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1 BEFORE THE WASHINGTON UTILITIES AND
2 TRANSPORTATION COMMISSION

3 In the Matter of the Continued)
4 Costing and Pricing of) Docket No. UT-003013
5 Unbundled Network Elements and) Volume 11
6 Transport and Termination.) Pages 1422 to 1537
7 _____)

8 A hearing in the above matter was held on
9 August 30, 2000, at 1:30 p.m., at 1300 South Evergreen
10 Park Drive Southwest, Olympia, Washington, before
11 Administrative Law Judge LAWRENCE BERG, Chairwoman
12 MARILYN SHOWALTER, Commissioner RICHARD HEMSTAD, and
13 Commissioner WILLIAM R. GILLIS.

14 The parties were present as follows:

15 THE WASHINGTON UTILITIES AND TRANSPORTATION
16 COMMISSION, by SHANNON E. SMITH, Assistant Attorney
17 General, 1400 South Evergreen Park Drive Southwest, Post
18 Office Box 40128, Olympia, Washington, 98504-0128.

19 TRACER; RHYTHMS LINKS, INC.; TELIGENT
20 SERVICES, INC.; and BROADBAND OFFICE COMMUNICATIONS,
21 INC., by ARTHUR A. BUTLER, Attorney at Law, Ater Wynne,
22 LLP, 601 Union Street, Suite 5450, Seattle, Washington
23 98101.

24 COVAD COMMUNICATIONS, by SARAH BRADLEY,
25 Attorney at Law, 4250 Burton Drive, Santa Clara,
California 95054.

 QWEST CORPORATION, by LISA ANDERL, Attorney at
Law, 1600 Seventh Avenue, Suite 3206, Seattle,
Washington 98191.

 VERIZON NORTHWEST, INC., by W. JEFFERY
EDWARDS, JENNIFER L. MCCLELLAN, and GREGORY M. ROMANO,
Attorneys at Law, Hunton and Williams, 951 East Byrd
Street, Richmond, Virginia 23219.

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01423

1 Joan E. Kinn, CCR, RPR
Court Reporter

2 NEXTLINK WASHINGTON, INC.; ELECTRIC
3 LIGHTWAVE, INC.; ADVANCED TELECOM GROUP, INC.; MCLEOD
4 USA TELECOMMUNICATIONS SERVICES, INC.; FOCAL
COMMUNICATIONS CORPORATION; THE ASSOCIATION OF LOCAL
5 TELECOMMUNICATIONS SERVICES; GLOBAL CROSSING
TELEMANAGEMENT; GLOBAL CROSSING LOCAL SERVICES; NEW EDGE
6 NETWORKS; and NORTH POINT COMMUNICATIONS; by GREGORY J.
KOPTA, Attorney at Law, Davis, Wright, Tremaine, LLP,
7 1501 Fourth Avenue, Suite 2600, Seattle, Washington
98101.

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INDEX OF EXAMINATION

WITNESS:	PAGE:
LARRY RICHTER	
Direct Examination by Mr. Romano	1429
Cross-Examination by Mr. Kopta	1431
Cross-Examination by Mr. Butler	1471
Cross-Examination by Ms. Smith	1481
Examination by Judge Berg	1487
Examination by Dr. Gabel	1488
Examination by Chairwoman Showalter	1496
Recross-Examination by Mr. Kopta	1503
Redirect Examination by Mr. Romano	1504
ROBERT TANIMURA	
Direct Examination by Mr. Romano	1509
Cross-Examination by Mr. Kopta	1511
Cross-Examination by Ms. Bradley	1520
Cross-Examination by Ms. Smith	1527
Examination by Dr. Gabel	1529
Recross-Examination by Mr. Kopta	1535

01425

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INDEX OF EXHIBITS

3

4 EXHIBIT:

MARKED:

ADMITTED:

5

LARRY RICHTER

6 T-290

1430

7 291

1430

8 C-291

1430

9 T-293

1430

10 R-294

1430

11 RC-294

1430

12 295

1430

13 296

1470

14 297

1471

15 298

1471

16 299

1471

17

ROBERT TANIMURA

18 T-320

1511

19 E-321

1511

20 323

1511

21 C-323

1511

22 C-324

1511

23 T-325

1511

24 326

1511

25 T-327

1511

01426

	EXHIBIT:	MARKED:	ADMITTED:
1			
2	C-98	1427	1427
3	C-99	1427	1427
4	RC-312	1427	1427
5	300	1428	1486
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
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21			
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25			

01427

1 P R O C E E D I N G S

2 JUDGE BERG: Today's date is August 30th,
3 year 2000. This proceeding is continued hearings in
4 Docket Number UT-003013. For today's session, Verizon
5 is going to begin by calling its witness Mr. Larry
6 Richter. Before that occurs, there are a few
7 administrative details that I would like to take care
8 of.

9 First of all, I would like the reporter to
10 insert into the record at this point the description of
11 exhibits and exhibits numbered T-290 through C-291,
12 T-293 through Exhibit 299, and Exhibits T-320 through
13 T-327 as if they were read in their entirety.

14 Additionally, I will indicate that documents
15 previously presented by the Bench for cross-examination
16 will be identified and admitted into the record. First
17 there is a one page exhibit from Phase two proceeding,
18 revised Exhibit DWB-1 Operational Support Systems Cost.
19 That exhibit shall be C-98. And a five page exhibit
20 listed as Attachment B, and on the first page is the
21 spreadsheet titled total orders, will be identified as
22 C-99. Both C-98 and C-99 are admitted.

23 The Commission has received in response to
24 Bench Request Number 10 a revised Exhibit C-312. This
25 will replace Exhibit C-312 previously admitted into the

01428

1 record.

2 Commission staff has previously distributed
3 an exhibit that it may use on cross-examination today.
4 That exhibit is WUTC Staff Data Request Number 9, which
5 is marked as Exhibit 300.

6 I will also indicate that Verizon has
7 produced a revised 294 and revised C-294 which redacts
8 information that was proprietary to other third parties,
9 and the Commission will substitute those revised
10 exhibits into our Bench books. And Verizon states that
11 it will submit a revised, will file a revised Exhibit
12 294 and revised C-294 with the Commission's record
13 center along with a letter of explanation.

14 Is that correct, Mr. Romano?

15 MR. ROMANO: Yes, Your Honor, thank you.

16 JUDGE BERG: You're welcome.

17

18 (The following exhibits were identified in
19 conjunction with the testimony of Larry
20 Richter.)

21 Exhibit T-290 is Direct Testimony (LR-1T).
22 Exhibit 291 is EIS Cost Study (LR-2). Exhibit C-291 is
23 EIS Cost Study (LR-2C). Exhibit T-293 is Rebuttal
24 Testimony (LR-3T). Exhibits R-294 and RC-294 are CLEC
25 DR-4. Exhibit 295 is CLEC DR-5. Exhibit 296 is CLEC

01429

1 DR-8. Exhibit 297 is TELIGENT DR-1. Exhibit 298 is
2 TELIGENT DR-2. Exhibit 299 is TELIGENT DR-3.

3

4 JUDGE BERG: At this time, Mr. Richter, if
5 you will please stand and raise your right hand.

6

7 Whereupon,

8

9 LARRY RICHTER,
10 having been first duly sworn, was called as a witness
11 herein and was examined and testified as follows:

12 D I R E C T E X A M I N A T I O N

13 BY MR. ROMANO:

14 Q. Please state your name and your business
15 address.

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

18 Q. Do you have in front of you exhibits that
19 have been marked T-290, 291, C-291, and T-293?

20 A. Yes, I do.

21 Q. Did you prepare or cause to be prepared these
22 exhibits?

23 A. Yes, I did.

24 Q. Do you have any changes to these exhibits?

25 A. No, I do not.

Q. If you were asked the same questions today as

01430

1 are asked in the testimony marked as these exhibits,
2 would your answers be the same?

3 A. Yes, they would.

4 MR. ROMANO: Your Honor, I ask that these
5 exhibits be moved into the record.

6 JUDGE BERG: Hearing no objection, Exhibits
7 T-290, 291, C-291, and T-293 are admitted.

8 MR. ROMANO: The witness is ready for
9 cross-examination.

10 JUDGE BERG: Mr. Kopta.

11 MR. KOPTA: Thank you, Your Honor.

12 I believe we have reached a stipulation with
13 counsel for Verizon to the admission of Exhibits Revised
14 294, C-294 and 295, and 296.

15 MR. ROMANO: That's correct.

16 JUDGE BERG: Exhibits 294, we're going to
17 call this actually revised R-294, RC-294, and 295 are
18 admitted into the record.

19 Was that the series of exhibits, Mr. Kopta?

20 MR. KOPTA: Yes, Your Honor.

21 JUDGE BERG: All right. I will also have the
22 reporter as she identifies those Exhibits 294 and C-294
23 into the record make sure that they're actually
24 identified as R-294 and RC-294.

25 Thank you, Mr. Kopta.

01431

1 MR. KOPTA: Thank you, Your Honor.

2

3 C R O S S - E X A M I N A T I O N

4 BY MR. KOPTA:

5 Q. Good afternoon, Mr. Richter.

6 A. Good afternoon.

7 Q. My name is Greg Kopta representing a group of
8 CLECs, and my questions for you today are going to focus
9 primarily on Exhibits 291, which is the cost study that
10 you have attached to your testimony, and Exhibit RC-294,
11 which is the response to Data Request Number 4. And
12 initially if you would turn in Exhibit 291 to page
13 8-WA9.

14 A. (Complies.)

15 Q. A little cumbersome, I understand why you did
16 it that way, but it may take the folks a minute to get
17 to it.

18 A. I have it.

19 CHAIRWOMAN SHOWALTER: 9 was the last digit?

20 MR. KOPTA: Yes.

21 BY MR. KOPTA:

22 Q. Am I correct, Mr. Richter, that on this page,
23 well, first let me ask, the pages that I have are in
24 white and with no designation that it's confidential.
25 Is this a non-confidential page?

01432

1 A. That page would be non-confidential.

2 Q. Just given the caution that we have had
3 earlier in the proceeding about whenever we're dealing
4 with numbers to make sure that they're not proprietary,
5 I wanted to make sure that I wasn't going to be stepping
6 afoul of that instruction.

7 Am I correct that on this page, it
8 demonstrates how Verizon developed costs for the fencing
9 for physical co-location in Washington?

10 A. Yes, that is true.

11 Q. And these are from California and Texas, or
12 at least the first two lines are, for origination of
13 this analysis; is that correct?

14 A. That's correct.

15 Q. Verizon has constructed cage co-location in
16 Washington, has it not?

17 A. Yes, it has.

18 Q. And, in fact, if you look at the last two
19 pages of Exhibit RC-294, there's a list of the
20 co-locations by central office in Washington, at least
21 as of near the end of March of this year; is that
22 correct?

23 A. Yes, that is correct.

24 Q. And would you accept subject to check that in
25 response to a different data request that Verizon

01433

1 identified 45 caged co-location jobs in Washington as of
2 the end of June of this year?

3 A. Subject to check.

4 Q. Back to Exhibit 291, page 8-WA9, I wanted to
5 walk through this with you. It seems as though what
6 Verizon has done here is to take an average of
7 co-location jobs in California and in Texas and then
8 adjust those to a national average; is that correct?

9 A. That's correct.

10 Q. And the national average was derived using
11 area modification factors from the National Construction
12 Estimator; is that also correct?

13 A. Yes.

14 Q. And would you turn in Exhibit RC-294 to page
15 81.

16 A. (Complies.)

17 Q. And specifically I wanted to ask you whether
18 these are the area modification factors that Verizon
19 used to develop the national averages on the page we
20 were just discussing?

21 A. Yes, it is.

22 Q. And in the last paragraph of text on this
23 page, is the first sentence brighter?

24 A. I'm sorry?

25 Q. This is a proprietary exhibit, so I just

01434

1 wondered whether the first sentence of the last
2 paragraph is proprietary information or whether it's
3 simply the numbers that are proprietary?

4 MR. ROMANO: Your Honor, just to, if I can
5 volunteer, I don't think that the text of this is
6 proprietary.

7 MR. KOPTA: Thank you.

8 BY MR. KOPTA:

9 Q. Mr. Richter, that sentence states, and I
10 quote:

11 These percentages are composites of many
12 costs and will not necessarily be
13 accurate when estimating the cost of any
14 particular part of a building.

15 Have I read that correctly?

16 A. Yes, you did.

17 Q. Isn't that what you have done though in
18 adjusting these California and Texas costs to a national
19 average?

20 A. Well, if you continue on with the paragraph,
21 in the next sentence, it says:

22 But when used to modify all estimated
23 costs on the job, they should improve
24 the accuracy of your estimates.

25 Q. And so you are considering the co-location

01435

1 fencing costs as an entire job?

2 A. It -- because when you look at the fencing
3 portion of it, it's more than fence. It's all the
4 components that would cause the fence to be built.

5 Q. Well, let me have a theoretical discussion
6 with you. Isn't the point of this kind of an exercise
7 to develop national costs that would be applicable
8 regardless of whatever state that you happened to be in
9 as a way of estimating costs?

10 A. Yes.

11 Q. And wouldn't you expect that when you
12 modified state specific costs to a national average that
13 it would be roughly the same cost after you do the
14 modification?

15 A. Yes.

16 Q. Look at the gate cost for me on Exhibit 291,
17 page 8-WA9.

18 A. (Complies.)

19 Q. After adjustment to a national average, isn't
20 the California number about 75% higher than Texas?

21 A. Yes, I see that.

22 Q. So they both can't be national averages, can
23 they?

24 A. What we did is we took the California and
25 adjusted the California gate, which was based on the

01436

1 area modification factors, reduced it down to what the
2 national average would be for California. The same
3 process, we took the Texas average and took it to a
4 national average based on area modification factors. So
5 then you have two national averages, which we averaged
6 together to come up with the national average.

7 Q. I guess my question is though, isn't there
8 just one national average? I don't understand how you
9 can have two national averages for the same thing.

10 A. Well, we had state specific costs for
11 California and state specific costs for Texas. We
12 needed to take each of those to a national average based
13 on the area modification factor.

