# - BEFORE THE UTAH PUBLIC SERVICE COMMISSION OF UTAH -

In the Matter of Petition of WWC Holding	)	<b>DOCKET NO. 03-2403-02</b>
Co., Inc. for Arbitration of an	)	
Interconnection Agreement	)	DPU Exhibit No. 2
_	)	
	)	

# REBUTTAL COST ANALYSIS TESTIMONY OF JONATHAN LEE

FOR THE

DIVISION OF PUBLIC UTILITIES

DEPARTMENT OF COMMERCE

STATE OF UTAH

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1		I. INTRODUCTION
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3	This	Rebuttal Cost Analysis Testimony describes further analysis I performed with regard to the
4	HAI	5.2a cost model and associated modifications. This rebuttal testimony follows my Direct
5	Cost	Analysis Testimony filed on January 5, 2004. I also recommend that for the purpose of this
6	dock	tet, the Commission continue to use the HAI5.2a model with the Division's modifications as
7	advo	ocated in the Division's previous filing.
8		
9		II. IDENTIFICATION OF WITNESS
10		
11	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND POSITION WITH
12		THE DIVISION OF PUBLIC UTILITIES.
13	A.	My name is Jonathan Lee. My business address is Heber M. Wells Building, 160 East 300
14		South, 4 <sup>th</sup> Floor, Salt Lake City, Utah. I am employed as a Cost and Demand Analyst for
15		the State of Utah in the Division of Public Utilities. I am testifying on behalf of the
16		Division of Public Utilities.
17		
18	Q.	ARE YOU THE SAME JONATHAN LEE THAT FILED DIRECT COST
19		ANALYSIS TESTIMONY IN THIS PROCEEDING ON JANUARY 5, 2004?
20	A.	Yes.

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#### III. PURPOSE OF REBUTTAL TESTIMONY

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#### Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL COST ANALYSIS

## **TESTIMONY?**

A. The purpose of my Rebuttal Cost Analysis Testimony is to rebut some statements and issues that were made in the Additional Direct Testimony of Chad A. Duval filed on behalf of the Rural ILECs on January 6, 2004, and to provide further support for the Division's adjustments.

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## Q. WILL YOU REBUT ANY WESTERN WIRELESS TESTIMONY?

A. No. Western Wireless has not provided any cost studies nor any substantial testimony after the parties agreed to use the HAI 5.2a cost model that I could address directly. However, based on the Additional Direct Testimony of Brian Pitkin filed on behalf of Western Wireless (December 19, 2003, 4 pages), it appears that Western Wireless' basic position is to use the Commission Ordered inputs from the Qwest UNE-Loop docket (#01-085-49) without any modification(s) unless such modifications are demonstrably more appropriate for this proceeding. The Division believes its adjustments to the cost model and model input factors, in addition to the adjustments from the Qwest UNE-Loop docket, are clearly needed and appropriate in order to better approximate a reasonable rate for the Rural ILEC companies in this proceeding.

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<sup>&</sup>lt;sup>1</sup> Additional Direct testimony of Brian F. Pitkins, Page 2, Lines 10 – 13.

1		IV. REBUTTAL OF CHAD DUVAL'S DIRECT TESTIMONY
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3	Q.	BRIEFLY DISCUSS THE GVNW'S DISTANCE FILE FOR THE HAI 5.2A COST
4		MODEL SUBMITTED IN THE ADDITIONAL DIRECT TESTIMONY OF MR.
5		DUVAL.
6	A.	It appears that GVNW's used a different version of the UT_DISTANCE file for the HAI
7		5.2a cost model than they filed earlier in their initial Direct Testimony using the HAI 5.0a.
8		The Division noticed that the "STP A Link Distance Sum" and the "OS Tandem Distances'
9		for the Rural ILEC wire centers were modified to reflect GVNW's previously calculated
10		values for the "Local Tandem Distance". The distance figures reported for the various wire
11		center rows in these columns were not the same in their initially submitted HAI 5.0a
12		model, nor were the figures the same in the HAI 5.2a default UT_DISTANCE file. In
13		addition, GVNW's distance figures for some "Tandem Distance" were also different in
14		their HAI 5.2a filing.
15		
16	Q.	DOES THE MODIFIED GVNW'S DISTANCE FILE CONCERN THE DIVISION?
17	A.	Not really. The Division felt that the Commission should be aware of the deviation from
18		the previous distance file. However, the Division also used the newly modified GVNW
19		distance file in association with the Division's input factors and determined that the results
20		of the variations in distances on the resulting rates are immaterial. Furthermore, the
21		Division, in evaluating the changes made by GVNW, does not object to equating the
22		distances to reflect the (previously calculated) Local Tandem Distance. This is because the

