

**BEFORE THE**  
**WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**IN THE MATTER OF THE CONTINUED )**  
**COSTING AND PRICING OF UNBUNDLED )**  
**NETWORK ELEMENTS, TRANSPORT, )**  
**TERMINATION, AND RESALE )** **DOCKET NO UT-003013**  
**PHASE D**

**PHASE D REPLY TESTIMONY OF**

**LARRY RICHTER**

**ON BEHALF OF**

**VERIZON NORTHWEST INC.**

**SUBJECT: COSTS FOR**  
**VIRTUAL COLLOCATION AND DEDICATED TRANSIT SERVICE**

**March 7, 2002**

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**I. INTRODUCTION**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Larry Richter, and my business address is 600 Hidden Ridge, Irving, Texas 75038.

**Q. ARE YOU THE SAME LARRY RICHTER WHO FILED PHASE D DIRECT TESTIMONY IN THIS PROCEEDING?**

A. Yes.

**Q. PLEASE STATE THE PURPOSE OF YOUR TESTIMONY.**

A. The purpose of my testimony is to respond to the Supplemental Response Testimony of Mr. Griffith from the Staff of the Washington Utilities and Transportation Commission concerning Verizon’s virtual collocation and Dedicated Transit Service (“DTS”) costs and prices.

**II. VIRTUAL COLLOCATION**

1   **Q.   MR. GRIFFITH, AT PAGE 4 LINES 7-14, SUGGESTS THAT OUTSIDE**  
2   **PLANT (“OSP”) ENGINEERING COSTS SHOULD NOT BE INCLUDED IN**  
3   **VERIZON’S VIRTUAL COLLOCATION COST STUDY. IS MR. GRIFFITH**  
4   **CORRECT?**

5   A.   Mr. Griffith is partially correct.   When a Competitive Local Exchange Carrier  
6   (“CLEC”) requests virtual collocation service for the first time in a specific central  
7   office, there will be a need for the CLEC to establish a method of transport in/out of the  
8   central office.   There are various options for the CLEC including: 1) requesting  
9   installation of its own fiber cable, 2) using its existing entrance fiber cable in the central  
10   office from another form of collocation or 3) purchasing transport from another  
11   provider.   Verizon’s virtual collocation cost study assumed the first scenario noted  
12   above, which does require a Verizon OSP Engineer to engineer the placement and  
13   termination of the CLEC’s entrance fiber cable.   The other two scenarios noted above  
14   would not require Verizon OSP engineering activity.   Since OSP engineering costs are  
15   not incurred in all instances, Verizon recommends the following to address Mr. Griffith’s  
16   concerns.

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- 18           1.   Verizon’s proposed cost element of \$557.81 for Engineering/Major  
19           Augment – Virtual will apply when a CLEC requests an entrance fiber cable  
20           to be placed.   Verizon will rename this cost element “Engineering/Major  
21           Augment – Virtual with Entrance Facilities.

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2. Verizon will establish a new virtual cost element called “Engineering/Major

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Augment – Virtual without Entrance Facilities” in the amount of \$378.90

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that will apply when a CLEC does not request an entrance fiber cable be

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placed.<sup>1</sup>

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**Q. MR. GRIFFITH, AT PAGE 4 LINES 15-21 ADDRESSES THE WEIGHTING**

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**METHOD USED BY VERIZON TO CALCULATE EQUIPMENT**

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**INSTALLATION COSTS. MR. GRIFFITH ALSO PROVIDES**

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**RECOMMENDATIONS AT PAGE 5 LINES 2-8. HOW DOES VERIZON**

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**RESPOND TO THESE RECOMMENDATIONS?**

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A. Verizon utilized a weighting method based on the type of equipment installed in order to

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develop the costs and rates for equipment installation. This methodology was used for

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two reasons. First, in the past CLECs have expressed to Verizon a strong desire to

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have a simplified rate structure that results from weighting costs. Second, it is less

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administratively burdensome for Verizon to have a simplified rate structure that results

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from weighting.<sup>2</sup> Given the two reasons noted above, Verizon should not be required to

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expand its virtual collocation price list for each type of equipment as recommended by

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<sup>1</sup> As a result of Verizon proposing this new virtual cost element, a new comparable proposed rate element will be added to Terry Dye's pricing exhibits (TRD-2 & TRD-3).

