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**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF UTAH**

IN THE MATTER OF THE PETITION )  
OF QWEST CORPORATION FOR )  
ARBITRATION OF AN INTERCONNECTION )  
AGREEMENT WITH UNION TELEPHONE ) Docket No. 04-049-145  
COMPANY UNDER § 252 OF THE FEDERAL )  
TELECOMMUNICATIONS ACT OF 1996 )

**NON-CONFIDENTIAL**  
**SURREBUTTAL TESTIMONY**  
**OF**  
**JASON P. HENDRICKS**  
**FOR**  
**UNION TELEPHONE COMPANY**

November 7, 2005

1 **Q. Please state your name and business address.**

2 A. My name is Jason P. Hendricks, and my business address is 2270 LaMontana Way,  
3 Colorado Springs, CO 80918.

4

5 **Q. Are you the same Jason P. Hendricks who previously filed Direct Testimony in this**  
6 **proceeding?**

7 A. Yes, I am.

8

9 **Q. What is the purpose of your surrebuttal testimony?**

10 A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Qwest  
11 witness Peter Copeland. Specifically, I disagree with his analysis and recommend that  
12 the Commission reject all of Mr. Copeland's proposed changes to the asymmetric cost  
13 study I prepared on Union's behalf. My testimony is organized as follows. First, I  
14 explain why, contrary to Mr. Copeland's proposal, it would be inappropriate for the  
15 Commission to require Union to use the inputs the Commission ordered Qwest to use in  
16 its TELRIC proceedings. Second, I will explain why cell sites do incur "additional  
17 costs", and therefore, should be included in the TELRIC studies of Qwest, despite  
18 contrary statements made by Mr. Copeland. Lastly, I will respond to other miscellaneous  
19 statements made by Mr. Copeland and provide some final recommendations to the  
20 Commission.

21

22 **CORRECTIONS TO UNION'S PROPOSED COST STUDY**

23 **Q. Do you have any corrections you'd like to make to Union's proposed cost study?**

24 A. Yes. In responding to Qwest's data requests, I discovered that, in attempting to arrive at  
25 annual minutes of use (MOU), I inadvertently multiplied Union's actual weekly MOU by  
26 12 instead of 52. In addition, in preparing for this surrebuttal testimony, I discovered two  
27 formula errors in the summary tab of Union's original proposed model. First, the  
28 formulas in Row 12 of the Summary tab used a cost of equity multiplier to calculate a  
29 return on rate base instead of using a weighted average cost of capital multiplier, as I  
30 stated I intended to do in my direct testimony. Second, the projected transport costs in  
31 the Year 1 were overstated by \$1,440 as a result of a mathematical error. After  
32 correcting these three errors, Union's proposed compensation rate is now \$0.034735,  
33 instead of the original proposed rate of \$0.038144. The summary sheet from the revised  
34 model run is contained in Exhibit 11.1. The revised model run will be provided to the  
35 parties in the proceeding.

36

37 **USE OF QWEST INPUTS IS INAPPROPRIATE FOR UNION TELRIC STUDY**

38 **Q. Mr. Copeland states that "Union has presented no evidence to justify the variations**  
39 **from the inputs that the Commission has adopted for forward-looking studies."**  
40 **What is your response to this statement?**

41 A. I think Mr. Copeland's statement is very misleading. To my knowledge, the Commission  
42 has only reviewed and approved TELRIC studies for one company – Qwest. The  
43 Commission has never established rules, or indicated in any way, that TELRIC studies  
44 filed with the Commission should only use the unique set of inputs that the Commission  
45 required Qwest to use, as Mr. Copeland seems to imply. So, I disagree with Mr.  
46 Copeland's position that Union should be required to justify why its proposed inputs are

47 different from the ones the Commission required Qwest to use three years ago. Rather,  
48 Union need only justify why its inputs are consistent with the forward-looking cost  
49 requirements of the FCC rules. I adequately did so in my direct testimony.

