Exhibit No.:_____
Issue: TELRIC rates, Landline to Mobile traffic
Witness: Robert C. Schoonmaker
Type of Exhibit: Direct Testimony
Sponsoring Party: Petitioners
Case No.: IO-2005-0468, et al. (consolidated)
Date: July 21, 2005

BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

In the Matter of the Petition of	)	
Alma Telephone Company	)	
for Arbitration of Unresolved	)	**Case No. IO-2005-0468, et al.**
Issues Pertaining to a Section 251(b)(5)	)	**(consolidated)**
Agreement with T-Mobile USA, Inc.	)	

DIRECT TESTIMONY

OF

ROBERT SCHOONMAKER

Jefferson City, Missouri
July 21, 2005

Exhibit No.:_____
Issue: TELRIC rates, Landline to Mobile traffic
Witness: Robert C. Schoonmaker
Type of Exhibit: Direct Testimony
Sponsoring Party: Craw-Kan Telephone Cooperative, Inc.
Case No.: IO-2005-0468, et al. (consolidated)
Date: July 21, 2005

BEFORE THE PUBLIC SERVICE COMMISSION
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In the Matter of the Petition of	)	
Alma Telephone Company	)	
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Issues Pertaining to a Section 251(b)(5)	)	**(consolidated)**
Agreement with T-Mobile USA, Inc.	)	

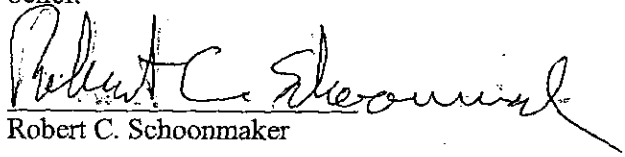
AFFIDAVIT OF ROBERT C. SCHOONMAKER

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.

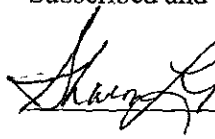
2. Attached hereto and made a part hereof for all purposes is my direct testimony with accompanying schedules.

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 19th day of July, 2005.



Notary Public

My Commission expires: 8-28-2006

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

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

Q. What are your responsibilities in your present position?

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

Q. Have you previously testified in regulatory proceedings?

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

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

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

A. I am testifying on behalf of Alma Telephone Company, Northeast Missouri Rural Telephone Company, Chariton Valley Telephone Company, and Mid-Missouri Telephone Company. I will refer to these companies as "the Petitioners".

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

A. My testimony will provide information on the forward-looking cost of switching and transport and termination for each of the companies and the rationale for the proposed $0.035 rate proposed by each of the companies in this case. In addition, I will provide testimony regarding the nature of calls originated by end users in the companies exchanges to a wireless carrier whose customers are identified by a telephone number in an exchange outside the local calling area of the company.

COST OF SWITCHING AND TRANSPORT AND TERMINATION

Q. Can you describe the rate that the Petitioners propose to charge for switching and transport and termination to T-Mobile?

A. Yes. The rate as proposed is a single rate per minute of $0.035 per minute to be charged to T-Mobile for terminating their traffic on an indirect connection basis in the Petitioners operating areas and reciprocally to be charged to the Petitioners for traffic terminated by the Petitioners for which they are responsible to the wireless carriers. This is the rate that was proposed for each of the Petitioners.

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

A. Yes. The rate that is proposed is a rate that has been arrived with and agreed to via negotiations between numerous small telephone companies in Missouri and several different wireless carriers. This rate is lower than the rates approved by the Commission in the wireless terminating tariffs filed by the companies and is lower than the average forward-looking cost for the small Missouri companies in general. In the case of the Petitioners it is also *less than* the forward-looking cost for each individual company.

Q. Did the Petitioners look at other alternatives before proposing this rate which is based on their current traffic-sensitive access charges?

A. Yes. Other alternatives were considered. In particular, rates based on a forward-looking cost model were developed, reviewed, and considered before the final rate proposal was made. This was done in recognition that the FCC rules regarding pricing under arbitration require that forward-looking costs be used. However, since the Petitioners had offered a rate of $0.035 in negotiations with T-Mobile to try to reach a settlement, they decided to continue to offer that rate in the context of this arbitration.

Q. Specifically the FCC rules require that such rates be based on Total Element Long-Run Incremental Cost (TELRIC) with an appropriate allocation of common costs. Are the costs that you have developed based on that type of cost study?

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

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

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

Q. Do you have any misgivings or concerns about using the HAI Model to develop forward-looking costs for the Petitioners?

A. In spite of the fact that I recommended to the Petitioners that they use this tool as the best available to develop forward-looking costs for arbitration proceedings, I have concerns about the validity of the results of the HAI Model I am presenting. These concerns include:

1) A lack of sufficient time and resources to fully explore all the proposed default inputs. While I proposed a number of changes to these inputs,

there are others, such as the cost of cable and digital loop carrier equipment, which I have not had time to test against the forward-looking costs of such items for small companies in Missouri. I am concerned that the costs may not reflect the economic costs of the companies in all respects.

2) A concern that the use of broad inputs and generalized formulas for all companies, rather than specific inputs for individual companies, tend to mask unique circumstances of individual companies, which cause substantial differences in costs in the real world.

3) A concern that the model results for small companies from models like the HAI Model produce results which vary widely from comparable actual data and in a manner inconsistent with forward-looking costs raising substantial questions regarding the validity of the results for individual small telephone companies.

4) A concern that results from the model are likely to be less accurate for smaller geographic areas, such as individual exchanges or small companies with a few exchanges, than they are for large companies, such as SWBT or Verizon who have hundreds of exchanges. This concern is due both to techniques used to generate customer locations and data in the model and to a recognition that the law of averages leads to offsetting impacts between individual areas within a large group of exchanges that may not occur in a small company or a single wire center. A review of the access lines developed by the model compared to actual company lines,

for example, shows significant differences on an individual company level.

Q. Given these concerns, do you still support the forward-looking costs that you have developed?

A. Yes. Given the requirements in the FCC rules to develop forward-looking costs and the current state of tools that are available to develop such cost results at a reasonable cost to the companies, I believe the costs developed are the best available forward-looking costs of these companies for meeting the requirements of the FCC rules. However, I specifically have concerns about giving too much reliance to individual company results when those results reflect a single exchange or only a few exchanges. While individual company results have been developed for each of the Petitioners, I believe it is more appropriate to use an average of the companies as a proxy for each of the individual companies rather than using the individual company rates themselves.

OVERALL DESCRIPTION OF THE HAI MODEL

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

A. The HAI model was initially known as the Hatfield Model, developed by Hatfield Associations, a consulting firm in Colorado, at the request of AT&T. The model was developed with the intent of providing a tool to develop the forward-looking cost of the telephone network throughout the United States as the cost basis for universal service support and to develop the estimated cost of unbundled network elements ("UNEs') for interconnection proceedings under Section 252 of the Telecommunications Act of 1996. As the model faced scrutiny in various state

and federal proceedings, it underwent continued development and modification through a series of versions over a several year period of time. Generally, the later versions were more sophisticated in the cost development methods and techniques than were earlier versions of the model. Version 5.0a of the model, which has been used to develop the costs presented in this proceeding, was the latest version presented in formal comments to the FCC in CC Docket #96-45, the federal USF proceeding.

