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BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF SOUTH DAKOTA

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IN THE MATTER OF THE PETITION OF  
BROOKINGS MUNICIPAL UTILITIES D/B/A/  
SWIFTEL COMMUNICATIONS FOR  
SUSPENSION OR MODIFICATION OF 47 U.S.C.  
SECTION 251(b)(2) OF THE  
COMMUNICATIONS ACT OF 1934 AS  
AMENDED PURSUANT TO THE  
TELECOMMUNICATIONS ACT OF 1996

Docket No. TC08-017

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**Direct Testimony of Peter C. Rasmuson**  
**On Behalf of Brookings Municipal Utilities D/B/A Swiftel**  
**Communications**

**July 15, 2008**

1 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS**  
2 **ADDRESS.**

3 **A.** My name is Peter C. Rasmuson. My business address is 1515 North Sanborn  
4 Blvd., Mitchell, SD 57301. My occupation/title is President,  
5 Telecommunications Consulting and Engineering for Martin Group, Inc.

6 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**  
7 **WORK EXPERIENCE.**

8 **A.** I received a Bachelor of Science degree in Civil Engineering from Iowa State  
9 University. I currently manage the engineering, consulting and regulatory  
10 business for Martin Group, Inc., a telecommunications software, consulting, and  
11 engineering firm. In this position during the past six years, I have supervised and  
12 reviewed the development of many different types of cost studies, feasibility  
13 studies, business plans and transport and termination studies including:

- 14 • Intrastate and interstate access cost studies for companies including  
15 Swiftel and several other ILECs in South Dakota, Iowa, Ohio, Washington  
16 and Indiana;
- 17 • Business plans for regional fiber networks in New York, Nebraska,  
18 California and Alabama;
- 19 • NECA average schedule to cost conversion feasibility studies;
- 20 • NECA average schedule filings;
- 21 • Collection and analysis of traffic data
- 22 • LECA intrastate access rate development and pool administration;
- 23 • Transport and termination rate development for Swiftel in this docket.

24 Martin Group has extensive knowledge of Swiftel's operations and finances due

1 to the wide variety of consulting projects and cost studies we have completed for  
2 them during the past twenty years.

3 Prior to joining Martin Group I was employed for seven years as President and  
4 General Manager for Sioux Valley Telephone Company and Hills Telephone  
5 Company, two independent local exchange carriers with operations in South  
6 Dakota, Minnesota and Iowa. As President and General Manager of Sioux Valley  
7 Telephone Company, I had the overall responsibility to develop its intrastate  
8 access rate in accordance with SDPUC rules and to file NECA average schedule  
9 forms and reports. As part of my duties for Sioux Valley and Hills Telephone  
10 Companies, I also served on the Board of Directors for Express Communications,  
11 a South Dakota-based long distance carrier; the Local Exchange Carrier  
12 Association (LECA), a South Dakota access charge pooling association;  
13 FiberNet, an Iowa-based regional transport network; and Fiber Comm, an Iowa-  
14 based competitive local exchange carrier.

15 **Q. ON WHOSE BEHALF WAS THIS TESTIMONY PREPARED?**

16 **A.** This testimony was prepared on behalf of Brookings Municipal Utilities d/b/a  
17 Swiftel Communications (Swiftel). Swiftel is the incumbent local exchange  
18 carrier (ILEC) that is franchised to serve the telephone customers within the  
19 municipal boundaries of the City of Brookings, SD.

20 **Q. IN WHAT CAPACITY ARE YOU TESTIFYING?**

21 **A.** I am here to explain the development of Swiftel's Exhibits 2 and 3, supporting its  
22 request for suspension or modification of number portability obligations.

23 **Q. WHAT IS THE PURPOSE OF EXHIBITS 2 and 3?**

24 **A.** Exhibits 2 and 3 summarize the nonrecurring and monthly recurring charges to

1 transport calls outside Swiftel's local calling area when implementing local  
2 number portability (LNP).