1		Division felt that the association of the Rural ILEC wire centers to different Qwest Tandem
2		switches, as represented by the rural ILECs in their previous filings, would supersede the
3		default HAI 5.2a distances. In addition, the Division also noted that the changes affecting
4		the "Total Tandem STP/A-Link Distance" (Column T in the UT_DISTANCE file) appear
5		to be cross-referenced to NECCA codes of companies that are not parties to this case.
6		Thus, such changes would not affect the model results for the Rural-ILEC companies in
7		this case.
8		
9	Q.	PLEASE DISCUSS GVNW'S RELUCTANT SUPPORT OF THE DIVISION'S
10		REVISED SPECIAL ACCESS LINE COUNTS FOR MANTI TELEPHONE (PAGE
11		11, LINES 3 - 5).
12	A.	As noted previously, the line count number for Manti Telephone was significantly lower
13		than actual. The Division proposed a methodology whereby the line count figures in the
14		model for Manti Telephone would somewhat resemble what is the actual line counts.
15		GVNW reluctantly supports the Division's solution as the "best available solution to the
16		problem given the time and cost constraints."2
17		
18		The Division first allocated the additional needed lines across the board based on the HAI
19		5.2a default line counts using an AT&T provided worksheet. When this appeared to
20		understate the special access line count for Manti based on the response from a data request
21		which the Division issued, it was determined and agreed upon by the parties that the

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1 reported actual access lines for Manti would be used instead of the worksheet's allocation methodology. 2 3 Mr. Duval expresses several concerns. Mr. Duval's reluctance with the Division's 4 approach appears to be first, the Division's approach would artificially deflate costs by 5 placing customers in larger, in-town clusters. However, the model also places non-geo-6 coded customers uniformly throughout a cluster.<sup>3</sup> Table 1 on the next page shows the geo-7 coding success (and unsuccessful) rate, by density zones and the zone's applicability for 8 9 each of the Rural ILECs in this docket. The non-applicability of the higher density zone's 10 data, because the Rural ILECs would normally not contain such high line densities, would thus decrease the overall average geo-coding success rate. 11 12 The following table lists the density zones and its corresponding geo-coding success rates. 13 14 The implied non-success rate has been bolded. Where none of the Rural ILECs have any 15 lines in a particular zone (for instance, Density Zone 650) the numbers are not applicable 16 and have been dimmed in the table. Finally on the right side of the table, the various Rural ILECs are listed. If the ILEC has any lines in a particular density zone, an "X" is placed in 17 18 the corresponding zone for that company. This gives a pictorial view of where, by density 19 zone, each company has its lines.

<sup>&</sup>lt;sup>2</sup> Additional Direct testimony of Mr. Chad A. Duval, Page 4, Lines

<sup>&</sup>lt;sup>3</sup> Geo-coding data as applicable to Density Zones of Qwest areas as disclosed in the Qwest UNE-Loop Docket 01-049-85

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# Table 1 – Geo-coding success rate by Density Zones and applicability for Rural-ILECs.

Density Zone (lines/sq mile)	Success Rate	Implied Unsuccessful Geo-coding Rate	Gunnison	Manti	So. Central Utah	UBET	UBTA
0	23.8%	76.2%	X	X	X	X	X
5	53.9%	52.9%		X	X	X	X
100	60.7%	39.7%				X	
250	71.5%	28.5%	X			X	
650	82.1%	17.9%					
850	81.6%	18.4%			X		
2550	81.7%	18.3%					
5000	78.3%	21.7%					
10000	83.0%	17.0%					
AVG	74.4%	25.6%					

This uniform spreading out of customers in a cluster systematically increases the facility
needed and therefore increases the associated overall costs of the network. Placement of
additional customers into the higher cost, more rural clusters would then further artificially

inflate costs and further propagate the inherent bias of the cost model.

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The second reluctance appears to be that the Division's method assigns special access lines and its associated costs to the largest clusters in the exchange. It is the Division's view that special access lines are primarily used by business entities. The largest clusters, especially

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in the rural environment of Manti Telephone Company, would usually contain these businesses. Remote areas would be more residential and are less likely to be business laded. As such, it would be expected that the larger clusters should be correspondingly assigned the increase in special access lines; more remote areas would most likely not be expected to have any dramatic increases. This is consistent with the Division's ultimate decision to use the proposed methodology.

# Q. BRIEFLY DISCUSS GVNW'S CALCULATIONS OUTSIDE THE MODEL FOR TRAFFIC (PAGE 11, LINE15).

A. GVNW made two calculations which are performed outside the model "to better reflect company specific situations, and are therefore not results of the HAI5.2a model." The Division is hesitant to endorse either calculation. It is the Division's belief that performing these calculations outside the HAI 5.2a cost model would inevitably allow for the deviation away from TELRIC principles and projections of an "optimal network" developed in the model. These outside calculations would allow GVNW the opportunity to insert its calculations based on embedded numbers. Ms. Egbert of the Division further explains the theoretical basis of the TELRIC principles in her Rebuttal Testimony dated February 9<sup>th</sup>, 2004. The Division is aware of the anomalies that Mr. Duval has pointed out with respect to the HAI 5.2a cost model; however, it appears that the changes that Mr. Duval desires are not warranted as will be discussed below.

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<sup>&</sup>lt;sup>4</sup> Additional Direct Testimony of Chad A. Duval, Page 11 Lines 19 – 20.

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1	Q.	BRIEFLY DISCUSS THE FIRST GVNW CALCULATIONS OUTSIDE THE
2		MODEL FOR TRAFFIC (PAGE 11, LINE 21).