50

51 **Q. Nonetheless, are all of Union's proposed numbers for the input categories Mr.**  
52 **Copeland identifies very much different from the numbers the Commission required**  
53 **Qwest to use?**

54 A. No. The Commission required Qwest to use 46.6% debt and 53.4% equity; Union  
55 proposes 45% debt and 55% equity. The Commission required Qwest to use 7.6% cost of  
56 debt; Union proposes 7.7% cost of debt. The Commission required Qwest to use an  
57 11.25% cost of equity; Union proposes 11.25% cost of equity. The Commission required  
58 Qwest to use a tax rate of 38.01%; Union proposes a tax rate 35%. As one can see,  
59 Union's proposals for these categories are equal, nearly equal to, or, in the case of the tax  
60 rate, lower than what the Commission required for Qwest.

61

62 **Q. Which of Union's proposed input changes are much different from the numbers the**  
63 **Commission approved for Union?**

64 A. There are two inputs Union proposes that one may consider to be significantly different  
65 from what the Commission approved for Union. First, Union proposes a switch  
66 depreciation life of 10 years, whereas, the Commission approved a switch depreciation  
67 life of 17 years for Qwest. Second, Union proposes a growth rate in maintenance  
68 expenses of 3%, whereas, the Commission approved a productivity-inflation adjustment  
69 of negative 4% for Qwest. But I believe there are good reasons why the Commission

70 should approve Union's proposed inputs for these categories rather than simply ordering  
71 Union to use the inputs the Commission approved for Qwest.

72

73 **Q. Why is an expense growth factor of 3% more appropriate for Union's study than a**  
74 **productivity-inflation adjustment of negative 4%?**

75 A. The negative 4% net productivity-inflation factor required of Qwest was entirely based on  
76 Qwest-specific circumstances. Specifically, the Commission's ruling was based on: 1)  
77 the estimated savings attributed to the U.S. West and Qwest merger; and 2) "Qwest's  
78 recent labor force reductions and lower equipment prices." (Commission Decision C02-  
79 409, pages 49-50). Obviously, Union wasn't involved in the U.S. West-Qwest merger or  
80 in Qwest's labor reduction. So, those cost savings should not be imposed on Union.

81

82 As for lower equipment prices, Union's proposed TELRIC study uses equipment prices  
83 actually paid in the past couple years. Those costs could not be more current.  
84 Furthermore, Union's estimated costs for the life of the study do not include additional  
85 equipment purchase assumptions. Therefore, it would be inappropriate to apply a factor  
86 that decreases expenses based on an assumption of decreased equipment prices, when the  
87 model doesn't assume that there are any equipment purchases other than the initial  
88 investment.

89

90 Union's proposed factor to increase maintenance expenses by 3% per year is primarily  
91 based on projected increases in loaded labor costs. Those expected costs would include  
92 increases in employee salaries, insurance premiums, and transportation costs for

93 employees to travel between job sites where maintenance is required. When one  
94 considers how much insurance premiums and gas prices have increased in recent times,  
95 3% is probably a very low growth factor. In addition, a company the size of Union does  
96 not experience the same kinds of productivity offsets that a company the size of Qwest  
97 may experience.

98  
99 Mr. Copeland questions why maintenance expenses are assumed to be increasing when  
100 the investments aren't assumed to be increasing. But if one considers the types of costs  
101 that Unions assumes will increase, it becomes clear that investment need not be  
102 increasing for expenses to be increasing. Personal finance is a useful analogy. Health  
103 care, power, gas, and other expenses can increase even if one doesn't purchase a new  
104 house. Similarly, the costs of using employees to maintain a network can increase even if  
105 the network investments don't increase.

106  
107 For all of these reasons, I recommend that the Commission reject Mr. Copeland's  
108 proposed net productivity-inflation factor of negative 4% and instead accept the 3%  
109 maintenance expense factor that Union proposes.

110  
111 **Q. Why is a switch depreciation life of 10 years more appropriate for Union's study**  
112 **than a switch depreciation life of 17 years?**

113 A. In today's environment, where technology is advancing rapidly and technologies become  
114 obsolete more quickly, it would be financially risky for Union to assume that its GSM  
115 switch will retain its economic usefulness for 17 years. Wireless networks in particular

116 are changing more rapidly than landline networks. It is my understanding from  
117 discussions with Union personnel that its GSM switches will be routinely upgraded with  
118 hardware and software changes over its life as a result of quick obsolescence in the  
119 wireless industry. Accordingly, not much of the original switch functionality will remain  
120 in 10 years. Therefore, I recommend that the Commission reject Mr. Copeland's  
121 proposed 17 year switch depreciation life and instead accept Union's proposed switch  
122 depreciation life of 10 years.

