BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE PETITION OF KENNEBEC TELEPHONE COMPANY FOR ARBITRATION PURSUANT TO THE TELECOMMUNICATIONS ACT OF 1996 TO RESOLVE ISSUES RELATING TO AN INTERCONNECTION AGREEMENT WITH ALLTEL COMMUNICATIONS, INC.	**FINDINGS OF FACT, CONCLUSIONS OF LAW; NOTICE OF ENTRY OF ORDER** **TC07-114**

PUBLIC VERSION

On October 19, 2007, Kennebec Telephone Company (Kennebec) filed a petition for arbitration of certain unresolved terms and conditions of a proposed Interconnection Agreement between Kennebec and Alltel Communications, Inc. (Alltel), pursuant to section 252 of the Telecommunications Act of 1996, SDCL 49-31-81, and ARSD 20:10:32:29. Kennebec filed a list of unresolved issues consisting of:

(1) Is the reciprocal compensation rate for IntraMTA Traffic proposed by Kennebec appropriate pursuant to 47 U.S.C. section 252(d)(2)?
(2) What is the appropriate Percent InterMTA Use factor to be applied to non-IntraMTA traffic exchanged between the parties?
(3) What is the appropriate manner by which the minutes of use of IntraMTA Traffic terminated by the parties, one to the other, should be calculated and billed?
(4) What is the obligation of the parties with respect to dialing parity?
(5) What is the appropriate effective date and term of the Agreement?

Kennebec requested the following relief:

A. Issuance of an Order requiring arbitration of any and all unresolved issues between Kennebec and WWC;
B. Issuance of an Order directing Kennebec and Alltel to submit to this Commission for approval of an interconnection agreement reflecting:
   (i) the agreed-upon language in Exhibit A, and
   (ii) the resolution of any unresolved issues in accordance with the positions and recommendations made by Kennebec as set forth herein at the arbitration hearing to be scheduled by this Commission;
C. Issuance of an Order directing the parties to pay interim compensation for transport and termination of telecommunications traffic from January 1, 2007 (the Effective Date set forth in Exhibit A) to the date on which the Commission approves the parties' executed interconnection agreement in accordance with section 252(e) of the Act;
D. Issuance of an Order asserting this Commission has jurisdiction over this arbitration until the parties have submitted an executed interconnection agreement for approval by this Commission in accordance with section 252(e) of the Act; and

E. Any other, further and different relief as the nature of this matter may require or as may be just, equitable and proper to this Commission.

In accordance with ARSD 20:10:32:30, a non-petitioning party may respond to the petition for arbitration and provide additional information within 25 days after the Commission receives the petition. On November 13, 2007, the Commission received a Response of Alltel Communications, Inc. to Petition for Arbitration of Kennebec Telephone Company. Alltel included two additional issues for resolution:

(6) What is the appropriate definition of intraMTA and interMTA traffic?

(7) Which party can initiate a direct interconnection request?

On November 26, 2007, the Commission received a Proposed Scheduling Order from Kennebec. On November 28, 2007, the Commission received a Proposed Scheduling Order Response from Alltel. On December 17, 2007, the Commission received a Stipulation for Scheduling Order and Stipulation and Confidentiality Agreement signed by the parties.

At its January 29, 2008, meeting, the Commission considered the assessment of filing fees and the Stipulation for Scheduling Order. The Commission voted to require the parties to make a deposit not to exceed $75,000, pursuant to SDCL 49-31-44, and approved the Stipulation and Scheduling Order.

On March 17, 2008, the Commission received Alltel's Motion to Compel Responses to Discovery Requests. On March 24, 2008, the Commission received a Response to Motion to Compel and Postpone Deadlines and a Motion to Extend Deadline for Filing of Direct Testimony from Kennebec.

At its March 25, 2008, meeting, the Commission considered the Motion to Compel Responses to Discovery Requests. After listening to the arguments of the parties, the Commission voted to grant the motion (Commissioner Hanson, dissenting). The Commission found that the discovery requested appeared reasonably calculated to lead to the discovery of admissible evidence. The Commission directed Staff to work with the parties regarding possible revisions to the procedural schedule. On May 20, 2008, the Commission received an Extension Agreement signed by the parties extending the Commission's decision date. On June 10, 2008, the Commission received a Stipulation for Amended Scheduling Order and Decision Date signed by the parties. At its July 8, 2008, meeting, the Commission unanimously voted to approve the Stipulation for Amended Scheduling Order and Decision Date.

A hearing on this matter was held July 29, 2008 through July 31, 2008, in the Floyd Matthew Training Center, Foss Building, 523 East Capitol, Pierre, South Dakota. On the first day of the hearing, the parties filed a matrix of the remaining issues to be decided by the Commission. For this docket, the remaining issues are issues one, two, six, and seven. For the purposes of the evidentiary record, this docket was consolidated with dockets TC07-112, TC07-113, TC07-115, and TC07-116. Thus, references to the exhibits submitted by Kennebec shall be referred to as the Petitioners' exhibits.

On November 14, 2008, the Commission received a Stipulation to Supplement Record of Consolidated Arbitration Hearing signed by the parties. At its regularly scheduled meeting

of November 25, 2008, the Commission unanimously voted to approve the Stipulation to Supplement Record of Consolidated Arbitration Hearing.