The first proposed adjustment was to the common transport rate element where it utilizes the actual minutes of use rather than theoretical minutes of use in the development of the per minute rate. Mr. Duval states that the problem is that the model develops "the per minute of use" rate based on theoretical trunk capacity, rather than on actual minutes of use. The Division feels that the cost model, appropriately, should not base its calculations on the embedded system's actual minutes of usage. In addition, based on GVNW's representation of how the rate would be affected, the proposed calculation would affect Gunnison Telephone Company, Manti Telephone Company, and UBET Telecom by \$0.00012, \$0.00189, and \$0.0022 respectively, each an immaterial amount. As for South Central Utah Telephone Company and Uintah Basin Telephone Association, which GVNW substituted its own traffic study numbers for the default HAI 5.2a traffic numbers, the rates dramatically increase by \$0.03491 and \$0.05605 respectively, almost doubling the total overall rate that the model calculated for these two companies. This would clearly produce highly inconsistent and incomparable rates when looking at the five Rural ILEC Company's results across the board.

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This result further leads to the question of whether the traffic study figures which are "embedded data" that GVNW inserts into the model for South Central Utah Telephone Company and Uintah Basin Telephone Association are even appropriate in a TELRIC environment. The Division believes the TELRIC principles and cost modeling process

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builds a theoretical, "optimal" network which may, or may not, resemble the embedded network, and thus plugging embedded data into a theoretical model process is not appropriate. The Division advocates that the Commission use the default traffic numbers in the HAI 5.2a model for South Central Utah Telephone Company and Uintah Basin Telephone Association consistent with the party's usage of default traffic numbers for the other three Rural ILECs. The results of not doing so would create questionable and very peculiar rates for two of the rural ILEC companies and more reasonable rates for the other three companies.

#### a.) WORK DONE WITH MODEL TRUNK ISSUE

# Q. PLEASE DISCUSS THE SECOND GVNW CALCULATION OUTSIDE THE MODEL TO ADJUST THE DEDICATED TRANSPORT RATE (P.12, LINE 6 – 10).

In addition to the above traffic calculation adjustment, GVNW increases the "Dedicated Transport" rates by reducing the number of trunks based on its own analysis. In the cost model, the Division is aware of the apparent differences in the number of trunks calculated by the model between the "Inputs" sheet and the "Unit Cost" sheet of the model results for the Rural-ILEC companies. After investigating this issue with AT&T representatives, as well as performing its own system analysis of the model, the Division believes that the proposed GVNW adjustment is not warranted as will be explained below.

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Cell F108 of the Inputs sheet is labeled Dedicated Trunk – SW. The number is different than the number in Cell D77 of the Unit Cost sheet (labeled as Switched under the Dedicated - Transport Network Element heading) because they are, in fact, representing different things. Upon closer look, the numbers for the Dedicated Trunk – SW value in the Inputs sheet is created with the Dedicated Transport MOU numbers (Cells F103 – 105). In the Unit Cost sheet, cells D87 and D88 refer to the sum of Cells F103 and F104 (Local, w/o OS and intraLATA Toll) of the Inputs sheet. This sum represents the Direct Transport Minutes and is reported separately in D87 and D88 of the Unit Cost sheet. It is not part of any calculation that goes into D77 of the Unit Cost sheet. Thus, even though the numbers do not match, it is not of great concern since they represent different things. The Division also notes that the Dedicated Trunk – SW number on the "Inputs" sheet is merely calculated and is not used elsewhere in the model for any purpose. What is more important though, is that the number reported in the (cell D77) of the Unit Cost sheet appears high. The GVNW adjustment simply reduces, external to the model's calculations, the number of trunks based on its traffic consultant's analysis and ignores any cost implications that the additional trunks contributed to the overall investment costs as calculated by the cost model. Thus, in essence, GVNW accepts the model's investment calculations (based on the alleged overstated trunk numbers) and yet rejects the foundation on which the calculations were based. Since the GVNW desired adjustment would create a notable impact on the overall rates, the Division does not endorse the GVNW's proposed adjustment methodology. This Division has worked with AT&T representatives to correct

1		for the "misreporting" of the switched trunk numbers and not its "miscalculation" as will
2		be explained below.
3		
4	Q.	BEFORE TECHNICALLY EXPLAINING THE TRUNK ISSUE, HOW IS THE
5		DEDICATED TRANSPORT RATE USED OR CHARGED TO WESTERN WIRELESS?
6	A.	It is my understanding that unless the Rural ILECs have a trunk dedicated for Western
7		Wireless traffic, the Rural ILECs will not collect Dedicated Transport rates. When and if
8		the Rural ILECs ever have such an arrangement, Table 5 on page 24 shows the Division's
9		proposed rates for Dedicated Transport. Thus, it is the Division's belief that even if the
10		adjustment made by GVNW was proven necessary, which the Division strongly believes is
11		not the case, it may still be a moot adjustment since Western Wireless would not likely
12		purchase a dedicated trunk from the Rural ILECs.
13		
14	Q.	PLEASE PROVIDE THE BACKGROUND INFORMATION AS TO WHAT THE
15		MODEL IS DOING IN RELATION TO THE TRUNK NUMBER ISSUE RAISED
16		BY GVNW?
17	A.	As mentioned in the Additional Direct Testimony of Mr. Chad A. Duval of GVNW, the
18		number of switched trunk on the Unit Costs sheet appears to be overstated when compared
19		to the switched trunk on the Inputs sheet. Since the model uses trunk figures as the
20		denominator when calculating a rate, the larger the number of trunks, the less the per minute
21		rate. Thus, GVNW argues that such would "artificially deflates the per minute rates for
22		dedicated transport." GVNW in turn, used its traffic consultant to calculate a more

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1	easonable number of switched trunks for the amount of traffic in the model and uses i
2	utside the model to inflate the per minute rate of dedicated switching.