123

124 **Q. If the Commission were to disagree with your recommendations and instead order**  
125 **Union to use the same inputs that the Commission required, what would be the**  
126 **resulting transport and termination rates?**

127 A. I attempted to replicate Union's proposed model to account for Mr. Copeland's proposed  
128 inputs. By simply accounting for Mr. Copeland's input proposals discussed above, and  
129 ignoring for a moment his additional proposal to remove cell site investments and  
130 expenses, I have calculated that the transport and termination rate would be \$0.026484  
131 using the inputs the Commission ordered Qwest to use.<sup>1</sup> I have included the summary  
132 sheet from this test run in Exhibit 11.2. When comparing the results in Exhibit 11.2 to  
133 those contained in Exhibit 11.1, one can see that Union's rate would decrease by  
134 approximately eight-tenths of a cent from our revised proposed rate.<sup>2</sup> Thus, the most of  
135 the decrease in costs to arrive at the transport and termination rate of \$0.004826 contained

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<sup>1</sup> This calculation also includes use of Mr. Copeland's proposed tax calculation. Mr. Copeland took issue with Union's proposed tax calculation. Union's proposed tax calculation is consistent with the methodology used by the National Exchange Carrier Association (NECA) for cost settlement purposes. But Union is not taking issue with Mr. Copeland's proposed tax calculation. It results in higher assumed taxes than what would occur under Union's proposed tax calculation.

<sup>2</sup> The reduction in cost is also partly attributable to the use of the 17-year depreciation life on cell sites, which in the next section I deem to be more comparable to switches than loops, in addition to the use of the 17-year switch depreciation life proposed by Mr. Copeland.



136 in Mr. Copeland’s model “correcting” Union’s proposed model can be attributed to Mr.  
137 Copeland’s proposed removal of all cell site investments and expenses. As discussed in  
138 the next section, the Commission should reject Mr. Copeland’s proposal to remove cell  
139 site costs because Union’s cell site costs are traffic-sensitive and, therefore, appropriate to  
140 include in a TELRIC study.

141

142 **INCLUSION OF CELL SITE COSTS IS APPROPRIATE FOR UNION’S STUDIES**

143 **Q. What is Mr. Copeland’s position on the inclusion of cell site costs in Union’s**  
144 **proposed TELRIC study?**

145 A. Mr. Copeland proposes to eliminate the entire \$38 million in cell site investment, plus his  
146 calculation of cell site expenses, based on his unsupported position that the cell site costs  
147 are not-traffic sensitive costs. This elimination of all but \$4.9 million dollars in  
148 investment (the cost of Union’s GSM switch) is, by far, the biggest reason why Union’s  
149 compensation rate would decrease from \$0.034735 under its revised proposal to  
150 \$0.004826 under Mr. Copeland’s proposal.

151

152 **Q. What does Mr. Copeland use to support his assertion that cell site costs are non-**  
153 **traffic sensitive costs?**

154 A. Mr. Copeland does not provide any technical documentation or analysis to support his  
155 assertions that cell site costs are non-traffic sensitive. Nor does Mr. Copeland provide  
156 any citations to an FCC ruling in which the FCC has ruled that cell site costs are non-  
157 traffic sensitive. Instead, Mr. Copeland’s entire rationale is based on two things. First,  
158 without any technical support, Mr. Copeland equates cell sites to loops (Mr. Copeland,

159 Rebuttal Testimony, page 11, lines 18-19). Then, Mr. Copeland states that inclusion of  
160 these costs violate the FCC’s “additional cost” standard because the FCC has ruled for  
161 ILECs that since the “costs of local loops ... do not vary in proportion to the number of  
162 calls terminated over these facilities ... such non-traffic sensitive costs should not be  
163 considered ‘additional costs.’” (Copeland Rebuttal - page 12, lines 2-3 and page 5, lines  
164 4-20 citing paragraph 1057 of the FCC’s First Report and Order).<sup>3</sup>

165  
166 **Q. Is the FCC’s ruling on the inclusion of loop costs applicable to the cell site costs at**  
167 **issue in this proceeding?**

168 A. No. The FCC’s ruling was solely limited to an evaluation of what components of an  
169 ILEC’s network should be included in the development of an ILEC’s transport and  
170 termination rate. That ruling did not make a follow-up determination equating cell site  
171 costs to loop costs for purposes of calculating asymmetric rates, as Mr. Copeland’s  
172 testimony may lead one to believe. As the FCC said about its rules in its *CMRS*  
173 *Compensation Order* discussed below, “the Commission did not consider, and  
174 Commission rules do not identify, the wireless network components that have traffic-  
175 sensitive costs to be included in a section 51.711 cost study.” (*CMRS Compensation*  
176 *Order*, paragraph 7).