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

A. Yes. The model is designed in several different modules that interact and are interconnected to produce the overall model results. The modules develop the costs for various network elements and for the overall cost of the firm. Modules include a module to develop the cost of distribution and feeder plant, a module for developing the cost of switching and interoffice plant, a capital cost module and an expense module. Results of all these modules are fed into a series of model output reports. A much more complete description of the model design is included in the Model Description manual developed by the model developers which has been available in the industry and can be made available in this proceeding if desired.

Q. Can you briefly describe the default model inputs?

A. Yes. The HAI model has well over a thousand different user changeable model inputs, including physical equipment characteristics, cost relationships to geographical factors, traffic characteristics, unit costs of telephone plant, costs of installing telephone plant, depreciation factors, capital costs and expense ratios.

To assist users in being able to use the models quickly, the developers have populated the model with default values that based on their research, judgment and evaluation represent appropriate values for each input element. These values are known as the default input values. When running the model, the user can either use these default values or individually change as many of the values as the user believes are appropriate. The HAI Inputs Portfolio is a document developed by the model developers that describes each individual input item, the default value and the model developers' rationale and support for adopting the particular default value. This manual has also been widely available in the industry and can be made available in this proceeding if it is desired.

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 we have used the default values for a large portion of the inputs, we have not used them exclusively. Based on prior experience in other states and at the national level using the models 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. I have also modified the exchanges assigned to Northeast Missouri Rural Telephone Company to include the exchanges that were previously part of Modern Telecommunications which has been merged into Northeast.

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, in my opinion, reflect the operation of rural companies as compared to the large urban Bell Operating Companies 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?

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

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

A. Yes. Schedule RCS-2 is a document outlining the input items that I changed from the default values in the development of the forward-looking costs for this case. Schedule RCS-3 is an output report from the HAI Model showing the specific

model inputs changed and the specific values used for each of these inputs. In the following section of my testimony, I will discuss in greater detail the reason for each of the changes made in the default inputs.

HAI INPUT CHANGES

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

A. Yes. The HAI Model develops costs of distribution and feeder plant in nine different density zones. One of the series of input items in these density zones are inputs to designate the type of plant (aerial, buried or underground) that is used for feeder and distribution plant. There is a similar input for the type of plant in interoffice facilities, as well. The default inputs for these items vary between density zones based on the model developers' estimates of the type of plant built in these zones on a nationwide basis. Even in the most rural zones, the default inputs assume that a substantial amount of aerial plant will be constructed. In Missouri, based on a number of factors related to geography, weather and cost of construction, it has been standard practice in the smaller companies in the state to build primarily buried plant for distribution plant, feeder plant and interoffice plant. As one travels through the rural areas of the state served by the small ILECs, it is relatively rare to see aerial plant. In most areas, buried plant is used exclusively, although there are some in-town areas where underground plant is constructed in some circumstances and some areas of the state where some aerial plant is used.

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

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

A. These inputs are included in the model to allow the model to change the assumption regarding the amount of buried plant that would be constructed, as discussed in my previous answer, based on internal cost calculations made by the model. The model would substitute aerial plant for buried, if based on model calculations, aerial plant was less expensive. I am proposing that this value be set at zero so the model reflects the buried plant construction types as discussed above. Some of the factors that lead to the large proportion of buried plant construction in Missouri may not be fully reflected in the default cost assumptions; and without this change, the model might not construct the full level of buried plant we believe is appropriate.

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

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

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

A. Yes. The most common example is probably with the use of pole lines. In many locations, particularly in town locations, one utility builds a pole line and other utilities rent space on the poles to place their own facilities. Where an aerial plant is used by both electric and telephone utilities, they frequently share a single pole line. In addition, in many "in-town" situations, a cable TV company may also place its facility on some of the same pole lines.

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

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

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

A. Yes. There are several key conceptual assumptions that are inherent in the HAI default assumptions regarding structure sharing. First, the modelers assume that not only is the telephone network being hypothetically totally reconstructed but the electric, cable TV and competitive telecommunications services networks are being constructed at the same time so that structure sharing of trenches, conduit, etc. can take place. Second, the modelers assume that, in the future, there will be high motivations for these various utilities to share structures and build facilities using the same kind of plant in the same areas. Third, the modelers assume that the cost of structure construction will be unchanged from typical telephone plant construction even with the addition of other utility facilities associated with the structure. While this may be reasonably true for aerial construction, it is not true for buried construction where code requirements for buried electric service generally require significantly deeper construction for electric plant than for telephone plant.

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

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

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

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

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

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

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

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

A. Based on my perception of the limited to non-existent likelihood of sharing buried structures, I have assumed that the structure sharing for buried and underground plant for all density zones and for interoffice plant should be set at 100%, that is the full cost of the buried structures are assigned to the telephone company. For aerial cable, a 100% structure sharing assumption is assumed for the first three zones, but a 50% assumption is used in Zone 4 and higher where telephone company aerial cable, if built, frequently shares poles with the electric company.

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

A. Our analysis indicates that the default input value is not representative of the cost of end office switching equipment for small companies and small switches. The default switching input value that is used by the HAI modelers is based on an analysis of switch costs for larger companies (Bell Operating Companies and

GTE) that were publicly available. The input value is used in a fairly straight line formula based on number of lines. In viewing results of the default analysis, it is clear that the input does not correctly estimate the cost of switching for small offices.

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

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

A. No, not always. Since the model is developing a cost for a forward-looking network, comparisons would not be valid if the network elements being developed are of a different design than that actually being used. Since the model is generating forward-looking costs, there may be differences between the model and actual results because of differences in cost (either up or down) when actual plant was purchased as compared to the forward-looking cost of the plant. There may also be differences between costs developed by the model and actual costs because the model does not develop costs for all of the functions that an actual company may be performing. In making comparisons between model results and actual results, all of these factors need to be taken into account.

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

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

Many of the small companies in Missouri are using at least their second generation of digital switching equipment. The equipment is relatively new and has been upgraded since installation, as needed. While it is generally believed that the cost of switching equipment has been falling over time, the falling costs of hardware have been at least partially offset by increasing costs of switching software. Overall, it is my belief that the model costs for forward-looking COE switching equipment should be relatively close to, though possibly somewhat less than, actual costs. In my mind, the approximately 45% difference between the model and actual costs for this equipment indicates that the model costs do not truly reflect the forward-looking costs of this equipment.

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

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

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

A. Yes. This factor estimates the total portion of the traffic originated in the central office that has to be switched to a second switching site for termination of the traffic and is a significant factor in developing the cost of interoffice facilities. It is also used in conjunction with estimates of toll traffic to determine the portion of local traffic that is switched on an interoffice basis and impacts the cost of local service. For large urban companies, this may represent traffic that is switched between multiple wire centers in a single exchange. For rural companies, it would represent traffic that is commonly designated as Extended Area Service ("EAS") traffic that is switched between exchanges. Using the default assumptions, the model estimates that 48.69% of local traffic is interoffice traffic and develops and assigns costs to the USF cost to account for this usage.