14 Q. But if that process --

15 A. And then --

16 Q. Oh, I'm sorry, did you want to go ahead?

17 A. And what we did then was once we had that
18 number, then we, as we show here, we took the average of
19 those two. So that we had two states taken to a
20 national average, and then we averaged those two.

21 Q. I think I understand what you have done. I
22 guess the question that I have though is about the
23 methodology. If what you're trying to do is estimate a
24 national average, there should be a single national
25 average after you are finished applying the formula.

01437

1 And yet what you have here, at least with respect to the
2 gate costs and I believe also with respect to the cage
3 costs, are numbers that are significantly different from
4 each other even though they're both purporting to be
5 national averages.

6 A. They're different because they started at a
7 state specific number, and based on the area
8 modification factor, that took that particular cost back
9 to a national average.

10 Q. And then wouldn't you expect these two
11 numbers to be roughly the same if you have done that?
12 If you have taken out the state specific factors, and
13 you're trying to develop a national average, shouldn't
14 you have basically the same number for Texas and
15 California, and yet you don't?

16 A. I don't think you would expect to have the
17 same number.

18 Q. Wouldn't you expect it to be closer than a
19 difference of 75%?

20 A. Not in this particular case.

21 Q. Why is it different in this particular case?
22 Are you providing the same gate in California as you are
23 in Texas?

24 A. There may be a differences in the gates that
25 are provided, yes. There would be difference in the

01438

1 gates that are provided in various states. That's why
2 we're trying to come up with an average cost that we can
3 apply using the area modification factors to each of the
4 states.

5 Q. And are they different types of gates within
6 each central office in Texas, or are they different
7 kinds of gates in Texas than they are in California?

8 A. Usually a state will utilize the same type of
9 fencing material and gates in a particular state or a
10 particular region. There may be differences between
11 states.

12 Q. And which kind of gate does Verizon use in
13 Washington?

14 A. It uses a seven foot chain link frame gate.

15 Q. And --

16 A. Three foot by --

17 Q. And is that --

18 A. Three foot by seven foot.

19 Q. And is that the same gate that is used in
20 California or the same gate that is used in Texas?

21 A. In California, the type of gates that are
22 used, we use a woven mesh material rather than chain
23 link fencing. And the gate that's there is a sliding
24 type gate because of the material that is used there.
25 In Texas, it's more of a chain link fencing type, which

01439

1 is similar to what's used in Washington.

2 Q. So a Washington gate would be more similar to
3 a Texas gate than a California gate?

4 A. When you look at it from a type of cage
5 material that's used, yes.

6 Q. If you would turn to the next page in this
7 Exhibit 291, which is 8-WA10, and just as sort of a
8 through line here, if I understand what you have done,
9 let's look at the cage costs column on the prior page
10 down at the end where it says Washington costs, there's
11 a number of \$3,527.51; do you see that?

12 A. Yes, it is.

13 Q. And if we follow that onto the next page,
14 that's the same figure on line 7 of page 8-WA10?

15 A. Yes, it is.

16 Q. Now the prior line, you have taken the
17 average cage fencing area cost, and I gather that that
18 number, that \$1,914.78, is calculated by multiplying the
19 cage costs per square foot on line five of \$5.66 by the
20 average cage fencing area on line four; is that correct?

21 A. That's correct.

22 Q. And where did the \$5.66 come from?

23 A. That's based on the average cost per square
24 foot, which is a division of the square foot of fencing
25 surface into the cage cost.

01440

1 Q. Into which cage cost?

2 A. There is a cost -- that \$5.66, which is the
3 cost for the cage fencing per square foot, was taken in
4 a similar manner as these items here based on the cost
5 for the fencing material per square foot in California
6 and the fencing material percent in -- I mean cost in
7 Texas. Those two were taken to a national average, and
8 then the national average, similar to what we have done
9 here, for the fencing material, which was multiplied out
10 to come up with the \$5.66.

11 Q. So by your reference to here or there, since
12 we want to make sure the record is correct, you're
13 referring to the process that is described on page 8-WA9
14 of Exhibit 291; is that correct?

15 A. Yes.

16 Q. And as I understand what these calculations
17 demonstrate is that after making the calculation we just
18 discussed of the average square foot cost times the
19 average cage fencing area, that that number then,
20 \$1,914, is subtracted from the average cost that was
21 developed on page 8-WA9 of \$3,527 to end up with what
22 you have identified as vendor engineering and overhead
23 cost of approximately \$1,600; is that correct?

24 A. Yes.

25 Q. And then that number is divided once again by

01441

1 the area of cage fencing in line four to develop a per
2 square foot vendor, engineering, and overhead cost per
3 square foot of \$4.77 for the 100 square foot cage; is
4 that correct?

5 A. Yes.

6 Q. In the next column over for 75 to 99 square
7 feet, there is a higher number for a per square foot
8 vendor, engineering, and overhead cost. Am I correct
9 that what Verizon has done is to take this \$1,600 amount
10 in the column under 100 square feet and divide that by
11 the 292 average square foot area in line four under this
12 column of 75 to 99 square feet?

13 A. Yes, that's basically what we have done.

14 Q. And the same would be true for the other two
15 categories of 50 to 74 square feet as well as 25 to 49
16 square feet?

17 A. Yes.

18 Q. I'm not sure whether you or Mr. Tanimura is
19 the person to answer this question, but in his pricing
20 exhibit for a 100 square foot cage, and perhaps do you
21 have Mr. Tanimura's exhibits with you by any chance?

22 A. No, I don't.

23 Q. Mr. Tanimura for a 100 square foot or less
24 size cage uses, rather than the \$10.43 that's under the
25 100 square foot cage, uses a number that's approximately

01442

1 somewhat over \$12, and I would have to check myself.
2 Did you develop that cost for him to use, or did he
3 develop that cost?

4 A. I would have developed the cost. He would
5 have developed the rates or the prices.

6 Q. Do you recall how that number was developed?

7 A. Not right off hand.

8 MR. ROMANO: Just for clarification, when you
9 asked, which was it, the \$10 or the \$12 figure?

10 MR. KOPTA: The \$12. And just so the record
11 is clear, I should look that up to verify where that is.
12 It's in Exhibit C-323 on page six, and I will ask
13 counsel since this is designated as a confidential
14 exhibit and yet my page is white with no confidential
15 designation, are the numbers on that page confidential?

16 MR. ROMANO: No, they're not.

17 BY MR. KOPTA:

18 Q. Well, the number that Mr. Tanimura uses for a
19 cage enclosure of 25 to 100 square feet for a per square
20 foot cost is \$12.92, and so I'm just trying to
21 understand how that \$12.92 was developed from this page
22 of costs that you have on your Exhibit 291, page 8-WA10?

23 A. I would need to defer that question to
24 Mr. Tanimura.

25 Q. Okay, if he can answer it, then I will ask

01443

1 him.

2 Mr. Richter, would you look at the last two
3 pages of Exhibit RC-294, the list of Washington central
4 offices in which Verizon has provided co-location. It
5 actually begins at the bottom of the third to last page,
6 which is page 23 of the exhibit, of actually this
7 attachment of the exhibit.

8 A. (Complies.)

9 Q. And under this square feet column, which is
10 the second to the last column at the top of the page,
11 would these represent the square feet for a caged
12 co-location arrangement in a Verizon central office?

13 A. Yes, it would.

14 Q. And none of these are less than 100 square
15 feet, are they?

16 A. There's none less than 100 square feet.

17 Q. I would like to go a little bit deeper into
18 these numbers, these numbers being the average cage
19 costs that you use on Exhibit 291, page 8-WA9. And just
20 as an example, well, let's start with California. Would
21 you turn to page three of Exhibit RC-294.

22 A. (Complies.)

23 Q. And I don't believe this is violating any
24 confidentiality to say that there's a correspondence
25 between the caged costs for California adjusted to a

01444

1 national average in Exhibit 291, page 8-WA9, with the
2 California average indexed to a national average on page
3 3 of Exhibit RC-294.

4 A. That's correct.

5 Q. So this page is one part of the calculation
6 of the national average based on the California costs,
7 correct?

8 A. Yes.

9 Q. And if you would turn to page six of Exhibit
10 RC-294, keeping page three as a reference.

11 A. (Complies.)

12 Q. The California average on page three is the
13 same as the California average on page six under caged
14 costs, the very last line; is that correct?

15 A. Yes.

16 Q. So do I understand correctly that on page six
17 are all of the costs for the California central offices
18 that Verizon used to develop the California average?

19 A. Yes.

20 Q. And let's use the first central office as an
21 example.

22 MR. KOPTA: Perhaps for ease of reference,
23 counsel, may I refer to this central office by name?

24 MR. ROMANO: Yes.

25 BY MR. KOPTA:

01445

1 Q. The Baldwin Park central office, and you see
2 that there is an estimated cage cost for that central
3 office?

4 A. Yes.

5 Q. And if you would turn to the following page,
6 which is page seven.

7 A. (Complies.)

8 Q. We have a cost breakdown for the Baldwin Park
9 central office. Would you explain to me how the number
10 on page six for the caged costs was developed based on
11 the numbers in the cost breakdown for Baldwin Park?

12 A. Yes, excuse my voice, I'm nursing a sore
13 throat.

14 Q. Well, we're in good company then.

15 A. The breakdown of the costs that are on page
16 seven, which is the Baldwin Park CO for this particular
17 cage co-location, there is a listing on the description
18 of the items that were performed, and as you can see on
19 the right-hand side, a total cost for those specific
20 items.

21 In preparing for the adjustment of the first
22 item that's there, that's general conditions, and the
23 last item that's there, which is markup, we had to
24 devise a way to spread those two costs across the cost
25 of the items or the description of the items that were

01446

1 performed.

2 In order to do that, what we did is we took
3 the actual functions on the elements, which are listed
4 here, and we spread the general condition cost, the
5 markup cost on a percentage basis to each of the items
6 that were performed based on their percentage to the
7 total, not adding in the general cost and the markup.

8 The other item that we did, if you would look
9 -- if you would look at page 90 and 91, which is a list
10 of the engineering and architectural costs for these
11 projects, if you will look on page 91 approximately
12 seven from the top for the job site, you will find
13 Baldwin Park. The APEX fees, the engineering fee, the
14 JTC fee, is the architectural fee, and you will see a
15 total there of \$7,184.84.

16 That along with the general conditioning and
17 the markup costs were distributed back to each of the
18 other elements there based on a percentage basis that
19 the individual elements had to the total of the
20 elements, excluding general conditions, markup, and the
21 engineering cost.

22 Q. So am I correct that the basis on which these
23 additional items were added, these additional items
24 being general conditions, markup, and design fees, would
25 be the cage wire mesh material, labor, and miscellaneous

01447

1 materials if we're just looking at the fencing cost
2 without the gate?

3 A. Yes, I believe so.

4 Q. And you have calculated the amount to be
5 attributed to those that represents the general
6 conditions markup and design fees by spreading those
7 additional fees across everything that was done for this
8 job site in proportion to the dollar amount represented
9 by the work done, correct?

10 A. That's correct.

11 Q. And is there any document in here that
12 explains whether the engineering and design and general
13 conditions were actually incurred, the costs for those
14 were actually incurred on a proportional basis to the
15 work that was done?

16 A. There's not a document here that says they
17 were done proportionally, but in order to spread those
18 costs the most, the best way would be to spread them
19 proportionally based on the dollar amount of work that
20 was performed.

21 Q. So you assumed that the design fee, for
22 example, in terms of the work that was done would be
23 proportionally the same to design a cage as to undertake
24 any of the other work that was done here?

25 A. Yes, the design work was for the total job,

01448

1 so the proportion that was attributable to the cage
2 would receive that particular portion of the
3 engineering.

4 Q. And would you explain to me while we're here
5 what are general conditions, this column at the very top
6 of --

7 A. Those are --

8 Q. -- seven?

9 A. General conditions are those items that would
10 be charged to deliver materials to the work site, travel
11 time to the work site, those things that the contractor
12 would incur in the process of doing this particular job.

13 Q. And how is that calculated? Is that on a
14 cost basis, or is there a prenegotiated amount, or how
15 are the amount for general conditions determined?

16 A. The contractor, there's no prenegotiated
17 amount for that, it would depend on the particular job
18 that was being performed.

19 Q. Okay.

20 A. And the activities that would be performed at
21 that particular job.

22 Q. Now I would like to take a look at Texas,
23 which is on page 24 of Exhibit RC-294.

24 A. (Complies.)

25 Q. And are these the central offices that were

01449

1 used to calculate the Texas average?

2 A. Yes, it is.

3 Q. And again, if you would turn to the next
4 page, which is page 25.

5 A. (Complies.)

6 Q. A little different configuration. But again
7 looking at the top line under the chart, which is the
8 fencing for cage, there's an invoice cost, a percentage
9 which based on your last explanation I understand is the
10 percentage of this cost for fencing to the total cost,
11 then the amount of square feet, and then a total cost.
12 And that total cost is then what was used on the prior
13 page for this particular central office; is that
14 correct?

15 A. That's correct.

16 Q. And in contrast to what we were just
17 discussing with the particular design fee, as I read
18 this footnote at the bottom of page 25, it appears as
19 though there is an additive imposed by Verizon of a
20 percentage to represent an engineering fee?

21 A. Yes.

22 Q. Is that correct?

23 A. That's correct.

24 Q. And how was that percentage calculated?

25 A. That was calculated by our support and assets

01450

1 group, which is our land and buildings group, who
2 oversee the construction of these particular cages.

3 Q. And for both the profit and overhead column
4 on page 25, and I believe the corresponding designation
5 in California was markup, in both of those instances,
6 those are calculated based on a percentage of the total;
7 is that correct?

8 A. Yes, not the total of the invoice, but the
9 total of the dollars spent to perform the activities
10 excluding those items.

11 Q. Thank you for that clarification.

12 I'm going to switch gears a little bit here
13 and move to building modification element co-location
14 for Verizon, and I believe that the first element that I
15 wanted to discuss with you is storage security, and that
16 is in Exhibit 291 at page 8-WA55.