177  
178 **Q. Has the FCC been asked on a separate occasion to determine what components of a**  
179 **wireless carrier’s network contains traffic-sensitive costs for purposes of establishing**  
180 **asymmetric compensation rates?**

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<sup>3</sup> Mr. Copeland and the FCC use the terms “additional costs” and “traffic-sensitive costs” synonymously. I do the same in this testimony.

181 A. Yes. On February 2, 2000, Sprint PCS filed a letter and legal memorandum requesting  
182 that the FCC confirm and clarify the entitlement of CMRS providers to compensation for  
183 all the additional costs of switching or delivering to mobile customers “local traffic  
184 originated on other networks.” The FCC established a comment cycle for  
185 telecommunications carriers to respond to the proposals contained in Sprint’s proposals.  
186 Many entities, including U.S. West filed comments and reply comments on Sprint’s  
187 proposal. On April 27, 2001, in the context of seeking comment on a unified intercarrier  
188 compensation scheme, the FCC issued the Unified Intercarrier Compensation Notice of  
189 Proposed Rulemaking (NPRM), which, among other things, reviewed and sought  
190 comment on the application of its current orders and rules regarding asymmetric  
191 reciprocal compensation to LEC-CMRS interconnection. On May 9, 2001, the Wireless  
192 Telecommunications Bureau (WTB) and the Wireline Competition Bureau (WCB) of the  
193 FCC responded to the Sprint PCS Letter, relying on clarifications of the asymmetric  
194 compensation rules in the Unified Intercarrier Compensation NPRM.<sup>4</sup>

195

196 **Q. What did the Joint Letter of the FCC’s bureaus say?**

197 A. The Joint Letter stated:

- 198 • [B]ased on the language of section 252(d)(2)(A) of the Communications Act, CMRS  
199 carriers are entitled to the opportunity to demonstrate that their termination costs exceed  
200 those of ILECs.  
201
- 202 • [T]he ‘equivalent facility’ language of sections 51.701(c) and (d) of the Commission’s  
203 rules does not require that wireless network components be reviewed on the basis of their  
204 relationship to wireline network components; nor does it bar a CMRS carrier from  
205 receiving compensation for the additional costs that it incurs in terminating traffic on its  
206 network if those costs exceed the ILEC’s costs. Rather, the determination of compensable

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<sup>4</sup> Citations for the items discussed in this paragraph are contained in the FCC’s *CMRS Compensation Order* provided in Exhibit 12.

207 wireless network components should be based on whether the particular wireless network  
208 components are cost sensitive to increasing call traffic.

209

- 210 • [I]f a CMRS carrier can demonstrate that the costs associated with spectrum, cell sites,  
211 backhaul links, base station controllers and mobile switching centers vary, to some  
212 degree, with the level of traffic that is carried on the wireless network, a CMRS carrier  
213 can submit a cost study to justify its claim to asymmetric reciprocal compensation that  
214 includes additional traffic sensitive costs associated with those network elements.

215

216

217 The FCC later issued an Order denying an application for Review of the Joint Letter.

218 (FCC 03-215, Released September 3, 2003, *CMRS Compensation Order*). In the *CMRS*  
219 *Compensation Order*, the FCC stated:

220 We find that the Joint Letter is consistent with the interpretation of section  
221 252(d)(2)(A) of the Communications Act that the Commission adopted in the  
222 Local Competition Order and reflected in the Commission’s rules and prior orders  
223 and, accordingly, affirm the interpretation of our rules stated therein. (Order,  
224 page 1)

225

226 I have enclosed a copy of the *CMRS Compensation Order* in Exhibit 12. The summary  
227 of the contents of the Joint Letter, as well as summary of the steps that led to the issuance  
228 of the Joint Letter and the *CMRS Compensation Order*, as discussed above, are contained  
229 therein.