At its January 27, 2009, meeting, the Commission decided the unresolved issues as presented by the parties. Regarding the reciprocal compensation rate, the Commission voted to require Kennebec to revise and refile its cost study with a new projection of forecasted demand. The Commission further voted to require Kennebec to revise and refile its cost study to reflect a rate equivalency method as the basis for the assignment of transport costs. The Commission further voted to require the elimination of the costs associated with the Web-Self Care system, including the Web Self-Care License and Web Self-Care system–non-NEVS, the CALEA license, and the Centrex license. The Commission further stated that Alltel would have the opportunity to respond to the revisions made to the cost study made by Kennebec and stated that the parties should work together on a procedural schedule. With respect to the appropriate Percent InterMTA Use factor, the Commission voted to accept Kennebec's SS7 study and the results of that study. (Chairman Johnson, dissenting.) The Commission further voted to reject Alltel's contention that land-to-mobile interMTA traffic should be offset against mobile-to-land traffic. The Commission further voted to find that Kennebec's intrastate switched access rates shall be applied to intrastate interMTA traffic and Kennebec's interstate switched access rates shall apply to interstate interMTA traffic. Regarding the definitions of intraMTA and interMTA traffic, the Commission voted to accept the definitions as proposed by Alltel. Regarding the issue with respect to direct points of interconnection, the Commission voted to accept the direct points of interconnection as proposed by Kennebec.

Having reviewed the evidence of record, the Commission makes the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT

1. On October 19, 2007, Kennebec filed a Petition for Arbitration of certain unresolved terms and conditions of a proposed Interconnection Agreement between Kennebec and Alltel. Kennebec filed the following list of unresolved issues:

(1) Is the reciprocal compensation rate for IntraMTA Traffic proposed by Kennebec appropriate pursuant to 47 U.S.C. section 252(d)(2)?
(2) What is the appropriate Percent InterMTA Use factor to be applied to non-IntraMTA traffic exchanged between the parties?
(3) What is the appropriate manner by which the minutes of use of IntraMTA Traffic terminated by the parties, one to the other, should be calculated and billed?
(4) What is the obligation of the parties with respect to dialing parity?
(5) What is the appropriate effective date and term of the Agreement?

2. On November 13, 2007, the Commission received the Response of Alltel Communications, Inc. to Petition for Arbitration of Kennebec Telephone Company. Alltel included two additional issues for resolution:

(6) What is the appropriate definition of intraMTA and interMTA traffic?
(7) Which party can initiate a direct interconnection request?

3. The hearing was held as scheduled on July 29-31, 2008. For the purposes of the evidentiary record, this docket was consolidated with dockets TC07-112, TC07-113, TC07-115, and TC07-116.

4. On the first day of the hearing, the parties filed a matrix of the remaining issues to be decided by the Commission. For this docket, the remaining issues are issues one, two, six, and seven.

5. The issues involved the termination of the different types of traffic that are exchanged between the two companies. Mobile-to-land traffic is traffic that Alltel terminates to Kennebec. Land-to-mobile traffic is traffic that Kennebec terminates to Alltel. A major trading area (MTA) is used to define the geographic areas for some of the wireless licenses issued in the United States. Pet. Ex. 60 at 4. There are 51 MTAs in the United States. For South Dakota, MTA-12, referred to as the Minneapolis MTA, consists generally of the eastern two-thirds of the state. *Id.* MTA-22, referred to as the Denver MTA, consists generally of the western one-third of the state. *Id.* MTA-32, referred to as the Des Moines MTA, consists of the southeastern corner of the state. *Id.*

6. An intraMTA call is a commercial mobile radio services (CMRS) call, commonly referred to as a wireless call, which originates and terminates traffic in the same MTA. Pet. Ex. 60 at 5. An interMTA call is a CMRS call that originates and terminates in different MTAs. *Id.* IntraMTA calls, also referred to as local calls, are subject to reciprocal compensation. *See* 47 U.S.C. § 251(b)(5); 47 C.F.R. § 51.701.

7. Reciprocal compensation applies to the transport and termination of telecommunications traffic between local exchange carriers (LECs) and other telecommunications carriers. 47 C.F.R. § 51.701(a). For purposes of reciprocal compensation, the Federal Communications Commission (FCC) has defined "telecommunications traffic" exchanged between a LEC and a CMRS provider as traffic that, at the beginning of the call, originates and terminates within the same MTA. 47 C.F.R. § 51.701(b)(2). Transport is defined as "the transmission and any necessary tandem switching of telecommunications traffic subject to section 251(b)(5) of the Act from the interconnection point between the two carriers to the terminating carrier's end office switch that directly serves the called party, or equivalent facility provided by a carrier other than an incumbent LEC." 47 C.F.R. § 51.701(c). Termination is defined as "the switching of telecommunications traffic at the terminating carrier's end office switch, or equivalent facility, and delivery of such traffic to the called party's premises." 47 C.F.R. § 51.701(d). Reciprocal compensation is an arrangement between two carriers "in which each of the two carriers receives compensation from the other carrier for the transport and termination on each carrier's network facilities of telecommunications traffic that originates on the network facilities of the other carrier." 47 C.F.R. § 51.701(e).

RECIPROCAL COMPENSATION RATE

8. The first issue requires the Commission to set the reciprocal compensation rate for intraMTA traffic. Pursuant to 47 C.F.R. § 51.705(a)(1), a state commission is to establish the incumbent LEC's rates for transport and termination of telecommunications traffic on the basis of the forward-looking economic costs of using a cost study pursuant to sections 51.505 and 51.511.

