BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE PETITION FOR LOCAL NUMBER PORTABILITY SUSPENSION OR MODIFICATION ON BEHALF OF STOCKHOLM-STRANDBURG TELEPHONE COMPANY	))))	Docket No. TC08-026

PRE-FILED DIRECT TESTIMONY OF JOHN DE WITTE

Q: What is your name and address?

A: My name is John M. De Witte. My business address is 2211 N. Minnesota Street, Mitchell, South Dakota 57301.

Q: By whom are you employed and in what capacity?

A: I am the Vice President of Engineering of Vantage Point Solutions, Inc. (VPS). VPS is a telecommunications engineering and consulting firm in Mitchell, South Dakota with a full-time staff of over 80 employees. Our client base of VPS is made up of rural independent Local Exchange Carriers (LECs). I focus on assisting the small LECs with nearly all technical and financial aspects of their operations. My direct staff and I have provided engineering, financial, and regulatory services to many of the South Dakota LECs, as well as LECs in several other states.

Q: What is your educational and business background?

A: I received a Bachelors of Science in Computer Engineering (1982) from Iowa State University (Ames, IA) and a Masters of Business Administration (1992) from Kennesaw STate College (Kennesaw, GA). I am a Registered Professional Engineer in South Dakota and 11 other states.

I have been active in the telecommunications industry since 1983. Previous to VPS, I worked for Martin Group, Inc., based in Mitchell, South Dakota. At Martin Group, I was Assistant Director of Engineering of the Telecom Consulting and Engineering Business Unit, providing engineering and consulting services to rural telecommunications providers throughout the nation. Prior to this, I worked in a variety of engineering, marketing, and management positions at Nortel Networks, Inc., a telecommunications equipment manufacturer in Raleigh, NC and Atlanta, GA. I am a regular speaker at many state, regional, and national telephone company organization events, including the National Telephone Cooperative Association (NTCA) and the Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO). In this capacity, I often advise telephone company managers and board members regarding a variety of technical and financial issues.

Q: On whose behalf are you testifying in this proceeding?

A: My direct pre-filed testimony is submitted on behalf of Stockholm-Strandburg Telephone Company (SST).

Q: What is the purpose of your testimony?

A: I will provide testimony on technical and cost issues relative to SST of implementing the transport for intermodal LNP that is pertinent to this hearing.

Q: Are you familiar with current telephone network technologies, including switching equipment, transmission equipment, and outside plant architectures?

A: I have provided engineering and consulting services to more than 100 rural LECs across the United States. I am familiar with nearly all of the technologies and architectures of a rural LEC network, including transport equipment, switching equipment, digital loop carrier equipment, broadband networks, along with copper and fiber outside plant cable. I have engineered both landline networks and wireless networks for my clients. In addition, I've provided engineering and consulting services to SST for several projects over the past decade.

Q: Do you understand the various methods and requirements that are required to support Intramodal (wireline to wireline or wireless to wireless) and Intermodal (wireline to wireless) Local Number Portability?

A: Yes I do.

Q: With the number of variants for LNP, which implementation of LNP is the focus of your testimony?

A: In general, the methodologies, rules, and implementation processes for wireline Intramodal (wireline to wireline or wireless to wireless) LNP are clearly defined. In general, Intramodal LNP requires the competing carriers to establish well-defined points of interconnection and the associated transport arrangements for the exchange of LNP traffic as part of the Interconnection Agreement. The methodologies, rules, and implementation processes for Intermodal (wireline to wireless) LNP are less well defined. The costs of transport regarding Intermodal LNP relating to wireline to wireless ports will be the focus of my direct testimony.

Q: What unique challenges are presented to a rural Independent Local Exchange Carrier (ILEC) with the implementation requirements of Intermodal LNP?