17 A. (Complies.)

18 Q. And as I understand what these costs are,
19 this is the cost to modify Verizon's existing equipment
20 cabinets to enable them to be locked; is that correct?

21 A. That is correct.

22 Q. And this project is only undertaken in those
23 central offices where there is co-location; is that also
24 correct?

25 A. That is correct.

01451

1 Q. And if you would turn in Exhibit RC-294 to
2 page 62.

3 A. (Complies.)

4 Q. Is this the supporting documentation for the
5 cost estimates in Exhibit 291, page 8-WA55?

6 A. Yes, they are.

7 Q. Another element of building modification is
8 actually three different things, demolition, dust
9 partition, and minor HVAC, which is heating,
10 ventilation, and air conditioning, HVAC. And if you
11 would turn to page 8-WA57 in Exhibit 291.

12 A. (Complies.)

13 Q. Is the calculation on this page consistent
14 with what we discussed in terms of how Verizon developed
15 California and Texas averages and converted those to a
16 national average?

17 A. Yes.

18 Q. Would you turn in Exhibit RC-294 to page 83.

19 A. (Complies.)

20 Q. And again, I note a correspondence between
21 the California index to a national average for these
22 three types of activities and the California adjusted
23 cost to national average on page 8-WA57. Are the
24 numbers in 8-WA57 derived from Exhibit RC-294, page 83?

25 A. Yes.

01452

1 Q. But perhaps you have already noted it, as I
2 did, under minor HVAC costs, if you will look on page
3 83, that number is substantially different than the
4 number on page 8-WA57. Can you explain the discrepancy?

5 A. I'm sorry, at this particular time, I can't.

6 Q. Assuming that the numbers in RC-294 on page
7 83 are correct, would that require a modification in the
8 amount of the minor HVAC?

9 A. Yes, it would. And if you look further to
10 page 88, which is the calculation for the minor HVAC,
11 and if you look at the adjustment to the national
12 average, you will see that the work paper there
13 corresponds with page 83.

14 Q. That's my confusion.

15 A. So --

16 Q. So it may be that that needs to be an
17 adjustment in the --

18 A. Yes, it does.

19 MR. KOPTA: I'm not sure how best to handle
20 this, perhaps as a record request. If we could ask that
21 Mr. Richter's and my conversation be verified in terms
22 of the need to revise this figure and then to provide a
23 revised figure.

24 JUDGE BERG: Let's call this Records Request
25 Number 20, and what we're looking for is a

01453

1 reconciliation between Exhibit RC-294, 8-WA57 --
2 MR. ROMANO: Your Honor, I'm sorry, could we
3 retitle this a Bench Request instead of informational?
4 Will it be going to the Bench as opposed to a record
5 request?

6 MR. KOPTA: I have no preference. I think
7 it's appropriate that the Commission should get a
8 response since it looks as though this would require a
9 modification to the proposed amount of this particular
10 element.

11 JUDGE BERG: Yes, let's do that. I would
12 expect that as well, so I appreciate the pointer,
13 Mr. Romano. We will call this Bench Request Number 11,
14 reconciliation between RC-294, page 8-WA57, and excuse
15 me, it looks like that's C, that will be a C-291, page
16 8-WA57, and Exhibit RC-294, page 83, and it's the minor
17 HVAC calculation.

18 Is that a precise enough description,
19 Mr. Kopta?

20 MR. KOPTA: Yes, Your Honor, and I would
21 simply add to that that if there is the need, as there
22 appears to be, to adjust the proposed rate that that be
23 included in the reconciliation.

24 JUDGE BERG: Yes.

25 MR. ROMANO: That's fine.

01454

1 BY MR. KOPTA:

2 Q. Mr. Richter, would you turn to page 85 of
3 Exhibit RC-294.

4 A. (Complies.)

5 Q. And I'm specifically interested in the
6 demolition costs, and these appear to be the same
7 central offices that were used to develop the cage cost;
8 is that correct?

9 A. Yes, it is.

10 Q. And as I look at the average under demolition
11 site, which is the first column, that number is the same
12 as the number on page 83 for the average for California;
13 is that correct?

14 A. Yes.

15 Q. Am I also correct that that number is derived
16 by taking the three values under this demolition site
17 category, adding them, and dividing by three?

18 A. Yes.

19 Q. There are a number of other central offices
20 there though, aren't there, Mr. Richter?

21 A. Yes.

22 Q. If you're calculating an average, isn't it
23 more appropriate to add in zero for those other central
24 offices and divide by the total number of central
25 offices?

01455

1 A. That would be one method to look at it. But
2 when you're looking at the average cost to accomplish an
3 element, and that's what our cost study does, it breaks
4 down the individual elements that would be performed,
5 then you would look at the element cost.

6 Q. Doesn't that assume that every central office
7 needs demolition?

8 A. It doesn't necessarily mean that every
9 central office needs demolition. It just develops a
10 cost for when demolition would be necessary.

11 Q. Is it GTE's, or excuse me, Verizon's proposal
12 that the demolition aspect of the building modification
13 charge be imposed only when demolition is required?

14 A. In developing the elements, yes.

15 Q. I'm not sure I understand the in developing
16 the elements part. If I'm a CLEC that wants to
17 co-locate in a Verizon central office, and I ask for a
18 price quote, and it turns out that there doesn't need to
19 be any demolition in the central office to accommodate
20 my request, is the monthly building modification charge
21 that I pay going to be reduced by the amount of
22 demolition that's part of the building modification
23 charge as Verizon has currently proposed it?

24 A. That would come from Mr. Tanimura, who is the
25 pricing witness. What we have here is the development

01456

1 of the cost that would apply to co-location, not so much
2 the administration of when they would apply.

3 Q. Then I will take that up with him.

4 A. Okay.

5 Q. And just to keep things short, the same
6 discussion that you and I just had with respect to
7 demolition, again on this same page 85 of Exhibit
8 RC-294, would apply with respect to the plastic curtain,
9 which I understand is the dust partition?

10 A. Yes.

11 Q. Another element that Verizon includes in its
12 co-location costing is grounding, and I believe there
13 are two types of costs that Verizon has developed. One
14 is the materials and installation needed to provide a
15 ground bar in the co-location cage that is then attached
16 to a floor co-location, I mean a floor grounding bar.
17 And then the second aspect of grounding is to attach the
18 floor ground to the main central office ground. Is that
19 accurate?

20 A. Yes.

21 Q. And if you would turn to Exhibit 291, page
22 8-WA66.

23 A. (Complies.)

24 Q. And does this page reflect the development of
25 the second element that I described, which is the floor

01457

1 grounding bar that is then connected to the main central
2 office ground?

3 A. Yes, it is.

4 Q. And as part of this calculation -- well, let
5 me step back for a moment.

6 Does Verizon construct a separate floor
7 grounding bar for co-locators in its central offices?

8 A. Yes, it is Verizon's method of provisioning
9 to provide a floor bar, a floor ground bar, for the
10 co-location area.

11 Q. Isn't there a floor grounding bar for
12 Verizon's own equipment in the central office on the
13 same floor?

14 A. It would -- there would be -- there's the
15 opportunity for numerous floor ground bars to be
16 situated throughout the central office.

17 Q. And do you know what the capacity of a floor
18 ground bar is?

19 A. Capacity being?

20 Q. How many pieces of equipment can be attached
21 to the floor ground bar?

22 A. The floor ground bar has predrilled holes
23 where ground cables can be connected to the floor ground
24 bar. I don't know exactly the number that are
25 predrilled on a floor ground bar.

01458

1 Q. So you don't know whether it's limited to 4,
2 which would represent the 4 co-locators in the central
3 office, or it could be 8, 10, 20?

4 A. The floor ground bar would -- capacity would
5 be based on the number of grounds that would need to be
6 provided for the CLECs.

7 Q. Well, I guess maybe what I'm getting at here
8 is whether it's necessary to have a separate floor
9 ground bar for CLECs as opposed to sharing a floor
10 ground bar with Verizon.

11 A. Grounding within a central office is
12 extremely critical, and our practices are and policies
13 and procedures are that we would install a floor ground
14 bar in the co-location area, and that's basically what
15 these costs reflect. Grounding is very important, and
16 to maintain separate grounds is the way our practices
17 and policies were developed.

18 Q. So the floor ground bar for the co-locators
19 is actually located in physical proximity to the
20 co-location cages or the area where the cages --

21 A. Yes, it would be in the co-location
22 designated area.

23 Q. Well, I'm a little puzzled because, and
24 unfortunately I don't have a reference here, but my
25 recollection was that as part of the assumptions for

01459

1 developing the first element of grounding, which is the
2 cage ground, that there's an assumption of 75 feet for
3 connecting the cage ground bar to the floor ground bar,
4 which seems to me that if you're going to have the floor
5 ground bar in the general area, it would be closer than
6 75 feet.

7 A. Based on the studies that we have done based
8 on the distance from the floor ground bar to the cages,
9 the average has come back to be, I believe, 63 feet, if
10 I'm correct, but it's very near your 75. In that length
11 of ground wire, you also have not only going through the
12 cable racking or the central office, this may not be a
13 straight direct shot. You may have to make some turns
14 to get to the co-location area. Then at each end of
15 that ground wire, you may have a distance where you come
16 down to either the cage ground bar, which would be
17 inside the cage enclosure, or you may have to come down
18 to the point where the floor ground bar has been
19 established.

20 Q. But it sounds to me as though there is
21 transmission equipment that Verizon has in its central
22 office that would be as near or nearer to that
23 particular floor ground bar as the co-locators. Is that
24 a fair assumption?

25 A. Well, it would depend on the particular

01460

1 central office, but in order to ensure that the CLECs
2 have a good ground that would be necessary for their
3 particular equipment, Verizon makes the decision to
4 place a floor ground bar in that immediate area of the
5 co-location area.

6 Q. But as we sit here today, as I understand
7 your testimony, you don't know the capacity of a
8 particular ground bar, so it is possible that a ground
9 bar could be shared between Verizon and the co-locating
10 CLECs?

11 A. I can't tell you today the number of
12 connections that can be made to a floor ground bar.

13 Q. The last element that I wanted to discuss
14 with you is environmental conditions, which is a nice
15 way of saying HVAC, isn't it?

16 A. Yes, it is.

17 Q. And if you would turn to Exhibit 291 at
18 8-WA60.

19 A. (Complies.)

20 Q. And on page 60 and 61, this describes how you
21 have developed the cost for environmental conditions; is
22 that correct?

23 A. That's correct.

24 Q. Is this or the description of the HVAC system
25 here depicted on this page a stand alone system for a

01461

1 co-location area?

2 A. What this depicts is based on the assumptions
3 that there would be four co-locators or four cages of
4 100 square feet, and each co-location cage having the
5 requirement for 80 amps, then what this develops from
6 those assumptions is that there would be a need for the
7 quantity of tons of HVAC in order to cool that
8 particular equipment.

9 Q. And I understand that, but I guess perhaps
10 we're talking past each other. If you would look on
11 page 61, assumption number 3, and that assumption is a
12 redundant HVAC system, the system will utilize self
13 contained single package direct expansion equipment for
14 cooling. And not being an engineer and looking at the
15 costs that are depicted on the prior page, it looks as
16 though what Verizon has done is to estimate the cost of
17 a stand alone system that would be dedicated to the use
18 of the CLECs co-locating in the Verizon central office.
19 Is that a correct understanding?

20 A. I'm not an engineer either, but in the
21 development of this particular cost, in our central
22 offices, our HVAC systems are redundant. In other
23 words, we just -- we do not have one HVAC system.
24 There's multiple systems to ensure that if one system
25 were to go out, you would have enough capacity in the

01462

1 other remaining HVAC systems to continue to produce cool
2 air.

3 In the development of this cost to cool
4 equipment, we made the -- in order to come up with the
5 amount that would reflect the situation that's presented
6 under the assumptions here, which is four 100 square
7 foot cages, each one of them requesting 80 amps, in
8 order to cool that 80 amps per cage, it would require a
9 system that would be 7.1 tons. The next available
10 system in that capacity is a 7.5. They don't make a 7.5
11 ton compressor. So we're looking at moving up to the
12 next 7 1/2 tons of HVAC to cool this particular assumed
13 area of each cage drawing 80 amps.

14 Q. And I understand what I think you have done.
15 I guess let me pose the question to you a bit
16 differently. When I mean a stand alone system, I mean
17 if the rest of the office disappeared, there would still
18 be a stand alone compressor with duct work that goes
19 directly over the co-location area. So if the rest of
20 the central office went poof, there would still be HVAC
21 for the co-locating CLECs. And that would be as opposed
22 to the systems that are currently in place that Verizon
23 has in the central office, and I believe the term is an
24 HVAC tap, where the CLEC simply connects duct work to
25 the existing duct work and draws the cool air from the

01463

1 general system.

2 So, for example, in your house, if you're
3 adding a room to your house, you wouldn't put a new
4 compressor outdoors and put new piping into the room.
5 You would simply extend the existing duct work and use
6 the existing cooling system. So you see the two
7 different ways I'm expressing about how you would go
8 about doing the same thing.

9 And my question is, are the costs and
10 assumptions that you have with respect to environmental
11 conditioning here a stand alone system where it's
12 everything dedicated to the CLECs?

13 A. Yes, to develop the costs per amp in order to
14 cool four cages, that's what this actually develops the
15 cost for, and it develops it for a cost per amp. Now if
16 the CLEC doesn't request 80 amps, some want less, 40
17 amps, then the way this was figured, which was on a per
18 amp basis, then they would only pay for that portion of
19 the HVAC system that would be necessary to cool the amps
20 that they requested because of the direct relationship
21 between the amps consumption and the heat that's
22 generated from that particular consumption which then
23 requires the cooling to take place.

24 Q. Okay. And let me ask you in reality, does
25 Verizon construct a stand alone HVAC system for

01464

1 co-locators in each of its central offices in
2 Washington?

3 A. Not in each of its central offices. There
4 may be sufficient HVAC in the existing system to provide
5 cooling for the requested amps. What this does is
6 develops a cost for the cooling necessary for those
7 particular amp draws. In some cases, it is necessary to
8 add HVAC due to the increased cost, I mean the increased
9 draw of ampage by placing more equipment in the central
10 office.

