If one  
11 reviews the forward-looking technology for switching, one finds it includes  
12 digital central office switches, both host and remote, that are generally equipped  
13 with currently required functions and features, including SS7 signaling capability.  
14 When one reviews the switching equipment actually in use in the small Missouri  
15 companies, one finds digital central office switches, both host and remote, that are  
16 equipped with these features and functions. These switches include such recently  
17 required capabilities as interchangeable NXX codes, four-digit CIC code  
18 capability, intraLATA presubscription, and in most cases, SS7 signaling and the  
19 features required by the Communications Assistance for Law Enforcement Act  
20 ("CALEA").

21  
22 Many of the small companies in Missouri are using at least their second  
23 generation of digital switching equipment. The equipment is relatively new and  
24 has been upgraded since installation, as needed. While it is generally believed

1 that the cost of switching equipment has been falling over time, the falling costs  
2 of hardware have been at least partially offset by increasing costs of switching  
3 software. Overall, it is my belief that the model costs for forward-looking COE  
4 switching equipment should be relatively close to, though possibly somewhat less  
5 than, actual costs. In my mind, the approximately 45% difference between the  
6 model and actual costs for this equipment indicates that the model costs do not  
7 truly reflect the forward-looking costs of this equipment.

8

9 **Q. What are you proposing as the default input for central office switching**  
10 **investment?**

11 A. The default input for this value is \$416.11 per line. Based on my review of this  
12 factor in the past and the resulting investment to actual investments, I am  
13 recommending that the value be increased to \$520.14 per line. Even at this level,  
14 the HAI results for small Missouri companies are about 28% less than current  
15 actual investments.

16 **Q. Can you please explain your rationale for changing the default assumption**  
17 **related to Item #5 on Schedule RCS-2, the percent of Total Interoffice Traffic**  
18 **Fraction?**

19 A. Yes. This factor estimates the total portion of the traffic originated in the central  
20 office that has to be switched to a second switching site for termination of the  
21 traffic and is a significant factor in developing the cost of interoffice facilities. It  
22 is also used in conjunction with estimates of toll traffic to determine the portion of  
23 local traffic that is switched on an interoffice basis and impacts the cost of local



1 service. For large urban companies, this may represent traffic that is switched  
2 between multiple wire centers in a single exchange. For rural companies, it  
3 would represent traffic that is commonly designated as Extended Area Service  
4 ("EAS") traffic that is switched between exchanges. Using the default  
5 assumptions, the model estimates that 48.69% of local traffic is interoffice traffic  
6 and develops and assigns costs to the USF cost to account for this usage.

7  
8 Based on my knowledge of the limited availability of Extended Area Service in  
9 Missouri, I have reduced the total interoffice input percent from the default of  
10 65% to 40%. This produces a revised local interoffice traffic percentage of  
11 12.03%, a value much more representative of small Missouri companies than the  
12 nearly 50% calculated using the default input.

13 **Q. Do you agree with the default assumptions that develop the cost of capital as**  
14 **indicated in Item #6 of Schedule RCS-2?**

15 **A.** No. I believe the cost of capital assumptions in the default scenario are not  
16 appropriate. The default assumptions assume a 55% equity/45% debt ratio with a  
17 cost of debt and equity generating an overall cost of capital of 10.01%. This cost  
18 of capital is not reflective of a forward-looking cost of capital in today's  
19 environment. I believe the cost of capital used by the FCC at the interstate level  
20 of 11.25% is more reflective of a forward-looking cost of capital. Accordingly, I  
21 have modified the cost of capital assumptions using those used by the FCC in its  
22 Synthesis Model for USF purposes.

1 Q. Item #7 on Schedule RCS-2 discusses changing the default factor for  
2 Network Operations Expense. Would you discuss why you are proposing a  
3 change in this item?