In the model, the Switched and Special trunk number on the Unit Cost sheet is calculated from the sum of Switched trunks and the Special trunks. The results in the model is based on this "total" number of trunks and not the component pieces (i.e. the Switched, and the Special trunks separately). The Division believes, after in-depth analysis of the underlying formulas in the model, that this "total" number of trunks is calculated correctly. The Division believes, however, that the allocation between the switched and special access is actually incorrectly generated by the model, but can be very easily fixed. This is because the problem is simply a reporting flaw of the HAI model and not a functional miscalculation. In addition, though the switched trunk number and special trunk number are incorrect taken independently, it does not change any results since the results are based on the total (Switched + Special Access) trunk number.

# Q. BRIEFLY EXPLAIN WHY THE DIVISION BELIEVES THAT THE GVNW

#### TRUNK ADJUSTMENT IS NOT NECESSARY?

- 18 A. After the Division's correction to the switched trunk number and the special trunk number,
- the switched trunks figure is reasonably comparable to GVNW's traffic consultant's trunk

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calculations<sup>5</sup> and the Special Access trunk numbers match those reported in the HAI 5.2a model's distance file for the Rural ILEC companies. The adjusted DPU number of switched trunks for Gunnison, Manti, South Central, UBET, and UBTA are 91, 96, 890, 778, and 281 respectively; the Division's number are comparable and mostly less than GNVW's traffic consultant's calculated switched trunks numbers of 153, 134, 1019, 1197, and 238 switched trunks for the Rural ILECs. The resulting rates for each of the Rural ILECs remains the same.

# Q. WHAT VERIFICATION AND VALIDATION THE DIVISION PERFORMED TO

# ASCERTAIN THAT THE MODEL IS PROPERLY CALCULATING TOTAL

#### TRUNK NUMBERS?

A. To verify that the total trunk number is correctly calculated, the Division had AT&T "stop" the R52\_switching module in mid-stream during a model run. When stopped mid-stream, the R52\_switching modules are completely populated with data, formula, and numbers. The Division reviewed this spreadsheet and compared it to the work file (HMWKUT...) which is generated during a model run, as well as, traced the results spreadsheet from the Unit Cost sheet. After thoroughly and painstakingly tracing the formulas, numbers, and calculations through, the Division is convinced that the GVNW noted problem is simply a

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<sup>&</sup>lt;sup>5</sup> Note that in the GVNW's traffic consultant's study, a 99.99% call completion rate was used. Thus, expectantly, the since the DPU model uses a 80% call completion factor, the corrected (DPU) HAI trunk numbers would not match the GVNW's calculated number but should be within a range of reasonableness, and probably less than those calculated by GVNW.

1		reporting problem where the number is misreported on cell D78 and not a functional
2		problem with the model itself.
3		
4	Q.	ON THE TECHNICAL LEVEL, DISCUSS THE VALIDATION PROCESS FOR
5		NUMBER OF THE TRUNKS ISSUE.
6	A.	As stated earlier, the Division had AT&T "stop" the R52_switching module in midstream.
7		The Division also had the associated HMWKUT work file for model run, the
8		UT_Distance file, and the model run by density zone.
9		
10		Starting from the results spreadsheet, Unit Cost (cell D78, "Special" trunk) is the wrong
11		number (and will be corrected later). Though the number is wrong, it doesn't change the
12		results because the results are based on D76 ("Sw + Sp Transport" trunks). Cell D76
13		comes from cell BX21 on the Investment Input sheet. The results of the switching_io
14		module are written to the work file (HMWKUT). On the worksheet "Total Network Inv
15		by Density" Column BX is the same value as in the Investment Input sheet of the results. It
16		is calculated from the "Wire Center Output by CLLI", Column AL. The column is
17		reported on a per line basis and comes from the R52_switching_io module, which was
18		stopped in midstream Output sheet, also column AL.
19		
20		The R52_switching_io, Output sheet, column AL numbers is the sum of columns AC and
21		AO of the "Wire Center Investment" worksheet. In a separate column, I tool the equivalent
22		per line numbers (AC & AO) and modified it so that it shows the number of trunks and not

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1	on a per line basis. The result of this was that for column AO (Special Access), it matched
2	the reported Special Access/Private Line (column BA) figures for the company in the
3	UT_DISTANCE file. Thus, this number should be the one reported in D78 of Unit Cost
4	worksheet in the results. And after making this change, the switched trunk line is
5	calculated and is comparable to GVNW's consultant's estimates.
6	

# 7 Q. BRIEFLY EXPLAIN THE RESULTING ADJUSTMENT NECESSARY FOR

## PROPER REPRESENTATION OF THE TELRIC NETWORK.

number special access trunks need to be placed in the "Special" cell (D78) of the Unit Costs sheet of the results. This is done by entering the Special Access trunk number as summed by wire center, reported in column AY of the UT\_DISTANCE file for each of the Rural ILECs. The Division's calculation resulted in the following special access trunk numbers for the Rural ILECs: Gunnison – 478, Manti – 1192, South Central – 4685, UBET – 1777, and UBTA 663. Placing these numbers in D78 will then generate the above (correct) Switched trunks number in cell D77.

