BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE PETITION OF SPRINT COMMUNICATIONS COMPANY L.P. FOR ARBITRATION PURSUANT TO THE TELECOMMUNICATIONS ACT OF 1996 TO RESOLVE ISSUES RELATING TO AN INTERCONNECTION AGREEMENT WITH BROOKINGS MUNICIPAL UTILITIES D/B/A SWIFTEL COMMUNICATIONS	Docket No. TC06-176

Rebuttal Testimony of Larry Thompson

On Behalf of Brookings Municipal Utilities D/B/A Swiftel Communications

February 16, 2007

REBUTTAL TESTIMONY OF LARRY THOMPSON
ON BEHALF OF
BROOKINGS MUNICIPAL UTILITIES D/B/A SWIFTEL COMMUNICATIONS

Q1. Please State your Name, Employer, Business Address and Telephone Number.

A. My name is Larry Thompson. I am the Chief Executive Officer of Vantage Point Solutions, Inc. ("Vantage Point"). My business address is 1801 North Main Street, Mitchell, South Dakota 57301.

Q2. Are you the same Larry Thompson that submitted pre-filed direct testimony in this proceeding?

A. Yes.

Q3. What is the purpose of your rebuttal testimony?

A. To respond to technical and regulatory issues raised in the direct testimony[1] of James R. Burt on behalf of Sprint Communications Company L.P. ("Sprint") in this proceeding.

Q4. Have you read the pre-filed direct testimonies of Mr. James R. Burt in this proceeding?

A. Yes.

Q5. Do you agree with Mr. Burt's description of the CMTS as presented on page 20 of his testimony?

A. Although the description is over-simplified, the description is reasonably accurate. The CMTS, as stated by Mr. Burt, "aggregates" and "routes" the traffic

[1] Direct Testimony of James R. Burt, "In the Matter of the Petition of Sprint Communications Company L.P. for Arbitration Pursuant to the Telecommunications Act of 1996 to Resolve Issues Relating to an Interconnection Agreement with Brookings Municipal Utilities d/b/a Swiftel Communications Docket TC06-176

passing through it. These are basic elements of a switching network and agree with my description of the CMTS network in my direct testimony.

Q6. Do you agree with Mr. Burt that Sprint and Swiftel are the only parties to the Agreement?[2]

A. The agreement states that it is between Sprint and Swiftel. However, to the extent that Mr. Burt is arguing that Sprint performs all of the functions necessary to be entitled to reciprocal compensation, I disagree. In order to make his point, Mr. Burt overstates the functions performed by Sprint in the proposed network. Mr. Burt states that it is Sprint's "end office switch that originates and terminates all of the traffic that will be exchanged between Sprint and Swiftel". Sprint's end office switch does not provide all of the switching functions, nor does it terminate traffic to the end user customers. As described in my direct testimony, MCC provides some of the switching functions and terminates the traffic to the customer using its Hybrid Fiber Coax network.

Q7. Should Sprint be allowed to utilize "multi-use" trunks?

A. No. A multi-use trunk as defined by Sprint[3] is a trunk that combines wireless intraMTA and wireline local traffic onto the same trunk. In other words, Sprint is proposing to terminate both wireless and landline reciprocal compensation traffic on the same trunk. There are a number of problems with this proposal. First, the addition of the wireless intraMTA terminating traffic to this trunk would likely result in an imbalance of local traffic that would result in reciprocal compensation

[2] Burt Direct Testimony, page 30, lines 8-10.

[3] Burt Direct Testimony, page 37, lines 11-14.

due Swiftel. Sprint, however, is proposing bill and keep for local traffic. Second, based on the information that Sprint has provided, I do not believe that Sprint is able to properly identify the jurisdiction of the traffic to ensure only local traffic is going to be delivered across this trunk. Third, Swiftel has filed a Petition for Suspension or Modification at this Commission which demonstrates that the establishment of trunks as requested by Sprint will impose significant costs on Swiftel.

Q8. Does Sprint have the ability to properly identify traffic on interconnection trunks that contain both wireless and wireline traffic?