4 A. Yes. Network Operations Expense encompasses the following accounts in the  
5 Uniform System of Accounts:

6	Network Operations Expense	6530
7	Power Expense	6531
8	Network Administration Expense	6532
9	Testing Expense	6533
10	Plant Operations Administration Expense	6534
11	Engineering Expense	6535

12  
13 Expenditures in these areas for small companies differ significantly from larger  
14 companies. For example, the plant administration expense account includes the  
15 cost of overall supervision of plant operations, including overall planning,  
16 developing methods and procedures, developing plant training and coordinating  
17 safety programs. The account excludes immediate or first level supervision which  
18 is included in the plant specific accounts. In most small companies, the second  
19 level of supervision is the company manager; consequently, most small  
20 companies have very little plant administration expense. Engineering expense is  
21 generally less in small companies since most engineering is on a specific project  
22 basis rather than of a general nature. Network administration activities in small  
23 companies do not include extensive network control facilities because their  
24 networks are limited.

25  
26 In the HAI Model, Network Operations Expense is generated based on a  
27 composite level of expenses for the ARMIS reporting companies on a per line

1 basis. The model then multiplies this expense level by the Network Operations  
2 Expense factor to arrive at a final estimate of Network Operations Expense. The  
3 HAI modelers in the default assumptions have assigned this factor a 50% value,  
4 essentially indicating that forward-looking Network Operations Expenses  
5 would/should be half of the current level. Their rationale for doing this is  
6 summarized as follows:

7 "....these costs are artificially high because they reflect antiquated systems  
8 and practices that are more costly than the modern equipment and  
9 practices that the HAI Model assumes will be installed on a forward-  
10 looking basis. Furthermore, today's costs do not reflect much of the  
11 substantial savings opportunities posed by new technologies, such as new  
12 management network standards, intranets, and the like."  
13

14 Because small companies have very different circumstances and do not have  
15 many of the systems typical in large companies, it is my belief that the types of  
16 forward-looking savings the modelers are anticipating for large companies will  
17 not, and cannot, be achieved in small companies. In addition, the default  
18 assumption used by the HAI modelers was a subjective judgment of the model  
19 developers and not based on any factual data. I am, therefore, proposing that the  
20 Network Operations Expense factor be set at 100% rather than 50%.

21 **Q. Item #8, Schedule RCS-2, describes changes in the Billing and Bill Inquiry**  
22 **input. Would you please describe this input in great detail and your**  
23 **rationale for changing it?**

24 **A.** Yes. This input is intended to capture the customer operations costs of providing  
25 local service billing, collecting, bill inquiry, and other inquiries regarding the  
26 provision of service. The provision of these services differ in a number of

1 respects between large and small companies. Many of the customer contact  
2 functions for large companies are performed in centralized centers by relatively  
3 large work groups. With these work group sizes, there may be opportunities to  
4 adjust the work group to fluctuating workloads on an hourly or daily basis.  
5 Billing functions are typically spread throughout the month with multiple billing  
6 cycles. Typically, the data processing and bill processing functions are performed  
7 with in-house computer assets and in-house personnel.

8  
9 In small companies, these functions are generally performed by only a few  
10 individuals with staffing required during the normal business hours to provide  
11 service availability to customers. There are relatively few opportunities to adjust  
12 work group levels to variations in the customer contact workload. Billing is  
13 typically performed once a month so there are greater variations in the work flow  
14 than in larger companies. Oftentimes, service bureaus are used by small  
15 telephone companies, at a minimum, to provide software support or to provide  
16 full bill processing functions using investments made by the service bureau.  
17 Thus, the expense and investment levels of small companies may vary  
18 significantly from larger companies.

19  
20 After comparing the results of the default assumptions for customer service  
21 expense with actual data (including taking into account customer service  
22 functions that are toll related), I have adjusted this input to \$2.30 per line. I  
23 believe this result is more representative of the cost of these functions in small  
24 Missouri companies and have thus incorporated this estimate in the forward-

1 looking cost studies we have performed. The revised input is still considerably  
2 less than the \$3.62 per line used by the FCC in its inputs for non-rural companies.