3 **Q. HOW WAS EXHIBIT 2 DEVELOPED?**

4 **A.** Based on NECA Tariff No. 5 special access pricing, Exhibit 2 is the cost to  
5 transport local calls to a Sprint Point of Presence (POP) outside Swiftel's local  
6 calling area. The assumed POP location is in Sioux Falls, SD.

7 **Q. CAN YOU PROVIDE A SUMMARY OF THE RESULTS IN EXHIBIT 2?**

8 **A.** Yes, the impact of transporting calls to Sprint for intermodal LNP, when the  
9 traffic exchange occurs outside Swiftel's existing exchange boundary, shown in  
10 Exhibit 2 is \$0.25 per line per month, assuming a five year amortization of non-  
11 recurring charges (NRC).

12 **Q. WHY DID YOU ASSUME A SIOUX FALLS, SD POP LOCATION?**

13 **A.** Sprint's interconnection request identified this location for Sprint's facilities in  
14 TC06-176 (an arbitration petition docket involving Swiftel and Sprint).

15 **Q. WHY DID MARTIN GROUP USE THE NECA TARIFF NO. 5 TO**  
16 **DEVELOP THE TRANSPORT COSTS IN EXHIBIT 2?**

17 **A.** Swiftel was a member of the NECA pool for interstate special access when  
18 Exhibit 2 was developed. This subject is discussed further later in my  
19 testimony. In addition, NECA special access rates were used in a similar  
20 interconnection decision in Iowa (IUB Order 032406\_arb052), in 2006, and yield  
21 lower costs than Swiftel's intrastate special access rates. Accordingly, the  
22 NECA rate is a reasonable proxy for the rate applicable to transport costs.

23 **Q. PLEASE DESCRIBE A DS1 AND STATE WHY MARTIN GROUP USES**  
24 **2 DS1s TO DEVELOP THE TRANSPORT COSTS IN EXHIBIT 2?**

1     **A.**     A DS1 is a dedicated point-to-point circuit representing 24 voice grade  
2             channels. Two DS1s were used in order to provide full redundancy of the  
3             circuit,

4     **Q.     HOW DID MARTIN GROUP DEVELOP THE NUMBER OF ACCESS**  
5     **LINES USED IN EXHIBIT 2?**

6     **A.**     In accordance with FCC §52.33 (for lifeline access line removal) and NECA  
7             guidelines. (for annual access line losses), Martin Group calculated Swiftel's  
8             forward-looking, five-year, total access line count starting with Swiftel's total  
9             access lines as of the 12/31/07 Interstate Common Line Support (ICLS) filing,  
10            less lifeline access lines. The lifeline access lines are identified as a separate  
11            line item on the NECA ICLS data collection form. The line count is reduced by  
12            3% annually for the five years ending 12/31/08 through 12/31/12. The  
13            calculation yielded the five year average access line count of 11,041 used in  
14            Exhibits 2 and 3.

15    **Q.     IN DETAIL, HOW IS NECA TARIFF NO. 5 USED TO CALCULATE**  
16    **THE RATE FOR A SINGLE DS1 TRANSPORT FACILITY FROM**  
17    **BROOKINGS, SD TO SIOUX FALLS, SD IN EXHIBIT 2?**

18    **A.**     The NECA tariff specifies the NRC and MRC (monthly recurring charges) for  
19             special access DS1s. For Exhibits 2 and 3, Martin Group used the NECA tariff  
20             dated July 1, 2006. This rate development is discussed again later in my  
21             testimony. For the NRC of special access DS1s, the NECA tariff prices the  
22             circuits based on two rate elements:

- 23            1. Installation of Channel Termination – this element recovers the labor and  
24            material costs to install and provision the equipment in the Sioux Falls

1 central office. As shown on page 17-26 of the tariff, the cost for this  
2 element is \$349.00 per termination or DS1.

- 3 2. Access Order Charge – this element recovers the labor costs of processing  
4 the order for the DS1. As shown on page 17-30 of the tariff, the cost of this  
5 element is \$93.00 per order.