A. No. Mr. Burt admits that Sprint has not yet developed the ability to properly identify the traffic. On page 41 of his direct testimony, Mr. Burt states "Sprint will incur significant costs to develop the capability to identify the various types of traffic correctly." It is clear from this statement that they have not yet developed a way to separate and identify the various types of traffic. Even if they are able to develop a method, under Sprint's proposed agreement language at Section 4.3, Sprint wants the ability to populate the Calling Party Number ("CPN") on only 95% of the traffic. The CPN is a key field that is required to identify the traffic.

Q9. Do you understand what Sprint is planning in regard to the "significant costs"[4] that they will incur to identify this traffic?

A. No. Sprint has neither provided adequate information nor an adequate methodology on how they plan to properly identify the traffic on a multi-use trunk. It is clear from Mr. Burt's statement, cited in my response to Question 10,

[4] Burt Direct Testimony, page 41, line 1-2.

that they cannot currently provide the necessary information to properly identify this traffic. In spite of this, Sprint would like Swiftel to establish an interconnection and simply terminate its traffic without regard to an accurate means of measuring the traffic in order to determine the appropriate compensation. Sprint asks this Commission and Swiftel to trust that an accurate methodology will be developed and that it will be implemented before a multi-use trunk is used. Sprint has it backwards. Before any multi-use trunk proposal should be considered, an accurate means of measuring traffic should be developed and Swiftel should have the ability to examine the methodology to confirm that it is accurate.

Q10. Do you believe Sprint will, in any event, be able to develop a methodology to accurately identify this traffic?

A. I have serious concerns about this. First of all, Sprint claims that they have similar services being provided in 31 states with 12 difference cable companies.[5] They also quote rulings from Indiana and Iowa where these types of trunks have been allowed.[6] It seems obvious that Sprint has had the ability to use "multi-use trunks" elsewhere for some time and has not yet developed a method to identify the traffic. We have found that there is little motivation for a carrier to determine a methodology once the agreement is in place. I would expect that Sprint would place these tasks as a low priority, knowing that the result could be that they would owe Swiftel additional compensation. This is confirmed by the fact that similar interconnections exist elsewhere and Sprint does not yet have a process for identifying the traffic on these established interconnections. These issues must be resolved in advance.

Q11. Would Swiftel benefit from multi-use trunks if Sprint were allowed to use them?

A. No – at least not under the conditions proposed by Sprint. It has been my experience that multi-use trunks would increase regulatory and administrative expenses for Swiftel and would require that Swiftel invest in more switch resources to record all of the call records. The complexity and cost to Swiftel of its billing process and Carrier Access Billing System (CABS) would also increase with multi-use trunks because multi-use trunks would force Swiftel to process and

[5] Burt Direct Testimony, page 8, lines 20-21.

[6] Burt Direct Testimony, pages 45-47.

identify more call records (both local and Interstate jurisdictions) than would be needed with separate trunks.

Q12. On page 43 of his direct testimony, Mr. Burt states that Swiftel currently receives wireline and wireless local traffic from a tandem provider that has been combined onto a single multi-use trunk today. Do you agree with this?

A. I do not know what trunk Mr. Burt is referring to and he may be confused about the Swiftel network. Swiftel connects to two tandem providers, both Qwest and SDN Communications. SDN Communications does not deliver wireline or wireless local traffic to Swiftel. The Qwest terminating trunk group is intended to deliver only Qwest intraLATA toll traffic and wireless local traffic. Therefore, neither of these trunks would be "multi-use" trunks as defined by Mr. Burt.

Q13. Has Swiftel had any issues associated with the mixing of traffic on the Qwest trunk group?

A. Yes. Swiftel has spent a significant amount of time, money, and resources to analyze the traffic on these trunks in attempts to properly bill for the traffic. Vantage Point is currently performing a "Phantom Traffic" study for Swiftel to quantify the amount of traffic on the Qwest trunk group that is not being properly identified by Qwest. As more types of traffic are mixed on the same trunk group, the more likely that some of the traffic will be mischaracterized (either intentionally or unintentionally) and the terminating carrier, such as Swiftel, will not be able to receive proper compensation.

Q14. Would it be possible for Sprint to deliver wireless and wireline traffic on separate trunks?