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

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

A. No. I believe the cost of capital assumptions in the default scenario are not appropriate. The default assumptions assume a 55% equity/45% debt ratio with a cost of debt and equity generating an overall cost of capital of 10.01%. This cost of capital is not reflective of a forward-looking cost of capital in today's environment. As a means of increasing the cost of capital to 11.25% overall, the cost of capital used by the FCC at the interstate level, I have modified the cost of capital assumptions using those used by the FCC in its Synthesis Model for universal service purposes.

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

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

Network Operations Expense	6530
Power Expense	6531
Network Administration Expense	6532
Testing Expense	6533
Plant Operations Administration Expense	6534
Engineering Expense	6535

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

In the HAI Model, Network Operations Expense is generated based on a composite level of expenses for the ARMIS reporting companies on a per line basis. The model then multiplies this expense level by the Network Operations Expense factor to arrive at a final estimate of Network Operations Expense. The HAI modelers in the default assumptions have assigned this factor a 50% value, essentially indicating that forward-looking Network Operations Expenses would/should be half of the current level. Their rationale for doing this is summarized as follows:

> "....these costs are artificially high because they reflect antiquated systems and practices that are more costly than the modern equipment and practices that the HAI Model assumes will be installed on a forward-looking basis. Furthermore, today's costs do not reflect much of the

substantial savings opportunities posed by new technologies, such as new management network standards, intranets, and the like."

Because small companies have very different circumstances and do not have many of the systems typical in large companies, it is our belief that the types of forward-looking savings the modelers are anticipating for large companies will not, nor cannot, be achieved in small companies. We are, therefore, proposing that the Network Operations Expense factor be set at 100% rather than 50%.

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

A. Yes. This input is intended to capture the customer operations costs of providing local service billing, collecting, bill inquiry and other inquiries regarding the provision of service. The provision of these services differ in a number of respects between large and small companies. Many of the customer contact functions for large companies are performed in centralized centers by relatively large work groups. With these work group sizes, there may be opportunities to adjust the work group to fluctuating workloads on an hourly or daily basis. Billing functions are typically spread throughout the month with multiple billing cycles. Typically, the data processing and bill processing functions are performed with in-house computer assets and in-house personnel.

In small companies, these functions are generally performed by only a few individuals with staffing required during the normal business hours to provide

service availability to customers. There are relatively few opportunities to adjust work group levels to variations in the customer contact workload. Billing is typically performed once a month so there are greater variations in the work flow than in larger companies. Oftentimes, service bureaus are used by small telephone companies, at a minimum, to provide software support and often provides full bill processing functions using investments made by the service bureau. Thus, the expense and investment levels of small companies may vary significantly from larger companies.

After comparing the results of the default assumptions for customer service expense with actual data (including taking into account customer service functions that are toll related), I have adjusted this input to $2.30 per line. We believe this result is more representative of the cost of these functions in small Missouri companies and have thus incorporated this estimate in the forward-looking cost studies we have performed. The revised input is still considerably less than the $3.62 per line used by the FCC in its inputs for non-rural companies.

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

A. In developing expenses for most of the plant specific expense categories, the HAI Model uses recent ARMIS data from around the country to develop ratios between current expenses and investments as a basis for developing projected forward-looking expense levels. However, in the case of central office switching

expense, this data is overridden by an alternative expense ratio. The input levels for these items are based on a 1993 incremental cost study performed by New England Telephone Company in New Hampshire and are considerably lower than current levels experienced even by the Bell Operating Companies.

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

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

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

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

A. Yes. Some of the Petitioners have established tandem switching locations to serve their wire centers. Under access tariff requirements, IXCs are required to deliver their traffic to the tandem locations for termination in the end office

subtending the tandem switch. The files developed for use by the HAI model in developing interoffice transport costs reflect this type of network configuration. However, wireless companies are not under these same obligations and almost exclusively deliver their terminating traffic destined for the Petitioners to a SWBT or Century tandem. SWBT (or Century) then transmits the traffic over their common trunk groups, intermingled with other types of traffic, to the STCG end offices. The network design for this traffic is different and thus the forward-looking cost of transport will differ.

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

A. Information regarding the tandem assignment and distances to reach the interoffice network for each wire center in the state is contained in an Excel file used by the model. I have changed the tandem assignments and the distances to reach the interoffice network for certain of the Petitioners who have tandems for IXC services to reflect the modified network configuration associated with wireless traffic. The mileages used conform to the assumptions used by the model developers for other wire centers as detailed in the HAI documentation manuals.

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

A. Yes. In the model there are two inputs that reflect the percent of intraLATA and interLATA traffic respectively that are switched through a tandem switched rather than being direct trunked to an end office. The default inputs for these items is 20% for each of them, reflecting estimated amounts of RBOC traffic that is routed

through a tandem switch rather than being direct trunked to the appropriate carrier. While these factors may be reflective of RBOC traffic, they are not reflective of small ILEC traffic. In general, this traffic is routed on common trunk groups to a tandem switch and is not put on direct trunks to the interexchange carrier. I have therefore changed the input for this item to reflect an assumption of 100% of the intraLATA and interLATA toll traffic being routed to a tandem switch.

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

A. The HAI model was run for each of the Petitioners. Access rate results were obtained from one of the cost detail worksheet included in the model output report file, an Excel spreadsheet with the exception of the Common Transport rate. In the case of this rate, the costs and billing units presented on this output sheet were used to develop the appropriate rate. The result presented in the model itself uses the costs presented, but divides that based on an assumed number of minutes per trunk, a result which is not normally achieved in small company situations, and which is higher than the actual minutes used in the model. The rate presented is thus, lower, sometimes considerably, than a rate calculated using the actual costs and minutes presented in the schedule. These rates were then summarized for each of the companies and combined into a weighted average for the companies. Schedule RCS-1 shows the actual forward-looking costs for each of the companies and a summary of the costs for the companies included in this proceeding.

Q. What were the results of making the comparisons shown on Schedule RCS-1?

A. In reviewing the costs as shown in Schedule RCS-1, there are differences in the costs developed using the forward-looking cost model from the $0.035 rate per minute proposed by the Petitioners. The comparisons show that for the Petitioners the HAI developed costs are higher than the proposed rates. For the Petitioners, a numeric average of the forward-looking HAI costs results in an average cost of $0.0583.

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

A. I believe they are and that if anything, they tend to underestimate the transport cost for the companies. You will note that there is no cost estimate for the dedicated transport element. One can make a good case that the cost that the model develops for and describes as dedicated transport should be included in the cost associated with transport and termination, particularly when the model inputs are set, as they are in this analysis, to assume that all interLATA and intraLATA traffic is routed through a tandem switch. I did not include the direct transport cost in this analysis because of the press of time in providing the information to T-Mobile and because the Petitioner's costs are higher than the rates proposed even excluding the direct transport cost.

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

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

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

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

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

A. As indicated earlier, Schedule RCS-1 shows the composite average forward-looking cost for the Petitioners of $0.0583. The Petitioners recommend the use of this average for the rate for each company is more appropriate than forward-looking rates developed on an individual company basis because of the concerns about the use of forward-looking models for limited geographic areas. However,

if the Commission feels that rates set on the individual company forward-looking costs are more appropriate, those costs are shown on Schedule RCS-1.

