

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**In the Matter of the Petition of Qwest
Corporation to Initiate a Mass-Market
Switching and Dedicated Transport Case
Pursuant to the Triennial Review Order**

Docket No. UT-033044

REBUTTAL TESTIMONY OF

JOSEPH H. WEBER

ON BEHALF OF

QWEST CORPORATION

FEBRUARY 20, 2004

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1 **I. INTRODUCTION**

2 **Q. ARE YOU THE SAME JOSEPH WEBER WHO SUBMITTED DIRECT AND**
3 **RESPONSIVE TESTIMONY IN THIS DOCKET?**

4 **A.** Yes.

5 **II. PURPOSE OF REBUTTAL TESTIMONY**

6 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

7 **A.** The purpose of my testimony is to respond to portions of the Network Architecture
8 Response testimony of AT&T witness Robert V. Falcone (Exhibit No. RVF-17T dated
9 February 2, 2004) which addresses my direct testimony. My rebuttal testimony will
10 demonstrate that Mr. Falcone's responsive testimony was primarily a rehash of his direct
11 testimony, and presented an entirely misleading analysis of the economic implications of
12 the access arrangements that I had described in my direct testimony.

13 **III. DISCUSSION OF NETWORK ACCESS ARRANGEMENTS**

14 **Q. WHAT WAS THE THRUST OF MR. FALCONE'S RESPONSIVE TESTIMONY, AS IT**
15 **RELATES TO THE NETWORK ARCHITECTURE ISSUES DISCUSSED IN YOUR**
16 **DIRECT TESTIMONY?**

17 **A.** Essentially, he simply repeated the assertions he made in his direct testimony - that the
18 fact that CLECs do not have switches at every wire center makes it infeasible for them to

1 serve mass market customers and that it puts them at an intolerable disadvantage vis-à-vis
2 the ILECs.¹

3 **Q. DOES HE DISPUTE YOUR ASSERTIONS CONCERNING THE GENERAL**
4 **AVAILABILITY OF SWITCHES AND THE TECHNICAL FEASIBILITY OF**
5 **CONNECTING CUSTOMERS TO THESE CLEC SWITCHES?**

6 A. No. In fact, he says I did a “fine job” of describing the various access arrangements,
7 although of course he classifies them as “impairments”.²

8 **Q. IF HE DID NOT DISPUTE YOUR ASSERTIONS, WHAT DID HE DO IN HIS**
9 **RESPONSIVE TESTIMONY?**

10 A. Basically, he expanded his earlier discussion of access arrangements, continuing to
11 contrast the short jumper wire required by the ILEC with the longer transmission line
12 needed by the CLEC. Although my testimony was specifically limited to issues of switch
13 availability and feasibility of access, Mr. Falcone expanded the discussion to include
14 economic issues. He also continued to ignore the ILEC costs of interoffice facilities
15 when making his comparisons between ILEC and CLEC costs.

16 **Q. AREN'T ECONOMIC ISSUES IMPORTANT?**

17 A. They certainly are. However, the economic implications of the access arrangements have
18 been fully explored by Mr. Copeland, who has conclusively shown that the CLECs can

¹ Response Testimony of Robert V. Falcone dated February 2, 2004 (Exhibit No. RVF-17T) (“Falcone”), pages 2 to 3.

² *Id.*, page 2.

1 utilize these access arrangements to operate profitably in six of the nine MSAs in
2 Washington.

3 **Q. DID MR. FALCONE UNDERTAKE A COMPLETE EVALUATION OF THE**
4 **COSTS THAT A CLEC WOULD INCUR IF IT PROVIDED MASS MARKET**
5 **SERVICES THROUGHOUT AN MSA?**

6 A. No, he did not. Instead, he took a hypothetical example of a CLEC serving a few lines at
7 a wire center quite far from the switch.³ Even in this case, he did not demonstrate that the
8 CLEC could not serve these customers profitably. Instead, he just identified some costs
9 that he apparently assumed the reader would think were very high.

10 **Q. WAS HIS HYPOTHETICAL EXAMPLE REPRESENTATIVE OF A TYPICAL**
11 **SITUATION?**

12 A. Not at all. Of the three access arrangements I had discussed, he focuses on the one which
13 I had specified as only useful for small offices. He then determines the connection costs,
14 based on Qwest tariffs, of connecting a wire center with 24 or 25 customers to a switch
15 40 miles away, using EELs. As Mr. Copeland has shown, however, most of the offices in
16 Washington are more economically served using DLC arrangements, and these account
17 for the overwhelming proportion of the lines. Using Mr. Falcone's formulation, but
18 assuming that the CLEC serves several hundred lines in an office and that the typical
19 office is about 20 miles from the switch - a far more realistic and meaningful situation -

³ *Id.*, pages 9 to 11.