A. Yes. All modern switching platforms that I am familiar with would allow the carrier to deliver its traffic on separate trunks. Sprint's switching platform is capable of doing this also.

Q15. As implied by Mr. Burt, is the use of multi-use trunks a necessary element for a converged network?[7]

A. No. The desire for reduced capital expenses and operational expenses are driving the converged network. There are some areas of the network, however, where convergence does not make sense. The multi-use trunks as proposed by Sprint appear to be one of these instances. I would expect that the multi-use trunks may result in small reductions in capital expenses. These small reductions in capital expenses, however, would be more than offset by the rather significant increases in operational expenses. The fact is, at this point in time, the use of multi-use trunks creates more inefficiencies than they do efficiencies.

Q16. Do you believe that Sprint would not be "keeping up with the times" if they did not utilize "multi-use trunks"?[8]

A. No. Sprint's use of separate trunks rather than a single multi-use trunk will not limit the services that can be offered by Sprint. For example, the "simultaneous ringing" capability described by Mr. Burt on page __ of his direct testimony does not require the combining of different traffic types on the same interconnection trunk.

Q17. Does Sprint normally use multi-use trunks for interconnecting with an ILEC?

[7] Burt Direct Testimony, page 38, lines 12-16.

[8] Burt Direct Testimony, page 38, lines 14-16.

A. No. Mr. Burt states in his direct testimony, "Generally, Sprint has three separate network interconnections to ILECs. These include a wireline local interconnection, a wireless local interconnection for intraMTA traffic and an access interconnection for toll traffic."[9] By Sprint's own admission, Sprint claims that its normal method for interconnection would be three separate trunks.

Q18. How does Sprint propose that Swiftel would be able to identify the traffic on the multi-use trunks?

A. Mr. Burt believes that populating three fields in the SS7 message will allow Swiftel to properly identify and bill for the traffic. The three fields that Mr. Burt proposes that Sprint populate are the Originating Line Information Parameter (OLIP), the Calling Party Number (CPN), and the Called Party Number (CLD).[10]

Q19. Could Swiftel utilize the SS7 fields proposed by Burt to accurately identify and bill for the traffic?

A. No. First of all, Swiftel's Carrier Access Billing System (CABS) is not able to process the OLIP, even if it were to be populated in some manner by Sprint. The OLIP is not commonly used by the CABS and it is not clear how Swiftel would use the OLIP to differentiate wireless from wireline traffic. In addition, if Sprint were to deliver Commercial Mobile Radio Services (CMRS) traffic over this trunk, Swiftel would not be able to determine if the wireless calls are interstate, intrastate, or local using any of the SS7 fields proposed by Sprint. The jurisdiction of a wireless call is determined by the location of the CMRS customer at the start of the call, so the CPN would not be a valid method of determining the

[9] Burt Direct Testimony, page 37, lines 14 – 17.

[10] Burt Direct Testimony, page 41, lines 9-17.

jurisdiction of the call as it would be with a wireline customer. CMRS customers are mobile and can be located in the rate center where their number was assigned or elsewhere. Additional information is required from the Sprint network to properly identify the location of the CMRS customer, unless Sprint can provide an auditable method for delivering only intraMTA traffic (non-access) over the multi-use trunk. As mentioned earlier, if Sprint were to deliver CMRS traffic over this connection, it is likely that the traffic would be out of balance and there would have to be a method of determining this traffic imbalance.

Q20. Do you agree with page 42 line 3-5 of Mr. Burt's direct testimony where he says "There have been advancements in switching technology that enable Sprint to combine different types of traffic onto a common switching platform"?

A. No. I have seen no evidence that Sprint is switching both wireless and wireline traffic on the same switching platform. In fact, Swiftel's experience as a landline and wireless service provider has shown the opposite to be true. Several years ago, Swiftel purchased an upgrade from Nortel to their existing DMS-100 to add wireless switching capabilities to the platform. This configuration was referred to by Nortel as the DMS-100 Wireless (DMS-100W) configuration. After a few years, Nortel Networks made a decision to no longer support this combined DMS-100W wireless/wireline configuration. As a result, Swiftel was forced to split the DMS-100W into two (2) separate switches, one for wireline operations (the DMS-100) and one for wireless operations (the DMS-MTX). Nortel Networks has not, to date, allowed the combination of wireline and wireless switching operations on a common front end for any of their carrier switching platforms. This includes

the legacy DMS SuperNode processing platform and the Call Server 2000 (CS2K) processing platform.