A: There are several technical and economic issues facing rural ILECs as they evaluate the implementation of Intermodal LNP. These challenges for the small rural ILECs concern how calls to ported numbers can be rated as local given the current interconnection of wireless and wireline networks. The Petitioner has several existing direct connections with various CMRS carriers in their network. However, the Petitioner currently does not have any existing direct points of connection to the wireless carriers' networks in the rate centers it serves. Since there are no direct points of connection with the wireless carriers, only conventional, switched toll routes are available to transport calls to ported numbers Other transport options may be possible. However, the wireless carriers have not made any special arrangements with the Petitioner concerning translating, routing, rating or cost recovery rules for Intermodal LNP. To consider an option other than either a direct connection or the use of toll routes for transport of calls to ported numbers, some of the issues that need to be addressed include: (1) to what point should the calls be routed, (2) how will the Petitioner be able to maintain the original rate center designation and rating when the number is ported to a point of interconnection that is located outside the original rate center, when the wireless service area and the Petitioner's service area vary greatly, and (3) who will pay for the transport. These issues are unique in rural areas. such as the Petitioner's service area, where few, if any interconnection arrangements exist and there are fewer subscribers (in

comparison to metropolitan areas where there are thousands of subscribers) over which to spread the costs of Intermodal LNP. The uncertainty surrounding these and other questions is likely to cause significant customer confusion, complaints to the Petitioner and the SDPUC, and the resulting perception of degraded customer service on the part of the Petitioner's members.

Q: Are there other costs to the Petitioner in connections with Intermodal LNP?

A: Yes. In addition to transport costs that are anticipated in connection with Intermodal LNP, the Petitioner will incur other costs for the implementation of LNP such as switching software upgrades, monthly recurring LNP database dip fees, Service Order Administration (SOA) fees, and other operational costs. These LNP implementation costs, including the cost of transport will benefit only those few subscribers that choose to leave SST, while encumbering the entire remaining number of SST subscribers with the burden of funding the LNP porting benefit. As shown on Confidential Exhibit JMD1, the cost to implement intermodal LNP (excluding transport) is estimated at **BEGIN CONFIDENTIAL** **END CONFIDENTIAL** However, as we will see later, these costs represent a very small portion of the total intermodal LNP implementation costs.

Q: Didn't the wireless carriers incur costs to implement LNP?

A: Yes. But there are three important differences. First, as stated before, the wireless carriers have many more subscribers over which to spread the cost of LNP. Second, the wireless carriers can benefit from intermodal LNP by porting numbers (and customers) from the wireline carrier. However, SST cannot benefit from

intermodal LNP because current intermodal LNP rules do not allow wireless subscribers to port to SST's wireline services. Beyond the small cost of the incremental LNP database dips the CMRS carriers will incur in an intermodal LNP environment, it is my understanding that the CMRS carriers will not incur significant additional costs to require LNP from SST.

Q: Does the lack of Intermodal LNP have any correlation to the apparent purchasing decisions by wireless subscribers in South Dakota?

A: There does not appear to be any evidence that the lack of Intermodal LNP has had a negative effect on the CMRS carrier's ability to compete in South Dakota. The evidence is quite to the contrary according to the reports submitted for inclusion in the Universal Service Administration Company (USAC) reports. Even though the Commission granted a suspension of LNP in 2004 and many rural LECs in South Dakota have not implemented LNP, the number of consumers subscribing to wireless service has grown significantly and continues to increase. In the fourth quarter of 2006, the number of wireless subscribers in South Dakota was estimated at 270,210. Of this total, 176,502 wireless subscribers were estimated in current Qwest service areas and 93,708 wireless subscribers were estimated within ILEC services areas. For the first quarter of 2008, the number of wireless subscribers in South Dakota is estimated at 287,122. Of this total, 182,283 wireless subscribers were estimated in current Qwest service areas and 104,839 wireless subscribers were estimated within ILEC services areas. This increase in wireless subscribers represents approximately a three percent (3%) growth rate in wireless customers in

Qwest areas and a twelve percent (12%) growth rate in wireless customers in ILEC service areas.[1] While the Petitioner does not have wireless subscriber estimates specific to its service territory, it is likely that the wireless subscriber growth rates in the Petitioner's service area mirror the South Dakota ILEC wireless subscriber growth estimates derived from the USAC reports.

Q: What are the anticipated transport-related costs of implementing Intermodal LNP?

A: The anticipated costs of implementing transport for Intermodal LNP can be evaluated by the option as described in Confidential Exhibit 2 of the SST Petition. This Exhibit is attached as Confidential Exhibit JMD2. This Exhibit explores the anticipated transport costs utilizing leased facilities to South Dakota Network (SDN). The assumptions used to calculate the cost components in this option will be identified in the following paragraphs.