9. Section 51.505 provides as follows:

(a) In general. The forward-looking economic cost of an element equals the sum of:
(1) The total element long-run incremental cost of the element, as described in paragraph (b); and
(2) A reasonable allocation of forward-looking common costs, as described in paragraph (c).
(b) Total element long-run incremental cost. The total element long-run incremental cost of an element is the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements.
(1) Efficient network configuration. The total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers.
(2) Forward-looking cost of capital. The forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element.
(3) Depreciation rates. The depreciation rates used in calculating forward-looking economic costs of elements shall be economic depreciation rates.
(c) Reasonable allocation of forward-looking common costs--(1) Forward-looking common costs. Forward-looking common costs are economic costs efficiently incurred in providing a group of elements or services (which may include all elements or services provided by the incumbent LEC) that cannot be attributed directly to individual elements or services.
(2) Reasonable allocation. (i) The sum of a reasonable allocation of forward-looking common costs and the total element long-run incremental cost of an element shall not exceed the stand-alone costs associated with the element. In this context, stand-alone costs are the total forward-looking costs, including corporate costs, that would be incurred to produce a given element if that element were provided by an efficient firm that produced nothing but the given element.
(ii) The sum of the allocation of forward-looking common costs for all elements and services shall equal the total forward-looking common costs, exclusive of retail costs, attributable to operating the incumbent LEC's total network, so as to provide all the elements and services offered.
(d) Factors that may not be considered. The following factors shall not be considered in a calculation of the forward-looking economic cost of an element:
(1) Embedded costs. Embedded costs are the costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LEC's books of accounts;
(2) Retail costs. Retail costs include the costs of marketing, billing, collection, and other costs associated with offering retail telecommunications services to subscribers who are not telecommunications carriers, described in Sec. 51.609;
(3) Opportunity costs. Opportunity costs include the revenues that the incumbent LEC would have received for the sale of telecommunications services, in the absence of competition from telecommunications carriers that purchase elements; and

(4) Revenues to subsidize other services. Revenues to subsidize other services include revenues associated with elements or telecommunications service offerings other than the element for which a rate is being established.

10. Section 51.511(a) provides as follows:

> The forward-looking economic cost per unit of an element equals the forward-looking economic cost of the element, as defined in Sec. 51.505, divided by a reasonable projection of the sum of the total number of units of the element that the incumbent LEC is likely to provide to requesting telecommunications carriers and the total number of units of the element that the incumbent LEC is likely to use in offering its own services, during a reasonable measuring period.

11. Kennebec stated that its cost study complied with the FCC's requirements. The two elements for transport and termination are local switching and transport. 47 C.F.R. § 51.509.

12. For the switching element, Kennebec stated that it based its forward-looking economic cost (FLEC) study on locations of existing wire centers, current subscribers, and engineering trunking guidelines. Pet. Ex. 47 at 11. Adjustments were made to the switching terminating investment by eliminating 20% of the total forward-looking switch investment for the non-traffic sensitive line portion and eliminating 5% of the switch matrix and processor for their use in the provision of vertical services. *Id.* at 14.

13. For the transport element, Kennebec stated that its forward-looking transport investment was based on a forward-looking network design. Pet. Ex. 47 at 15. Total transport costs were broken into transport electronics and transport outside plant costs. Alltel Ex. 2 at 20. For its forward looking model, Kennebec assumed the use of an OC-192 Synchronous Optical NETworking (SONET) transport network (OC-192 network). Pet. Ex. 55 at 9. An OC-192 network equates to 192 DS-3s. Tr. at 161. A DS-3 is equivalent to 28 DS-1s. *Id.* Thus, an OC-192 is equivalent to 5,376 DS-1s. In order to allocate the transport costs, forward-looking demand must be calculated. *See* 47 C.F.R. § 51.511(a). Kennebec used 2006 demand as its forward-looking demand. Tr. at 259-60.

14. The result of Kennebec's cost study was a proposed rate of $0.0400 per minute. Pet. Ex. 75 at 8.

15. Alltel did not agree with Kennebec's cost study and proposed numerous revisions. The revisions resulted in a significantly lower rate. Alltel Ex. 4, attached Ex. WCC-R1.

16. With respect to switching costs, two related issues raised by Alltel regarded what switch investment, by switch category and exchange, should be included in Kennebec's cost study and what percentage of the switch investment is usage sensitive and recoverable. Alltel Ex. 2 at 26-31. Alltel claimed that Kennebec had included switch investment and costs that are not usage sensitive and, therefore, not recoverable. Alltel claimed that the "getting started" costs of the switch are not usage sensitive because Kennebec's switches will not exceed capacity. *Id.* at 41-46. Alltel stated that the portions of switch investments that are usage sensitive are the trunk card investment per line. *Id.* at 45. In addition, Alltel stated that certain items should be excluded because the items are not necessary for the termination of a call and are therefore not usage sensitive. Alltel Ex. 3 at 9-12. Kennebec claimed that the costs are includable and usage sensitive because a switch is sized for usage and must be capable of future demand. Tr. at 88.

17. The Commission finds that, with the exception of a few costs attributable to certain components of the switch, the switch investment as set forth by Kennebec was properly included in its cost study. Alltel's claim that "getting started" costs of the switch should be excluded would have the effect of excluding a number of costs of the switch that are usage sensitive and properly recovered through reciprocal compensation rates. The Commission finds that switches are, of necessity, sized for usage and that the FCC rules specifically contemplate that switching costs may be recovered through per minute usage charges. *See* 47 C.F.R. § 51.509.

18. Although most of the switch costs were properly included, the Commission finds that Kennebec included some switch components that are not usage sensitive. The components that the Commission finds must be excluded are Web Self-Care, Centrex license fees, and CALEA license fees. The Commission finds that these components are not necessary for the termination of a call and do not meet the requirement of being usage sensitive. The Web-Self Care system, including the Web Self-Care License and Web Self-Care system-non-NEVS, is used by a LEC's end user to maintain the end user's own services. Tr. at 207. The record reflects that Web-Self Care is not necessary to terminate a call. Tr. at 207, 209-10. The CALEA license is not needed to terminate a call. Tr. at 208-209, 390. The Centrex license is also not needed to terminate a call. Tr. at 209. The Commission finds that Kennebec shall remove those costs from its cost study.