WIRELINE TO WIRELESS TRAFFIC

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

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

At the time of the AT&T divestiture, the business relationships related to toll calling were modified to reflect the exchange access business relationship where local exchange carriers sold the use of their exchange access facilities to interexchange carriers (IXCs) who provided toll service. These IXCs charged end users for the provision of toll service and compensated the originating and terminating LECs for the use of their exchange access facilities pursuant to both interstate and intrastate access tariffs approved by the Federal Communications

Commission and the Missouri Public Service Commission respectively. Under these arrangements the IXCs provided toll service to end users. In the intraLATA environment, some LECs also chose to provide toll services and to act as interexchange carriers in the access charge environment.

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

A. No, it is not. The service provided under these access tariffs is to provide facilities to IXCs who use those facilities to transmit messages for their end user customers. The LECs are not responsible for the transmission of messages under their access tariffs. Section 2.1.1(A) of both the National Exchange Carrier Association (NECA) interstate access tariff and the Oregon Farmers intrastate access tariff, with which all the petitioners concur, states specifically that, "The Telephone Company does not undertake to transmit messages under this tariff."

Q. When wireless providers began providing service, how did calls to such carriers fit into the local and toll calling patterns?

When wireless providers began providing service, they sought and received central office codes (NPA-NXX codes) or purchased the use of telephone numbers in telephone company central office codes for their customers and associated those codes with telephone company local exchange areas. Calls to those wireless customers from within the telephone company local calling area were, and are, treated as local calls. Calls to wireless customers with NPA-NXX codes outside the local calling area were, and are, treated as toll calls. Local

switching systems are programmed pursuant to approved tariffs to complete toll calls using a 1+ prefix.

Pursuant initially to AT&T divestiture requirements and associated FCC orders, and more recently to the Telecommunications Act of 1996 (the Act), dialing parity and presubscription procedures have been established so that end user customers can direct all 1+ calls to the IXC(s) of their choice. Pursuant to these legal and regulatory requirements, LECs direct 1+ dialed calls to their end user customer's presubscribed carriers who provides the toll call for the customer. The IXCs continue to use the LECs exchange access facilities in order to provision the service to their end user customers.

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

A. Yes they were, as I described in my previous answer. For example, a call from an end user in Northeast Missouri Rural Telephone Company who called a wireless customer with a Kansas City NPA-NXX code would dial that call using the 1+ prefix and that customer's IXC would be responsible for carrying the call. If Sprint is the IXC that provisions and completes the call then Sprint would charge the end user customer and pay Northeast Missouri its originating access charges. It would also compensate the terminating wireless carrier based on the business relationships established by the terminating wireless carrier.

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

A. Clearly it would not. From a carrier standpoint the call is between Sprint and the wireless carrier. In relationship to this call, the end user is Sprint's end user, not the LEC's end user.

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

A. No it has not. It certainly hasn't changed in Missouri either in regard to the Petitioners or to the other companies in the state. I am not aware that these dialing arrangements have been changed anywhere in the country to treat calls from a customer responsibility and dialing standpoint to CMRS providers differently from before the Act.

Q. Can you briefly summarize the business relations that exist between end users, LECs, and IXCs in relation to a presubscribed 1+ toll call?

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

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

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

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

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

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

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

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

This indicates to me that the FCC intended that calls to CMRS providers that were currently being provided by IXCs and for which access charges applied would continue to be given the same treatment.

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

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

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

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

A. Yes. The Act became law on February 8, 1996. Pursuant to requirements of the Act the FCC had six months in which to develop and implement rules on a host of technical, financial, and policy issues related to the new requirements of the Act providing for local interconnection, reciprocal compensation, dialing parity, and the pricing for such services. The FCC had a total of fifteen months to address and implement rules regarding universal service issues. These time frames put tremendous pressure on the FCC and its staff to review thousands of pages of comments on a large number of issues and to develop policies, procedures, and rules to implement the Act. The two Orders in CC Docket 96-98 issued on August 6, 1996, (dealing with interconnection issues) amounted to a total of 833 pages and incorporated some 70 pages of new rules. Given this time frame and the overwhelming number of issues that had to be dealt with, the FCC's focus was primarily on implementation as it related to the Bell Operating Companies (BOCs) and the large metropolitan areas of the country since they comprised both

[1] *TSR Wireless, LLC v. U S West Communications, Inc.,* Memorandum Opinion and Order, Released June 21, 2000 FCC 00-194 ("*TSR Wireless Order*"), paragraph 31.

the vast majority of the LEC customers and particularly the areas where competition was expected first. Thus, in establishing rules and in the implementing text, it is not always clear how the rules apply in the case of small companies, whose operations are often different than the BOCs. I believe that it is important that this Commission keep that in mind as it reviews the FCC's discussion and rules related to LECs and CMRS providers.

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

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

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

A. Yes. In the middle of paragraph 1043 the FCC states, "Under our existing practice, most traffic between LECs and CMRS providers is not subject to interstate access charges unless it is carried by an IXC..." This statement was likely true for the BOCs where calls between the BOC and CMRS providers were primarily either in large metropolitan areas with large local calling areas, or intraLATA toll calling areas where the BOC provided virtually all intraLATA toll

calling at the time. For small companies, such as the Petitioners, there was very little existing LEC to CMRS traffic that was not subject to access charges.

In paragraph 1034 the FCC contrasts the access charge regime where the originating LEC, terminating LEC, and an IXC are involved in a call with the intended use of reciprocal compensation which, according to the FCC is intended for, "...the situation in which two carriers collaborate to complete a local call." For the Petitioners, hardly any calls between CMRS providers and the Petitioners fall in this description of the intended use of reciprocal compensation, while most fall under the access charge regime for wireline originated calls. For wireless originated calls very few involve only two carriers to complete the calls to the Petitioners, with most calls involving a third carrier, often a large LEC, to complete the call.

Q. Upon what basis in this Order do you believe T-Mobile derives its opinion that the Petitioners are responsible for compensation to CMRS providers for traffic terminated within the MTA even if it is carried by an IXC?

A. I would presume that it bases its position upon Paragraph 1036 of the FCC's First Report and Order. The FCC begins this paragraph by stating that it is defining, "...local service areas for calls to or from a CMRS network for the purposes of applying reciprocal compensation obligations under section 251(b)(5)[2]. [emphasis added] After discussing varying types of wireless service areas and indicating that it will choose the largest of these areas, the paragraph is concluded with the following statement: "Accordingly, traffic to or from a CMRS network that

[2] The First Report, para. 1036.

originates and terminates within the same MTA is subject to transport and termination rates under section 251(b)(5), rather than interstate and intrastate access charges."