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# Q. ARE ANY OTHER LINE COUNT MODIFICATIONS DEEMED NECESSARY

#### 19 **PER GVNW?**

A. No. Page 11, Lines 7 – 13 of the Additional Direct Testimony of Mr. Chad A. Duval states the following with regards to the line count discrepancy of Manti Telephone and how the

1		Division's s	solution to modify the associated special access / private line count numbers by
2		wire center	(Column BA):
3 4 5		"Q:	Do you believe that these modifications should also be made for the other Utah ILECs?
6 7 8 9 10 11 12 13		A:	No, for the reasons above, I do not believe these modifications are appropriate for the other Utah ILECs. The access line counts for the other companies are close enough to actuals that the costs produced by the models are reflective of the forward-looking costs of these companies. This was simply not the case for Manti and we had to find a solution to this problem."
14		Thus the Di	vision believes that the line counts for the other four Rural ILEC companies is
15		an accurate	approximation of actual numbers. Since the Division used the GVNW supplied
16		distance file	e with the Rural ILEC having the actual raw data figures for lines counts, the
17 18		Division be	lieves that no further adjustment to special access counts are necessary.
19	Q.	WILL YOU	U REBUT ANY OF THE SPECIFIC INPUTS FACTORS IN GVNW'S
20		COST MO	DELS?
21	A.	Except for	the following brief discussion, Ms. Egbert of the Division will explain the
22		TELRIC pr	rinciples and reasoning behind the Division's input factors in her Rebuttal
23		Testimony of	dated February 9 <sup>th</sup> , 2004. I refer the Commission to her testimony.
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#### b.) TRAFFIC SENSITIVE FACTOR DISCUSSION

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#### Q. PLEASE COMMENT ON HOW GVNW IS PRESENTING ITS PROPOSED

#### RATES?

GVNW rates were proposed based on a 70% / 30% traffic sensitivity split. That is, 70% is adopted as the traffic sensitive portion of local switching, and 30% is non-traffic sensitive. The Division does not believe this should be the case. Instead, the Division believes, in line with the Commission's Order in the Qwest UNE-Loop docket, that switching should be flat rated and no additional cost is incurred by the ILEC companies unless traffic increases to a point where it exceeds the capacity of the switch.<sup>6</sup> This appears also to be in concurrence with Western Wireless' position.<sup>7</sup> Ms. Egbert of the Division further testifies in her rebuttal testimony as to the legal basis of this argument and why such a split would not be appropriate. I therefore refer the Commission to her detailed explanation in her additional rebuttal testimony.

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Displaying the results based on the 70/30 split has the effect of lowering the monthly End Office Switch Port cost (which it is my understanding that the Rural ILEC will not collect on, unless Western Wireless leases a Dedicated Switch Port for its own use) and raises the

<sup>6</sup> Utah PSC Report and Order In the Matter of the Determination of the Cost of the Unbundled Loop of Qwest Corporation, Inc. dated May 5, 2003.

<sup>&</sup>lt;sup>7</sup> Additional Direct Testimony of Brian F. Pitkin, December 19, 2002, Page 3, Lines 2 – 4.

1		per minute rate charges. Thus, in essence, this shifts the recovery of costs in the Rural-
2		ILEC's favor.
3		
4		In addition, the rates proposed by GVNW would lead one to believe that all components
5		for either the End Office or Tandem Office rate (for the total traffic sensitive rate) would be
6		recoverable by the Rural-ILEC depending on where the connection is made. However, it is
7		my understanding that "total" rate may not be applicable and is listed for tallying purposes
8		only since the components of the rate are stand alone rates with the ultimate rate dependent
9		on what and how Western Wireless ultimately elects to configure its network to
10		interconnect with the Rural ILECs and what components are required for interconnection.
11		Ms. Egbert explains the rationale behind this statement and provides further details as to
12		why the Division believes that this is the case.
13		
14	Q.	FOR REFERENCE, PLEASE PROVIDE THE PROPOSED GVNW [70/30] RATES.
15	A.	Based on the GVNW proposed 70/30 traffic sensitivity split, GVNW's proposed rate is as
16		follows in Table 2. The Division is merely presenting their rates to the Commission for
17		comparison purposes and is <u>not</u> endorsing the rate as being reasonable.