19. The third switching cost usage concerns the annual cost factor. Alltel claimed Kennebec's switching annual cost factor was too high and recommended that it not exceed 31%. Alltel Ex. 2 at 31-39. Alltel alleged that Kennebec assumed no debt with 100% equity. *Id.* at 33. In response, Kennebec pointed out that it had used the FCC's rate-of-return of 11.25%. Pet. Ex. 50 at 8. The FCC's rate-of-return used a capital structure consisting of 44.2% debt. *Id.* Alltel also claimed that Kennebec had failed to take into effect certain income tax effects. Alltel Ex. 2 at 33-34. Kennebec responded that deferred taxes were not "treated in the FLEC study because the study is looking at the annual cost over the full life of the plant. In the end all taxes are paid, some of the taxes are deferred only in the early life of the plant. Deferred taxes would only play a part in an embedded point in time study." Pet. Ex. 50 at 9-10. Alltel further stated that Kennebec's other direct expenses appeared to be too high when compared to other telephone companies. Alltel Ex. 2 at 35. Kennebec stated that expense factors will vary based upon the size and specific characteristics of the company. Pet. Ex. 50 at 10.

20. The Commission finds that Alltel has failed to show that Kennebec's switching annual cost factor is too high. The Commission finds that Kennebec has shown that its switching annual cost factor is reasonable. Kennebec has shown that it did not assume it had no debt, it properly took into account income tax effects, and that it cannot be assumed that a company's direct expenses are too high merely by comparing them against other companies' expenses.

21. An issue that Alltel raised for both switching and transport regards the annual minutes per voice trunk.[1] Alltel contended that the annual minutes should be established consistent with the FCC's benchmark rule as set forth in section 51.513(c)(4). Alltel claimed that the trunk usage minutes reported by Kennebec were low based on the FCC's proxies found in section

[1] Alltel refers to these issues as issue 1.4, what annual minutes per switch trunk card should be used; issue 2.6, what annual minutes per voice trunk should be used; and issue 3.4, what annual minutes per voice trunk should be used. Alltel Ex. 4 (attached as Ex. WCC-R1).

51.513(c)(4). Alltel Ex. 2 at 69. Alltel also compared the minutes to the HAI 5.0a model[2] which is a publicly available cost model. *Id.* Alltel then adjusted the voice trunk usage range shown by these two sources to reflect Kennebec's network. *Id.* at 70-71.

22. As noted by Kennebec, the rule relied upon by Alltel, section 51.513, has been vacated by the courts. *See Iowa Util. Bd v. Federal Communications Comm'n,* 120 F.3d 753, 800 (8th Cir. 1997); *see also Iowa Util. Bd., et al., v. Federal Communications Comm'n,* 219 F.3d 744, 757 (8th Cir. 2000). Thus, the Commission rejects the position that annual minutes per voice trunk should be consistent with the FCC's vacated benchmark rule. The Commission also rejects Alltel's contention that the HAI 5.0a model is an appropriate source to assist in determining annual minutes. Kennebec stated that "[t]he types of companies that are represented in the HAI model are generally large, multi-million line Regional Bell Operating Companies (RBOCs) and are in no way indicative of the quantity of minutes one would anticipate over the networks of rural carriers." Pet. Ex. 50 at 24. The Commission finds Alltel merely referenced the HAI 5.0a model without offering the model into the record or attempting to demonstrate why this model would be suitable for a small rural telephone company such as Kennebec.

23. As its forward-looking demand, Kennebec used 2006 demand. Tr. at 260. Alltel claimed that Kennebec's assumed use of an OC-192 transport network was not justified by the demand as set forth by Kennebec. Tr. at 451; Alltel Ex. 2, attached as Ex. WCC-6.4. An OC-192 transport system is capable of handling over 5,000 DS-1 circuits. Tr. at 382. [CONFIDENTIAL] In addition, Alltel claimed that Kennebec's witnesses gave conflicting testimony as to forward-looking demand. Alltel Brief at 18-19.

24. The Commission finds that Kennebec's witnesses gave differing testimony regarding forward-looking demand. One of Kennebec's witnesses, Tim Eklund, testified that he used 2006 demand as the forward-looking demand and that the "current projection is a proper projection out into the future." Tr. at 260. He further stated that demand, both for minutes and circuits, is not an exact science and is very hard to project because one type of demand is increasing and the other demand is decreasing. Tr. at 259-60. [CONFIDENTIAL] By contrast, another Kennebec witness, Nathan Weber, testified that an OC-192 network was needed to meet future demand. He stated that if a smaller network, such as an OC-12 or OC-48, "were deployed today, it is highly likely that the capacity of the systems will be exhausted well within the 7 to 10 year life of the equipment. When this happens, the transport network will need to be replaced or augmented with additional capacity. Replacing or augmenting the network will increase the total investment required for the network. Therefore, OC-12 and OC-48 networks are view [sic] to be inefficient for forward looking designs." Pet. Ex. 56 at 26. [CONFIDENTIAL]

25. The Commission finds that Kennebec has failed to show that the use of 2006 demand should be considered to be Kennebec's "forward-looking" demand. Although one of Kennebec's witnesses testified that 2006 demand is a proper projection of forward-looking demand, another Kennebec witness predicted that demand would increase in the future. In addition, the Commission notes that Alltel did not project forward-looking demand. Tr. at 445. Therefore, the Commission finds that the record does not contain a credible projection of forward-looking demand and the use of 2006 demand is inconsistent with the proposed use of an OC-192 network. The Commission finds that in order for the Commission to determine the appropriate reciprocal compensation rate, the record must be supplemented on this issue. The Commission directs Kennebec to file a new projection of forward-looking demand.