3 **Q. Item #9, Schedule RCS-2, describes changes in the model inputs for central**  
4 **office switching expense. Please describe the derivation of the default input**  
5 **value and the value that you have used in the development of forward-**  
6 **looking costs.**

7 A. In developing expenses for most of the plant-specific expense categories, the HAI  
8 Model uses recent ARMIS data from around the country to develop ratios  
9 between current expenses and investments as a basis for developing projected  
10 forward-looking expense levels. However, in the case of central office switching  
11 expense, this data is overridden by an alternative expense ratio. The input levels  
12 for these items are based on a 1993 incremental cost study performed by New  
13 England Telephone Company in New Hampshire and are considerably lower than  
14 current levels experienced even by the Bell Operating Companies.

15  
16 The inputs I have used are developed based on recent ratios of expenses to  
17 investment for these expense/investment categories for the small Missouri  
18 telephone companies. Since the type of investment included in these accounts is  
19 generally reflective of forward-looking technology, it is reasonable to expect that  
20 the ratios currently experienced by the Missouri companies are reflective of the  
21 forward-looking costs they can expect to experience.

22 **Q. Please describe the changes you made in economic lives for development of**  
23 **depreciation rates as described in Item #9 on Schedule RCS-2?**

1 A. For several years the MPSC Staff has made available a schedule of economic  
2 lives and depreciation rates developed on a generic basis for use by small  
3 telephone companies within the state. The economic lives in the HAI model have  
4 been modified to reflect the economic lives contained in the Staff's generic  
5 depreciation rate schedule.

6 **Q. Can you describe in greater detail why changes were made in the tandem**  
7 **locations for some small companies?**

8 A. Yes. Some of the Petitioners have established tandem switching locations to  
9 serve their wire centers. Under access tariff requirements, interexchange carriers  
10 (IXCs) are required to deliver their traffic to the tandem locations for termination  
11 in the end office(s) subtending the tandem switch. The files developed for use by  
12 the HAI model in developing interoffice transport costs reflect this type of  
13 network configuration. However, wireless companies are not under these same  
14 obligations and almost exclusively deliver their terminating traffic destined for the  
15 Petitioners to a SBC, Sprint, or CenturyTel tandem. SBC, Sprint, or CenturyTel  
16 then transmits the traffic over their common trunk groups, intermingled with other  
17 types of traffic, to the Petitioners' end offices. The network design for this traffic  
18 is different; thus, the forward-looking cost of transport will differ.

19 **Q. How were these changes reflected in the HAI model?**

20 A. Information regarding the tandem assignment and distances to reach the  
21 interoffice network for each wire center in the state is contained in an Excel  
22 spreadsheet file used by the model. I have changed the tandem assignments and  
23 the distances to reach the interoffice network for certain of the Petitioners who

1 have tandems for IXC services to reflect the modified network configuration  
2 associated with wireless traffic. The mileages used conform to the assumptions  
3 used by the model developers for other wire centers as detailed in the HAI  
4 documentation manuals.

5 **Q. Can you briefly describe the reasons for the changes made as described in**  
6 **Item #12?**

7 A. Yes. In the model there are two inputs that reflect the percent of intraLATA and  
8 interLATA traffic respectively that are switched through a tandem switch rather  
9 than being direct trunked to an end office. The default inputs for these items is  
10 20% for each of them, reflecting estimated amounts of RBOC traffic that is routed  
11 through a tandem switch rather than being direct trunked to the appropriate  
12 carrier. While these factors may be reflective of RBOC traffic, they are not  
13 reflective of small ILEC traffic. In general, this traffic is routed on common trunk  
14 groups to a tandem switch and is not put on direct trunks to the interexchange  
15 carrier. I have therefore changed the input for this item to reflect an assumption  
16 of 100% of the intraLATA and interLATA toll traffic being routed to a tandem  
17 switch.