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# Table 2 - **GVNW** Proposed Rates based on 70/30 traffic sensitivity switching factor.8

Proposed   Proposed   Proposed   Proposed   Proposed   Proposed   (HAI5.2a)	/NW
Common Transport   Common Tran	posed
Sunison	I5.2a)
South Central   End Office Switch Port   2.93   .00599   .0000000000000000000000000000000000	m Office
ISDN User Part   .00022   .00	599
Common Transport	022
7         Tandem Switching          .00           8         Manti         End Office Switch Port         2.72         .00836         .00           9         ISDN User Part         .00045         .00           10         Common Transport          .00           11         Tandem Switching          .00           12         South Central         End Office Switch Port         2.80         .00830         .00           13         Dedicated Transport         .01536         .00           14         Tandem Switching          .00           15         UBET         End Office Switch Port         1.62         .00322         .00           16         Dedicated Transport         .00556         .00           16         Dedicated Transport         .00556         .00           17         Common Transport          .00           16         Dedicated Transport         .00556         .00           17         Common Transport          .00           17         Common Transport          .00           17         Common Transport          .00	383
Tandem Switching	163
Manti	035
Manti	202
Dedicated Transport   .00548   .00	0836
Dedicated Transport   .00548   .00	0045
Tandem Switching Traffic Sensitive Rate  South Central End Office Switch Port ISDN User Part Dedicated Transport Traffic Sensitive Rate  Dedicated Transport Traffic Sensitive Rate  15 UBET End Office Switch Port ISDN User Part Dedicated Transport Traffic Sensitive Rate  16 Dedicated Transport Traffic Switch Port Today Today Traffic Switch Port Today Today Traffic Swit	)548
Traffic Sensitive Rate   .01429   .02   South Central   End Office Switch Port   2.80   .00830   .00   ISDN User Part   .00402   .00   Dedicated Transport   .01536   .02   Common Transport  02   Traffic Sensitive Rate   .02768   .00   ISDN User Part   .00322   .00   ISDN User Part   .00024   .00   Dedicated Transport   .00556   .00   Trandem Switching  00556   .00   Trandem Switching  00024   .00   Trandem Switching  00025   .00   Trandem Switching  00026   .00026	0768
South Central   End Office Switch Port   2.80   .00830   .00	0056
12	2253
ISDN User Part   .00402   .0	0830
Common Transport00  Tandem Switching00  Traffic Sensitive Rate .02768 .00  UBET End Office Switch Port 1.62 .00322 .00  ISDN User Part .00024 .00  Dedicated Transport .00556 .00  Common Transport00  Tandem Switching00	0402
Common Transport	1536
Traffic Sensitive Rate	3947
15 UBET End Office Switch Port 1.62 .00322 .00  ISDN User Part .00024 .00  Dedicated Transport .00556 .00  Common Transport00  Tandem Switching00	0038
ISDN User Part .00024 .00  Dedicated Transport .00556 .00  Common Transport00  Tandem Switching00	6753
Dedicated Transport .00556 .00  Common Transport00  Tandem Switching00	)322
Dedicated Transport .00556 .00  Common Transport00  Tandem Switching00	0024
Tandem Switching00	)556
Tandem Switching00	0740
Traffic Sensitive Rate .00902 .00902	)157
	1799
	0625
Telecom Assoc. ISDN User Part .00249 .00	)249
Dedicated Transport .06603 .06	5603
Common Transport08	3112
Tandem Switching00	0120
Traffic Sensitive Rate .07477 .15	5709

<sup>&</sup>lt;sup>8</sup> Compiled from the Additional Direct Testimony of Chad A. Duval, attachment CAD-6.

# February 9, 2004

1	Q.	IS THE USE OF THE 70/30 TRAFFIC SENSITIVE SPLIT VALID?
2	A.	No. Not only has GVNW blatantly ignored the Commission's prior ruling in this issue, but
3		using the 70/30 split also misapplies the FCC's rules in regards to what the 70/30 rule
4		actually applies to. Ms. Egbert of the Division presents in her Rebuttal Testimony dated
5		February 9th, 2004, a detailed discussion and the basis as to why the 70/30 traffic sensitive
6		split should not be used. She cites FCC commentary as to the use of a Flat Rate Switching
7		(i.e. a $0/100$ split.) and where the FCC intended for the $70/30$ rule to be applicable.
8		
9	Q.	WHAT WOULD GVNW'S RATES BE IF FLAT RATE SWITCHING (I.E. A 0/100
10		TRAFFIC SENSITIVE SPLIT) HAD PROPERLY BEEN USED?
11	A.	The Division, for comparison purposes, has "modified" GVNW proposed rates for the
12		Rural ILECs to show what it would be if GVNW used flat rate (0/100 traffic sensitivity)
13		switching. Table 3 on the next page represents approximately what GVNW's rates would
14		be if a flat rate switching assumption had been used by GVNW in the model run. The
15		Division also does not endorse this rate but is merely showing to the Commission what the
16		rates GVNW is actually proposing with their input factors.
17		
18		As can be seen, the GVNW's rates, on a flat rated switching basis, are significantly higher
19		than the Division's in every respect when compared to the Division's proposed rates (Table

4 on Page 18).

# February 9, 2004

Table 3 – **Modified GVNW** Proposed Rates based on <u>0/100 traffic sensitivity switching factor</u> including the 2 GVNW adjustments outside the model.