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[2] Alltel referenced the "HAI Model Release 5.0a," Inputs Portfolio, HAI Consulting, Inc., January 27, 1998, sections 4.5.3 and 5.5.16. Alltel Ex. 2 at 69, fn. 41.

26. Alltel raised additional issues as to Kennebec's inputs into the transport electronics category. Transport electronics include "transmission equipment located in RLEC central offices used to add circuits to a SONET fiber ring or to drop circuits from the ring. The SONET fiber ring is used for interexchange transport of voice trunks and special circuits." Alltel Ex. 2 at 47-48. One of the issues concerns how to calculate and apportion demand among uses. Kennebec advocated the use of the path method. This method counts each DS-0 as a path, each DS-1 as a path, and each DS-3 as a path. Tr. at 270. A DS-1 is equivalent to 24 DS-0s and a DS-3 is equivalent to 28 DS-1s. Tr. at 271; Alltel Ex. 2 at 56. A path may consist of a voice trunk or a special circuit. Alltel Ex. 2 at 56. Thus under the path method, a path is considered to be one circuit regardless of the bandwidth of the circuit. *Id.*

27. Alltel opposed the use of the path method claiming that it over-allocated transport electronics investment to voice trunks causing the transport electronics cost per minute to be too high. Alltel Ex. 2 at 58. Alltel advocated the use of a DS-1 equivalent method. Alltel Ex. 4 at 35. Under the DS-1 equivalent method, DS-0 voice trunks are converted to a DS-1 level by taking the total DS-0 voice trunks and dividing by 24. Alltel Ex. 9. As explained *supra*, a DS-1 is equivalent to 24 DS-0s. Kennebec opposed the DS-1 equivalent method asserting that under the rationale of a DS-1 equivalent method, the rate for a DS-1 would be 24 times higher than the rate of a DS-0. Pet. Ex. 50 at 19. The rate of a DS-3 would be 28 times higher that the rate of a DS-1 or 672 times higher than a DS-0. *Id.* Such rates would likely significantly reduce demand for DS-1s and DS-3s. *Id.* at 20-21. Alltel recognized the validity of this argument, but only for DS-3s, by stating in its brief that the cost of a DS-3 circuit is not 28 times that of a DS-1. Alltel Brief at 23. Alltel agreed to express DS-3 circuits as equivalent to seven DS-1 circuits. *Id.*

28. A third method is the rate equivalency method. Kennebec explained this method as where costs are allocated based on the ratio of retail rates for the various services provisioned on a particular cable route. Pet. Ex. 56 at 21.

29. The Commission finds that the path method proposed by Kennebec results in a disproportionate amount of costs being allocated to voice circuits. The path method would allocate the same investment and costs to a DS-0 voice circuit as it allocates to a DS-1 special circuit, even though a DS-1 is equivalent to 24 DS-0s. The Commission finds the DS-1 equivalent method poses a similar problem, only in reverse, by disproportionately allocating costs to special circuits and under-allocating to voice circuits. Thus, the DS-1 equivalent method incorrectly implies that a DS-0 has a cost equivalent to 1/24 of a DS-1 while the path method incorrectly implies that a DS-0 has the same cost as a DS-1. The Commission finds that instead of choosing between two flawed methods, either of which would result in improper allocation of costs to the various services, the rate equivalency method should be used because it reflects a better balance regarding cost incurrence of the various functions than does either of the parties' proposed methods of allocations. Thus, the Commission requires that Kennebec revise and refile its cost study to reflect a rate equivalency method as the basis for the assignment of transport costs.

30. Another issue regarding transport electronics is whether Kennebec's annual cost factor should be decreased. Alltel claimed that Kennebec's annual cost factor should not be greater than 32.5 percent. Alltel Ex. 2 at 67-68. Alltel essentially relied on the same issues it raised with respect to Kennebec's switching annual cost factors. *Id.* The Commission relies on its reasoning in findings 19 and 20 to find that Kennebec's annual cost factor for transport electronics is reasonable.

31. Alltel also raised issues regarding Kennebec's transport outside plant costs. Transport outside plant consists of the "interoffice fiber cable connecting RLEC switches and connecting their host switches to meet points with other carriers." Alltel Ex. 2 at 72. Alltel objected to Kennebec projecting interoffice mileage that exceeds its current actual mileage of cable. Alltel Ex. 2 at 75-77. Alltel also claimed that certain interoffice mileage should not be included because it was not used for Alltel's mobile-to-land traffic. *Id.* at 77. Kennebec responded that there are several factors that may contribute to the differences between the cable mileages in the cost study and the current interoffice mileages. For example, some of these companies have not completed their long-term plan for fiber optic transport upgrades to allow their network to have fully diverse fiber routing, resulting in the fiber optic cable distances for the non-diverse routes being shorter than for the diversely routed FLEC cable design model. Pet. Ex. 56 at 31. Another example would be when the company is currently leasing or deploying joint fiber but will be moving to construct its own diversely routed fiber optic cable network for its intra-company, inter-exchange transport needs. *Id.*

32. The Commission finds that Alltel has failed to show that Kennebec's projected interoffice mileage did not reflect a forward-looking, efficient design. In addition, the Commission finds that Kennebec does not need to demonstrate that every route will be used specifically for Alltel's mobile-to-land traffic. The Commission is required to look at the total element long-run incremental cost of the LEC's network.

33. Alltel also raised issues regarding Kennebec's transport outside plant costs. Transport outside plant consists of the "interoffice fiber cable connecting RLEC switches and connecting their host switches to meet points with other carriers." Alltel Ex. 2 at 72. Alltel claimed that Kennebec's transport outside plant actual cost factor was too high. Alltel Ex. 2 at 79. Alltel recommended that Kennebec use 27% as its annual cost factor. *Id.* Kennebec responded that although Alltel claimed the annual cost factor was too high, Alltel failed to provide any proof "that the company's cost structure and its [annual cost factor] does not comply with the FLEC standards as established pursuant to 47 C.F.R. § 51.505." Pet. Ex. 50 at 26.