18 **Q. With these assumptions modified from the default values, how did you obtain**  
19 **results for the Petitioners?**

20 A. The HAI model was run for each of the Petitioners. Rates for access elements  
21 were obtained from one of the cost detail worksheets included in the model output  
22 report file, an Excel spreadsheet with the exception of the Common Transport  
23 rate. In the case of this rate, the costs and billing units presented on this output

1 sheet were used to develop the appropriate rate. The result presented in the model  
2 itself uses the costs presented, but divides that based on an assumed number of  
3 minutes per trunk, a result which is not normally achieved in small company  
4 situations, and which is higher than the actual minutes used in the model. The  
5 rate presented is thus, lower, sometimes considerably, than a rate calculated using  
6 the actual costs and minutes presented in the schedule. These rates were then  
7 summarized for each of the companies and combined into a weighted average for  
8 the companies. Schedules RCS-4 and 5 show the actual forward-looking costs for  
9 each of the companies and a summary of the costs for the companies included in  
10 the T-Mobile and Cingular cases respectively.

11 **Q. What were the results of making the comparisons shown on Schedule RCS-4**  
12 **and 5?**

13 A. In reviewing the costs as shown in Schedules RCS-4 and 5, there are differences  
14 in the costs developed using the forward-looking cost model from the \$0.035 rate  
15 per minute proposed by the Petitioners. The comparisons show that for the  
16 Petitioners the HAI developed costs on an individual company basis are generally  
17 higher than the proposed rates. For the Petitioners, a numeric average of the  
18 forward-looking HAI costs results in an average cost of \$0.0871 for T-Mobile and  
19 \$0.0843 for Cingular.

20 **Q. In developing these costs, you have included both a dedicated transport**  
21 **element and a common transport element. Can you explain why you have**  
22 **included both these cost elements?**



1 A. Yes. In general industry usage, dedicated transport and common transport are  
2 considered separate and distinct transport facilities and generally only one is used  
3 for any type of traffic. However, in the development of costs in the HAI model, a  
4 different analysis is used in deriving the costs of transport facilities. First, the  
5 total cost of the facility is developed based on the mileages between offices and  
6 the cost of fiber and terminals for the facility. This total cost is then allocated to  
7 various types of transport facilities, such as special access, local interoffice,  
8 operator service, common trunks, and dedicated trunks, based on the number of  
9 trunks for each service. In the studies for the Petitioners, the default assumptions  
10 are changed to assume that all the traffic will be transported via common trunks  
11 so one would expect there would be no dedicated trunks. However, the model  
12 logic assumes that there will be one dedicated trunk for each common trunk and  
13 thus allocates a substantial part of the cost of the facility to dedicated trunks  
14 which should be treated as the cost of common trunks. I have corrected for this  
15 allocation of costs to dedicated transport by adding the dedicated cost element to  
16 the cost of transport.

17 **Q. Are these costs a reasonable estimate of the forward-looking cost of the**  
18 **Petitioners?**

19 A. I believe they are on an overall basis. While the transport rates developed are  
20 considerably higher than those for large companies such as SBC Missouri, these  
21 differences reflect the different unit costs of operating in rural areas with long  
22 transport distance and relatively small amounts of traffic.

1   **Q.   How did these results impact the decision that was made by the Companies**  
2       **to propose rates for arbitration based on the rates that have been agreed to**  
3       **with other wireless providers?**

4   A.   In this case, the cost results, since they are higher than the proposed rate, had  
5       relatively little impact on the decision. The Petitioners offered the \$0.035 rate,  
6       which they and other small ILECs in the state have agreed to with other wireless  
7       companies, in the course of negotiations with the Respondents in the hopes that it  
8       would lead to a settlement of issues and avoid the need for arbitration. Since the  
9       model results were higher than the rates agreed to with other wireless providers, it  
10      was believed that they would be less acceptable to the Respondents than would  
11      the proposed \$0.035 rate.

12   **Q.   How does this proposal fit with the FCC's rules regarding the development**  
13      **of rates in an arbitration proceeding?**

14   A.   The FCC's rules, contained in §51.705(a) require that such rates be based upon  
15      the forward-looking cost of such services. The rate that is proposed is not  
16      specifically equivalent to the forward-looking cost, but is substantially *less than*  
17      the forward-looking costs indicate. Because the rate is less, we believe that it  
18      would be acceptable for the Commission to adopt that rate.