********** BEGIN CONFIDENTIAL INFORMATION **********

********** END CONFIDENTIAL INFORMATION **********

Q21. Does a single switch that processes different kinds of traffic have to use a single trunk with multi-use traffic?

A. No. All switches that I am familiar with have the capability of utilizing multiple trunks. Translations in the switch allow them to route the different types of traffic to the correct trunks, regardless if they are mixed on one trunk or utilize multiple trunks.

Q22. On page 43 of Mr. Burt's direct testimony he says that Sprint has stated that they will be responsible for 100% of the traffic that Sprint terminates to Swiftel over the multi-use trunks. Why then should Swiftel be concerned?

A. Sprint's proposed Section 7.2.2 of the Agreement, states if Swiftel cannot determine the jurisdiction of the traffic on its own, Swiftel will be dependent on PLU and PIU factors that Sprint supplies. Sprint provides no explanation of how the PLU and PIU factors will be determined and, therefore, there is no ability to evaluate whether they will be accurate. I further note that if the Agreement concerns local wireline traffic only, and not CMRS and toll traffic, there would be no need for traffic factors because the Parties would be able to accurately measure and identify the traffic.

Q23. How does Mr. Burt propose that Sprint will identify the different types of wireless and wireline traffic including both local and access traffic that Sprint proposes to mix on the interconnection trunks?

A. Mr. Burt states that "Sprint will clearly identify all traffic (wireless, wireline and access) using industry standard SS7 signaling so that Swiftel can properly identify

the traffic and render an accurate invoice."[11] However, Section 5.6.1 of the proposed interconnection agreement states that it will be Swiftel's responsibility to "measure and accurately identify the Traffic delivered on combined trunks/facilities...". Even if Sprint were to "identify" all traffic using standard SS7 signaling, Swiftel has the burden to measure and properly jurisdictionalize the traffic.

Q24. *Do you believe it is possible to accurately identify and jurisdictionalize the* CMRS traffic using SS7 signaling?

A. No. SS7 signaling provides many specifics about calls, however, the information in the SS7 message is not sufficient to "jurisdictionalize" CMRS traffic. To determine if a call is IntraMTA or InterMTA in nature, Swiftel must know the location of the CMRS customer that originates the call. The SS7 message does not provide this information. There is no way Swiftel would be able to determine from the SS7 message if a wireless subscriber was located in the Brookings exchange or if he were in Rapid City. If the CMRS caller was in Brookings, the call would be an IntraMTA call, whereas if the CMRS caller was in Rapid City the call would be an InterMTA call. If the caller was in Rapid City, it is likely that call would not be properly jurisdictionalized and therefore Swiftel would not be able to bill the terminating access charges that would be rightfully due to them.

Q25. *On page 49 of his direct testimony, Mr. Burt states that there are network* efficiencies derived from multi-jurisdictional trunking. Do you agree?

A. It is not clear that Swiftel would experience any efficiencies if Sprint combines traffic and, in fact, Swiftel will incur significant additional burdens. If a multi-

[11] Burt Direct Testimony, page 49, lines 6-8.

jurisdictional trunk were to be used, Swiftel would have to record all of the traffic on these trunks, process the traffic, and bill it appropriately. This not only places an increased burden on Swiftel, but also increases the potential for phantom traffic and arbitrage, which would result in lost revenue for Swiftel.

Q26. Do you agree with Mr. Burt's statement on page 50 of his direct testimony that there would be no technical reasons that would prohibit combining traffic subject to reciprocal compensation and traffic subject to access charges on the same trunks?

A. I am not aware of a technical reason why the originating carrier cannot combine all of its traffic onto a single trunk. There are, however, many technical issues associated with the terminating carrier's ability to properly measure and bill for the traffic.

Q27. Does that conclude your rebuttal testimony?

A. Yes. However, I wish to reserve the opportunity to supplement this testimony in the future, if necessary.