34. The Commission finds that although Alltel asserted that Kennebec's annual cost factor was too high, this assertion mainly seems to be based on comparing Kennebec's annual cost factor with some of the other Petitioners. The Commission finds Alltel failed to provide specific evidence that demonstrated that Kennebec's annual cost factor was too high.

35. The next issue regarding transport outside plant costs concerns the allocation of transport costs to voice traffic. Alltel Ex. 2 at 80. The Commission finds that its decision on this issue is the same as its decision regarding the calculation and apportion of demand for transport electronics.

CALCULATION AND BILLING OF INTERMTA TRAFFIC

36. The next issue involves the calculation and billing of interMTA traffic. This issue requires the Commission to set an appropriate interMTA use factor to be applied to non-intraMTA traffic that is exchanged between Kennebec and Alltel and determine what rates are applicable to interMTA traffic. Different rates apply to interMTA traffic and intraMTA traffic so the amount of interMTA traffic must be determined in order to correctly asses that traffic. CMRS providers often deliver interMTA traffic intermingled with intraMTA traffic to the LEC over the same facilities. Pet. Ex. 60 at 7. The LEC is unable to determine the location of the CMRS caller based on the signaling information delivered by the CMRS provider. *Id.* Due to the inability to determine the location of the caller, the CMRS provider and the LEC may use an InterMTA Use

Factor. *Id.* This factor is applied to the total minutes of use that are terminated by the CMRS provider to the LEC. *Id.*

37. The first issue regarding InterMTA Use Factors is what methodology should be used to establish the factor. Three different methods were explained: (1) the Call Detail Record (CDR) method; (2) the Signaling System 7 (SS7) method; and (3) the Point of Interconnection (POI) method. Pet. Ex. 60 at 8-10.

38. The CDR method uses signaling information from the CMRS provider's network. *Id.* at 9. The CDR data can identify the location of the initial cell site at the start of the call. *Id.* Kennebec did not develop an InterMTA Use Factor using the CDR method, claiming that "Alltel has been unwilling to provide the CDR data for this analysis." *Id.* at 12. Alltel did not conduct a study based on the CDR method either.

39. The SS7 method uses the CMRS customer's telephone number or NPA-NXX as the location of the CMRS customer. *Id.* Kennebec submitted a study using SS7 data. *Id.* at 12-13. The SS7 study was based on SS7 signaling records captured from October 1-15, 2004. *Id.* at 12. The study was conducted by Vantage Point Solutions, Inc. as follows:

> The SS7 data was gathered via Tekno SCCS-288B/7, a device commonly known as the Tekno Box, which is located at the South Dakota Network (SDN) facilities in Sioux Falls, South Dakota and was programmed to monitor the SS7 signaling for the traffic Alltel terminates to Kennebec. Vantage Point used the SS7 signaling records captured during the October 1-15, 2004 time period. Vantage Point extracted the SS7 records and imported the data into Microsoft SQL Server 2000 database (SQL). Using SQL, Vantage Point sorted all of the calls that originated with an Alltel NPA-NXX and terminated to a Kennebec NPA-NXX into two groups -- those that originated and terminated in the same MTA and those that originated and terminated in different MTAs. The MTA of the NPA-NXX was determined by the location of the central office to which each of the NPA-NXXs were assigned. The calls that originated and terminated in different MTAs were further divided into those that originated inside South Dakota and those that originated outside of South Dakota.
>
> Vantage Point then determined the total call duration of the intraMTA calls and the interstate interMTA calls and the intrastate interMTA calls. The InterMTA Use Factor was determined by taking the ratio of the call duration for the interMTA calls to the call duration for the total Alltel calls terminated to Kennebec. The interMTA calls were further refined to determine the amount of interMTA traffic that was intrastate interMTA in nature and those that were interstate interMTA in nature based upon the originating and terminating NPA-NXX.

Id. at 12-13. The result was an InterMTA Use Factor of 9.1%. *Id.* at 13. Of that 9.1%, the study determined that 95.6% of the traffic was intrastate and 4.4% was interstate. *Id.*

40. Alltel developed a study using a method based on the POI method. Alltel Ex. 6 at 9. The POI method is based on the point on a carrier's network where the traffic is handed off to another carrier. Tr. at 458. The result of the POI study was an InterMTA Use Factor of zero percent. Alltel Ex. 6 at attached Ex. RW3.

41. None of the methods actually identify the location of the caller at the time of the call. The FCC recognized the problem of identifying interMTA and intraMTA and stated that compensation could be calculated by the use of traffic studies. *First Report and Order, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996,* 11 FCC Rcd 15499, 16017-18 (1996) (*First Report and Order*).

42. One of the advantages of the POI method is its simplicity. Alltel stated that it endorsed the POI method largely for its simplicity. Tr. at 459. The problem with the POI method is that it may not be very accurate in rural areas like South Dakota because the "CMRS provider may deliver calls originating in various states or in various MTAs to a single POI." Pet. Ex. 60 at 11.

43. The Commission finds the SS7 method is more accurate than the POI method. The SS7 study comes closer to identifying the location of the caller at the time the call is made when compared to the POI method. The rationale behind using the telephone number of the caller as the origin of the call is because most wireless calls will be made in the vicinity of the caller's home location. Tr. at 307. Although the SS7 method will not accurately characterize all calls, this method is superior to the POI method which relies on the location of the point of interconnection.

