Exhibit No.:
Issue: *Trunk Sizing/Traffic*
   Measurement Method
Witness: *Gary A Fleming*
Sponsoring Party: *CenturyTel of Missouri, LLC &*
   Spectra Communications
   Group, LLC d/b/a CenturyTel
Type of Exhibit: *Surrebuttal Testimony*
Case No.:   *TC-2008-0225*
Date Testimony Prepared   *February 12, 2009*

CENTURYTEL OF MISSOURI, LLC
and
SPECTRA COMMUNICATIONS GROUP, LLC
d/b/a CENTURYTEL

SURREBUTTAL TESTIMONY

OF

GARY A. FLEMING

CASE NO. TC-2008-0225

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

Socket Telecom, LLC,)	
Complainant,)	
)	
v.)	Case No. TC-2008-0225
)	
CenturyTel of Missouri, LLC and)	
Spectra Communications Group, LLC)	
d/b/a CenturyTel,)	
Respondents.)	

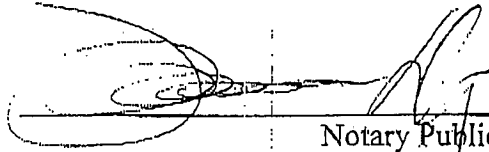## AFFIDAVIT OF GARY A. FLEMING

STATE OF NEW YORK)	
) SS.	
COUNTY OF NEW YORK)	

I, **Gary A. Fleming**, of lawful age and being duly sworn, state as follows:

1. My name is Gary A. Fleming. I am presently self employed as a consultant.

2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony in the above-referenced case.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge, information and belief.

_____
Gary A. Fleming

Subscribed and sworn to before me this 12ᵗʰ day of February, 2009.

_____
Notary Public

My Commission expires: _Dec. 15, 2009_
(SEAL)

SURREBUTTAL TESTIMONY

OF

GARY A. FLEMING

CASE NO. TC-2008-02251

6 **Q:** **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

7 **A:** My name is Gary A. Fleming. My business address is 6820 Creekside Ln, Plano, TX

8 75023

9 **Q:** **ARE YOU THE SAME GARY A. FLEMING WHO FILED REBUTTAL**

10 **TESTIMONY IN THIS CASE?**

11 **A:** Yes.

12 **Q:** **WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

13 **A:** The purpose of my testimony is to clarify, address and respond to points raised by Staff

14 Witness William L. Voight's Rebuttal Testimony within my area of expertise.

15 Specifically, I will address Issue Number Two in Mr. Voight's testimony, "What is the

16 appropriate methodology for measuring usage to determine if a particular exchange

17 exceeds the applicable POI threshold."

18 **Q:** **PLEASE SUMMARIZE YOUR TESTIMONY.**

19 **A:** Mr. Voight's stated position is that CenturyTel's testimonies regarding the industry

20 standard methods it proposes "suffer because they involve methods of estimating, albeit

21 by the use of statistical probability, the necessary quantities of trunks and fail to reveal

22 the actual amount of traffic occurring." As I demonstrate in the following, Mr. Voight's

23 conclusions and recommendations are not borne out by the facts.

1   **Q:**   **DOES MR. VOIGHT'S STATEMENT OF ISSUE NUMBER TWO**

2   **ACCURATELY DESCRIBE THE KEY ELEMENTS OF THE POI THRESHOLD**

3   **DETERMINATION?**

4   **A:**   No. Mr. Voight's issue statement focuses only on the first step of the POI threshold

5   determination method, the process for measuring the total traffic usage at peak. Once the

6   total traffic data has been collected, a second step must be taken. That step details the

7   process for using the traffic data that has been collected to determine whether or not the

8   threshold has been exceeded.

9   **Q:**   **WHY IS IT IMPORTANT THAT THE METHOD BE SEPARATED INTO TWO**

10   **STEPS?**

11   **A:**   Comparing each of the individual steps between CenturyTel's and Socket's proposed POI

12   threshold determination methods is the only way to get an apples-to-apples comparison

13   and make a fair evaluation of the methods. As I demonstrate below, the absence of an

14   evaluation of both of these steps creates a confusing and inaccurate comparison of the

15   proposed methods.