19   **Q.   If the Commission determines that it must adopt a rate based on forward-**  
20      **looking cost, what evidence have you presented regarding those forward-**  
21      **looking costs?**

22   A.   As indicated earlier, Schedules RCS-4 and 5 show the composite average  
23      forward-looking cost for the Petitioners for each Respondent. The Petitioners

1 recommend the use of this average for the rate for each company as more  
2 appropriate than forward-looking rates developed on an individual company basis  
3 because of the concerns about the use of forward-looking models for limited  
4 geographic areas. However, if the Commission feels that rates set on the  
5 individual company forward-looking costs are more appropriate, those costs are  
6 shown on Schedules RCS-4 and 5.

7  
8 **2. THE PETITIONERS OBLIGATION TO PAY RECIPROCAL**  
9 **COMPENSATION FOR LANDLINE-TO-MOBILE CALLS THAT**  
10 **ARE CARRIED BY AN IXC**  
11

12 **Q. What is the nature of the dispute between Petitioners and Respondents on**  
13 **this issue?**

14 **A.** Petitioners acknowledge that they have an obligation to pay reciprocal  
15 compensation on local (or intraMTA) traffic they deliver to Respondents.  
16 However, Petitioners do not believe they are responsible for paying reciprocal  
17 compensation on intraMTA calls that landline customers make to Respondents'  
18 customers where those calls are carried by the landline customer's presubscribed  
19 toll carrier or IXC. In those cases of IXC carried traffic, it is the responsibility of  
20 the IXC to pay terminating compensation to the Respondents. In order to  
21 understand this issue, it is first necessary to understand the development of local  
22 calling areas, toll calling and network design.

23 **Q. Could you describe the development of local calling areas, toll calling, and**  
24 **the basic features of the network that distinguish between local and toll calls?**

1 A. Yes. Throughout the past decades, state commissions have had the responsibility  
2 for establishing local calling areas and distinguishing calls within those areas  
3 from calls which went outside those areas. Those calls that left the local calling  
4 areas were known as toll calls. With the advent of direct distance dialing several  
5 decades ago, the 1+ prefix was used to distinguish toll calls from local calls and to  
6 provide a "signal" to the end user that they were dialing a toll call which would  
7 bear a toll charge. In Missouri, local calling areas have been established by each  
8 company and specified in their filed tariffs. Calls outside those areas have been  
9 treated as toll calls.

10

11 At the time of the AT&T divestiture, the business relationships related to toll  
12 calling were modified to reflect the exchange access business relationship where  
13 local exchange carriers (LECs) sold the use of their exchange access facilities to  
14 IXCs who provided toll service. These IXCs charged end users for the provision  
15 of toll service and compensated the originating and terminating LECs for the use  
16 of their exchange access facilities pursuant to both interstate and intrastate access  
17 tariffs approved by the Federal Communications Commission and the Missouri  
18 Public Service Commission, respectively. Under these arrangements the IXCs  
19 provided toll service to end users.

20 **Q. When the LEC is selling its services under the provisions of its access tariffs,**  
21 **is it providing a retail service to an end user customer?**

22 A. No, it is not. The service provided under these access tariffs is to provide  
23 facilities to IXCs who use those facilities to transmit messages for their end user

1 customers. The LECs are not responsible for the transmission of messages under  
2 their access tariffs. Section 2.1.1(A) of both the National Exchange Carrier  
3 Association (NECA) interstate access tariff and the Oregon Farmers intrastate  
4 access tariff, with which the Petitioners concur, states specifically that, "The  
5 Telephone Company does not undertake to transmit messages under this tariff."

6 **Q. When wireless providers began providing service, how did calls to wireless**  
7 **customers fit into the local and toll calling patterns?**

8 When wireless providers began providing service, they sought and received  
9 central office codes (NPA-NXX codes) or purchased the use of telephone  
10 numbers in telephone company central office codes for their wireless customers  
11 and associated those codes with telephone company local exchange areas. Calls  
12 to those wireless customers from within the telephone company local calling area  
13 were, and are, treated as local calls. Calls to wireless customers with NPA-NXX  
14 codes outside the local calling area were, and are, treated as toll calls. Local  
15 switching systems are programmed pursuant to approved tariffs to complete toll  
16 calls using a 1+ prefix.