44. Having found the SS7 method is more accurate than the POI method, the Commission must next consider Alltel's claims that the SS7 study as proposed by Kennebec is flawed because Kennebec failed to account for changes made to the Alltel network since the SS7 study was performed. Alltel Ex. 7 at 2-4. The changes were made due to divestitures and acquisitions, cell site rehoming, and changes implementing MTA routing in its switch translations group. Tr. at 484. Alltel stated that it ran the study and adjusted for the changes. Alltel's adjusted number for Kennebec is 2.1%. Alltel Ex. 7 at 4.

45. Kennebec claimed that when Alltel made changes to the SS7 study, Alltel only accounted for the changes in the Alltel network that could have potentially decreased the factor and ignored other change that would have tended to increase the factor. Tr. at 340-41. Kennebec further stated that "the interMTA factor tends to increase with time as the wireless carrier network becomes larger. As the wireless carriers networks expand, they interconnect their switches with Intermachine Trunks (IMTs). These IMTs are used to transport calls over larger and larger geographic areas so that the calls can be delivered to the landline customer without having to use an IXC for the delivery. This results in a higher interMTA factor." Pet. Ex. 71 at 6.

46. The Commission recognizes that networks change over time. However, in order for the Commission to accept revisions to the SS7 study based on network changes, those revisions must take into account *all* of the changes of the network, not just the ones advantageous to one party. The Commission finds that Alltel has failed to provide sufficient evidence that its changes to Kennebec's SS7 study should be accepted. Kennebec presented evidence that demonstrated that the Alltel revisions failed to account for all of the NXXs that were added as part of the Alltel acquisitions. Pet. Exs. 72, 73. Thus, the Commission rejects Alltel's proposed revisions and accepts the results of Kennebec's SS7 study.

47. The next issue related to the InterMTA Use Factor is what rate is applicable. Alltel's position is that Kennebec's intrastate switched access tariff does not apply to interMTA CMRS traffic. Even if it did apply, Alltel stated that the rate fails to take into account the way Alltel terminates traffic to Kennebec and as a result it overcharges for transport. Alltel Ex. 6 at 10. Alltel also claims that it should not have to pay the local loop carrier common line charge because it is not an FCC recognized charge. *Id.* at 10-11.

48. The Commission finds the proper rate for interstate interMTA traffic is Kennebec's tariffed interstate switched access rate and the proper rate for intrastate interMTA traffic is Kennebec's tariffed intrastate switched access rate. The Commission finds that the FCC has recognized that interMTA traffic may be subject to interstate and intastrate access rates. *First Report and Order*, at 16017. The Commission further notes that if Alltel had objections to Kennebec's switched access rate, Alltel had the opportunity to intervene in Kennebec's switched access proceeding. Alltel may not collaterally attack the rate in this proceeding. Moreover, whether the FCC recognizes a particular element charged with respect to interstate switched access is not relevant as to whether an element of intrastate switched access rates is appropriate.

49. The next issue impacting the InterMTA Use Factor is whether land-to-mobile interMTA traffic should be offset against mobile-to-land traffic. Alltel has calculated a net factor by determining the traffic factor of land-to-mobile calls. Alltel's net factor for Kennebec is 2.1%. Alltel Ex. 7 at 8. Kennebec stated netting is not needed because Alltel sends an almost de minimus amount of interMTA traffic. Tr. at 328.

50. As found above, the Commission has determined that interMTA traffic is subject to Kennebec's intrastate and interstate switched access rates. If Alltel were allowed to "net" its traffic against Kennebec's interMTA traffic, in effect, Alltel would be receiving Kennebec's intrastate or interstate switched access rates for Alltel's interMTA traffic. Alltel did not propose an interMTA rate based on its own costs. Alltel further stated it is barred from filing for access rates and that it has never performed an intrastate or interstate cost study for its wireless business. Tr. at 476-77. Thus, the Commission rejects Alltel's request for a net factor that would allow Alltel to receive Kennebec's switched access rates.

DEFINITION OF INTRAMTA AND INTERMTA TRAFFIC

51. Kennebec and Alltel proposed different definitions for interMTA and intraMTA traffic. Kennebec proposed the following definitions for interMTA and intraMTA traffic:

> "InterMTA Traffic" means all wireless to wireline calls, which originate in one MTA and terminate in another MTA based on the location of the connecting Cell Site serving the wireless End User at the beginning of the call and the location of the End Office serving the wireline End User.
>
> "IntraMTA Traffic," for purposes of this Agreement, means traffic exchanged between the CMRS Provider and the Telephone Company that, at the beginning of the call, originates and terminates within the same MTA based on the location of the connecting Cell Site serving the wireless End User and the location of the End Office serving the wireline End User.

52. Alltel proposed the following definitions for interMTA and intraMTA traffic:

> "InterMTA Traffic" means all wireless to wireline calls, which originate in one MTA and terminate in another MTA.
>
> "IntraMTA Traffic," for purposes of this Agreement, means traffic exchanged between the CMRS Provider and the Telephone Company that, at the beginning of the call, originates and terminates within the same MTA.

53. Kennebec's proposed definitions are consistent with the CDR method for identifying interMTA traffic since it is based on the location of the connecting cell site serving the wireless end user. However, as discussed *supra*, Kennebec did not submit a CDR study. Instead it submitted an SS7 study that the Commission accepted. Therefore, the Commission finds the inclusion of the language regarding connecting cell sites reflects a traffic study that is not being used and thus is not appropriate. The Commission further finds that Alltel's proposed definitions are appropriate. The Commission notes that the definition of intraMTA traffic tracks the FCC's definition in 47 C.F.R. § 51.701(b)(2). The Commission adopts the proposed Alltel language for the definitions of interMTA and intraMTA traffic.