16   **Q:**   **HOW HAS THIS OMISSION OF BOTH STEPS IMPACTED THE**

17   **EVALUATION OF CENTURYTEL'S PROPOSED METHOD?**

18   **A:**   For starters, Mr. Voight's testimony describes CenturyTel's method only by the second

19   step (how the traffic data is used) and Socket's method only by its proposed first step

20   (how the traffic is measured). This results in an inaccurate and potentially confusing

21   description of the two proposed methods and more importantly, may be an indicator of a

22   lack of understanding of the methods. The impact of this lack of understanding is

23   apparent when Mr. Voight erroneously states that CenturyTel's method doesn't reveal the

1		actual traffic occurring because it involves "methods of estimating, albeit by the use of
2		statistical probability, the necessary quantities of trunks". He appears to be saying that
3		the way CenturyTel uses the actual total traffic data it has collected, somehow makes that
4		data inaccurate. Clearly CenturyTel's measurement of actual total traffic usage is not
5		impacted in any way by the second step of the POI determination process where this
6		actual traffic usage data is used with an Erlang trunk table to calculate the number of
7		required trunks. In fact, Mr. Voight's testimony does not directly address CenturyTel's
8		method of using SS7 call detail records to measure the total actual traffic at peak, nor
9		does it point out a single shortcoming of CenturyTel's method that would render it an
10		inaccurate measurement of the actual traffic that occurred. If the descriptions of the
11		methodologies were to be comparable, CenturyTel's method should have been termed the
12		"Actual Minutes of Use" method rather than the "Erlang" method.
13	Q:	**HOW HAS THE OMISSION OF BOTH STEPS IMPACTED THE EVALUATION**
14		**OF SOCKET'S PROPOSED METHOD?**
15	A:	First, there was no direct comparison of Socket's proposed method of collecting traffic
16		data with CenturyTel's method. Mr. Voight does not address the fact that Socket's call
17		counts do not constitute a measure of traffic usage. And just as Mr. Voight does not
18		directly address CenturyTel's first step process for measuring total traffic data, he also
19		does not address the second step in Socket's proposed method – how it uses the data it
20		has collected. In doing so, he ignores the significant flaws inherent in Socket's overly
21		simplistic "just count" process.
22	Q:	**DO YOU AGREE WITH MR. VOIGHT'S STATEMENT THAT IN CASE NO.**
23		**TC-2007-0341 THE COMMISSION'S RULINGS REFLECT A DE-EMPHASIS**

1   **ON PROJECTED TRAFFIC VOLUMES, AND AN EMPHASIS ON ACTUAL**

2   **TRAFFIC AND THAT THIS IS BEST REFLECTED BY SOCKET'S METHOD?**

3   **A:**   In the portion of my rebuttal testimony that Mr. Voight references, I stated that "the

4   Commission ruled that CenturyTel was not allowed to require additional trunks and

5   potentially an additional POI prior to porting the number of the Socket customer because

6   of traffic usage that CenturyTel *anticipated* would result from the porting. Instead, the

7   Commission states that the additional trunks and POIs should be based on *actual traffic*

8   measured after the numbers were ported." I disagreed with Mr. Kohly's assertion (Kohly

9   Direct Testimony, page 11, lines 5-7) that the Commission ruling meant that even with

10   actual traffic measurements, the use of an Erlang trunking table was inappropriate. A

11   plain reading of the order demonstrates that the Commission ruled that because the

12   contract provisions required the use of *actual traffic volumes*, statistical studies involving

13   the use of Erlang tables and *projected* or *estimated traffic* were not relevant. It is

14   important to understand that CenturyTel's measurements are of *actual* traffic that has

15   already occurred. They are not projections or estimates. Further, it is important to

16   recognize that the Commission did not prohibit the use of statistically based Erlang

17   tables.

18   As addressed in more detail later, I strongly disagree with Mr. Voight's

19   conclusion that Socket's approach measures actual traffic usage. It does not. It measures

20   call counts.

21   **Q:**   **IS MR. VOIGHT CORRECT IN HIS STATEMENT AT PAGE 11 THAT**

22   **CENTURYTEL'S METHOD OF MEASURING THE TRAFFIC USAGE DOES**

23   **NOT "REVEAL THE ACTUAL AMOUNT OF TRAFFIC OCCURRING"?**

1   **A:**   No. CenturyTel measures the actual historical total traffic from SS7 call detail records

2   and then aggregates it on an hourly basis. It is neither an estimate nor a projection of

3   traffic volumes, but rather a measurement of what actually occurred. With respect, Mr.

4   Voight does not identify a single flaw in CenturyTel's traffic measurement methodology

5   which justifies this statement.

6   **Q:**   **DOES CENTURYTEL'S METHOD FOR USING THE DATA TO DETERMINE**

7   **TRUNK REQUIREMENTS INVOLVE ESTIMATION METHODS?**

8   **A:**   No. CenturyTel uses the actual total traffic at the average peak hour along with the

9   Commission's standard of service objective (B.01) to determine the required trunks from

10   an Erlang-B table. It then compares those trunk quantities with the appropriate POI

11   threshold values to determine if they have been exceeded and an additional POI required.