230

231 **Q. What other important observations can you make about the FCC’s *CMRS***  
232 ***Compensation Order*?**

233 A. I believe it is important to note that the FCC has already considered the argument  
234 espoused by Mr. Copeland that cell site costs are not “additional costs” since cell sites  
235 are equivalent to ILEC loop facilities and the FCC ruled that loop costs are not  
236 “additional costs.” The FCC explicitly rejected that argument. Specifically, the FCC  
237 ruled:

238 We reaffirm that the term “equivalent facility” was not intended to preclude the  
239 recovery by CMRS carriers of the “additional costs” of wireless components that  
240 might be regarded as functionally equivalent to wireline elements whose costs are  
241 non-recoverable, such as a wireline LEC’s local loop. Rather, the language  
242 “switch or equivalent facility” was used to “contemplate that a carrier may  
243 employ a switching mechanism other than a traditional LEC switch to terminate  
244 calls,” and more generally to ensure that the costs of non-LEC facilities would be  
245 included in transport and termination rates even if such facilities did not precisely  
246 track the network facilities architecture of a LEC. Thus, while equivalence does,  
247 in part, define what facilities are involved in the function of “termination,” it is  
248 simply not relevant to determining which of those terminating facilities imposes  
249 costs that can be recovered through reciprocal compensation charges. .... SBC  
250 asserts that when the Commission concluded that LECs are not entitled to recover  
251 any loop costs through reciprocal compensation, it limited a LEC to recovering  
252 only what SBC describes as the “short-term” traffic-sensitive costs of termination,  
253 and prohibited recovery of the “long-term” traffic-sensitive costs. SBC argues  
254 that CMRS carriers must be subject to the same limitation. ... In asserting that the  
255 Commission applied a different standard of recoverable costs in the Local  
256 Competition Order when it found that loop costs were not recoverable, SBC  
257 misconstrues the Commission’s reasoning. The Commission did not exclude loop  
258 costs because they were “long-term” traffic-sensitive costs. Rather, the  
259 Commission concluded:

260  
261 The costs of local loops and line ports associated with local switches do  
262 not vary in proportion to the number of calls terminated over these  
263 facilities. We conclude that such non-traffic sensitive costs should not  
264 be considered “additional costs” when a LEC terminates a call that  
265 originated on the network of a competing carrier.  
266

267 [l]oop costs were excluded from “additional costs” on the basis of a finding of  
268 non-traffic sensitivity ... (*CMRS Compensation Order*, paragraphs 11-13).  
269

270 **Q. Can you please summarize what you believe to be the importance of the FCC’s**  
271 ***CMRS Compensation Order*?**

272 A. I believe the *CMRS Compensation Order* is important because the FCC has already heard  
273 and rejected the arguments made by Mr. Copeland. Specifically, the FCC has already  
274 ruled that the portions of the FCC First Report and Order cited by Mr. Copeland are not  
275 determinative of whether cell site costs are traffic-sensitive costs. Thus, it is  
276 inappropriate for Mr. Copeland to cite to a portion of an FCC ruling to support his

277 contention that cell site costs are not “additional costs” when the FCC has already  
278 determined that those portions of the rules do not support the arguments Mr. Copeland is  
279 making. Rather, the FCC stated that:

280 we make no determination here as to whether any particular element of a CMRS  
281 network is actually traffic-sensitive. Rather, as the Joint Letter noted, a CMRS  
282 carrier that believes it is entitled to asymmetrical compensation must still submit a  
283 cost study to the appropriate State commission justifying its claim to  
284 asymmetrical compensation for additional traffic-sensitive costs associated with  
285 its network elements.  
286

287 In short, Mr. Copeland cannot rely on FCC rules and orders to claim that cell site costs  
288 are not traffic sensitive. Instead, it is up to the Commission to determine if Union’s costs  
289 are traffic-sensitive.

290

291 **Q. For purposes of ultimately determining whether cell site costs are traffic-sensitive,**  
292 **please describe the role of cell sites in a wireless network.**

293 A. A cell site provides call set-up functions, call management, and a wireless interface to all  
294 handsets within a specific geographic area or cell. It includes antennas, supporting  
295 towers where necessary, and the Base Transceiver System (BTS). All three components  
296 of the cell site are needed to maintain a wireless connection to a user’s handset.