POINTS OF INTERCONNECTION

54. The parties disagree on the points of interconnection (POIs) where parties may directly interconnect. In Appendix B to its proposed interconnection agreement, Kennebec identified Kennebec as the technically feasible POI.

55. In its response to Kennebec's petition, Alltel initially stated that this unresolved issue concerned which party can initiate a direct interconnection request. In proposed section 3.13 Alltel proposed allowing Alltel the unilateral right to request two-way direct interconnection. Alltel did not propose any points of interconnection in appendix B to its proposed interconnection agreement. Then in its brief, for Alltel originated traffic, Alltel proposed adding to Appendix B the following POIs for direct interconnection: 1) any Kennebec meet point with the South Dakota Network; 2) any Kennebec meet point with the Qwest Tandem switch; 3) any Kennebec end office; and 4) any mutually agreed upon location. For Kennebec originated traffic, Alltel identified the following POI locations: 1) Alltel's meet point with SDN tandem switch; 2) Alltel's meet point with Qwest tandem switch; 3) Alltel's Mobile Switching Center; and 4) any mutually agreed upon location. Alltel's Reply Brief at 19-20. However, at the hearing, Alltel stated that it was asking for the ability, if it chooses, to establish a one-way direct interconnection for mobile-to-land traffic. Tr. at 469-70; Alltel Ex. 5 at 7. Alltel stated that it had simplified its request and that it was requesting a connection at a point where the RLEC was already connected with some other carrier or at one of the RLEC's switching locations. Tr. at 470.

56. Alltel's position on this issue appears to be an evolving one. The Commission notes that according to section 3.1.2 either party may choose to provide one-way direct interconnection facilities for its originating traffic. The remaining question appears to be the points of interconnection at which Alltel may interconnect with Kennebec if Alltel chooses to establish a one-way direct interconnection for mobile-to-land traffic. The Commission finds that Kennebec's proposed points of interconnection are all points on Kennebec's local exchange network. Alltel has not cited to legal authority to support its position that it may require direct connection on points outside of Kennebec's network. Although Alltel cited to section 251(c)(2) as establishing a right to directly connect, rural local exchange carriers are exempted from the requirements of section 251(c). *See* 47 U.S.C. §251(f)(1). The Commission finds that Kennebec's proposed points of interconnection are appropriate.

CONCLUSIONS OF LAW

1. The Commission has jurisdiction in this matter pursuant to SDCL chapters 1-26 and 49-31, including 49-31-3 and 49-31-81, and 47 U.S.C. sections 251 and 252.

2. Pursuant to section 252 of the federal Act and SDCL 49-31-81, the Commission is required to resolve the unresolved issues presented by Kennebec and Alltel. Kennebec originally requested resolution of five issues but the parties resolved three of the issues prior to the hearing. The remaining issues were:

(1) Is the reciprocal compensation rate for IntraMTA Traffic proposed by Kennebec appropriate pursuant to 47 U.S.C. Section 252(d)(2)?
(2) What is the appropriate Percent InterMTA Use factor to be applied to non-IntraMTA traffic exchanged between the parties?

3. Alltel included two additional issues for resolution:

(6) What is the appropriate definition of intraMTA and interMTA traffic?
(7) Which party can initiate a direct interconnection request?

4. With respect to the appropriate reciprocal compensation rate for intraMTA traffic, the Commission concludes that it is unable to determine the rate due to insufficiencies of the evidence presented. Kennebec shall revise and refile its cost study reflecting the following: (1) the elimination of the costs associated with the Web-Self Care system, including the Web Self-Care License and Web Self-Care system-non-NEVS, the CALEA license, and the Centrex license; (2) the use of a rate equivalency method basis of cost assignment for transport costs; and (3) a new forecasted demand. *See* Findings 8-35.

5. With respect to the appropriate Percent InterMTA Use factor, the Commission concludes that it will accept Kennebec's SS7 study and the results of that study as the factor. *See* Findings 36-46. The Commission further concludes that Kennebec's intrastate switched access rates shall be applied to intrastate interMTA traffic and Kennebec's interstate switched access rates shall apply to interstate interMTA traffic. *See* Findings 47-48. The Commission rejects Alltel's netting of traffic. *See* Findings 49-50.

6. With respect to the appropriate definition of intraMTA and interMTA traffic, the Commission concludes that it will accept the definitions as proposed by Alltel. *See* Findings 51-53.

7. With respect to direct points of interconnection, the Commission concludes that it will accept the points of interconnection as proposed by Kennebec. *See* Findings 54-56.

It is therefore

ORDERED, that Kennebec shall revise and refile its cost study reflecting the following: (1) the elimination of the costs associated with he Web-Self Care system, including the Web Self-Care License and Web Self-Care system-non-NEVS, the CALEA license, and the Centrex license; (2) the use of a rate equivalency method basis of cost assignment for transport costs; and (3) a new forecasted demand; and it is

FURTHER ORDERED, that Kennebec and Alltel shall incorporate the Commission's findings regarding the other issues in their Interconnection Agreement; and it is

FURTHER ORDERED, that the parties work together with Commission staff to set a procedural schedule regarding the refilling of the cost study with the adjustments required by the Commission.

NOTICE OF ENTRY OF ORDER

PLEASE TAKE NOTICE that this Order was duly entered on the 27th day of February, 2009. Pursuant to SDCL 1-26-32, this Order will take effect 10 days after the date of receipt or failure to accept delivery of the decision by the parties.

Dated at Pierre, South Dakota, this 27th day of February, 2009.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically.

By: Delaine Kolbo

Date: 2/27/09

(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

Dustin M. Johnson

DUSTIN M. JOHNSON, Chairman
(Dissenting in part)

Steve Kolbeck

STEVE KOLBECK, Commissioner

Gary Hanson

GARY HANSON, Commissioner