12   **Q:**   **SHOULD THE COMMISSION'S SERVICE OBJECTIVES IN SUBSECTION**

13   **11.X OF THE CONTRACT BE IGNORED WHEN DETERMINING THE POI**

14   **REQUIREMENTS IN SUBSECTION 4.X AS MR. VOIGHT SUGGESTS?**

15   **A:**   No. It may be that the use of *projected traffic volumes* in the trunk forecasting function

16   described in Sections 11.2X and 11.3 has created a concern with Mr. Voight. However,

17   as noted above, CenturyTel is not proposing to use projected traffic volumes, but rather

18   actual measured traffic. It is virtually impossible to determine the quantity of trunk

19   circuits required absent the level of blocking service that has been ordered. Staff's view

20   that the 11.X Sub-sections should be ignored when determining POI requirements is

21   tantamount to saying that the Commission's service standard of B.01 does not apply to

22   the interconnection trunk groups between Socket and CenturyTel. That is not true. The

23   Commission clearly states in 11.1.6 that reciprocal traffic exchange arrangement trunk

1	groups "shall be jointly *engineered* to the appropriate *industry grade of service standard*"
2	and that "Socket and CenturyTel are to jointly plan interconnection trunking to ensure
3	that the reciprocal traffic exchange arrangement trunk groups are *maintained* at the
4	appropriate industry grade of service standard (B.01)". Since these trunk groups must be
5	engineered and maintained (and thus provisioned) at a one percent level of blocking
6	service standard, it logically follows that the POI threshold determination of the quantity
7	of trunks necessary to handle the total traffic at peak would have to be based on the
8	Commission's service standard. To the best of my knowledge there are no technically
9	valid methods for determining interconnection trunk quantities without using an objective
10	level of service.
11	**Q:** **BUT ISN'T IT FAIR TO SAY THAT USE OF STATISTICAL PROBABILITY**
12	**BASED ERLANG TABLES IS AN ESTIMATION TECHNIQUE?**
13	**A:** No. It would be a gross mischaracterization to dismiss these tables, which have been
14	proven valid through scientific study and widespread use by the industry over many
15	years, as simply an estimation technique - especially when coupled with the fact that
16	CenturyTel is using actual historical traffic data, not projections. Perhaps more
17	importantly, the Commission's requirement that interconnection trunk groups be
18	engineered and maintained at the B.01 service standard necessitates the use of Erlang or
19	similar statistically based tables. It is far more accurate to describe Socket's overly
20	simplified method as an estimation technique. As demonstrated in my rebuttal testimony,
21	it is simply incapable of determining the number of trunk circuits that would be required
22	to ensure that the interconnection trunk group would be able to meet the Commission's
23	service standards.

| 1 | Q: | DOES SOCKET'S METHOD MEASURE THE ACTUAL TRAFFIC? |

1   Q: **DOES SOCKET'S METHOD MEASURE THE ACTUAL TRAFFIC?**

2   A: No. A count of simultaneous calls in a particular second is not a measure of traffic usage.

3   It does not consider the length of the calls, which is inherent in the industry definition of

4   the term. More importantly as demonstrated in my rebuttal testimony, the length of the

5   calls can have a profound impact on the level of service provided.

6   Q: **IS SOCKET'S METHOD MOST SUPPORTED BY THE TERMS AND**

7   **CONDITIONS OF THE CONTRACT AS STAFF SUGGESTS?**

8   A: No. Socket's proposed methodology for determining whether or not the POI threshold

9   has been exceeded is seriously flawed. First, as noted above, the call count method is not

10   a measure of total traffic as defined in the industry. Second, as clearly demonstrated in

11   my rebuttal testimony, Socket's overly simplistic assumption that the number of

12   simultaneous calls in a single peak second can be used to reliably determine the required

13   amount of trunks simply doesn't work. It is incapable of meeting the Commission's

14   industry grade of service standard.

15   Q: **WHAT ARE YOUR CONCLUSIONS AND RECOMMENDATIONS**

16   **REGARDING THE POI THRESHOLD CALCULATIONS?**

17   A: Both steps of CenturyTel's method for measuring actual total traffic and using the

18   Commission's service standard are fully compliant with the terms and conditions of the

19   contract. As noted above, Socket's proposed method fails to meet the Commission

20   requirements because it does not measure total traffic, but rather only a count of calls,

21   and it's proposed "just count" method is incapable of determining the quantity of trunks

22   that would be required to meet the Commission's industry grade of service standard. I

1   would recommend that the Commission order that CenturyTel's method be used for POI

2   determination

3 **Q:**   **DOES THIS CONCLUDE YOUR TESTIMONY?**

4 **A:**   Yes, it does.