11 Q. But again, I think this is consistent with
12 what our earlier discussion was with respect to
13 demolition and dust partition, it may not be necessary
14 to actually do that in every central office, but that
15 wasn't a factor that you considered in estimating the
16 cost; is that correct?

17 A. Please reask the question.

18 Q. Sure.

19 A. I got lost.

20 Q. We had a discussion earlier about demolition.
21 And as we discussed, there were only three of the
22 central offices that actually needed demolition. And as
23 I recall what your discussion or your explanation was at
24 the time, that in estimating the costs of demolition,
25 you simply looked at those offices where there is a need

01465

1 for demolition; is that correct?

2 A. That's correct.

3 Q. Then what I'm saying here is that with
4 respect to environmental conditions, you looked simply
5 at the circumstances in which Verizon would be required
6 to construct a stand alone HVAC system without
7 considering the number of central offices in which an
8 entirely new stand alone system would be required to be
9 constructed; is that correct?

10 A. Well, I'm still not sure if I follow you.
11 There is going to be an HVAC system in the central
12 office. With the additional equipment coming into the
13 office, we may exceed or come close to the limit of the
14 capabilities of that particular system. And
15 irregardless of if we put a new system in or if we use
16 the existing system, what this cost does is generate or
17 prepares a cost per amp for the HVAC that is used to
18 provide the cooling based on the amps that are requested
19 by the CLEC. So the cost per amp, whether it is a new
20 system that's put in or if it's the existing system, the
21 cost per amp, which is the HVAC system that's producing
22 cooling, would be the same.

23 Q. So in my house example, what you're saying is
24 it costs the same thing to put in a new compressor and
25 new duct work to heat my extra room or cool my extra

01466

1 room as it would if I just extended the existing duct
2 work that I have in my house and used the existing
3 system, the capacity of the existing system. Is that
4 what I'm hearing you say?

5 A. Well, what you have, might have by extending
6 the duct work to the additional room that you just
7 added, there may not be enough capacity in the
8 compressor that you have to cool the whole house
9 correctly, all right, the conditions that you want it to
10 stay. Your option at that point in time would be to add
11 an additional HVAC.

12 You could approach it by replacing the total
13 system with one that was large enough to handle the
14 capacity of not only your existing, but the new unit
15 that you put in. The other way would be to put a
16 separate unit in the addition that you have added on to
17 assist in the cooling. Now what this particular cost
18 does here is to establish a cost per amp to cool
19 equipment.

20 Q. And I understand that we may be talking past
21 each other a little bit, but let me ask it a little bit
22 more specifically. On page 60, line 11, there is a line
23 item for duct work, and that assumes 810 feet?

24 A. Yes.

25 Q. Of duct work?

01467

1 A. Yes.

2 Q. There are going to be circumstances in which
3 if you are required to expand the existing system that
4 you may have to construct all new duct work from the
5 HVAC plant to the co-location area; is that correct?

6 A. Yes.

7 Q. And there may be circumstances in which the
8 existing duct work is sufficient to cover the CLECs as
9 well as for what it's currently being used for in
10 cooling Verizon's existing equipment; is that correct?

11 A. That may be correct.

12 Q. And there's a cost differential between those
13 two alternatives, isn't there?

14 A. It would be a difference in cost, yes.

15 Q. And what Verizon assumed is that in each
16 instance, you would need to construct the new duct work
17 even though that may not be required for every central
18 office; is that correct?

19 A. What Verizon has done is take the cost
20 necessary to provide cooling for cages, 4 cages, each
21 drawing 80 amps. Now irregardless if -- this particular
22 cost represents a self contained package of 7 1/2 tons,
23 redundant system, and whether the unit is cooling 80
24 amps to each of the 100, whether it -- it develops a
25 cost per amp of HVAC system that would be needed to cool

01468

1 the appropriate amp or quantity of amps in that
2 particular cage.

3 This just develops the cost, not that we're
4 going to install one of these every time that a
5 co-locator moves in. But what this does is the existing
6 system that's there, the existing HVAC system, this
7 develops a cost that relates back to that on a cost per
8 amp. In other words, the use of the existing system to
9 cool one amp, whether it came from a unit that was
10 installed there or if it came from the main unit that
11 still had capacity to cool some additional equipment,
12 the cost per amp would still be basically the same.

13 Q. I think I understand what you're saying, and
14 perhaps we just have a disagreement over that, so let me
15 ask one other parallel question, which is, does Verizon
16 use only 7.5 ton self contained HVAC systems in its
17 central offices?

18 A. The answer is no, we do not only use those
19 size.

20 Q. There are larger sizes available, correct?

21 A. There are, there are larger sizes available.

22 Q. Does it cost the same to install two 7.5 ton
23 systems as one 15 ton system?

24 A. I do not know what the cost would be to
25 install one 15 ton system. But as we have stated here,

01469

1 in our central offices, due to the criticalness of HVAC
2 in keeping equipment cool, we install redundant systems
3 so that you would not be in a position that if one
4 system went out that you would be without cooling
5 capacity. And in some cases, there may be a central
6 office that has more than two compressors or HVAC
7 systems. There may be three, there may be four. And
8 they're all based on the cooling capacity required for
9 that particular building.

10 Q. So as we sit here today, you're not able to
11 make the assumption that it generally would cost less to
12 deploy a single large system as opposed to several
13 smaller HVAC systems?

14 A. Not without looking at the numbers. I mean
15 each system, each central office is going to be a little
16 bit different, the HVAC system modifications that would
17 -- the installation of the particular system would be
18 different between offices. And how you would install
19 two 15 ton units versus two 30 ton units would be
20 different because of the cooling capacity that you're
21 trying to accomplish by placing the units and the duct
22 work to get the most efficiency out of your system.

23 Q. So then if in a particular Verizon central
24 office, a co-locating CLEC were to be able to tap into
25 an existing 15 ton system as opposed to requiring that

01470

1 Verizon construct a stand alone 7.5 ton system, the cost
2 that Verizon incurs to provide environmental
3 conditioning to that CLEC may be different than under
4 the costs that you have assumed in this study. Is that
5 correct based on your assumptions?

6 A. It may be different, because in building this
7 particular cost per amp, we took the assumptions based
8 on the average number of CLECs that we have, which is
9 four, and the average number of amps, which at the time
10 that we did the study, the average number of amps that
11 were being drawn or requested from the CLECs was 80
12 amps, so that's what we based our assumption on.

13 MR. KOPTA: Thank you, Mr. Richter, those are
14 all my questions.

15 JUDGE BERG: The commissioners request that
16 we take a break at this time. Let's break until 3:15.

17 (Recess taken.)

18 JUDGE BERG: While off the record, counsel
19 advised me that Exhibit 296 is also subject to
20 stipulated admission between Verizon and the CLECs, and
21 Exhibit 296 is admitted.

22 MR. KOPTA: Thank you, Your Honor.

23 JUDGE BERG: Mr. Richter, I will indicate
24 that you remain subject to the oath you took earlier
25 this afternoon.

01471

1 At this time, Mr. Butler, do you have
2 questions for this witness?

3 MR. BUTLER: Yes, I do.

4 C R O S S - E X A M I N A T I O N

5 BY MR. BUTLER:

6 Q. Good afternoon, Mr. Richter.

7 A. Good afternoon.

8 Q. I'm sure that what I'm about to ask you comes
9 as no surprise. You have probably been given plenty of
10 advanced warning about this. I have a few questions
11 regarding microwave co-location.

12 MR. BUTLER: First, I would like to state
13 that Mr. Romano and I have agreed to stipulate to the
14 admission of Exhibits 297, 298, and 299, and on the
15 basis of that stipulation, we move that they be so
16 admitted.

17 MR. ROMANO: That's correct, Your Honor.

18 JUDGE BERG: 297, 298, and Exhibit 299 are
19 admitted.

20 BY MR. BUTLER:

21 Q. Mr. Richter, if you could please turn to
22 Exhibit 297; do you have that?

23 A. Yes, I do.

24 Q. In the last paragraph, you state that it is
25 the company's desire not to place equipment on the roof

01472

1 of its buildings. You're referring there to microwave
2 equipment. Would you agree that the FCC rules state
3 that an ILEC must permit physical co-location of
4 microwave transmission facilities except where such
5 co-location is not practical for technical reasons or
6 because of space limitations?

7 A. Yes, and what that statement states is that
8 preferred -- Verizon's position is that it prefers not
9 to place any equipment or anything on its roofs.

10 Q. Could you please turn --

11 A. Not just microwave.

12 Q. I'm sorry. Could you please turn to Exhibit
13 299.

14 A. (Complies.)

15 Q. And that is a tariff sheet of Verizon's
16 tariff WNU-20, sheet 6.1. Is it correct that in
17 paragraph 2.6, the second paragraph states:

18 Physical co-location of microwave
19 transmission facilities will be
20 permitted except where such co-location
21 is not practical for technical reasons
22 or because of space limitations.

23 A. Yes, I see that.

24 Q. Turning back to Exhibit 297, in the second
25 paragraph you state that:

01473

1 Microwave co-location currently is not
2 included in the company's co-location
3 cost study template, and a request for
4 microwave co-location would be handled
5 as a BFR.

6 That BFR stands for bona fide request?

7 A. Yes, it is.

8 Q. Would you agree that in Exhibit 299, Section
9 2.6, the last sentence in the second paragraph states
10 that Verizon will, excuse me, that:

11 Requests for co-location of microwave
12 transmission facilities can be submitted
13 through the co-location process or via
14 the BFR process.

15 A. Yes.

16 Q. But that it does note that the additional
17 rate elements necessary for microwave co-location still
18 need to be developed; is that correct?

19 A. That's correct.

20 Q. If you could again turn back to Exhibit 297.

21 A. (Complies.)

22 Q. The second paragraph, and if I could direct
23 your attention to the second sentence there, it states
24 that:

25 For a roof top microwave co-location

01474

1 arrangement, several of the existing
2 cost elements that are currently in the
3 co-location cost study could be used for
4 equipment installation within the
5 central office.

6 You then go on to mention engineering fees,
7 facility cable poles, cable terminations, floor space
8 rental; is that correct?

9 A. Yes.

10 Q. And would you agree that a microwave
11 co-locator that places an antenna and mast supporting
12 structure and its related equipment on the roof, then
13 enters the building and has cable run to its co-location
14 space inside the building, that once that it is inside
15 the building, it is requiring the same types of
16 activities from Verizon, presenting the same kind of
17 costs to Verizon as a standard fiber based co-locator
18 would present that's coming in at the basement?

19 A. Yes, it would.

20 Q. And would you also agree that the cost study
21 that you have presented in this proceeding includes all
22 of the elements applicable to running the cable to the
23 CLEC co-location area and covering the co-location
24 arrangements for either caged or cageless co-location?

25 A. What the current cost study has is a facility

01475

1 pull, which would be similar to the RF type cable that
2 would be placed inside the central office. And there is
3 a cost per foot to pull that particular cable. So yes,
4 the cable portion of it. If the CLEC does have
5 co-location, physical co-location inside the central
6 office, then they're already paying for that area that
7 they're going to be occupying. So they're -- I would
8 think that they would place their equipment inside that
9 particular area.

10 Q. And you have costs developed to cover that?

11 A. Yes.

12 Q. Is that correct?

13 A. That would be the floor space rental and so
14 forth.

15 Q. And you have the costs, as you mentioned, you
16 have the costs for the cable pulls, et cetera?

17 A. Yes.

18 Q. Now with respect to roof top, it is correct
19 that a microwave co-locator would need to pay Verizon a
20 space rental, roof top space rental fee, isn't it?

21 A. If --

22 Q. Would you agree?

23 A. If the -- if after all examination that the
24 antennae or microwave dish were to be placed on a roof,
25 which we would prefer to have other options explored

01476

1 before making that final decision, then yes, there would
2 be a cost for the floor space that would be occupied on
3 the roof of the building.

4 Q. Can I ask you next to turn to Exhibit 290,
5 which is your direct testimony, page 15.

6 A. (Complies.)

7 Q. At line 12, you state that:

8 Floor space costs are costs to provide
9 environmentally conditioned floor space
10 based on the average cost per square
11 foot plus costs to account for shared
12 floor space.

13 Is that correct?

14 A. That's correct.

15 Q. And the cost calculations that you have
16 presented in this case are found at Exhibit 291, Section
17 8, pages 8-A32 through 34; is that correct?

18 A. Yes.

19 Q. Now in Exhibit 291 at page 27, you describe
20 the development of the floor space costs; is that
21 correct?

22 A. Which page?

23 Q. 27.

24 A. 27?

25 Q. Yes.

01477

1 A. Of 291?

2 Q. Yes.

3 MR. ROMANO: Mr. Richter, you may want to
4 refer to 1-WA27.

5 Q. 1-A27, I apologize.

6 A. I was in 8-A.

7 Q. If I understand what you have discussed
8 there, basically you have started with the original
9 investment in Verizon central offices. Then you have
10 added an incremental investment that you have identified
11 having been made over the years. Then you bring that
12 figure to a present value using the RS means index
13 factor; is that correct?

14 A. That's correct.

15 Q. And that gives you a total present value of
16 building investment; is that correct?

17 A. That's correct.

18 Q. Now beginning at line 12, you explain that
19 you removed 16% of the total building investment. That
20 was the next step that you went through; is that
21 correct?

22 A. Line 12 of which page?

23 Q. Excuse me, let me get you the page. I'm
24 sorry, it's on page 16 of Exhibit 290.

25 A. Okay.

01478

1 MR. ROMANO: Mr. Richter, that's your direct
2 testimony?

3 THE WITNESS: Yes, that's correct.

4 BY MR. BUTLER:

5 Q. And that 16% represents the portion of
6 building investment related to providing HVAC; is that
7 correct?

8 A. Yes.

9 Q. Can you tell me what was the source for the
10 16% figure?

11 A. The source is RS means.

12 Q. After you deducted that 16% figure for HVAC,
13 you then determined an amount for HVAC, as I think you
14 discussed with Mr. Kopta, and then added that back in to
15 the building investment total; is that correct?