1 Mr. Griffith. However, Verizon is not opposed to Mr. Griffith's alternative  
2 recommendation for Verizon to file a new cost study if there is a dramatic shift in  
3 demand away from DSL equipment to some other technology.

4 **Q. MR. GRIFFITH, AT PAGE 6 LINES 9-11, STATES THAT THE CABLE**  
5 **LENGTHS USED FOR PHYSICAL COLLOCATION ADDRESSED IN**  
6 **PHASE A ARE NOT APPROPRIATE FOR VIRTUAL COLLOCATION. IS**  
7 **HE CORRECT?**

8 A. No. Equipment is placed throughout the central offices based on available vacant  
9 space.<sup>3</sup> Central offices are basically designed to have similar types of equipment placed  
10 together in a specific part of the central office. For instance, switching equipment,  
11 transport equipment, fiber panels and fiber type equipment, DSL equipment and CLEC  
12 physical collocation equipment are each placed in separate designated areas of the  
13 central office.<sup>4</sup> Equipment used for loop access or the voice grade services designated  
14 as DS-0 are generally placed closest to the main distribution frame ("MDF"). All other  
15 equipment, such as transport equipment for services such as DS-1 or DS-3, fiber  
16 equipment, DSL equipment and CLEC physical collocation equipment, is generally  
17 located farther from the MDF area.

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<sup>2</sup> In order to implement an individual rate for each type of equipment, Verizon would incur additional costs to establish new rate codes for the individual pieces of equipment in its billing system.

<sup>3</sup> The location of vacant space will be different depending upon the central office.

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The cable lengths for the facility pulls for physical collocation are measured from the MDF and transport equipment areas to the CLEC collocation area. The cable distances from the MDF as well as the transport area will vary based on the type of equipment and where the equipment is located in the central office. In some cases, the CLEC physical collocation area is closer to the MDF than the transport area. In other central offices, the opposite is true.

The cable lengths for facility pulls for virtual collocation will encounter the same situation as facility pulls for physical collocation. That is, the cable distances from the MDF as well as the transport area will be different in each central office. Therefore, no general conclusions can be made regarding whether cable distances for virtual collocation equipment are shorter or longer than cable distances for physical collocation equipment. Thus, it is appropriate for Verizon to use the same average cable lengths in developing the virtual facility pull costs as were adopted in Phase A to develop the physical facility pull costs.

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<sup>4</sup> CLEC equipment for a virtual collocation arrangement can be placed with the transport equipment, DSL equipment, or fiber equipment, depending upon the type of services the CLEC intends to provide with the virtual collocation arrangement.

1 **Q. MR. GRIFFITH SUGGESTS THAT THE POWER PLANT WILL BE**  
2 **CLOSER TO VIRTUALLY COLLOCATED EQUIPMENT THAN**  
3 **PHYSICAL COLLOCATION EQUIPMENT. IS HE CORRECT?**

4 A. No, not necessarily. The central office power plant will be located in an area of the  
5 central office that will meet all the requirements for housing power type equipment.  
6 Power is then distributed via power cables to units called Battery Distribution Fuse Bay  
7 (“BDFB”) located within the telecommunications equipment areas within the central  
8 office.<sup>5</sup> Power cables are then run from the  
9 BDFB to the telecommunications equipment. By placing BDFBs in the  
10 telecommunications equipment area, the power cable lengths to the equipment are  
11 relatively short.

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<sup>5</sup> The cost associated with the power cable from the power plant to the BDFB is not part of the NRC cost for power cable. Rather, these costs are included in the monthly recurring charge for DC amps.