6 For the MRC of special access DS1s, the NECA tariff prices the circuits based  
7 on rate bands and three rate elements:

- 8 1. Channel Terminations – this element recovers the cost of the transport  
9 electronics in the Sioux Falls central office to the Sprint POP location in Sioux  
10 Falls. This is often referred to as the local loop cost. As shown on page 17-  
11 26 of the tariff, the cost for this element is \$165.17 per termination in rate  
12 band two (the rate band applicable to Swiftel).
- 13 2. Channel Mileage Termination – this element recovers the cost of transport  
14 electronics on each end of the circuit. As shown on page 17-27 of the tariff,  
15 the cost for this element is \$88.16 per termination in rate band two (the rate  
16 band applicable to Swiftel). There are two terminations required for each  
17 DS1– one in Brookings and one in Sioux Falls.
- 18 3. Channel Mileage Facility – this element recovers the cost of the cable  
19 connecting the transport electronics on each end of the circuit. The mileage  
20 is calculated based on airline miles between the end points of the circuit, and  
21 not actual cable route miles. As shown on page 17-26 of the tariff, the cost  
22 for this element is \$17.88 per airline mile in rate band two (the rate band  
23 applicable to Swiftel). As calculated from the V&H coordinates in NECA  
24 Tariff #4, the airline miles between the two central offices are approximately

1           53 miles. For the route miles between Brookings and Sioux Falls, the cost is  
2           \$17.88 x 53 miles = \$947.64 per DS1.

3           In summary, Exhibit 2 shows that the NRC for two DS1s is \$791.00 and the MRC  
4           for two DS1s is \$2,578.

5           **Q.   WHAT IS THE PURPOSE OF EXHIBIT 3?**

6           **A.**   Exhibit 3 summarizes the NRC and MRC for six transport DS1s.

7           **Q.   WHY DOES EXHIBIT 3 USE THE COST FOR 6 DS1s?**

8           **A.**   Exhibit 3 estimates the transport cost to implement intermodal portability for  
9           each of the three cellular providers operating in Swiftel's local calling area,  
10          Verizon, Alltel, and Sprint. The assumed POP location for each of the three  
11          providers is Sioux Falls. For redundant routing purposes, it is assumed each  
12          provider would require 2 DS-1s for a total of 6.

13          **Q.   WHAT WOULD THE IMPACT BE IF SWIFTEL'S MOST CURRENT**  
14          **INTERSTATE SPECIAL ACCESS RATES (RATES EFFECTIVE JULY**  
15          **1, 2008) WERE USED TO DEVELOP TRANSPORT COSTS?**

16          **A.**   The cost of transport for one wireless carrier would increase from \$.25 to \$.28  
17          while the cost of transport for Sprint, Verizon, and Alltel traffic would increase  
18          from \$.72 to \$.80 per month.

19          **Q.   WHAT WOULD THE IMPACT BE IF A CARRIER SELECTED A**  
20          **DIFFERENT LOCATION FOR TRANSPORT OF LNP TRAFFIC?**

21          **A.**   Since most of South Dakota is in a single LATA, Sprint contends that it could  
22          select interconnection at virtually any point in the state. Our analysis using  
23          Sioux Falls is a low cost location in the state because the transport cost is  
24          predominantly dependent on the airline miles from Brookings to Sioux Falls. If

1 a carrier were to select Aberdeen or Rapid City, the transport costs for Sprint,  
2 Verizon and Alltel would increase to approximately \$1.47 and \$3.70, per access  
3 line, per month respectively.

4 **Q: DO THE PER ACCESS LINE INTERMODAL LNP TRANSPORT COST**  
5 **ESTIMATES INCLUDE ALL OF THE POTENTIAL CMRS OR OTHER**  
6 **ENTITIES?**

7 A: No they do not. The Intermodal LNP implementation transport cost estimates  
8 provided in the exhibits address only the primary carriers that are known to be  
9 operating in Swiftel's service area. If other entities enter Swiftel's geographical  
10 market including CMRS (PCS, 700 MHz, etc.) or VoIP providers that are not  
11 carriers, and require Swiftel to establish transport, the overall LNP related transport  
12 costs will very likely increase.