16 A. What I discussed with Mr. Kopta was the
17 portion that we developed that's associated with the
18 amp, not the building investment.

19 Q. Okay, I apologize then. But what you did for
20 the -- to develop the rental cost per square foot figure
21 here is that you took that total building investment,
22 you subtracted the 16% of the total for the RS means
23 HVAC factor, then you calculated a new HVAC number
24 required to provide HVAC for the square footage, and
25 then added that back into the total. In fact, you

01479

1 replaced the 16% with a figure that you calculated to be
2 more representative of what you believe is required; is
3 that correct?

4 A. That's correct.

5 Q. Okay. If you wanted to remove HVAC
6 altogether from the, this particular type of HVAC,
7 altogether from the floor space rental cost, would you
8 agree that you would look at page 8-A34 of Exhibit 291?
9 Would you agree that you would subtract the values in
10 column F from those in column E on that page?

11 A. Yes.

12 Q. And you would then substitute that difference
13 for the values in column E on page 8-A32, 8-WA32; is
14 that correct?

15 A. Yes.

16 Q. And then you would divide that figure by the
17 applicable square footage to come up with a per square
18 foot rental cost; is that correct?

19 A. Yes. If I followed you correctly, I'm -- we
20 took out the 16% from the HVAC for the billing, but we
21 also added back in the HVAC for the building, which was
22 cost that was developed in 12 and added in column H that
23 was added back to that billing cost, and that's what
24 appears in column E.

25 Q. But if you wanted to remove the HVAC cost

01480

1 completely, you would go through the calculations that
2 we just discussed, correct?

3 A. Yes, that could be done.

4 Q. Would you agree that a microwave co-locator
5 that's putting an antenna and related structures and
6 equipment on the roof does not have a need for HVAC?

7 A. I would agree that in that particular
8 situation there would not be a need for HVAC. But I
9 would also go on to say that the cost that was
10 established for this building was based on a square foot
11 of floor space that's inside the building, not that
12 which is on the outside, and would need to go through
13 another type of calculation.

14 Q. But would you agree that the per square foot
15 rental cost that would result from that calculation
16 would not be based upon providing environmentally
17 conditioned floor space?

18 A. I would agree it would not need environmental
19 controlled space, but there may be some other activities
20 that may be necessary, and those could be that the roof
21 was not of sufficient loading to hold whatever the
22 equipment would be that would be placed on it.

23 Q. In which case some additional support work
24 would be required; is that correct?

25 A. Yes.

01481

1 Q. And that would be charged for separately; is
2 that correct?

3 A. That's correct.

4 MR. BUTLER: Okay, I think that's all I have.
5 Thank you.

6 JUDGE BERG: Ms. Smith.

7 MS. SMITH: Thank you, Your Honor.

8

9 C R O S S - E X A M I N A T I O N

10 BY MS. SMITH:

11 Q. Good afternoon.

12 A. Good afternoon.

13 Q. I'm Shannon Smith. I'm representing
14 Commission staff. I just have a couple of questions for
15 you. In your rebuttal testimony, which has been marked
16 as Exhibit 293, at page 10, beginning on line 19, you
17 state that Verizon Northwest studied the distance from
18 the BDFB. Are you there?

19 A. No.

20 Q. It's your rebuttal testimony, and I think it
21 has been marked as 293.

22 A. Which page?

23 Q. Page 10, please.

24 A. Oh, 10, I'm sorry, I was trying to find 19.

25 Q. And it's line 19.

01482

1 A. Okay, thank you.

2 Q. And you say there that Verizon Northwest
3 studied the distance from the BDFB to the co-locators'
4 equipment and determined that this distance is an
5 average of 123 feet. Is that 123 feet number a
6 Washington specific number?

7 A. No, it's not specific to Washington. It is
8 over various states, those being California, Texas,
9 Florida, and North Carolina, if memory serves me
10 correct. And you would think that the central offices
11 that were studied in those states would adequately
12 represent or present the same distances of those central
13 offices that would be here in the State of Washington.

14 Q. So is it your testimony that no Washington
15 central offices were included in that study?

16 A. In that study, it did not include any
17 Washington central offices.

18 Q. Now is that study part of this record
19 anywhere? Has GTE offered that study in this docket
20 that you know of?

21 A. That I do not know.

22 MS. SMITH: I would like to make a record
23 requisition for the study that established the 123 feet
24 figure.

25 JUDGE BERG: Record request 20 is for the

01483

1 study that established the 123 foot?

2 MS. SMITH: Yes, that's correct.

3 JUDGE BERG: 123 foot factor, and that's

4 referred to at T-293, page 10, line 19; is that correct?

5 MS. SMITH: That's correct.

6 JUDGE BERG: All right.

7 BY MS. SMITH:

8 Q. If I could turn your attention, please, to
9 Exhibit C-291, the confidential portion of Exhibit 291.

10 A. (Complies.)

11 Q. And if you are there, the first page, please.

12 A. (Complies.)

13 Q. And it's the first page of the confidential
14 portion, and in my notebook it's pink. I don't know
15 about anyone else.

16 MR. ROMANO: Is there a page reference?

17 MS. SMITH: It's 9-WA1.

18 MR. ROMANO: Thank you.

19 A. Yes, I have it.

20 BY MS. SMITH:

21 Q. Now if you look down to the fourth item on
22 this list, and if you run across, there's a number,
23 there's a figure under the column HPU?

24 A. Yes.

25 Q. Now is the term HPU, does that stand for

01484

1 hours per foot?

2 A. No, it stands for hours per unit.

3 Q. And what's the unit measurement?

4 A. In this particular case at that particular
5 item it's per foot.

6 Q. So for the factor on the fourth one down, it
7 is expressed in hours per foot?

8 A. Yes.

9 Q. And that particular number, how was that
10 derived?

11 A. That number was derived from consultations of
12 central office equipment, installer management, field
13 personnel that supervised the installers, also from
14 central office equipment support personnel at
15 headquarters.

16 And what they did in order to provide
17 information to Verizon as to the length of time to
18 perform certain activities within the central office,
19 they went through the activities that would be incurred
20 with switch installation and transmission type equipment
21 and developed in hours per unit to accomplish those
22 activities. These are the same HPUs that we use in the
23 creation of work orders for Verizon to estimate time to
24 accomplish those activities.

25 Q. Now is it correct that no specific time and

01485

1 motion study was completed for these factors?

2 A. That's correct, the time and motion study was
3 not conducted, but the estimates for the time completion
4 were based on the technical people who have experience
5 and expertise technically in this particular area.

6 Q. Is there any backup documentation that the
7 company has with respect to the determination of that
8 figure?

9 A. When you say backup, could you explain?

10 Q. Maybe. You had indicated in your testimony
11 that this number was derived after consultations with
12 various personnel. Did they develop any kind of study;
13 was there a list of central offices that they provided
14 information for; what do you have that would support
15 this number?

16 A. As far as I know, there's no type of backup
17 of that type information. What I have is basically what
18 you see here that came off of a larger document that
19 listed -- where you see description here and you see the
20 items that I have here, there were a description of all
21 the other activities that a central office equipment
22 installer may encounter in the installation of switches,
23 various types of switches, or transmission or fiber
24 optic equipment within a central office. It tried to
25 capture all of the activities that a central office

01486

1 equipment installer would do and then put an hours per
2 unit so that estimates could be made as work orders were
3 produced to install various pieces of equipment, that
4 they would be able to estimate, the engineers would be
5 able to estimate the time that it would take to do the
6 activities. What I have done is only pulled those items
7 that apply to the co-location cost study.

8 Q. So there's no documentation at all with
9 respect then to the determination of this number?

10 A. Not that I'm aware of.

11 Q. Do you have before you Exhibit 300?

12 A. Yes, I do.

13 Q. And do you recognize this document as
14 Verizon's response to Staff Data Request Number 9?

15 A. Yes.

16 Q. And does this data request relate to the HPU
17 that we have been discussing?

18 A. Yes.

19 Q. Did you prepare this response?

20 A. Yes.

21 MS. SMITH: I would move for the admission of
22 Exhibit 300.

23 MR. ROMANO: No objection.

24 JUDGE BERG: Exhibit 300 is admitted.

25 MS. SMITH: That's all, thank you.

01487

1

2

E X A M I N A T I O N

3

BY JUDGE BERG:

4

Q. Mr. Richter, when you were discussing ground bars with Mr. Kopta, are separate ground bars for Verizon in CLEC equipment necessary to protect Verizon equipment?

8

A. It may not be technically necessary, but in an effort to maintain some separation in the ground potential between equipment that's inside the central office, it is Verizon's policy or practice that we would put a separate ground bar in that particular location, anticipating that there would be more than one or two and on average we're seeing three to four CLECs per central office. Then that would provide a sufficient ground, potential floor ground bar in that particular area that they would be able to use.

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11

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Q. I'm trying in my own mind to understand whether, again, that is intended as a precaution or whether it merely reflects the number of pieces of equipment that anyone or any entity could connect to one ground bar?

22

23

A. It's more of a safety factor from the standpoint that as various equipment or types of equipment, and there will be various types of equipment

24

25

01488

1 that would be tied to this particular ground bar from
2 the CLECs, all which have various potentials, it is from
3 a safety perspective a means to isolate certain types of
4 equipment to make sure that there isn't a problem that
5 develops between the different ground potential.

6 JUDGE BERG: Thank you.
7 Dr. Gabel.

8

9

E X A M I N A T I O N

10 BY DR. GABEL:

11 Q. Good afternoon, Mr. Richter. I would like to
12 ask you to turn to your rebuttal testimony, which has
13 been marked as Exhibit Number 293.

14 A. (Complies.)

15 Q. Page three.

16 A. (Complies.)

17 Q. Lines 9 through 17.

18 A. Yes.

19 Q. The question I have for you I guess
20 initially, am I correct that once, first, do you
21 determine that HVAC investment, and then you determine
22 how much of that is associated with cooling and how much
23 for the structure of the building, and a second portion
24 of that investment is associated with cooling the
25 telecommunications equipment?

01489

1 A. Yes.

2 Q. How did you decide of that 16% how much was
3 associated with cooling the shell of the building as
4 opposed to cooling the telecommunications equipment?

5 A. Within RS means there is, and this is what we
6 used to make that calculation, is RS means shows that
7 there's one ton of air conditioning is needed to cool
8 300 square feet of a building. So we utilized 300
9 square feet and divided that into the total square
10 footage of the building. We then determined the cost of
11 the HVAC, and that's how we determined the amount of
12 HVAC that would be put back into the building
13 investment.

14 Then the others as it relates to the
15 equipment cooling, which is based on an amp, per amp
16 consumption, we used the method discussed earlier with
17 Mr. Kopta in that we utilized HVAC to determine a cost
18 per amp. And then based on the requested ampage from
19 the CLEC, that's how we determined that portion of the
20 cooling.

21 Q. Would you please now turn to page five.

22 A. (Complies.)

23 Q. Here you discuss demolition site work. Do
24 you know if these outlays are expensed or capitalized?

25 A. From an accounting perspective, if it was

01490

1 demolition and was the removal of an asset that had been
2 capitalized previously, then that would be known, and it
3 would be used as a retirement and then removed from the
4 asset balance. If it was minor type work that you would
5 normally experience in the operation of a building or
6 minor type activities, then those are usually expensed.

7 Q. And for the type of work that you're
8 describing, start describing at the top of page five
9 where you talk about demolition work, is this kind of
10 activity typically expensed or capitalized?

11 A. This type of activity would be capitalized.

12 Q. All right. Now I would ask you to turn to
13 page seven.

14 A. (Complies.)

15 Q. Lines five to six. Here you are discussing
16 the development of the costs for site modification,
17 lighting, and electrical outlets, and you state that
18 these cost estimates were taken from invoices. My
19 question, Mr. Richter, is did each invoice contain all
20 three of these types of activities?

21 A. Without looking at the invoices, at this time
22 I would say yes because in -- in look -- in the -- in
23 the building of the cage, part of the cage construction
24 is the lighting and the electrical outlets that go in a
25 cage. So based on that, I would say that yes they were.

01491

1 I would have to look at the individual invoices, but
2 based on it being a cage, based on it was being built,
3 those are the items that normally come with the cage.

4 DR. GABEL: Well, just so the record is clear
5 on this issue that you addressed, would you in response
6 to a Bench request confirm that the invoices each
7 contained all three of the activities that you identify
8 in this portion of your testimony, that being site
9 modification, lighting, and electrical outlets?

10 JUDGE BERG: That would be Bench Request 12
11 referencing testimony, this is the direct testimony
12 of --

13 DR. GABEL: Rebuttal testimony.

14 JUDGE BERG: Rebuttal testimony of T-293 at
15 page 7, lines 5 through 6.

16 BY DR. GABEL:

17 Q. Next, Mr. Richter, could I ask you to turn to
18 page 12.

19 CHAIRWOMAN SHOWALTER: Are we still on T-293?

20 DR. GABEL: Yes.

21 BY DR. GABEL:

22 Q. At line four, you refer to relay and cable
23 racks.

24 A. Mm-hm.

25 Q. Would you please explain for me what's the

01492

1 difference between a relay and a cable rack?

2 A. A relay rack is a framework that actually
3 holds central office type equipment, and they come in
4 varying heights from 7, 8, and 11 foot. The ones that
5 we used in our cost study, they're 24 15/16 inches wide,
6 and they're made out of metal.

7 Cable racks on the other hand is the overhead
8 superstructure in the central office. The ones that we
9 used in our cost study, they're 24 inches wide, and
10 they're built very similar to a ladder, and they come in
11 ten foot sections.

12 Q. Is a relay rack synonymous with a bay?

13 A. Yes.

14 Q. All right. Now on that same page, line 11,
15 you state that there is no way for Verizon Northwest to
16 predict where a CLEC will co-locate. Is it your
17 position that the CLEC has the right to determine where
18 it will co-locate?