17  
18 Pursuant initially to AT&T divestiture requirements and associated FCC orders,  
19 and more recently to the Telecommunications Act of 1996 (the Act), dialing  
20 parity and presubscription procedures have been established so that end user  
21 customers can direct all 1+ calls to the IXC(s) of their choice. Pursuant to these  
22 legal and regulatory requirements, LECs direct 1+ dialed calls to their end user  
23 customer's presubscribed carrier who provides the toll call for the customer. The

1 IXC's continue to use the LEC's exchange access facilities in order to provision the  
2 service to their end user customers.

3 **Q. Prior to the passage of the Act, were calls to CMRS end user customers**  
4 **treated as toll calls for dialing and carrier responsibility purposes based on**  
5 **the local calling areas established by the state commissions?**

6 A. Yes they were, as I described in my previous answer. For example, a call from an  
7 end user in Grand River Mutual Telephone Company who called a wireless  
8 customer with a Kansas City NPA-NXX code would dial that call using the 1+  
9 prefix and that customer's IXC would be responsible for carrying the call. If  
10 Sprint is the IXC that provisions and completes the call, then Sprint would be  
11 responsible for carrying the call and charging the end user customer. Sprint would  
12 pay Grand River its originating access charges, and it would also compensate the  
13 terminating wireless carrier based on the business relationships established with  
14 the terminating wireless carrier.

15 **Q. Would such a call be a call between a local exchange carrier and a wireless**  
16 **carrier?**

17 A. No, it would not. From a carrier standpoint the call is between Sprint (the IXC)  
18 and the wireless carrier. In this situation, the end user is Sprint's end user, not the  
19 LEC's end user.

20 **Q. Has this dialing arrangement changed since the passage of the Act?**

21 A. No, it has not. It certainly hasn't changed in Missouri either in regard to the  
22 Petitioners or to the other companies in the state. I am not aware that these  
23 dialing arrangements have been changed anywhere in the country to treat calls

1 from a customer responsibility and dialing standpoint to CMRS providers  
2 differently from before the Act.

3 **Q. Can you briefly summarize the business relations that exist between end**  
4 **users, LECs, and IXC's in relation to a presubscribed 1+ toll call?**

5 A. Yes. The end user chooses a presubscribed IXC to carry its 1+ calls and  
6 establishes a business relationship with that IXC. The IXC, through the  
7 purchasing of access services from the LEC's access tariff, arranges to use the  
8 LEC's facilities to "access" its end user to provide toll services to that end user.  
9 When an end user makes a call by dialing 1+, the IXC, using the LEC facilities  
10 which it has purchased, and its own facilities, fulfills its obligation to the end user  
11 to complete the toll call, possibly to a CMRS provider within the MTA. It then  
12 charges the end user for the provision of that toll service.

13 **Q. In this relationship, is the call the end user makes a call "between a LEC and**  
14 **a CMRS provider"?**

15 A. It is not. The call is between the IXC and the CMRS provider. The LECs  
16 involvement is that of a wholesaler of facilities to the IXC so that the IXC can  
17 complete its obligation to its end user. The fact that the IXC's end user is also the  
18 LEC's end user for the provision of local service is irrelevant in regard to the  
19 specific toll call between the IXC and the CMRS provider.

20 **Q. Are you aware of any discussion in the FCC's Report and Order in CC**  
21 **Docket No. 96-98 (the Interconnection Order) that discussed any changes in**  
22 **carrier responsibilities or customer dialing procedures related to the**  
23 **implementation of the Act?**

1 A. No. I have reviewed relevant portions of that order and saw no such discussion.

2 **Q. Are there statements in that Order that suggest that the FCC did not intend**  
3 **to change such arrangements?**

4 A. Yes. Paragraph 1043 of the FCC interconnection order states as follows:

5 Based on our authority under section 251(g) to preserve the current  
6 interstate access charge regime, we conclude that the new transport  
7 and termination rules should be applied to LECs and CMRS  
8 providers so that CMRS providers continue not to pay interstate  
9 access charges for traffic that currently is not subject to such  
10 charges, and are assessed such charges for traffic that is currently  
11 subject to interstate access charges.