Option 1 – No CMRS Direct Connections

In this option, it is assumed that facilities would be established by the Petitioner for the Ported LNP traffic to SDN (from Stockholm, SD). It is assumed that the CMRS carriers would utilize the facilities established by the Petitioner for Ported LNP traffic. Non-Ported LNP traffic would continue to route via the existing arrangements. The cost of establishing a direct connection with CMRS carriers was assumed to be the cost of a standard special access DS1 (24 DS0s) from Stockholm

[1] These wireless subscriber estimates were calculated using wireless loop data reported in 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) for the appropriate time periods.

to SDN using a quote provided by SDN for this circuit. The SDN DS1 Quote is attached as Confidential Exhibit JMD3. The quantity of DS0s required for each CMRS carrier was assumed to be a minimum of 24 DS0s (1 DS1). Based on this methodology, the Petitioner would require **BEGIN CONFIDENTIAL** **END CONFIDENTIAL** In addition, SST estimated an Intracompany Transport Rate for each CMRS carrier. The Intracompany Transport Rate was designed to recover the costs of transporting the LNP calls to the CMRS transport connection. This Intracompany Transport Rate was based on the existing Reciprocal Compensation rates for each of these carriers (with the exception of Sprint). For this cost estimate option, the Reciprocal Compensation Rate for Sprint was assumed to be the same as the lowest of the existing Reciprocal Compensation rates provided. To calculate the cost impact for the LNP Ported traffic, SST assumed that 5 Intermodal ports would occur over the span of five (5) years. To estimate the Ported Intermodal LNP traffic, it was assumed that each of the ported Directory Numbers (DNs) would average five (5) calls a day averaging three (3) minutes each in duration. Each carrier's transport cost impact was estimated by calculating their proportional share of the Ported LNP traffic and the wireless traffic that would have normally been routed on a Type 2B Direct Connection that was transited to the applicable route to SDN and applying the Intracompany Transport Rate to those minutes. When considering only the cost of transport related to Intermodal LNP implementation for the existing CMRS carriers, SST's Intermodal LNP Transport costs were estimated **BEGIN CONFIDENTIAL****END CONFIDENTIAL**

Q: Do the per Access Line Intermodal LNP Transport cost estimates identified above include all of the potential CMRS or other carriers?

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

Q: Are there any other potential costs that could impact SST with the implementation of Intermodal LNP?

A: With the implementation of Intermodal LNP, SST will be required to perform a LNP database dip on all calls destined for connecting carriers on EAS routes to ensure that ported calls are being routed properly. This will result in additional recurring LNP database dip charges for SST. In addition, all other connecting carriers with EAS arrangements with SST and their customers will be impacted because the other carrier will have to LNP dip all EAS calls as well. This would increase the cost of EAS between SST and the other carrier and could result in a loss of EAS options to the customer or an increase in the cost of the EAS service.

Q: Are there other options that could be considered concerning the transport of wireless traffic (including Ported LNP traffic)?

A: As I stated before, there may be other options. However, the Petitioner cannot speculate on the feasibility or likelihood of implementation of options not in

existence. The Petitioner provided cost estimates to implement the Intermodal LNP Transport based on the known transport method that it could implement.

Q: What would be the timeframe required for the Petitioner to fully implement, test and place Intermodal LNP into commercial service, if required to do so?

A: SST estimates that it would require approximately four (4) months. This projected timeframe is due to several regulatory requirements. As an example, the Petitioner would be required to make Telcordia Local Exchange Routing Guide (LERG) changes to the NPA-NXXs in its network that are not already marked as "portable" with the applicable Local Routing Number (LRN). The standard interval for this type change is typically 66 days[2]. After the NPA-NXX is assigned as "portable", the Petitioner will need time to coordinate implementation and testing of Intermodal LNP porting in its network. As with any planning horizon, this timeline does not take into account holidays or other unforeseen delays. In addition, it should be noted that if several South Dakota ILECs implement Intermodal LNP in their networks simultaneously, the implementation time horizon will likely need to be expanded to six (6) months to accommodate the scheduling of vendor and technical resources.

Q: Does this conclude your direct testimony?

A: Yes. I also reserve the opportunity to revise or modify this pre-filed direct testimony at or before the hearing if I receive additional information pertaining to the issues I presented herein.

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