19 A. No, this question was answered from the
20 standpoint that the CLEC assumes that the ILEC will
21 provide the relay racks for their equipment. In our
22 cost study, Verizon will not provide the relay racks for
23 the CLECs, so that's what this is trying to state, that
24 the CLEC is responsible for placing and purchasing their
25 own relay racks. If they would prefer to purchase the

01493

1 relay racks from Verizon, a cost could be developed for
2 that.

3 Q. You have just talked about relay racks, but
4 for cable racks, do you assume in your cost study that
5 the cable rack is not shared by Verizon and the CLECs?

6 A. The cable rack that is existing in the
7 central office is shared.

8 Q. And that's reflected in your cost study?

9 A. And that's reflected in the cost study by the
10 types of cables that are used. There are utilization
11 factors or occupancy factors for the various sized
12 cables, and then it would just be determined by the
13 quantity that would be there.

14 Q. And you start off stating that:

15 Mr. Klick asserted that the ILECs cost
16 models overstate cost by assuming that
17 relay and cable racks will have to be
18 installed for the exclusive use of a
19 single competing CLEC or a small number
20 of CLECs.

21 So am I to understand that it's your
22 testimony that Mr. Klick is incorrect, and your cost
23 study assumes that the cable rack will be shared by the
24 CLECs and the ILEC?

25 A. The cable rack will be shared by the ILEC and

01494

1 the CLEC.

2 Q. And just so this issue is cleared on the
3 record, could you point to where in your cost study the
4 sharing between the CLEC and the ILEC is reflected?

5 A. If you would go to Section 8.

6 Q. This is Exhibit 291?

7 A. Yes, WA74 and 75, and what we have here is we
8 developed the occupancy cost or the utilization cost for
9 the various sized cables that would be placed in the
10 shared portion of the cable rack.

11 Q. And what on these two pages, 74 and 75, would
12 indicate that you're assuming that the cable is shared
13 by the ILEC and the CLEC?

14 A. I don't specifically see that statement on
15 this work sheet, but on page 74, the first note says:

16 The monthly cost for cable rack
17 utilization for type of cable is
18 calculated at the cost of the space
19 utilized by various sized cables.

20 If we could go to 291 again, and go to
21 1-WA36, and the first, if you look down the page, two
22 thirds of the way down, it says:

23 Cable rack shared, this cost is based on
24 the area that a co-locator's cable will
25 occupy when run in the central office

01495

1 superstructure to the MDF or DSX panel
2 or co-locator to co-locator.

3 Q. Is there anything on page 36 to indicate that
4 the cable rack would be shared with a co-locator and an
5 ILEC?

6 A. Not that says that directly.

7 Q. Is there anything you can point to in this
8 document, your cost study, that would help us clarify
9 that, in fact, the cost study does reflect the sharing
10 of cable rack between the CLECs and the ILECs?

11 A. Other than the statement that the central
12 office superstructure, which is the overhead racking
13 within the central office. I guess at the time that I
14 was preparing this or the answer to Mr. Klick, I didn't
15 approach it in that manner other than saying or knowing
16 that we're looking at the occupancy factor of a cable in
17 the central office superstructure.

18 Q. And is this central office superstructure
19 broader than just cable racks, or is it are those two
20 terms synonymous?

21 A. Those two terms are synonymous. Cable
22 racking or overhead superstructure are the same. It's
23 the framework that holds the cables that run throughout
24 the central office.

25 Q. Lastly, Mr. Richter, earlier this afternoon

01496

1 Mr. Kopta asked you about Exhibit C-294, the area
2 modification factors, that's at page 81.

3 A. Yes.

4 Q. And I don't think you need to look at the
5 exhibit, I just have a general question. What's the
6 source of this document?

7 A. This document comes from the National
8 Construction Estimator, which is a publication that's
9 used in the construction industry very similar to RS
10 means.

11 DR. GABEL: Thank you very much.

12 JUDGE BERG: Questions from the
13 commissioners?

14 CHAIRWOMAN SHOWALTER: I do.

15

16 E X A M I N A T I O N

17 BY CHAIRWOMAN SHOWALTER:

18 Q. Unfortunately I'm still stuck back on
19 Mr. Kopta's first line of questioning on how, this is
20 with respect to page 8-WA9, and that is Exhibit 291, and
21 that is how these California and Texas averages were
22 adjusted and then averaged to get a national average.
23 And maybe I can try to get at it this way.

24 I'm sure that there's some flaw in my own
25 logic, but supposing that you have a back yard in Texas

01497

1 that's fenced, and I live in California and I have a
2 back yard. And yours is chain link, and mine is wood.
3 You would agree that you can not take the -- you can't
4 combine the cost of our two fences and average them and
5 get a national average; is that correct?

6 A. That's correct. The --

7 Q. I want to just keep going until I get to
8 wherever the correct aggregation is. So now let's say
9 that we take all of the back yards in Texas and all of
10 the back yards in California, and we have an average
11 Texas and an average California, and we combine them and
12 divide by, well, I'm not sure what we divide by, but two
13 let's say, or we -- or we take the average of, yeah, the
14 average of Texas and the average of California. At that
15 point if we average those two amounts, you would agree
16 that that's not a national average yet; is that correct?

17 A. That's correct.

18 Q. Okay. Now I want to take the Texas average
19 and the California average, and I want to adjust each of
20 them by some labor and materials factors from your
21 Exhibit 294. I think it's 294; am I right, at the end,
22 tail end?

23 A. Yes.

24 Q. Okay. So I find out that my average Texas
25 back yard when adjusted for these labor and materials

01498

1 factors, on average in the nation those Texas back yards
2 would cost a certain amount, and that would be my Texas
3 average adjusted to national; is that right?

4 A. Could you -- just the last portion --

5 Q. Okay.

6 A. -- restate that?

7 Q. All right. I aggregated my Texas back yards,
8 and I got an average price for a Texas back yard fence.
9 And then I adjusted that average by some factors that --
10 or pluses and minuses for materials and labor, et
11 cetera. Is that what adjusting costs to a national
12 average means?

13 A. Yes, we took the Texas cost, and based on the
14 percentage in the area modification factor, after we had
15 taken the average cost in Texas, we applied the
16 appropriate one.

17 Q. Okay.

18 A. And then that would represent the Texas cost
19 at a national average.

20 Q. All right. So that maybe Texans have big
21 back yards, so that you would say on average, this type
22 of Texas back yard anywhere in the nation on average
23 would cost a certain amount; am I right on that?

24 A. Yes.

25 Q. Okay. And meanwhile Californians maybe have

01499

1 smaller back yards but more swimming pools; I don't
2 know, but they have different kinds of back yards
3 apparently. Maybe they have solid wood fence instead of
4 chain link fence. But we would do the same thing. We
5 would take all of the California back yards and average
6 them and then apply this adjustment factor to find out
7 on average in the nation, what would a California type
8 back yard cost; is that right?

9 A. Yes.

10 Q. All right. Then now if that's what we have
11 done so far, if we take those two, the average of a
12 California back yard and the average of a Texas back
13 yard, and we add them and divide by two, why is that a
14 national average? That's what I can't understand.

15 It seems like inherently what we have
16 discovered in my hypothetical, but also in your 8-WA9,
17 is it turns out that California back yards are simply
18 different in character somehow than Texas back yards,
19 which is why there's a differential. So at bottom,
20 aren't you just averaging California and Texas and
21 coming up with a national average which may or may not
22 apply to Washington or reflect Washington?

23 A. Well, in your particular example, we're
24 talking about two different types of fencing.

25 Q. Okay.

01500

1 A. That being wooden and that being chain link.
2 What we're trying to capture here by utilizing that
3 method is the construction of the cage is basically the
4 same in all the states. I mean doing a 100 square foot
5 cage in California and a 100 square foot cage in Texas
6 is basically going to be the same activities. The only
7 difference then being the type of material that is used.
8 The other difference would be would be the labor costs
9 and so forth in that particular area of the country
10 where the work is being done.

11 What we have tried to accomplish here by
12 taking the individual states as an average and then
13 taking the averages from two different states would more
14 closely reflect the average that we would see across the
15 country.

16 Q. But supposing that you had had a third state
17 that in this case was -- let's look at gates, you know,
18 California was 709 and Texas was 396. Supposing you had
19 had a third state and it was 297. In that case, you
20 would have divided by 3 and gotten a lower national
21 average; am I right?

22 A. Yes.

23 Q. So I get back to this issue of why is what
24 Texas and California happen to have, since they're so
25 different from one another, how do we know that adding

01501

1 them and dividing by two is close to the national
2 average?

3 A. At the time that we did the co-location cost
4 study, the majority of the co-location was taking place
5 in Texas and in California, and those are the two states
6 that we studied. And we felt that that would be a
7 representative amount of activity, and the costs would
8 reflect the costs that would be appropriate for that
9 state.

10 And by using the national cost estimator or
11 the area modification factors, that would provide us a
12 means to get those costs to some type of a national
13 average or get it closer to what the rest of the nation
14 would see if we did those type of activities in another
15 state.

16 Q. But then to get back to Mr. Kopta's question
17 when he had you look at the gate cost where California
18 cost adjusted to the national average is 709 and Texas
19 cost adjusted to the national average is 396, it would
20 suggest to me that there actually are some real
21 differences, I don't know what they are, between how
22 Texas does gates and how California does gates. In
23 other words, it's apparently not uniform or not very
24 regular.

25 A. You are correct in that these costs reflect

01502

1 the activity that takes place in a specific state. And
2 as I said to Mr. Kopta, the gate that is used in
3 California is the wire mesh type, and in Texas it's more
4 of a chain link type fencing.

5 Q. So but then there we are with, you know, back
6 to my hypothetical. If you take a chain link fence and
7 take a wooden fence and you average them, why is that
8 reflective of some either actual national average or the
9 average that ought to apply in our state? How do we
10 know in Washington whether we're more like California or
11 more like Texas? Which end are we on, or are we not
12 even on either end? Are we off further away from the
13 middle than either of those states? Or where should we
14 be? Or are you saying that it's fair enough to cut the
15 difference between Texas and California, and everybody
16 ought to live with that middle as defined by the two
17 ends, Texas and California?

18 A. Well, with this being a model, and we're
19 trying to use the model in all states and trying to be
20 as state specific as we can with the items that are
21 here, our thought process was that if we had the
22 information from California and Texas, then we could
23 bring that to what we will call a national average based
24 on the area modification factors, then that would get us
25 close to a national -- to a cost in Texas that would be

01503

1 representative at a national level. And the same thing
2 with California. We could take that cost in California,
3 and by using the area modification get that particular
4 cost down to a national level. Then by averaging those
5 two, we would have at least two different locations that
6 we have brought to a national level averaged to come up
7 with a more uniform national average. And then take
8 that to the individual states based on the area
9 modification for that state on how its costs are
10 reflected to the national average.

11 Q. Okay, it's the last step. But fundamentally
12 what you have done, haven't you, is you have projected
13 an average of California and Texas onto the rest of the
14 nation, adjusted, adjusted for certain labor costs?

15 A. Yes.

16 CHAIRWOMAN SHOWALTER: Thank you.

17 JUDGE BERG: Mr. Kopta.

18 MR. KOPTA: Just a couple of questions, thank
19 you, Your Honor.

20

21 R E C R O S S - E X A M I N A T I O N

22 BY MR. KOPTA:

23 Q. Mr. Richter, in response to some questions
24 from Judge Berg, you were discussing grounding and
25 safety concerns in particular. And I just wanted to

01504

1 clarify that you are not testifying here that equipment
2 that CLECs co-locate in a Verizon central office is less
3 safe than equipment that Verizon uses in its central
4 offices, are you?

5 A. Not at all.

6 Q. And, in fact, Verizon has standards that it
7 uses for equipment co-located in its central office with
8 national and Verizon specific standards that co-located
9 equipment needs to meet?

10 A. Equipmentwise, yes.

11 Q. And Verizon equipment meets the same
12 standards?

13 A. Yes.

14 Q. And, in fact, in some cases, it may be the
15 same equipment that a CLEC is co-locating as Verizon has
16 in that same central office?

17 A. It may well be.

18 MR. KOPTA: Thank you, that's all I have.

19 JUDGE BERG: Cross-examination, Mr. Romano,
20 excuse me, redirect.

21 MR. ROMANO: Yes, Your Honor.

22

23 R E D I R E C T E X A M I N A T I O N

24 BY MR. ROMANO:

25 Q. Mr. Richter, do you recall some questions

01505

1 from Dr. Gabel about the shared cable rack?

2 A. Yes.

3 Q. Would you please turn to 1-WA92 of Exhibit
4 C-291.

5 A. What was the page, please?

6 Q. It's 1-WA92; do you see that?

7 A. Yes.

8 Q. Does that drawing illustrate a shared cable
9 rack between GTE and CLECs?

10 A. Yes, it does.

11 Q. And is that particular drawing referred to
12 back on page 1-WA36, which describes how the cost study
13 was done for this particular subject?

14 A. Yes, it does.

15 Q. Okay. I just now wanted to turn to a
16 different subject. Ms. Smith asked you a number of
17 questions about the HPUs for running power cable.

18 A. Yes.

19 Q. Do you remember that?

20 A. Yes.

21 Q. And particularly there were questions about
22 9-WA1 on Exhibit C-291.

23 A. Yes.

24 Q. There's been some testimony that, I believe
25 it's the fourth line there, where Verizon has its

01506

1 estimated hours per unit for pulling power cable; is
2 that right?

3 A. Yes.

4 Q. There has been some testimony that RS means
5 may give a better indication than that number there of
6 the time it takes to pull and run power cable. Are you
7 familiar with that?

8 A. Yes.

9 Q. Do you agree with that suggestion?

10 A. Based on the study and the questioning that I
11 have done, this does not -- the RS means and the
12 National Construction Estimator, both of which have
13 hours to pull various types of cable, and their time
14 frames for that are rather small as compared to the
15 information that we have here, Verizon puts forth to run
16 a secure power cable.

17 To run a secure power cable in a central
18 office is not an easy feat due to the fact that power
19 cable comes in various sizes, and it is -- it's not as
20 pliable as regular transmission cable that you would
21 have that may be a 25 pair or a 100 pair where each
22 conductor is of 27 average gauge wire.