297

298 Antennas are needed to transmit wireless signals from a cell sites to a subscriber handset,  
299 and to receive wireless signals from wireless handsets in the area covered by the cell site.

300 The antennas, and other equipment, are often placed on towers or rooftops. Towers or  
301 rooftop sites help ensure adequate signal strength between handsets across the cell and  
302 the antenna at the cell site. BTSs contain the electronics necessary to convert the signal

303 received from the antenna into a format suitable for transport to a Base Station Receiver  
304 (BSC), which performs traffic concentration, supervision of call hand-offs between  
305 BTSs, administration of BTS resources, and aggregation of traffic for hand-off to  
306 wireless switch. In Union's case, the signals between its BTSs and BSC are transported  
307 over a microwave backhaul link. A BTS also amplifies signals for broadcast over the air  
308 interface, communicates call set-up information with handsets, provides timing  
309 information, and manages handoffs from one sector to another sector within the same cell  
310 site.

311

312 **Q. What characteristics make cell site components traffic sensitive?**

313 A. The ability of a BTS to carry traffic is limited by the capacity of its processor unit, which  
314 is used to translate formats, control power, supervise call set-up, and manage internal  
315 handoffs. When the volume of calls increases sufficiently, the installed capacity of the  
316 BTS will be exhausted, and the number of calls being blocked or dropped will increase.  
317 The quality of service can be maintained by increasing the capacity of the BTS in one of  
318 two primary ways – the addition of radio carriers or the addition of cell sites.

319

320 When the initial calling volume is still relatively low, the electronic equipment at the cell  
321 site is initially configured to use only a portion of the available radio spectrum. In this  
322 case, capacity can be expanded by adding electronic equipment to the BTS that permits  
323 additional "radio carriers" (frequencies that were previously unused) to be brought into  
324 service. Since calling volume triggers the level of investment in BTSs, the costs of BTSs  
325 are traffic sensitive.

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A second method of expanding capacity is cell splitting. When total minutes of use exceed the capacity of a cell site, relief can be obtained by adding an additional cell site at an adjacent location. This permits the new site to manage a portion of the traffic being transmitted in the geographic area, thus “splitting” the original cell. When all available spectrum is exhausted and carriers cannot be added, cell splitting may be the only means of expanding capacity. Also, it is frequently more efficient to split a single cell than to add additional radio carriers or frequencies to the network. Cell splitting provides an independent and alternative justification for the conclusion that cell site costs are traffic sensitive.

337 **Q. The cell site costs included in Union’s proposed model include building and tower**  
338 **costs. Is it appropriate to include those costs in a forward-looking cost model?**

339 A. Yes. The costs of structures, like buildings and towers, required to house BTSs and  
340 antennas are akin to the costs of the land and buildings required to house ILEC switches.  
341 The FCC has determined that these costs can be recovered by ILECs as part of the  
342 unbundled local switching element, and the model adopted by the Commission to  
343 compute the forward-looking cost of unbundled network elements includes the costs of  
344 land and buildings in its estimate of the costs of local switching. By the same logic, the  
345 costs of structures at cell sites can be considered part of the costs of BTSs.

346  
347 **Q. Are you saying that cell sites are more equivalent to ILEC switches than they are to**  
348 **ILEC loops?**



349 A. Yes. Think of it this way. Qwest has a few tandem switches and many end office  
350 switches in Utah in order for Qwest to provide service throughout Utah. Qwest has  
351 similar switching networks in Colorado, Wyoming, and Idaho. But Union has one GSM  
352 switch in Wyoming to serve customers located in Colorado, Wyoming, Utah, and Idaho.  
353 If one were to add up the total switch investment that Qwest has to serve a similar  
354 geographic area to that served by Union in all four states, one would arrive at a number  
355 very much larger than the \$4.9 million GSM switch cost limit the Mr. Copeland proposes  
356 that the Commission allow for Union.<sup>5</sup> The reason why Mr. Copeland's limitation is not  
357 appropriate is because that Union's GSM switch does not perform all of the call  
358 processing necessary to serve all four states just like Qwest's one tandem switch could  
359 not perform all the call processing necessary for Qwest to serve customers in all four  
360 states. Qwest relies on the call processing functionality of end offices and Union relies  
361 on the call processing functionality of BTSs. And since Qwest is allowed to recover its  
362 end office switching and related costs in its transport and termination rate, Union should  
363 be allowed to recover its BTS and related costs in its transport and termination rate.<sup>6</sup>