1 then the cost of a DS1 is \$33.12 plus \$0.65 per mile. The total cost per DS1 is therefore
2 \$46.12. Assuming a four-to-one concentration due to the use of DLC equipment, and 24
3 channels per DS1, the cost per loop of this “backhaul” is only \$0.48 per month. Even if
4 the utilization is, on average, only 75%, the costs would still be less than a dollar a
5 month.⁴

6 **Q. YOU TESTIFIED THAT SWITCHES COULD SERVE CUSTOMERS UP TO 600**
7 **MILES AWAY. DOES MR. FACLONE DISPUTE THIS?**

8 A. No. He agrees that it is technically feasible. He then goes on, however, to describe the
9 case of two people in the same central office calling each other over this extended
10 connection, noting how wasteful and circuitous such a connection would be. He admits,
11 however, that such a situation would be “the rare exception.”⁵ It is misleading and
12 inaccurate to use such an exceptional scenario to make a point. Although it is true that
13 using a switch outside the local calling area will require longer connections, the economic
14 implications may not be severe. Telecommunications equipment costs are rapidly
15 becoming “postalized,” i.e., independent of distance. This effect is reflected in the
16 current pricing arrangements of long-distance carriers, where costs are quoted “per
17 minute” regardless of the destination or distance of the call.

⁴ There are, of course, other costs here - the costs of collocation, of the DLC equipment, and of the entrance facility. These have all been analyzed in detail by Mr. Copeland. I am merely mirroring Mr. Falcone’s testimony, and showing the extent to which he exaggerates the costs.

⁵ Falcone, page 16.

1 **Q. DOES MR. FALCONE HAVE OTHER CONCERNS ABOUT THE ACCESS**
2 **ARRANGEMENTS?**

3 A. Yes. Still focusing on EELs, he complains that if EELS are used, there is no
4 concentration, and each loop essentially occupies a switch port.⁶ Of course, this is
5 exactly the situation the ILEC experiences when it terminates copper loops on its
6 switches.

7 **Q. DOES MR. FALCONE ACKNOWLEDGE THE AVAILABILITY OF DLC AND**
8 **REMOTE SWITCH UNIT (RSU) ARRANGEMENTS?**

9 A. Yes, but he dismisses them without benefit of any analysis at all - simply alluding to the
10 collocation and equipment costs that must be incurred. He further claims that the
11 wording of Qwest's SGATs that states that RSUs in collocation space can be used "for
12 purposes of providing local exchange service" means that only local calls can be carried.⁷
13 This is an incorrect interpretation of the meaning of the SGAT provision. That provision
14 is set forth below.

15 8.2.1.2.3 Remote Switching Units (RSUs) also meet this legal standard when
16 used for Interconnection or access to Unbundled Network Elements for purposes
17 of providing Local Exchange Service.

18 This provision simply means a [carrier requesting to collocate an RSU in Qwest's premises](#)
19 [must be providing local service](#), not that local service is the only service that is permitted to
20 be provided via RSU.

⁶ Falcone, page 12.

⁷ *Id.*, page 17.

1 IV. OTHER ISSUES

2 Q. DID MR. FALCONE DISCUSS ANY OTHER MATTERS RAISED IN YOUR
3 TESTIMONY?

4 A. Yes. I had testified that the fact that CLECs were being paid intercarrier compensation at
5 the tandem rates indicated that their switches were capable of serving customers
6 everywhere in the LATA. Mr. Falcone misstates what I said, claiming that I had stated
7 that the fact that tandem compensation was being paid was evidence that the CLECs can
8 *and are* serving customers throughout the LATA. He then spends a page of testimony
9 arguing that the payment arrangements are not evidence that the CLECs *are* serving
10 customers everywhere in the LATA, only that they are *capable* of doing so.⁸ Of course,
11 this is exactly what I said. Mr. Falcone's arguments simply confirm my position.

12 Q. ARE THERE ANY OTHER ISSUES RAISED BY MR. FALCONE?

13 A. Yes. Although never mentioned in my direct testimony, he now raises the issue of 911
14 call routing, indicating that a CLEC would not be able to "easily or economically"
15 comply with NENA recommendations to avoid a single point of failure that could disrupt
16 911 access. It is certainly true that if the switch itself were to fail, 911 access would be
17 cut off along with all other services. Any other type of facility failure can certainly be
18 mitigated by utilizing multiple routes to the 911 tandem. The potential for switch failure,
19 of course, is not a source of impairment. ILEC customers will also be isolated if their
20 serving switch fails.