23 Therefore, in going back to -- and this is
24 one of the items that I questioned early of the HPUs,
25 because it seemed high to me. As I went through that

01507

1 process, I found that .25 for pulling a power cable is
2 probably not unreasonable.

3 And I have brought some props, if I could
4 with your permission, to show the difference between
5 various power cables that -- and I understand that in
6 this hearing previously, there was some questions about
7 the size of the different types of power cables. I do
8 have some pieces of power cable, and I could show those.

9 That in pulling power cable in a central
10 office versus pulling cable, power cable in an
11 industrial type building, inside a central office we're
12 very tight, there's equipment three foot apart, and it's
13 very compact versus what RS means and a National
14 Construction Estimator estimates time to be.

15 And in further investigation of the RS means
16 and the National Construction Estimator of the time that
17 it used to place cable, the cable placement was being
18 made inside of a conduit, in that a conduit was being
19 installed, which is not part of the cable pull, a pull
20 line would be placed through the conduit, would be
21 attached to the cable, and the cable would be then
22 pulled into the conduit.

23 It wasn't the same type of placement of power
24 cable as you would experience inside of a central office
25 where you place power cable on a rack. There's not

01508

1 conduit that you would place the cable in and then pull
2 it in. We would place the power cable as individual
3 cables up on the cable rack where the power leads would
4 go.

5 So with that, I could show three pieces of
6 cable that might help substantiate why the .25 HPU that
7 we have is more realistic of the activity that takes
8 place within a central office to place power cable.

9 JUDGE BERG: I think your detailed
10 explanation is sufficiently clear, Mr. Richter. In the
11 interest of time, I do appreciate the offer, but I think
12 we will rely upon your explanation.

13 MR. ROMANO: No more questions, Your honor.

14 JUDGE BERG: Anything further, commissioners?

15 CHAIRWOMAN SHOWALTER: No.

16 JUDGE BERG: Well, Mr. Richter, that
17 concludes your examination testimony here this
18 afternoon. Thank you very much for being present and
19 testifying.

20 THE WITNESS: Thank you.

21 JUDGE BERG: At this time, why doesn't

22 Verizon go ahead and call its next witness.

23 MR. ROMANO: Mr. Tanimura.

24

25 (The following exhibits were identified in

01509

1 conjunction with the testimony of Robert
2 Tanimura.)
3 Exhibit T-320 is Revised Direct Testimony
4 (RT-1T). Exhibit E-321 is Errata to Revised Direct
5 Testimony. Exhibit 323 is Summary of Proposed Rates
6 (RT-2)(Revised 7/10). Exhibit C-323 is Pricing Summary
7 (RT-3C). Exhibit C-324 is Rate Summary (RT-4C)(Revised
8 7/10). Exhibit T-325 is Responsive Testimony (RT-5T).
9 Exhibit 326 is Line Sharing Configuration - CLEC Owned
10 (RT-6). Exhibit T-327 is Rebuttal Testimony.

11

12 Whereupon,

13

 ROBERT TANIMURA,

14 having been first duly sworn, was called as a witness
15 herein and was examined and testified as follows:

16

17

18 D I R E C T E X A M I N A T I O N

19 BY MR. ROMANO:

20 Q. Please state your name and your business
21 address for the record.

22 A. My name is Robert Tanimura, and my business
23 address is 1 GTE Place, Thousand Oaks, California.

24 Q. Do you have in front of you exhibits that
25 have been marked T-320 through T-327?

01510

1 A. Yes, I do.

2 Q. Did you prepare or cause to be prepared these
3 exhibits?

4 A. Yes.

5 Q. Do you have any changes or corrections to
6 these exhibits?

7 A. Yes, I have a couple of corrections.

8 First one is to Exhibit number T-320, my
9 direct testimony, on page 17. On lines 2 and 3, the
10 date August 31st should be changed to December 15 to
11 reflect the change made by Mr. Boshier in his rebuttal
12 testimony.

13 The second change I have is to Exhibit 326,
14 which is RT-6. It's a one page exhibit. And on line
15 number 8, the non-recurring rate for installation of
16 903.97 should be changed to 504.01 to reflect the change
17 to the cost made by Ms. Casey.

18 Finally, in T-327, which is my rebuttal
19 testimony, on page 21, on line 16, the 20 which is used
20 twice should be changed to 30. It's the useful lives of
21 30 years rather than 20.

22 And that's all the changes I have.

23 Q. With those changes, if you were asked the
24 same questions today, would your answers be the same?

25 A. Yes.

01511

1 MR. ROMANO: Your Honor, I ask that Exhibits
2 T-320 through T-327 be moved into the record.

3 JUDGE BERG: Hearing no objection, Exhibits
4 T-320 through T-327 are admitted.

5 MR. ROMANO: The witness is ready for
6 cross-examination.

7 JUDGE BERG: Mr. Kopta.

8 MR. KOPTA: Thank you, Your Honor.

9

10 C R O S S - E X A M I N A T I O N

11 BY MR. KOPTA:

12 Q. Good afternoon, Mr. Tanimura.

13 A. Good afternoon.

14 Q. I wanted to ask you some questions about
15 co-location. I know you're surprised to hear that. But
16 I'm really pretty much looking at Exhibit C-323, and
17 initially if you would look at page six of that exhibit.

18 A. (Complies.)

19 Q. And I understand from my conversation with
20 Mr. Richter that he provided you with the costs, and you
21 used those costs to develop prices; is that correct?

22 A. That's correct.

23 Q. On this page I'm looking under the heading of
24 units, and since we're talking about a 25 to 100 square
25 foot cage, am I correct that the units listed here are

01512

1 the number of square feet of fencing that would be used
2 for a 100 square foot cage?

3 A. Yes, that's correct.

4 Q. And the cost, again I'm assuming is a cost
5 per square foot of fencing; is that correct?

6 A. Yes.

7 Q. And Mr. Richter was not able to describe how
8 this cost was developed. Can you enlighten me as to how
9 that cost was developed?

10 A. Yes, I can. There were actually, besides the
11 costs that he had mentioned, there are other costs for
12 different sized cages that were developed in the cost
13 study. These were for cage sizes of 25 square feet to
14 49, 50 to 74 square feet, and 75 to 99 square feet, and
15 there were separate costs for those smaller square
16 footages. The costs on page six of this exhibit reflect
17 the average of those other three sizes.

18 Q. Okay, so let me understand what you have done
19 here. The cost is an average of the per square foot
20 cost for each of the four types or sizes of cages; is
21 that correct?

22 A. It's actually the lower three, so it's an
23 average of the basically 25 to 99 square foot gauges.

24 Q. And yet for units, you use 100 square feet of
25 fencing?

01513

1 A. Yes, it is 100 square feet of fencing. I
2 think the -- I believe the reason why the average of the
3 three were used is because this is supposed to reflect
4 25 to 100 square feet, that range, so an average of the
5 range was taken.

6 Q. Now I noticed that this element includes a
7 cage grounding bar, you have a cost that's included in
8 the price of the entire element; is that correct?

9 A. Yes, that's correct.

10 Q. And I believe from your testimony you stated
11 that a CLEC or Verizon permits a CLEC to construct or
12 arrange for the construction of its own cage; is that
13 correct?

14 A. Yes, I believe Mr. Ries talked about that.

15 Q. Does Verizon allow a co-locating CLEC to
16 construct its own grounding bar?

17 A. My understanding is that Verizon does not.

18 Q. So if a CLEC opts to provision its own cage,
19 would this element be adjusted? Or let me ask it this
20 way. How would the element be adjusted, the price
21 charged that CLEC?

22 A. I suppose it could be adjusted for those
23 other elements.

24 Q. So it would just be whatever the subtotal
25 amount is for the cage grounding bar would be the only

01514

1 cost that Verizon would impose on the CLEC for the
2 element of cage enclosure?

3 A. Yes, I believe that sounds reasonable.

4 Q. It sounds as though there isn't a set policy,
5 but that it's something that you work out on an
6 individual basis. Is that a fair statement?

7 A. Yes.

8 Q. Do you know whether any CLECs in Washington
9 have provided their own cage?

10 A. No, I have no knowledge of that.

11 Q. If you would turn to the next page, please.

12 A. (Complies.)

13 Q. And this is for a cage enclosure of 101 to
14 200 square feet. And again looking under units, am I
15 correct that that is the amount of square feet of
16 fencing used in a 200 square foot cage?

17 A. I believe it is.

18 Q. And the cost is the average cost that was
19 developed by Mr. Richter in his testimony; is that
20 correct?

21 A. The average cost, no. This is the cost that
22 applies to cages that are over 100 square feet.

23 Q. Right, perhaps I wasn't clear. I meant the
24 average per square foot of fencing costs that
25 Mr. Richter developed?

01515

1 A. Yes.

2 Q. And for each of the other two types of cage
3 enclosures of 201 to 300 square feet, 301 to 400 square
4 feet, they're all the same per square foot fencing cost,
5 correct?

6 A. That's correct.

7 Q. And the units are the amount of square feet
8 of fencing in the maximum number of square feet of the
9 cage?

10 A. Yes.

11 Q. All right. I would like to talk with you
12 about the building modification charge, which is
13 discussed again in Exhibit C-323 on page 38. And
14 initially I want to discuss the security access
15 category. The first item under that category is card
16 reader and controller. Am I correct that that is
17 essentially the security system for the central office
18 that allows outside doors to be locked and accessible
19 only to someone that has a key or a card that can get
20 in?

21 A. Yes.

22 Q. And am I correct in reading your exhibit that
23 the monthly cost of that system is divided by five to
24 end up with the component of the building modification
25 that is charged to each individual CLEC?

01516

1 A. Yes, it's divided by five to reflect four
2 co-locators and Verizon itself.

3 Q. Do you know how many Verizon employees have
4 access to Verizon central offices in Washington?

5 A. No, I do not.

6 Q. By dividing the cost by five, are you
7 assuming that Verizon and each co-locating CLEC make
8 equal use of the central office?

9 A. It makes no assumption about equal use of
10 central offices. What it is is an equitable allocation
11 of the costs amongst all the parties that are in the
12 central office.

13 Q. Well, it's the equitable that I guess I'm
14 exploring here. I believe in Mr. Richter's testimony,
15 the average square footage of a Verizon central office
16 is over 25,000 square feet, and a CLEC is going to use
17 100 square feet or have dedicated to its use 100 square
18 feet or up to 400 square feet. Wouldn't you agree with
19 me that Verizon makes significantly more use of a
20 central office than a co-locating CLEC?

21 A. They do have a larger percentage of the
22 central office, I would assume. However, I still feel
23 that the five is a reasonable allocation, because if we
24 did not have co-locators, the security measures could
25 have been a lot simpler. When you have multiple parties

01517

1 coming into the central office, it will require a more
2 sophisticated card reader to keep track of who is
3 accessing the CO.

4 So I believe to a large extent, a lot of
5 these costs are caused by the fact that you have
6 multiple parties coming into the central office.
7 Therefore, I still believe that the five is a reasonable
8 allocation and that that's fairer than say the
9 percentage of square feet.

10 Q. Well, how about a different analogy, how
11 about the number of employees that have access to the
12 central office. For example, if Verizon has five
13 employees that use a particular central office, but each
14 CLEC would have one employee that would be able to
15 access the central office to monitor, do whatever they
16 need to do with their equipment, wouldn't you agree that
17 Verizon is making more use of this particular system
18 than each individual CLEC is?

19 A. Again, the allocation isn't necessarily based
20 on the number of cards wiped or the number of cards or
21 anything. I believe that it's a reasonable allocation
22 because to a large extent the security measures are a
23 lot more expensive because of the multiple co-locators,
24 so I still believe that the five is a reasonable
25 allocation.

01518

1 Q. Storage security is the other item underneath
2 security access. And in this case, first let's make
3 sure we understand we're talking about the same thing.
4 My understanding is that this is the costs to modify
5 Verizon's existing equipment cabinets so that they can
6 be locked; is that correct?

7 A. That's correct.

8 Q. And you have divided the costs by four, which
9 is the number of co-locating CLECs that Verizon assumes
10 per central office; is that correct?

11 A. That's correct.

12 Q. So the co-locators bear the entire cost of
13 Verizon's modification of its own equipment cabinets
14 that were existing prior to the time that Verizon is
15 allowing co-location; is that correct?

16 A. Yes, as I explained, this is another example
17 of security measures that are necessary because of the
18 allowance of additional parties into the CO. So I think
19 it is appropriate to spread those among the four
20 co-locators that are assumed will be in Washington's
21 central offices.

22 Q. And does Verizon share any of the costs that
23 a co-locator incurs to be able to lock its equipment
24 cabinets or lock its co-location cage?

25 A. Again, that's the CLECs' responsibility.

01519

1 Q. I just wanted to clarify the proposal that
2 Verizon has made for OSS cost recovery, to talk about
3 something completely different. As I understand it, for
4 orders other than line sharing, there are two separate
5 charges per local service request, one for transition
6 and one for, maybe you can remember better than I,
7 transaction.

8 A. We do talk about a transaction rate and a
9 transition rate. What confuses me a little is you said
10 that that would apply on all orders except for line
11 sharing?

12 Q. No, and I appreciate the clarification. I'm
13 simply leaving out the charge that applies specifically
14 to line sharing for a CLEC that's ordering an unbundled
15 loop. Let's use that as an example. The CLEC would
16 submit the LSR to Verizon, and as part of the charges
17 for provisioning that unbundled loop, there would be two
18 OSS cost recovery charges, one for transaction costs and
19 one for transition costs; is that correct?

20 A. That's correct.

21 Q. And I wanted to clarify that when a CLEC
22 orders an interconnection trunk or one or more
23 interconnection trunks from Verizon, that order is
24 placed via an access service request as opposed to a
25 local service request; is that correct?

01520

1 A. I really don't know.

2 Q. So you don't know whether these charges would
3 be imposed on orders for interconnection facilities as
4 opposed to an unbundled loop?

5 A. My understanding is that those charges will
6 not apply to interconnection facilities. They do not
7 apply to those.