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

A. No. Taken on their face and out of context from the remainder of the First Report and the rules adopted in that order, these sentences seem to say that all calls to a wireless carrier within the MTA are not subject to access charges. However, the rules adopted by the FCC are more specific and limiting than this paragraph. They do not talk about all calls with the MTA, but a more limited set of calls. In §51.701(a) (adopted in the First Report) the FCC defines the scope of the rules for reciprocal compensation for the transport and termination of local telecommunications traffic as follows:

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

This clearly limits the application of the subpart to calls between LECs and other telecommunications carriers and not to calls between IXCs and such carriers. This distinction from Paragraph 1036 is also made clear in the specific FCC definition of telecommunications traffic, found in §51.701(b) of the FCC's rules which states:

> (b) *Telecommunications traffic.* For purposes of this subpart, telecommunications traffic means:
>
> (1) Telecommunications traffic exchanged between a LEC and a telecommunications carrier other than a CMRS provider, except for telecommunications traffic that is interstate or intrastate exchange access, information

access, or exchange services for such access (*see* FCC 01–131, paras. 34, 36, 39, 42–43); or

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

In regard to traffic where a CMRS provider is involved, the rule refers specifically and only to telecommunications traffic "between a LEC and a CMRS provider". Thus, traffic, for example, between an IXC and a CMRS provider is not local telecommunications traffic under the FCC's rules.

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

A. Yes. Between paragraphs 1036 and 1043 of the First Report there is clarification. In Paragraph 1043 the FCC states:

> We reiterate that traffic between an incumbent LEC and a CMRS network that originates and terminates within the same MTA…is subject to transport and termination rates under section 251(b)(5), rather than interstate or intrastate access charges.

The FCC states here that they are reiterating a previous statement. If one reviews the intervening paragraphs it is clear that this reference can only be to Paragraph 1036 where it spoke on this subject. In that Paragraph, however, it was not as specific in its reference to "…calls between an incumbent LEC and a CMRS network." This is emphasized by the following sentences where the FCC recognizes that most traffic between LECs and CMRS providers are not subject to access charges, unless they are carried by an IXC. The paragraph concludes with the following statement:

> Based on our authority under section 251(g) to preserve the current interstate access charge regime, we conclude that the new transport and termination rules should be applied to LECs and CMRS providers so that CMRS providers continue not to pay interstate access charges for traffic that

currently is not subject to such charges, and are assessed such charges for traffic that is currently subject to interstate access charges.

This statement indicates the FCC's intent to preserve the interstate access regime for such calls to CMRS providers.

Q. In the discussion in this part of the First Report and in the rules that the FCC adopted is there any indication that these rules applied for any purpose beyond the determination of compensation?

A. No there is not. The discussion throughout this section discusses compensation for calls between LECs and CMRS providers. Section 51.701(A) cited above specifically indicates that it applies to compensation for those calls. There is nothing, either in the rules, or in the discussion in the Order that indicates any intent to require changes in network arrangements or dialing patterns. For example there is no discussion of removing interexchange carriers from carrying calls within the MTA by eliminating 1+ dialing on calls to wireless carriers within the MTA. It appears to me that the FCC was very careful to establish this relationship for reciprocal compensation purposes while not disturbing existing network calling patterns and existing network relationships.

Q. Are there other parts of the FCC's discussion in these paragraphs that highlight the differences between reciprocal compensation and access charge compensation?

A. Yes. In Paragraph 1033 the FCC specifically notes that, "The Act preserves the legal distinctions between charges for transport and termination of local traffic and interstate and intrastate charges for terminating long-distance traffic." In Paragraph 1034 the FCC states:

...reciprocal compensation for transport and termination of calls is intended for a situation in which two carriers collaborate to complete a local call. In this case, the local caller pays charges to the originating carrier, and the originating carrier must compensate the terminating carrier for completing the call. [emphasis added]

Further in Paragraph 1034 the FCC states:

We note that our conclusion that long distance traffic is not subject to the transport and termination provisions of section 251 does not in any way disrupt the ability of IXCs to terminate their interstate long-distance traffic on LEC networks... We find that the reciprocal compensation provisions of section 251(b)(5) for transport and termination of traffic do not apply to the transport or termination of interstate or intrastate interexchange traffic.

These three statements indicate the intent of the FCC to maintain the access regime and to apply reciprocal compensation rules only in situations where two carriers are directly connected. They also confirm that reciprocal compensation and access are two separate and mutually exclusive compensation systems.

Q. Can you summarize why you believe that the Petitioners have no local traffic that they are exchanging with CMRS providers?

A. Yes. The traffic leaving the Petitioners exchanges for CMRS providers is traffic between an IXC and a CMRS provider, not traffic between the LEC and the CMRS provider. The LEC has no responsibility for that traffic and under the FCC's definition that traffic is not telecommunications traffic subject to reciprocal compensation rules.

Q. So what is the fundamental conflict between your position and that of the T-Mobile?

A. In spite of the fact that the IXC contracts through an access tariff to use the LECs' facilities to originate a toll call and pay them for it, in spite of the fact that the end users, through their presubscription choices, choose a specific IXC to provide toll

service, in spite of the fact that the IXC contracts with an end user through its toll tariffs or pricing contracts to complete that call and receives revenue from the end user for doing so, in spite of the fact that the IXC carries the call on its own network to the terminating end without expecting compensation from the originating LEC, and in spite of the fact that the IXC takes responsibility for paying whatever terminating charges are due the CMRS provider, T-Mobile argues that the LEC who provides local service to the end user is responsible to pay the terminating CMRS provider for the call.

Q. How do they attempt to justify this?

A. From my viewpoint they do several things. One, they ignore the requirements placed on a local exchange carrier by its local tariffs to distinguish between local and toll calls. Second, they ignore all of the contractual relationships established by local and toll tariffs and somehow try to construe that because a call originates from an IXC end user which is also a LEC end user for local service that the call originates from the LEC itself.

Q. T-Mobile seems to take the position that it doesn't matter whether an IXC is involved in a call, but only where the beginning and ending points of the call are located. Is this statement consistent with the FCC's definition of telecommunications traffic?

A. No. First of all, in the situations I have described where the IXC is the carrier, it is not just the intermediate carrier, but the originating carrier as well. Secondly, the FCC's definition that I quoted above was specific to LECs and CMRS

providers only and did not state that traffic between an IXC and a CMRS provider was telecommunications traffic subject to reciprocal compensation.

Q. Are the wireless carriers consistent in their position that traffic between wireless carriers and LECs is solely the responsibility of those carriers regardless of whether an interexchange carrier handles the call?

A. No, they are not. While T-Mobile claims that the originating LEC should pay the wireless carrier for traffic carried by an IXC to the wireless carrier, when the direction of the traffic is reversed, they have a different perception. Frequently wireless carriers, including T-Mobile, use IXCs to terminate their traffic to LECs, rather than using SWBT's or another LEC's transiting service. In that case, T-Mobile does not expect to pay terminating reciprocal compensation to the LECs.

Q. If the Commission included such IXC traffic within the scope of the Traffic Termination Agreements in this arbitration, what revenues would T-Mobile be entitled to receive for these calls?

A. As a CMRS provider, T-Mobile would be entitled to revenues from its end user customers that receive these calls. CMRS providers typically charge end users both to originate and terminate calls. Second, T-Mobile would be entitled to terminating compensation from the IXC based on their existing arrangements. Third, T-Mobile would be entitled to receive reciprocal compensation from Petitioners.