364  
365 **Q. Mr. Copeland uses a response that Union made to a Qwest data request to support**  
366 **his contention that cell site costs are not traffic-sensitive. (Copeland Direct, p. 12).**  
367 **What is your response to Mr. Copeland's argument?**

---

<sup>5</sup> Mr. Copeland actually discusses reducing this number in his testimony but doesn't actually do so in his proposed revisions to Unions' cost studies.

<sup>6</sup> An alternative way of thinking about the equivalency of wireless network with a landline network was put forward by Sprint PCS in its letter to the FCC in which it stated that the wireless network is a single service that provides both transport and termination rather than two separate services as in the ILEC network. Regardless of the analogy, Union is still allowed to recover its cell site costs under the FCC rules because they are traffic-sensitive costs associated with the transport and/or termination of local calls.

368 A. This is another example of the types of misleading statements Mr. Copeland makes  
369 throughout his testimony. Mr. Copeland's statement in his testimony was "[t]he fact that  
370 cell site investment is non-traffic sensitive is further reinforced by Union's response to  
371 Data Request 2-031 regarding whether growth in MOUs causes additional cell site  
372 investment." But here is the data request and response:

373 **QWEST 2-031:**  
374

375 In his testimony, Mr. Hendricks says the MOUs are adjusted to reflect additional  
376 cell sites projected to be added through 2006 and a 3% growth in usage per  
377 customer. Explain how Union has accounted for growth in the number of  
378 customers per cell site. Explain whether the GSM switch costs (i.e., investment,  
379 maintenance, power) change if the number of customers per cell site increased by  
380 25%. If so, state why and by how much.  
381

382 **Response:** The MOU growth factor includes an assumption of MOU growth both  
383 from current customers and new customers. There is no assumed change in  
384 investment, power, and maintenance as a result of customer growth.  
385

386 As can be seen, Qwest's question was in regard to switch costs (i.e., investment), not cell  
387 site investment. So, in responding that there is no change in investment, the answer was  
388 in relation to the question about switch investment. To be clear, the model assumes that  
389 switches and cell sites are sized to serve all current MOU and expected MOU. The  
390 model does not assume that switches and cell sites will be added at some future point to  
391 serve customer growth because the needed investment is assumed up-front. This  
392 methodology is consistent with how switch investment is to be handled under the FCC's  
393 TELRIC rules (the network is assumed to be built all at once) and my understanding of  
394 how Qwest models switching costs in its TELRIC studies. Further, the power and  
395 maintenance costs associated with the appropriately-sized network reflect assumptions on  
396 expected increases in power costs and inflationary assumptions on loaded labor costs,

397           respectively. Again, the type of methodology used for these costs assumptions is  
398           consistent with TELRIC requirements. Accordingly, the Commission should not allow  
399           Mr. Copeland's misleading statements to dissuade it from ruling that cell site costs are  
400           traffic-sensitive.

401

402   **RESPONSES TO ADDITIONAL COMMENTS OF MR. COPELAND**

403   **Q.    Mr. Copeland comments on Union's responses to data requests not being sufficient**  
404           **to prove that the model inputs are appropriate. (Copeland Direct, pages 13-14).**  
405           **What is your response to Mr. Copeland's statement?**

406   A.    Mr. Copeland also stated that additional responses were provided shortly before his  
407           testimony was filed (Copeland Direct, p.3). Other responses were provided later, as well.  
408           With all of the data we have provided in testimony and in data request responses, Union  
409           has adequately proven that its model inputs and assumptions are appropriate.

410

411   **Q.    Mr. Copeland comments that the switch investment tab has circuit investment and**  
412           **general purpose computer account codes next to the switch investment numbers.**  
413           **What is your response to Mr. Copeland's comments?**

414   A.    The account codes were in fact incorrect accounts to which the switch investment was  
415           booked. However, the switch investment numbers used in the model include only actual  
416           switch investment, as detailed in Union's response to Qwest data request 14.

417

418   **Q.    Does that complete your surrebuttal testimony in this docket?**

419   A.    Yes, it does.