3					
			Modified GVNW	Modified GVNW	Modified GVNW
4			(HAI5.2a)	(HAI5.2a)	(HAI5.2a)
5			End Office Switch Port	End Office	Tandem Office
6	Gunnison	End Office Switch Port	9.70		
		ISDN User Part		.00022	.00022
7		Dedicated Transport		.00380	.00380
		Common Transport			.00162
8		Tandem Switching			.00035
9		Traffic Sensitive Rate		.00402	.00599
9	Manti	End Office Switch Port	9.00		
10		ISDN User Part		.00045	.00045
		Dedicated Transport		.00574	.00574
11		Common Transport			.00761
		Tandem Switching			.00055
12		Traffic Sensitive Rate		.00619	.01435
13	South Central	End Office Switch Port	9.25		
15		ISDN User Part		.00398	.00398
14		Dedicated Transport		.00452	.00452
		Common Transport			.03912
15		Tandem Switching			.00038
		Traffic Sensitive Rate		.00850	.04800
16	UBET	End Office Switch Port	5.34		
17		ISDN User Part		.00024	.00024
17		Dedicated Transport		.00513	.00513
18		Common Transport			.00734
10		Tandem Switching			.00155
19		Traffic Sensitive Rate		.00537	.01426
	Uintah Basin	End Office Switch Port	8.47		
20	Telecom Assoc.	ISDN User Part		.00246	.00246
2.1		Dedicated Transport		.02485	.02485
21		Common Transport			.08039
22		Tandem Switching			.00119
22		Traffic Sensitive Rate		.02731	.10889

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#### February 9, 2004

# V. DIVISION'S PROPOSED RATES

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#### Q. PLEASE DESCRIBE THE DIVISION'S PROPOSED RATES.

A. The Division submits the following DPU proposed rates for the Rural ILECs using the HAI 4 5.2a model and its associated modifications. These rates are shown in Table 4 below. 5 Further, for companies with wire centers that use a Host–Remote configuration, Table 4 6 continues to show a rate which is more appropriate since it includes a Host-Remote 7 switching rate. Ms. Egbert further explains the reasoning behind these changes. 8 addition, also note that the Division has labeled the "ISDN User Part" as "Signaling 9 (ISUP)". The Division believes this is the proper characterization of what the rate 10 represents. 11

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The Division also presents a "Total Rate" for the convenience of the Commission. It is the Division's understanding that the components of the Total Rate (i.e. switch port, signaling, common transport, tandem switching) stand on their own depending on what Western Wireless's ultimate network needs are. The Division's Dedicated Transport rates are shown independently in Table 5, page 19.

# February 9, 2004

# Table 4 – **DPU**'s Proposed Rates for the Rural ILECs using the HAI 5.2a

Division Division Division Division Proposed Proposed Proposed Proposed (HAI5.2a) (HAI5.2a) (HAI5.2a) (HAI5.2a) End Office **End Office** End Office Tandem Switch Port w/Host-Remotes Common Gunnison End Office Switch Port 8.59 .00016 N/A .00016 Signaling (ISUP) Common Transport .00156 Tandem Switching .00147 Total Rate .00016 .00319 Manti End Office Switch Port 7.32 Signaling (ISUP) .00034 .00034 .00034 Common Transport .00511 .00511 H-R Switching (MOU) .00051 Tandem Switching --.00089 Total Rate .00034 .00596 .00634 South Central End Office Switch Port 8.11 Signaling (ISUP) .00197 .00197 .00197 Common Transport .02417 .02417 H-R Switching (MOU) .00046 **Tandem Switching** .00054 Total Rate .00197 .02660 .02668 UBET End Office Switch Port 4.78 ----Signaling (ISUP) .00019 .00019 .00019 .00341 Common Transport .00341 .00045 H-R Switching (MOU) --**Tandem Switching** .00057 Total Rate .00019 .00405 .00417 Uintah Basin End Office Switch Port 7.82 Telecom Signaling (ISUP) .00284 .00284 .00284 Assoc. Common Transport .02705 .02705 H-R Switching (MOU) .00052 **Tandem Switching** .00057 .03041 Total Rate .00284 .03046

# February 9, 2004

## Q. PLEASE DESCRIBE THE DIVISION'S PROPOSED DEDICATED TRANSPORT

# 2 RATES.

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A. As stated previously, it continues to be my understanding that unless the Rural ILECs have a trunk dedicated for Western Wireless traffic, the Rural ILECs will not collect Dedicated Transport rates. If the Rural ILECs ever have such an arrangement, Table 5 shows the Division's proposed rates for Dedicated Transport. Because of the Trunk reporting modification, these rates have changed from those the Division previously filed in my Direct Cost Analysis Testimony.

Table 5 – **DPU's** Proposed Dedicated Transport rates for the Rural ILECs using HAI 5.2a

	End Office	End Office w/ Host-Remote	Tandem
Gunnison Telephone Company	0.00156	N/A	0.00156
Manti Telephone Company	0.00509	0.00509	0.00509
So. Central Utah Telephone Association	0.00425	0.00425	0.00425
UBET Communications	0.00296	0.00296	0.00296
Uintah Basin Telephone Association	0.02322	0.02322	0.02322

## February 9, 2004

# 1 Q. FOR COMPARISON, PLEASE FIRST DESCRIBE GVNW'S [70/30] PROPOSED

## 2 **DEDICATED TRANSPORT RATES.**

A. As stated previously, GVNW adjustments in combination with their use of the 70/30 switch traffic sensitivity ratio, produces the following rates for Dedicated Transport. GVNW does not calculate an End Office with Host-Remote configuration. The Division is not endorsing the rates in Table 6, but is merely showing it to the Commission for comparison purposes.