⁸ *Id.*, page 20.

1 Q. ARE THERE STILL OTHER ISSUES RAISED BY MR. FALCONE?

2 A. Yes. Mr. Falcone has suggested that Qwest's tandem network will be unable to handle
3 the extra load caused by a shift from UNE-L to UNE-P.

4 Q. IS THIS TRUE?

5 A. No. First of all, Mr. Falcone's central premise, that all UNE-L traffic will be routed via
6 Qwest tandems is untrue. As of November 2003, there were slightly over 200,000
7 interconnection trunks in the state of Washington, of which only 36% connected via a
8 tandem. This is only slightly greater than the ratio in Qwest's own network, in which
9 about 27% of local trunks are connected to a tandem switch. There are 110,000 UNE-P
10 lines in service in Washington, representing about 5% of the retail lines using Qwest's
11 network, and shifting an additional 9% of their traffic (27% to 36%) to tandems would
12 increase the tandem load by 9% of 5% of total network traffic. Applying this to the 27%
13 of the total routed to the tandems results in an increase in tandem traffic of less than 2%.
14 This is a small increase even if applied all at once but when coupled with the transition
15 period of 27 months specified by the FCC, it become virtually negligible. Even if the
16 increase were much larger, the transition period would provide ample time for Qwest to
17 make the necessary augments without any special arrangements. Qwest's current
18 practice is to respond to CLEC forecasts six months ahead. There is obviously no reason
19 why this practice cannot easily accommodate the transition from UNE-P to UNE-L.

20 Q. IS THERE ANY POSSIBILITY THAT THIS PROCESS WILL OVERLOAD THE
21 TANDEMS?

1 A. No. Tandem switches are typically engineered on an 18 month augmentation schedule. At
2 any point in time they are typically operating well below capacity. It is merely necessary
3 for Qwest to note the additional traffic and modify the size and timing of its next addition
4 In any event, Qwest's engineering standards for its tandem switches specify that such
5 offices are to operate at at no more than 80-85% at any time, so the amount of increased
6 traffic discussed above cannot possibly cause an overload situation.

7 **Q. MR. FALCONE ALLEGES THAT THE INTEROFFICE TRUNKS WILL ALSO BE**
8 **OVERLOADED. IS THIS TRUE?**

9 A. No. For the same reason given above, the transmission systems that carry the trunks are
10 rarely at capacity. Once again, the additional traffic will mean no more than shortening a
11 construction interval or increasing the size of an addition.

12 **Q. MR. FALCONE ASSERTS THAT ANY BLOCKAGE ON THE TANDEM NETWORK**
13 **WILL AFFECT CLEC CUSTOMERS MORE THAN IT WILL AFFECT QWEST**
14 **CUSTOMERS. IS THIS TRUE?**

15 A. No. Qwest traffic and CLEC traffic are routed identically, and would suffer the same
16 degree of degradation.

17 **Q. MR. FALCONE ASSERTS THAT THERE WERE PROBLEMS OF THIS NATURE**
18 **AFTER THE BREAKUP OF AT&T IN 1984. DO YOU REMEMBER ANY SUCH**
19 **PROBLEMS?**

20 A. No. I was actively involved in the technical issues associated with the AT&T divestiture
21 in the early 1980s. If AT&T's traffic, which had previously been routed directly to end
22 offices, were suddenly obliged to shift to a tandem, it would have caused problems. This

1 was anticipated, however, and there was no such shift of traffic following divestiture.
2 AT&T continued to route traffic in the same manner as it had done before. The other
3 carriers did not have enough traffic at the time to have a significant impact, and I
4 remember none.

5 **V. CONCLUSION**

6 **Q. HAS MR. FALCONE'S RESPONSIVE TESTIMONY PROVIDED ANY NEW INSIGHTS**
7 **AS TO THE FEASIBILITY OF CLEC OPERATIONS WITHOUT UNE-P?**

8 A. No. He has focused on the alleged disadvantages of the CLECs as compared with the
9 ILECs, without considering the complex interoffice facilities that must be constructed,
10 operated and maintained by the ILECs, as he did in his direct testimony. He has
11 attempted to demonstrate the alleged difficulties faced by a CLEC by example, but the
12 examples he chose are all atypical or improbable situations. He has continued to stress
13 the importance of long "backhaul" lines while neglecting the fact that the cost of
14 telecommunications equipment is increasingly distance-insensitive.

15 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

16 A. Yes.