1 For physical collocation, BDFBs are placed in the CLEC physical collocation area to  
2 reduce the power cable lengths and are expressed in an average length. For virtual  
3 collocation, CLEC equipment is placed in existing telecommunications equipment areas.  
4 As noted above, these equipment areas, like physical collocation areas, have BDFBs  
5 placed in the area to provide access to power. The Verizon Engineering Group  
6 engineers BDFBs in the telecommunications area to maximize the capabilities of the  
7 BDFB (output) and keep power cable lengths to a minimum. Since the BDFBs are  
8 placed in the CLEC physical collocation areas and in the telecommunications equipment  
9 area, where the CLEC virtual collocation equipment is located, the engineering  
10 requirements for cable lengths are the same for physical and virtual collocation  
11 arrangements. As a result, the power cable average lengths may be the same for both  
12 collocation arrangements, and there is no certainty that power cable lengths will be  
13 shorter for virtual collocation. Thus,  
14 average cable lengths based on actual occurrences of placing power cable are  
15 appropriate to use in developing Verizon's virtual collocation costs.

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1 **III. DEDICATED TRANSIT SERVICE**

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3 **Q. MR. GRIFFITH NOTES THAT ON PAGE 16 OF EXHIBIT LR-3C,**  
4 **VERIZON’S COST STUDY, THE COST OF JUMPER MATERIAL IS ON A**  
5 **“PER LINEAR FOOT BASIS”, BUT HE BELIEVES THOSE COSTS**  
6 **SHOULD BE ON A “PER JUMPER” OR “PER CURCUIT” BASIS. IS HE**  
7 **CORRECT?**

8 **A.** Yes. On page 16, lines 38-41 of the “Cost Summary” (Exhibit LR-3C) were  
9 inadvertently mislabeled. The increment for jumper material should read “per jumper”  
10 rather than “per linear foot”. The workpapers contained within the study calculate the  
11 cost of the jumper material based on a per jumper basis.<sup>6</sup> Thus, other than correcting  
12 the mislabeling, no change to the cost study is necessary.

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14 **IV. SUMMARY**

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16 **Q. PLEASE SUMMARIZE YOUR TESTIMONY.**

17 **A.** Verizon’s proposed “Engineering/Major Augment – Virtual with Entrance Facilities”  
18 costs that include OSP engineer costs is appropriate in situations when a CLEC

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<sup>6</sup> Exhibit LR-3C, pg. 64.

- 1 requests placement of entrance fiber cable. Verizon is agreeable to establishing a
- 2 separate virtual collocation cost element “Engineering/Major

1           Augment – Virtual without Entrance Facilities” for those situations when an  
2           entrance fiber cable is not requested by the CLEC.

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4           Verizon’s weighted cost methodology for developing virtual equipment installation costs  
5           is reasonable and should be adopted as filed. Verizon is not opposed to Mr. Griffith’s  
6           alternative recommendation for Verizon to file a new cost study to update the weighting  
7           of equipment if there is a dramatic shift in demand away from DSL equipment to some  
8           other technology.

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10          The average cable lengths used to develop costs for facility pulls in physical collocation  
11          are appropriate for developing facility pull costs for virtual collocation. Equipment is  
12          located in different areas of the central office and the average distances would remain  
13          the same if different starting points were used. I also demonstrated that power cable  
14          lengths would be the same for virtual collocation as for physical collocation based on the  
15          fact that BDFBs are placed in the telecommunications equipment area where CLEC  
16          virtual collocation equipment is located and in the CLEC physical collocation areas.

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18          Verizon is agreeable to correcting the “Cost Summary” page of its collocation study to  
19          reflect the appropriate jumper material cost increment. This increment should be  
20          changed from “per linear foot” to “per jumper”.

1 Q. **DOES THIS CONCLUDE YOUR PHASE D REPLY TESTIMONY?**

2 A. Yes.