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Table 6 – **GVNW's** Proposed Dedicated Transport rates (w/GVNW manual adjustments) for the Rural ILECs with a 70/30 split.

	End Office	End Office w/ Host-Remote	Tandem
Gunnison Telephone Company	0.00383	N/A	0.00383
Manti Telephone Company	0.00548	N/A	0.00548
So. Central Utah Telephone Association	0.01536	N/A	0.01536
UBET Communications	0.00556	N/A	0.00556
Uintah Basin Telephone Association	0.06603	N/A	0.06603

## February 9, 2004

# 1 Q. FOR COMPARISON, PLEASE DESCRIBE WHAT GVNW'S PROPOSED

## 2 DEDICATED TRANSPORT RATES WOULD BE UNDER FLAT RATED

# 3 SWITHCING (I.E. WITH 0/100 SPLIT)

- A. Again, the Division is not endorsing the following rates in Table 7, but is merely showing the Commission, for comparison purposes, what GVNW's Rural ILEC rates would be if
- they ran their cost models with flat rate switching (i.e. 0/100 split).

8 Table 7 –

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10 11 **GVNW's** Proposed Dedicated Transport rates (w/GVNW manual adjustments) for the Rural ILECs with a 0/100 split.

	End Office	End Office w/ Host-Remote	Tandem
Gunnison Telephone Company	0.00380	N/A	0.00380
Manti Telephone Company	0.00574	N/A	0.00574
So. Central Utah Telephone Association	0.0452	N/A	0.0452
UBET Communications	0.00513	N/A	0.00513
Uintah Basin Telephone Association	0.02485	N/A	0.02485

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February 9, 2004

# 1 Q. PLEASE SHOW A SIDE-BY-SIDE COMPARISION OF THE PROPOSED DPU

## 2 AND GVNW RATES FOR DEDICATED TRANSPORT.

- 3 A. Table 7 below shows a side-by-side comparison of the proposed rates for Dedicated
- 4 Transport.

5 6

Table 7 – **DPU vs. GVNW's** Proposed Dedicated Transport rates (w/GVNW's 2 manual adjustments and with flat rated switching.)

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	DPU End Office, End Office w/ H-R, &Tandem	GVNW End Office &Tandem
Gunnison Telephone Company	0.00156	0.00380
Manti Telephone Company	0.00509	0.00574
So. Central Utah Telephone Association	0.00425	0.0452
UBET Communications	0.00296	0.00513
Uintah Basin Telephone Association	0.02322	0.02485

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# Q. ARE YOU FILING ANY COST MODEL COMPONENTS OR RESULTS WITH

# THIS REBUTTAL COST ANALYSIS TESTIMONY?

- 13 A. Yes. The Division is providing the cost model results for the five Rural ILEC companies in
- this docket. Since the Division has not wavered from any of its input factors used in its

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Direct Cost Analysis testimony, the Division will not file any additional exhibits with regards to the factors used. However, the "Scenario Inputs" sheet is included in every HAI5.2a results spreadsheet. This sheet lists the factors used to generate the resultant spreadsheet and the corresponding rates. In addition, the Division notes that the previously filed model changes such as the HAI5.3a R52\_Switching\_IO module, the HM database which scaled up the Manti line counts, and the new GVNW UT\_DISTANCE file also need to be placed in the proper folders in order for the model to operate correctly.

# VI. CONCLUSION

A.

## Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.

For this docket, I continue to recommend that the Commission use the Division's HAI 5.2a model as the platform in the development of the rates for the Rural ILEC companies with the accompanying modifications and Commission Ordered factors as modified by the Division for the respective Rural ILECs. I feel that for the reasons discussed above, and in conjunction with the arguments presented by other Staff members, the Division's cost models still would be more representative of an appropriate cost for the purpose of this docket. Table 4 and 5 shows the Division's rate components and the Division's Dedicated Transport rates, respectively, for this docket. The Division advocates that the Commission use these results as the basis for determining a reasonable rate for the interconnection of Western Wireless and the Rural ILECs in this docket.

## February 9, 2004

1 <b>Q</b>	). ]	IS THERE	<b>ANYTHING</b>	<b>ELSE</b>	YOU	<b>WOULD</b>	LIKE	TO	STATE?
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- A. Yes. The Division continues to believe that the HAI 5.2a model should be viewed as a tool to model a theoretical network which ultimately generates the resulting rates. Based on the Division's analysis and best available data which the Division currently possesses, the Division continues to stand by the results of its model runs and advocates that the Commission reference those resulting rates generated by the Division's cost models to set the proper inter-connection rates between the five Rural ILECs in this docket and Western Wireless respectively.
- 10 Q. DOES THIS CONCLUDE YOUR TESTIMONY?
- 11 A. Yes it does. Thank you.