13 **Q. DO THESE COSTS SUPPORT SWIFTEL'S PETITION?**

14 A. Yes. The LNP costs shown in Exhibits 2 and 3 range from \$0.25 per month per  
15 line to \$.72 per month per line. As shown in Exhibits 2, and 3, Swiftel's  
16 expenses would increase, without a corresponding revenue increase, in the range  
17 of \$30,936 to \$92,820 annually plus \$791 to \$2,187 in the first year for NRC.

18 I believe the cost estimates support Swiftel's petition because the expenses  
19 associated with the cost of transport outside the local calling area would impose  
20 a requirement that is unduly economically burdensome to Swiftel and its  
21 customers and they would impose a significant adverse economic impact on  
22 users of telecommunications services generally.

23 **Q: ARE THERE OTHER COSTS TO PETITIONER IN CONNECTION WITH**  
24 **LNP?**

1 A: Yes. In addition to the transport costs that are anticipated in connection with  
2 Intermodal LNP, the Petitioner will incur other costs for the implementation of LNP  
3 such as switch translations, technical implementation, monthly recurring LNP  
4 database dip fees, Service Order Administration (SOA) fees, and other operational  
5 costs. As shown on Confidential PCR Exhibit 1, the cost to implement LNP  
6 (excluding transport) is estimated at \$102,000 (Non-recurring) and \$2,175 per  
7 month (Recurring). On a per Access Line allocation, this is \$.35 per month, per  
8 Access Line.

9 **Q: DIDN'T THE WIRELESS CARRIERS INCUR COSTS TO IMPLEMENT**  
10 **LNP?**

11 A: Yes. But there are three important differences. First, as stated before, the wireless  
12 carriers have many more subscribers over which to spread the cost of LNP.  
13 Second, the wireless carriers can benefit from intermodal LNP by porting numbers  
14 (and customers) from the wireline carrier. However, Swiftel may not benefit from  
15 intermodal LNP because current intermodal LNP rules do not allow wireless  
16 subscribers to port to wireline if the rate centers do not match. Third the wireless  
17 carriers were required to implement LNP to provide intramodal (wireless to  
18 wireless) LNP and to provide LNP in major markets (Qwest territory). It is my  
19 understanding that the CMRS carriers will not incur significant additional costs to  
20 require LNP from Swiftel.

21 **Q: DOES THE LACK OF INTERMODAL LNP HAVE ANY APPARENT**  
22 **EFFECT ON THE DECISION OF CUSTOMERS TO PURCHASE**  
23 **WIRELESS SERVICE IN SOUTH DAKOTA?**

1 A: There does not appear to be any evidence that the lack of Intermodal LNP has had a  
2 negative effect on the CMRS carrier's ability to compete in South Dakota. On the  
3 contrary, reports submitted for inclusion in the Universal Service Administration  
4 Company (USAC) reports show that even though the Commission granted a  
5 suspension of LNP in 2004 and many rural LECs in South Dakota have not  
6 implemented LNP, the number of consumers subscribing to wireless service in SD  
7 and in rural ILEC service territory has grown significantly and continues to  
8 increase.<sup>1</sup> While the Petitioner does not have wireless subscriber estimates specific  
9 to their service territory, it is likely that the wireless subscriber growth rates in the  
10 Petitioner's service area mirror the South Dakota ILEC wireless subscriber growth  
11 estimates derived from the USAC reports.

12 **Q: SWIFTEL HAS REQUESTED 90 DAYS TO IMPLEMENT LNP. IS THIS A**  
13 **REASONABLE TIMEFRAME?**

14 A: Yes. Among the steps Swiftel will need to take to implement LNP, Swiftel would  
15 be required to make Telcordia Local Exchange Routing Guide (LERG) changes to  
16 the NPA-NXXs in their network that are not already marked as "portable" with the  
17 applicable Local Routing Number (LRN). The standard interval for this type  
18 change is typically 66 days<sup>2</sup>. After the NPA-NXX is assigned as "portable", the  
19 Petitioner will need time to coordinate implementation and testing of Intermodal  
20 LNP porting in their network. In light of scheduling, holidays and other unforeseen  
21 delays, I believe this is a reasonable time frame.