Q. So would T-Mobile be entitled to receive two different forms of terminating compensation for the same call?

A. Yes, depending on their compensation arrangements with the IXC, T-Mobile could be entitled to both terminating compensation from the IXC and terminating reciprocal compensation from the ILEC in addition to the revenues they receive from their end users.

Q. Do you believe this would be appropriate?

A. No. I don't think it is appropriate for a carrier to be entitled to receive two separate and distinct types of compensation from two different carriers for the same call.

Q. Has the Commission had occasions to address this issue in other proceedings?

A. The Commission has not directly decided the question specifically in terms of whether a CMRS provider is entitled to receive terminating reciprocal compensation from the ILEC in whose exchange the IXC call originated. However there have been several Commission decisions suggesting that the rural ILEC Petitioners here are not responsible for this traffic.

Q. Could you briefly review these decisions?

A. Mid-Missouri Cellular and SBC submitted an interconnection agreement to arbitration in TO-99-279. Mid-Missouri Cellular wanted compensation from SBC for landline to mobile calls terminating to Mid-Missouri Cellular customers with NPA NXXs that were not in the local calling area of SBC. The Commission ruled:

> "The Commission agrees with SWBT that a call from a SWBT landline subscriber to an MMC cellular subscriber is properly rated as a local call only where: (1) the landline and cellular exchanges are locally interconnected; and (2) the V&H coordinates of the cellular exchange lie

within the local calling area of the landline exchange. ... The Commission agrees with SWBT that local rating without local interconnection is inappropriate because the interexchange facilities of SWBT and of Sprint, a stranger to this action, would necessarily be employed in completing such calls."

Q. Do you think that decision is pertinent here?

A. Yes. The only difference is that the interexchange carriers involved here are traditional IXCs, not SBC or Sprint. The rest of the rational applies. Petitioners are not locally interconnected with T-Mobile. The V&H coordinates of T-Mobile's cellular exchange are not within Petitioners' local calling areas. As such these calls are not within the scope of reciprocal compensation and should not be included in a reciprocal compensation agreement.

Q. What is the next pertinent Commission decision you recall?

A. Missouri small rural ILECs filed wireless termination service tariffs which were opposed by wireless carriers. This was the Mark Twain tariff Case No. TT-2001-139. The wireless carriers opposed the tariff partly on the claim that the tariffs did not recognize or credit the wireless carriers with compensation already paid via "defacto bill and keep" for landline to mobile IXC carried traffic. In its Order the Commission stated:

"At present, with the termination of the PTC Plan, it is the norm that traffic between the small LECs and CMRS carriers is one-way traffic. This is because traffic to CMRS subscribers from the small LECs' subscribers is transported by IXCs and treated as toll traffic. ... [I]f the traffic is being carried by an IXC, the IXC must compensate the CMRS carrier for the termination of the call."

Q. Is this decision similar to that in the Mid-Missouri Cellular arbitration?

A. Yes, it is pretty much the same. As the landline to mobile calls are toll calls, it is the IXC, not the rural LEC in whose exchange the call originated in, that is responsible to pay T-Mobile.

Q. Did the Commission enter a similar order in approving the wireless termination tariff of a CLEC?

A. Yes. In TT-2001-646 the Commission reached the same decision for CLECs:

"All of Mark Twain's traffic that is destined for the NXXs of wireless carriers operating in Missouri, including AT&T Wireless and Sprint PCS, is currently dialed: (a) on a 1+ basis and carried by Mark Twain's customers' presubscribed interexchange carrier ("IXC"); or (b) on a 101XXX basis and carried by an IXC."

Q. Are there any other Commission decisions which you believe are instructive?

A. Complaint case TC-2002-1077 was brought by rural ILECs against T-Mobile. T-Mobile claimed they did not owe under wireless termination tariffs because the landline to mobile IXC traffic was "equivalent in volume" to wireless to landline traffic. The Commission stated:

"The Wireless Respondents maintain that the intraMTA traffic that they exchange with the Complainants is symmetrical, that is, that equivalent volumes flow in both directions. ... The record shows, and the Commission finds, that the Complainants routed all traffic originating on their networks and intended for subscribers of the Wireless Respondents through an IXC."

Also, when the Commission recently adopted the Enhanced Record Exchange Rule, it rejected wireless carrier opposition to the CPN requirement on the ground the rule did not require the same of landline to mobile IXC traffic. The Commission rejected this argument because the wireless carriers failed to establish "any instance where rural carriers transmit compensable calls to wireless carriers."

Q. How do you interpret these last two decisions?

A. To me they mean that rural ILECs are not responsible to pay compensation to wireless carriers for landline to mobile IXC traffic.

Q. Does this conclude your direct testimony?

A. Yes.

Forward Looking Cost of Petitioners
Individual Company Cost

Schedule RCS-1
Page 1 of 2

Company Name	Alma Telephone Company	Chariton Valley Telephone Co	Mid-Missouri Telephone Co	Northeast Missouri Rural Tel Co
Excluding Tand. Sw. & Ded. Transport - Common Based on Displayed Units				
End Office Switching	$ 0.0107	$ 0.0103	$ 0.0114	$ 0.0099
ISUP Signaling	$ 0.0056	$ 0.0035	$ 0.0049	$ 0.0042
Dedicated Transport	$ -	$ -	$ -	$ -
Common Transport	$ 0.0749	$ 0.0394	$ 0.0523	$ 0.0430
Tandem Switching	$ -	$ -	$ -	$ -
Total Access	$ 0.0912	$ 0.0532	$ 0.0685	$ 0.0571

Forward Looking Cost of Petitioners
Composite Weighted Average

		Total Cost	Billing Units		Composite Rate
End Office Switching	$	2,303,578	221,942,690	$	0.0104
ISUP Signaling	$	901,424	221,942,690	$	0.0041
Dedicated Transport	$	-	-	$	-
Common Transport	$	4,219,696	96,184,190	$	0.0439
Tandem Switching	$	-	-	$	-
Total Access				$	0.0583

Schedule RCS-2

Small Telephone Company Group
Proposed Default Input Changes
HAI Model 5.0a

1. Plant type assumptions - the HAI default assumes varying levels of buried, aerial, and underground plant in the different density zones. Because of the high predominance of buried plant construction in rural Missouri areas, the model default inputs have been modified for drops, distribution plant, and feeder plant to reflect a much larger percentage of buried plant and a smaller percentage of aerial plant than the default.

2. Fraction of buried plant available for shift - These fractions allow a portion of buried plant that has been identified using the normal plant algorithms to be shifted to aerial plant on a least-cost basis. These percentages have all been set to zero so the constructed plant is unchanged from the plant type assumptions provided for each density zone.

3. Structure sharing assumptions - Model default inputs assumes a significant portion of the cost of structures (pole lines, trenches for buried cable, trenches & conduit for underground cable) will be assigned to users other than the telephone company. These assumptions vary based on cable type and density zone and range from 100% to 25%. The STCG has assumed much less structure sharing than is assumed in the default inputs.