12  
13 This indicates to me that the FCC intended that calls to CMRS providers that were  
14 currently being carried by IXC's and for which access charges applied would  
15 continue to be given the same treatment.

16 **Q. Are there subsequent rulings by the FCC indicating that calls carried by**  
17 **IXCs would continue to be subject to access charges?**

18 A. Yes. In a decision issued in 2000 related to a compensation complaint between a  
19 paging carrier and an ILEC, the FCC made the following statement:

20 Pursuant to Section 51.703(b), a LEC may not charge CMRS providers for  
21 facilities used to deliver LEC-originated traffic that originates and terminates  
22 within the same MTA, as this constitutes local traffic under our rules. Such  
23 traffic falls under the reciprocal compensation rules if carried by the  
24 incumbent LEC, and under our access charge rules if carried by an  
25 interexchange carrier.<sup>1</sup>

26  
27 **Q. Before exploring the issues related to implementation of the Act could you**  
28 **briefly describe the context in which the FCC implemented rules related to**  
29 **the Act?**

---

<sup>1</sup> *TSR Wireless, LLC v. US West Communications, Inc.*, Memorandum Opinion and Order, Released June 21, 2000 FCC 00-194 ("TSR Wireless Order"), paragraph 31. [emphasis added]



1     A.     Yes. The Act became law on February 8, 1996. Pursuant to requirements of the  
2           Act, the FCC had six months in which to develop and implement rules on a host  
3           of technical, financial, and policy issues related to the new requirements of the  
4           Act providing for local interconnection, reciprocal compensation, dialing parity,  
5           and the pricing for such services. The FCC had a total of fifteen months to  
6           address and implement rules regarding universal service issues. These time  
7           frames put tremendous pressure on the FCC and its staff to review thousands of  
8           pages of comments on a large number of issues and to develop policies,  
9           procedures, and rules to implement the Act. The two Orders in CC Docket 96-98  
10          issued on August 6, 1996, (dealing with interconnection issues) amounted to a  
11          total of 833 pages and incorporated some 70 pages of new rules. Given this time  
12          frame and the overwhelming number of issues that had to be dealt with, the  
13          FCC's focus was primarily on implementation as it related to the RBOCs and the  
14          large metropolitan areas of the country since they comprised both the vast  
15          majority of the LEC customers and particularly the areas where competition was  
16          expected first. Thus, in establishing rules and implementing text, it is not always  
17          clear how the rules apply in the case of small companies, whose operations are  
18          often different than the RBOCs. I believe that it is important that this  
19          Commission keep that in mind as it reviews the FCC's discussion and rules  
20          related to LECs and CMRS providers.

21     **Q.     What particular rules and Orders are relevant to the discussion of the extent**  
22           **that reciprocal compensation is applicable in the core situation that you**  
23           **described?**

1 A. The FCC's First Report and Order, discussed earlier, is the Order that addressed  
2 the implementation of the Act in regard to these issues. Particularly relevant to  
3 this issue is the discussion in paragraphs 1033 to 1045. In the FCC rules, the  
4 pertinent section is Section 51.701, particularly 51.701(b), in which the FCC  
5 defines telecommunications traffic for reciprocal compensation purposes.

6 **Q. Are there places in the paragraphs you mentioned above that indicate that**  
7 **the FCC was focusing primarily on RBOC circumstances, rather than small**  
8 **company circumstances, when it addressed these issues?**

9 A. Yes. In the middle of paragraph 1043 the FCC states, "Under our existing  
10 practice, most traffic between LECs and CMRS providers is not subject to  
11 interstate access charges unless it is carried by an IXC..." This statement was  
12 likely true for the RBOCs where calls between the BOC and CMRS providers  
13 were primarily either in large metropolitan areas with large local calling areas, or  
14 intraLATA toll calling areas where the BOC provided virtually all intraLATA toll  
15 calling at the time. For small companies, such as the Petitioners, there was very  
16 little existing LEC to CMRS traffic that was not subject to access charges.