22 **Q. DOES THIS COMPLETE YOUR TESTIMONY?**

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<sup>1</sup> See USAC's High Cost Loop Projected by State Study Area (USAC Appendix HC05) and the USAC CETC Reported Lines by Incumbent Study Area – Interstate Access Support (USAC Appendix HC020).

1 A. Yes it does.

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<sup>2</sup> Per Section 6.1.2 of ATIS-0300051 – Central Office Code (NXX) Assignment Guidelines (COCAG)  
Final Document issued January 18, 2008. Pages 21-22

Direct Testimony of Peter Rasmusson

Exhibit 1

Filed as

**CONFIDENTIAL**

**BROOKINGS MUNICIPAL UTILITIES (D.B.A SWIFTEL COMMUNICATIONS, INC.)**

**ESTIMATED COSTS TO IMPLEMENT INTERMODAL LOCAL NUMBER PORTABILITY  
INCLUDES TRANSPORT COSTS TO SPRINT IN SIOUX FALLS**

Estimated DS1s      2

	<u>Non- Recurring</u>	<u>Monthly Recurring</u>
<b><u>Transport Costs</u></b>		
Facility Termination Expense	\$ -	\$ 353
Facility Expense	\$ -	\$ 1,895
Channel Termination	\$ -	\$ 330
Access Order & Installation Charges	\$ 791	\$ -
<b>Subtotal</b>	<b>\$ 791</b>	<b>\$ 2,578</b>

<b>Total Estimated Costs Associated Sioux Falls POP</b>	<b>\$ 791</b>	<b>\$ 2,578</b>
<b>Access Lines*</b>	<b>11,041</b>	<b>11,041</b>
<b>Total Estimated Costs Per Access Line (Rounded), Per Month Assuming 5 Year Return For Non-Recurring Costs</b>	<b>\$ 0.01</b>	<b>\$ 0.24</b>

\*Per FCC § 52.33 (Recovery of carrier-specific costs directly related to providing long-term number portability) rules regarding number portability charges, lines receiving the lifeline discount are removed. The remaining lines represent an average of annual access line counts over a five year period assuming an annual decrease of 3%.

**BROOKINGS MUNICIPAL UTILITIES (D.B.A SWIFTEL COMMUNICATIONS, INC.)**

**ESTIMATED COSTS TO IMPLEMENT INTERMODAL LOCAL NUMBER PORTABILITY  
INCLUDES TRANSPORT COSTS TO SIOUX FALLS (VERIZON, ALLTEL, AND SPRINT)**

Estimated DS1s      6

	<u>Non- Recurring</u>	<u>Monthly Recurring</u>
<b><u>Transport Costs (see exhibit 2B)</u></b>		
Facility Termination Expense	\$ -	\$ 1,058
Facility Expense	\$ -	\$ 5,686
Channel Termination	\$ -	\$ 991
Access Order & Installation Charges	\$ 2,187	\$ -
<b>Subtotal</b>	<b>\$ 2,187</b>	<b>\$ 7,735</b>

<b>Total Estimated Costs Associated Sioux Falls POP</b>	<b>\$ 2,187</b>	<b>\$ 7,735</b>
<b>Access Lines*</b>	<b>11,041</b>	<b>11,041</b>
<b>Total Estimated Costs Per Access Line (Rounded), Per Month Assuming 5 Year Return For Non-Recurring Costs</b>	<b>\$ 0.01</b>	<b>\$ 0.71</b>

\*Per FCC § 52.33 (Recovery of carrier-specific costs directly related to providing long-term number portability) rules regarding number portability charges, lines receiving the lifeline discount are removed. The remaining lines represent an average of annual access line counts over a five year period assuming an annual decrease of 3%.