4. End Office switching investment, small ICO - Based on analysis of model results to actual investment data, the STCG has increased the default constant COE switching investment term from $416.11 per line to $520.14 per line.

5. The Total Interoffice Fraction Percentage has been changed from a default value of 65% to 40% to more accurately reflect traffic patterns of rural carriers.

6. Inputs for calculating the cost of capital have been revised to reflect an overall return of 11.25%. The specific inputs used in the model are the same as those adopted by the FCC in its development of forward-looking cost results in its USF docket.

7. The forward looking network operations expense factor has been increased from the default 50% of current expense levels to 100% of current expense levels.

8. Billing/Billing Inquiry per line per month. This input was changed from default value of $1.22 to $2.30 to better reflect Missouri costs of providing such services.

9. The alternative central office switching expense factor has been changed from the default value of 2.69% to 4.75% to reflect costs experienced by small Missouri companies.

10. Economic lives for the determination of depreciation rates have been modified to reflect the MPSC staff generic depreciation lives.

11. Assignments of tandem locations for STCG companies who provide tandem switching service for IXCs, but do not do so for terminating wireless traffic have been modified to reflect the terminating wireless tandem locations.

12. Inputs for the percent of intraLATA and interLATA traffic that is routed through a tandem switch have been increased from the default of 20% to 100% reflecting how these calls, including wireless calls, are generally routed by small Missouri telephone companies.

Petitioners Forward-Looking Cost Study Inputs
Changes from HAI Default Inputs

Module/Table	Scenario Input	Scenario Value	Default Value
Distribution	Buried Fraction - 0	0.95	0.75
Distribution	Buried Fraction - 5	0.95	0.75
Distribution	Buried Fraction - 100	0.95	0.75
Distribution	Buried Fraction - 200	0.95	0.7
Distribution	Buried Fraction - 650	0.95	0.7
Distribution	Buried Fraction - 850	0.85	0.7
Distribution	Buried Fraction - 2550	0.85	0.65
Distribution	Buried Fraction - 5000	0.85	0.35
Distribution	Buried Fraction - 10000	0.85	0.05
Distribution	Aerial Cable Fraction - 0	0.05	0.25
Distribution	Aerial Cable Fraction - 5	0.05	0.25
Distribution	Aerial Cable Fraction - 100	0.05	0.25
Distribution	Aerial Cable Fraction - 200	0.05	0.3
Distribution	Aerial Cable Fraction - 650	0.05	0.3
Distribution	Aerial Cable Fraction - 850	0.05	0.3
Distribution	Aerial Cable Fraction - 2550	0.05	0.3
Distribution	Aerial Cable Fraction - 5000	0.05	0.6
Distribution	Aerial Cable Fraction - 10000	0.05	0.85
Distribution	Buried Drop Sharing Fraction - 0	1	0.5
Distribution	Buried Drop Sharing Fraction - 5	1	0.5
Distribution	Buried Drop Sharing Fraction - 100	1	0.5
Distribution	Buried Drop Sharing Fraction - 200	1	0.5
Distribution	Buried Drop Sharing Fraction - 650	1	0.5
Distribution	Buried Drop Sharing Fraction - 850	1	0.5
Distribution	Buried Drop Sharing Fraction - 2550	1	0.5
Distribution	Buried Drop Sharing Fraction - 5000	1	0.5
Distribution	Buried Drop Sharing Fraction - 10000	1	0.5
Distribution	Buried Drop Fraction - 0	0.95	0.75
Distribution	Buried Drop Fraction - 5	0.95	0.75
Distribution	Buried Drop Fraction - 100	0.95	0.75
Distribution	Buried Drop Fraction - 200	0.95	0.7
Distribution	Buried Drop Fraction - 650	0.95	0.7
Distribution	Buried Drop Fraction - 850	0.95	0.7
Distribution	Buried Drop Fraction - 2550	0.95	0.7

Module/Table	Scenario Input	Scenario Value	Default Value
Distribution	Buried Drop Fraction - 5000	0.95	0.4
Distribution	Buried Drop Fraction - 10000	0.95	0.15
Distribution	Buried fraction available for shift - 0	0	0.75
Distribution	Buried fraction available for shift - 5	0	0.75
Distribution	Buried fraction available for shift - 100	0	0.75
Distribution	Buried fraction available for shift - 200	0	0.75
Distribution	Buried fraction available for shift - 650	0	0.75
Distribution	Buried fraction available for shift - 850	0	0.75
Distribution	Buried fraction available for shift - 2550	0	0.75
Feeder	Copper Aerial Fraction - 0	0.05	0.5
Feeder	Copper Aerial Fraction - 5	0.05	0.5
Feeder	Copper Aerial Fraction - 100	0.05	0.5
Feeder	Copper Aerial Fraction - 200	0.05	0.4
Feeder	Copper Aerial Fraction - 650	0.05	0.3
Feeder	Copper Aerial Fraction - 850	0.05	0.2
Feeder	Copper Aerial Fraction - 2550	0.05	0.15
Feeder	Copper Aerial Fraction - 5000	0.05	0.1
Feeder	Copper Buried Fraction - 0	0.95	0.45
Feeder	Copper Buried Fraction - 5	0.95	0.45
Feeder	Copper Buried Fraction - 100	0.95	0.45
Feeder	Copper Buried Fraction - 200	0.95	0.4
Feeder	Copper Buried Fraction - 650	0.95	0.3
Feeder	Copper Buried Fraction - 850	0.85	0.2
Feeder	Copper Buried Fraction - 2550	0.85	0.1
Feeder	Copper Buried Fraction - 5000	0.85	0.05
Feeder	Copper Buried Fraction - 10000	0.85	0.05
Feeder	Fiber Aerial Fraction - 0	0.05	0.35
Feeder	Fiber Aerial Fraction - 5	0.05	0.35
Feeder	Fiber Aerial Fraction - 100	0.05	0.35
Feeder	Fiber Aerial Fraction - 200	0.05	0.3
Feeder	Fiber Aerial Fraction - 650	0.05	0.3
Feeder	Fiber Aerial Fraction - 850	0.05	0.2
Feeder	Fiber Aerial Fraction - 2550	0.05	0.15
Feeder	Fiber Aerial Fraction - 5000	0.05	0.1
Feeder	Fiber Buried Fraction - 0	0.95	0.6
Feeder	Fiber Buried Fraction - 5	0.95	0.6
Feeder	Fiber Buried Fraction - 100	0.95	0.6
Feeder	Fiber Buried Fraction - 200	0.95	0.6
Feeder	Fiber Buried Fraction - 650	0.95	0.3