17  
18 In paragraph 1034, the FCC contrasts the access charge regime where the  
19 originating LEC, terminating LEC, and an IXC are involved in a call with the  
20 intended use of reciprocal compensation which, according to the FCC is intended  
21 for, "...the situation in which two carriers collaborate to complete a local call."  
22 For the Petitioners, hardly any calls between CMRS providers and the Petitioners  
23 fall in this description of the intended use of reciprocal compensation, while most

1 fall under the access charge regime for landline-originated calls. For wireless-  
2 originated calls, very few involve only two carriers to complete the calls to the  
3 Petitioners, with most calls involving a third carrier, often a large LEC, to transit  
4 the call to the terminating small LEC.

5 **Q. Upon what basis in this Order do you believe the Respondents derives their**  
6 **opinion that the Petitioners are responsible for compensation to CMRS**  
7 **providers for traffic terminated within the MTA, even if it is carried by an**  
8 **IXC?**

9 A. I would presume that they base their position upon Paragraph 1036 of the FCC's  
10 First Report and Order. The FCC begins this paragraph by stating that it is  
11 defining, "...local service areas for calls to or from a CMRS network for the  
12 purposes of applying reciprocal compensation obligations under section  
13 251(b)(5)<sup>2</sup>. After discussing varying types of wireless service areas and  
14 indicating that it will choose the largest of these areas, the paragraph is concluded  
15 with the following statement: "Accordingly, traffic to or from a CMRS network  
16 that originates and terminates within the same MTA is subject to transport and  
17 termination rates under section 251(b)(5), rather than interstate and intrastate  
18 access charges."

19 **Q. Can these statements be properly understood without putting them in the**  
20 **broader context of the remainder of the FCC's decision on this subject?**

21 A. No. Taken on their face and out of context from the remainder of the First Report  
22 and the rules adopted in that order, these sentences seem to say that all calls to a  
23 wireless carrier within the MTA are not subject to access charges. However, the

---

<sup>2</sup> The First Report, para. 1036. [emphasis added]

1 rules adopted by the FCC are more specific and limiting than this paragraph.  
2 They do not talk about all calls with the MTA, but a more limited set of calls. In  
3 §51.701(a) (adopted in the First Report) the FCC defines the scope of the rules for  
4 reciprocal compensation for the transport and termination of local  
5 telecommunications traffic as follows:

6 (a) The provisions of this subpart apply to reciprocal compensation for  
7 transport and termination of local telecommunications traffic between LECs  
8 and other telecommunications carriers.

9  
10 This clearly limits the application of the subpart to calls between LECs and other  
11 telecommunications carriers and not to calls between IXCs and such carriers.

12 This distinction from Paragraph 1036 is also made clear in the specific FCC  
13 definition of telecommunications traffic, found in §51.701(b) of the FCC's rules  
14 which states:

15 (b) *Telecommunications traffic*. For purposes of this subpart, telecommunications  
16 traffic means:

17  
18 (1) Telecommunications traffic exchanged between a LEC and a  
19 telecommunications carrier other than a CMRS provider, except for  
20 telecommunications traffic that is interstate or intrastate exchange access, information  
21 access, or exchange services for such access (*see* FCC 01-131, paras. 34, 36, 39, 42-  
22 43); or

23  
24 (2) Telecommunications traffic between a LEC and a CMRS provider that, at  
25 the beginning of the call, originates and terminates within the same Major Trading  
26 Area, as defined in § 24.202(a) of this chapter.

27  
28 In regard to traffic where a CMRS provider is involved, the rule refers specifically  
29 and only to telecommunications traffic "between a LEC and a CMRS provider".

30 Thus, traffic, for example, between an IXC and a CMRS provider is not local  
31 telecommunications traffic under the FCC's rules.

32 **Q. Is this distinction further clarified in another paragraph of the First Report?**

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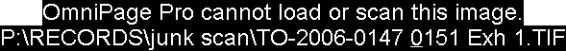
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