Module/Table	Scenario Input	Scenario Value	Default Value
Feeder	Fiber Buried Fraction - 850	0.85	0.2
Feeder	Fiber Buried Fraction - 2550	0.85	0.1
Feeder	Fiber Buried Fraction - 5000	0.85	0.05
Feeder	Fiber Buried Fraction - 10000	0.85	0.05
Feeder	Buried fraction available for shift - 0	0	0.75
Feeder	Buried fraction available for shift - 5	0	0.75
Feeder	Buried fraction available for shift - 100	0	0.75
Feeder	Buried fraction available for shift - 200	0	0.75
Feeder	Buried fraction available for shift - 650	0	0.75
Feeder	Buried fraction available for shift - 850	0	0.75
Feeder	Buried fraction available for shift - 2550	0	0.75
Feeder	Buried fraction available for shift - 5000	0	0.75
Feeder	Buried fraction available for shift - 10000	0	0.75
Switching	Constant EO Switching Investment Term, small ICO	520.14	416.11
Switching	Total Interoffice Traffic Fraction	0.4	0.65
Switching	Tandem-routed Fraction of Total IntraLATA Traffic	1	0.2
Switching	Tandem-routed Fraction of Total InterLATA Traffic	1	0.2
Switching	Local Call Attempts	9424	0
Switching	Call Completion Factor	0.7	0
Switching	IntraLATA Calls Completed	564	0
Switching	InterLATA intrastate Calls Completed	567	0
Switching	InterLATA interstate Calls Completed	1207	0
Switching	Local DEMs, thousands	41593	0
Switching	Intrastate DEMs, thousands	8880	0
Switching	Interstate DEMs, thousands	8768	0
Switching	Fiber Investment, buried fraction	0.95	0.6
Switching	Fiber, aerial fraction	0.05	0.2
Switching	Fraction of Aerial Structure Assigned to Telephone	0.5	0.33
Switching	Fraction of Buried Structure Assigned to Telephone	1	0.33
Switching	Fraction of Underground Structure Assigned to Telephone	1	0.33
Expense	Cost of Debt	0.088	0.077
Expense	Debt Fraction	0.442	0.45
Expense	Cost of Equity	0.1319	0.119
Expense	Corporate Overhead Factor	0.104	0.104
Expense	Billing/Bill Inquiry per line per month	2.3	1.22
Expense	Forward-looking Network Operations Factor	1	0.5
Expense	Alternative CO Switching Factor	0.0475	0.0269
Expense	Distribution Aerial Shring Fraction - 0	1	0.5
Expense	Distribution Aerial Shring Fraction - 5	1	0.33

Module/Table	Scenario Input	Scenario Value	Default Value
Expense	Distribution Aerial Shring Fraction - 100	1	0.25
Expense	Distribution Aerial Shring Fraction - 200	0.5	0.25
Expense	Distribution Aerial Shring Fraction - 650	0.5	0.25
Expense	Distribution Aerial Shring Fraction - 850	0.5	0.25
Expense	Distribution Aerial Shring Fraction - 2550	0.5	0.25
Expense	Distribution Aerial Shring Fraction - 5000	0.5	0.25
Expense	Distribution Aerial Shring Fraction - 10000	0.5	0.25
Expense	Distribution Buried Shring Fraction - 0	1	0.33
Expense	Distribution Buried Shring Fraction - 5	1	0.33
Expense	Distribution Buried Shring Fraction - 100	1	0.33
Expense	Distribution Buried Shring Fraction - 200	1	0.33
Expense	Distribution Buried Shring Fraction - 650	1	0.33
Expense	Distribution Buried Shring Fraction - 850	1	0.33
Expense	Distribution Buried Shring Fraction - 2550	1	0.33
Expense	Distribution Buried Shring Fraction - 5000	1	0.33
Expense	Distribution Buried Shring Fraction - 10000	1	0.33
Expense	Distribution Underground Shring Fraction - 5	1	0.5
Expense	Distribution Underground Shring Fraction - 100	1	0.5
Expense	Distribution Underground Shring Fraction - 200	1	0.5
Expense	Distribution Underground Shring Fraction - 650	1	0.4
Expense	Distribution Underground Shring Fraction - 850	1	0.33
Expense	Distribution Underground Shring Fraction - 2550	1	0.33
Expense	Distribution Underground Shring Fraction - 5000	1	0.33
Expense	Distribution Underground Shring Fraction - 10000	1	0.33
Expense	Feeder Aerial Shring Fraction - 0	1	0.5
Expense	Feeder Aerial Shring Fraction - 5	1	0.33
Expense	Feeder Aerial Shring Fraction - 100	1	0.25
Expense	Feeder Aerial Shring Fraction - 200	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 650	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 850	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 2550	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 5000	0.5	0.25
Expense	Feeder Aerial Shring Fraction - 10000	0.5	0.25
Expense	Feeder Underground Shring Fraction - 0	1	0.5
Expense	Feeder Underground Shring Fraction - 5	1	0.5
Expense	Feeder Underground Shring Fraction - 100	1	0.4
Expense	Feeder Underground Shring Fraction - 200	1	0.33
Expense	Feeder Underground Shring Fraction - 650	1	0.33
Expense	Feeder Underground Shring Fraction - 850	1	0.33

Module/Table	Scenario Input	Scenario Value	Default Value
Expense	Feeder Underground Shring Fraction - 2550	1	0.33
Expense	Feeder Underground Shring Fraction - 5000	1	0.33
Expense	Feeder Underground Shring Fraction - 10000	1	0.33
Expense	Feeder Buried Shring Fraction - 0	1	0.4
Expense	Feeder Buried Shring Fraction - 5	1	0.4
Expense	Feeder Buried Shring Fraction - 100	1	0.4
Expense	Feeder Buried Shring Fraction - 200	1	0.4
Expense	Feeder Buried Shring Fraction - 650	1	0.4
Expense	Feeder Buried Shring Fraction - 850	1	0.4
Expense	Feeder Buried Shring Fraction - 2550	1	0.4
Expense	Feeder Buried Shring Fraction - 5000	1	0.4
Expense	Feeder Buried Shring Fraction - 10000	1	0.4
Expense	Motor Vehicles - Economic Life	9.28	8.24
Expense	Garage Work Equipment - Economic Life	11.04	12.22
Expense	Other Work Equipment - Economic Life	13.47	13.04
Expense	Buildings - Economic Life	47.82	46.93
Expense	Furniture - Economic Life	17.1	15.92
Expense	Office Support Equipment - Economic Life	11.58	10.78
Expense	Company Comm. Equipment - Economic Life	7.69	7.4
Expense	General Purpose Computer - Economic Life	6.36	6.12
Expense	Digital Electronic Switching - Economic Life	16.66	16.17
Expense	Operator Systems - Economic Life	9.33	9.41
Expense	Digital Circuit Equipment - Economic Life	10.07	10.24
Expense	Public Telephone Terminal Equipment - Economic Life	8.26	7.6
Expense	Poles - Economic Life	15.92	30.25
Expense	Aerial Cable - metallic - Economic Life	16.75	20.61
Expense	Aerial Cable - non metallic - Economic Life	22.24	26.14
Expense	Underground Cable - metallic - Economic Life	21.14	25
Expense	Underground Cable - non metallic - Economic Life	23.08	26.45
Expense	Buried - metallic - Economic Life	19.9	21.57
Expense	Buried - non metallic - Economic Life	23.86	25.91
Expense	Intrabuilding Cable - metallic - Economic Life	15.71	18.18
Expense	Intrabuilding Cable - non metallic - Economic Life	23.62	26.11
Expense	Conduit Systems - Economic Life	50.92	56.19