8 MR. KOPTA: Okay, thank you, those are all my
9 questions.

10 JUDGE BERG: Ms. Bradley.

11 MS. BRADLEY: Thank you.

12

13 C R O S S - E X A M I N A T I O N

14 BY MS. BRADLEY:

15 Q. Good afternoon, Mr. Tanimura.

16 A. Good afternoon.

17 Q. I will follow up on some of these OSS
18 questions. In your revised direct testimony, Exhibit
19 T-320 on page 7, in discussing the recovery of the
20 transition costs on page, I'm sorry, line 8 through 10,
21 you testified that the reasonable basis to establish an
22 OSS charge based on the forecasted number of local
23 service requests, and essentially what you're doing is
24 taking the total OSS transition costs and dividing them
25 by the forecasted number of LSR requests for the next

01521

1 five years; is that correct?

2 A. That's correct.

3 Q. In developing that forecasted projection, did
4 you include Verizon's projections for its own retail
5 DSL?

6 A. The forecasts did not include any discreet
7 events such as the establishment of a separate data
8 subsidiary or for that matter GTE selling off any of its
9 properties, et cetera. It's really a high level
10 forecast that was based on just the overall line
11 sharing, I mean LSRs that are going to be expected over
12 the next five years. It did not go into the detail of
13 discreet events, CLEC activities in particular, or
14 establishment of any types of separate subsidiaries. It
15 was more of a high level forecast.

16 Q. Well, high level it may be, but I think that
17 Verizon's own retail DSL projections would provide some
18 concrete basis that should -- that either were or were
19 not included. So my question is, were those included in
20 this high level forecast?

21 A. I believe it's impossible to tell what's
22 included and what's not included, because it was based
23 on an over -- a high level forecast -- the way it was
24 evaluated was to look to see whether or not the growth
25 rates looked reasonable. We assumed a pretty rapid rate

01522

1 of increase in LSRs in this forecast.

2 In fact, in my rebuttal testimony, I discuss
3 how if we were to base the transaction OSS rate on the
4 current LSR activity, it would be over \$20 per order.

5 Instead, we give benefit of the expectation one way or
6 another of achieving a fairly rapid increase in LSRs
7 over the next five years. In fact, it's an average of
8 40% per year for the next five years.

9 We're giving the benefit that that's going to
10 happen one way or another, and this may include separate
11 data affiliates. It may include -- it may include all
12 kinds of stuff. I just can't say that I'm going to say
13 that this amount is attributable to this event and this
14 amount is attributable to that event.

15 Q. All right. Well, on page 10 of your revised
16 direct testimony, again Exhibit T-320, I believe you go
17 into the inherent uncertainty of these demand forecasts.
18 And on lines 12 and 13, you say:

19 Thus the per LSR charge could be applied
20 beyond the five year recovery period if
21 demand forecasts are overstated.

22 Is Verizon planning to end the per LSR charge
23 before the five year period is over if the forecast
24 demands were understated?

25 A. Yes.

01523

1 Q. Thank you. You referred to the creation of a
2 separate advanced services affiliate as one of the
3 events that were not taken into account in your
4 forecasts; is that correct?

5 A. No specific events were taken into account in
6 my forecast.

7 Q. It is true that the creation of a separate
8 advanced services affiliate is one of the conditions,
9 merger conditions, proposed or required by the FCC for
10 approval of the Bell Atlantic-GTE merger; is that
11 correct?

12 A. That's my understanding.

13 Q. And isn't it true that Bell Atlantic and GTE
14 needed approval from the FCC for the approval of their
15 merger?

16 A. Yes.

17 Q. And in order to obtain this approval, Bell
18 Atlantic and GTE voluntarily submitted a list of
19 conditions by which it would abide post merger; isn't
20 that correct?

21 A. I suppose that was part of the process, yes.

22 Q. One of those conditions was to track specific
23 performance measurements for comparison with the CLECs;
24 isn't that correct?

25 MR. ROMANO: Objection, Your Honor, this

01524

1 sounds to be outside the scope of Mr. Tanimura's
2 testimony.

3 MS. BRADLEY: Your Honor, Mr. Tanimura's
4 testimony argues that the CLECs are the beneficiaries of
5 the OSS projects that comprise the OSS transition costs
6 and which are being sought to be imposed on the CLECs.
7 I'm trying to show that one of these OSS projects,
8 project number 22, is to track the specific performance
9 measurements of Verizon compared to the CLECs, and that
10 this was not, in fact, you know, of benefit to the
11 CLECs, but was of benefit to Verizon in order for it to
12 have its merger approved.

13 JUDGE BERG: That explanation seems
14 reasonable. I'm going to overrule the objection.

15 MS. BRADLEY: Thank you, Your Honor.

16 BY MS. BRADLEY:

17 Q. I can't remember if the objection came before
18 or after your answer, but one of the performance
19 measure, or I'm sorry, one of the merger conditions
20 which Bell Atlantic and GTE agreed to was to track
21 specific performance measurements; isn't that correct?

22 A. I have no personal knowledge of that, but I
23 would agree to that.

24 Q. Subject to check?

25 A. Sure.

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1 Q. Then we can accept that. And isn't it true
2 that these performance measurements were implemented in
3 OSS project 22, I believe it's labeled?

4 A. The OSS projects were discussed and supported
5 by Mr. Holland. I really don't know what was in project
6 22.

7 Q. Well, if you turn to I believe it's in
8 Exhibit C-252, and you probably don't have a copy of
9 that.

10 MS. BRADLEY: Would you like me to provide
11 him with a copy or --

12 MR. ROMANO: Do you have an extra copy?

13 MS. BRADLEY: Yes, I do.

14 MR. ROMANO: Actually, we have one we can
15 show him.

16 MS. BRADLEY: Okay.

17 MR. ROMANO: Your Honor, may I stand up there
18 with the witness while he reviews this? That's our only
19 copy.

20 JUDGE BERG: Yes, you may.

21 BY MS. BRADLEY:

22 Q. If you could turn to page 5-WA11, and I just
23 want to verify the record that performance measurements
24 implementation is listed as OSS project 22 in Verizon's
25 cost study.

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1 MR. ROMANO: Is there a question pending?

2 Q. Can you agree that that is, in fact, true?

3 A. Yeah, it appears to be. I don't know how
4 much I could speak to OSS project 22, and if --

5 Q. I'm simply asking that this project was
6 included in the prices that you established for seeking
7 recovery of OSS transition costs.

8 A. Yes, as Mr. Holland explains in his
9 testimony, he goes through all of these projects in
10 detail in his testimony, that those are appropriate. He
11 also is the one who supports the notion that that does
12 not benefit Verizon at all, that it was done for CLECs'
13 benefit. I would have to defer that to Mr. Holland. He
14 was the one who talked about these OSS projects.

15 Q. Well, in your testimony, your revised direct
16 testimony, on page 7, that's Exhibit C-320, lines 6 to
17 7, you refer to the CLECs as being the parties with the
18 demand for the services being offered by the newly
19 enhanced OSS.

20 A. That's correct.

21 Q. And, in fact, the CLECs did not demand these
22 performance measurements to be implemented as an OSS
23 project; isn't that correct?

24 A. It's saying that CLECs are the parties that
25 demand the services that use those enhanced OSS. What

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1 Mr. Holland is saying is that these OSS enhancements
2 went in, and I don't know anything about performance
3 measurements, but these OSS enhancements were made, and
4 they did not benefit Verizon. I can't speak any more to
5 that than what Mr. -- than to refer to Mr. Holland.

6 Q. Was it not of benefit to Verizon to have the
7 Bell Atlantic-GTE merger approved?

8 A. Yes, it was.

9 Q. And these performance measurements, this OSS
10 project for which Verizon is seeking to recover costs
11 for, was a requirement for that merger to be approved;
12 isn't that correct?

13 A. Yes, it is.

14 MS. BRADLEY: Thank you.

15 JUDGE BERG: Anything further, Ms. Bradley?

16 MS. BRADLEY: No, Your Honor.

17 JUDGE BERG: Any questions from staff?

18 MS. SMITH: Yes, thank you.

19

20 C R O S S - E X A M I N A T I O N

21 BY MS. SMITH:

22 Q. I'm Shannon Smith, I'm representing
23 Commission staff. If I could get you to turn, please,
24 to your rebuttal testimony, which has been marked as
25 Exhibit T-327.

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1 A. (Complies.)

2 Q. Do you have a copy of that?

3 A. Yes.

4 Q. And specifically if I could refer you to page
5 14.

6 A. (Complies.)

7 Q. And at the end of the page beginning at line
8 20, you discuss OSS transaction costs and whether or not
9 those costs would depend on the level of order activity.
10 And you say at lines 20 and 21, actually you say at line
11 21 that there may be a volume sensitive component.
12 Could you give any examples of what those components
13 might be?

14 A. Well, what the transaction costs represent
15 are merely, what I understand anyway, it's data
16 processing type costs. It just appears reasonable to me
17 that there are probably mainly fixed, but that there may
18 be a volume sensitive portion associated with that
19 somehow, because it's associated with data processing.

20 Q. Could you give any specifics of what you
21 think might be volume sensitive?

22 A. Some sort of memory or -- I really don't
23 know. I'm not a data processing expert, but it seems
24 logical.

25 MS. SMITH: That's all, thank you.

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1 JUDGE BERG: Dr. Gabel.

2

3

E X A M I N A T I O N

4 BY DR. GABEL:

5 Q. Good afternoon, Dr. Tanimura. I would like
6 to begin by following up on a response that you had to
7 Ms. Bradley a few minutes ago, and that was regarding
8 the demand forecast. Did I understand you to state that
9 in developing the demand forecast, you did not
10 explicitly take into account any exchanges GTE may have
11 sold in the last year or two or will in the near future?

12 A. No, we did not take those into account.

13 Q. Could you explain how you developed this
14 aggregate forecast?

15 A. It was, yeah, that's exactly what it is.
16 It's a very aggregated forecast. I don't have firsthand
17 knowledge of how it was done. It was done by our
18 forecasting experts. And I do state in my direct
19 testimony it's highly uncertain. I believe there's some
20 sort of high level model I guess of some sort of S-curve
21 type of penetration in the marketplace by other
22 providers and that it's going to follow up a pretty
23 rapid ramp up in the next few years, and we are assuming
24 that it will.

25 Q. And did I understand you to state that you're

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1 assuming that there will be an annual growth rate of
2 40%?

3 A. Yes, that's the assumption.

4 Q. So that's a constant rate of growth, and if
5 so, would you have a constant rate of growth with an
6 S-curve?

7 A. It was really a five year -- it was today and
8 five years from now, so that was based on the S-curve
9 type analysis. It's an average of 40% per year.

10 Q. And on this same topic, staff attorney
11 Ms. Smith was just asking you about whether certain
12 costs that may be transaction sensitive; do you recall
13 that line of questioning?

14 A. Yes.

15 Q. If GTE has sold off some of its exchanges in
16 states like New Mexico and Arkansas, would there be some
17 avoided costs because there will -- well, let me go at
18 this I guess a step at a time.

19 In your calculation of the cost of using the
20 OSS system, did you make any adjustments to the cost to
21 reflect this selling of exchanges in New Mexico,
22 Arkansas, and other states?

23 A. The costs, of course, were developed by
24 Ms. Casey, but I don't believe we did, neither did we
25 take into account the ramp up and growth. We just took

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1 the 1999 costs and assumed that, to be conservative,
2 because we do expect a rapid growth in LSRs, let's just
3 use the '99 costs to represent the going forward costs,
4 and we think that's a nice conservative estimate.

5 Q. Do you have any knowledge of the degree to
6 which the firm that is acquiring your assets in New
7 Mexico will continue to use your operational support
8 systems?

9 A. I don't have any knowledge on that.

10 Q. Could I ask you to turn to Exhibit 320, page
11 19.

12 A. (Complies.)

13 Q. Lines 1 through 10, first you have a rate of
14 \$3.27 that is developed at page 10, line 3. Would a
15 company that's doing line sharing also pay the \$3.27 fee
16 that appears at line 10 in addition to the \$4.92 that
17 appears at line 19?

18 A. Yes, our line sharing NRCs are provided in
19 Exhibit, well, it was RT-4C. I don't know what it is
20 now.

21 MR. ROMANO: C-324.

22 A. C-324. If you look at page two of that
23 document, you will see that the transition cost is
24 reflected as well as the NOMC as well as the transaction
25 cost.

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1 Q. When you developed this value that appears on
2 line 7 of page 19, the \$4.92, did you use the same
3 volume of transactions that you used earlier in your
4 testimony at page 10?

5 A. Yes, we used the average annual LSRs as on
6 line two of that table on page 10.

7 Q. Now at page 19, is this OSS cost that's only
8 related to line sharing?

9 A. I'm sorry, on line -- on page 10?

10 Q. I'm sorry, at page 19, when you're developing
11 the rate of \$4.92, is that a rate that only applies to
12 line sharing?

13 A. Oh, no, they apply to all orders, all LSRs.

14 Q. All LSRs, okay. So then to understand, when
15 somebody places an LSR order, there's -- and I guess now
16 I'm turning to page 23, lines 14 to 17 -- there's a
17 proposed charge of \$3.76 for transition costs, \$3.27 for
18 transition costs, and \$4.92 for the NOMC; is that
19 correct?

20 A. Yes, except the first one was a transaction
21 cost.

22 Q. Okay, thank you. And so for each LSR that's
23 placed, the charge is the sum of those three rates?

24 A. The charge for OSS and NOMC, yes.

25 Q. All right. And what's the \$4.92 NOMC rate,

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1 what cost is being recovered through that charge?

2 A. Okay, this is actually discussed by
3 Ms. Casey, but it's basically the overhead for the NOMC
4 for the service reps that take wholesale service orders.
5 She has more detail on it, but it's I guess things like
6 the building and furniture and the answering systems and
7 things of that nature.

8 Q. And then is the NOMC only used for wholesale
9 services?

10 A. Yes.

11 Q. It would not be used for access?

12 A. I don't believe so.

13 Q. All right. And in developing these OSS
14 charges, have you attempted to distinguish an OSS charge
15 for the manual placement of an order as opposed to a
16 semielectronic rate?

17 A. Yes, those -- I'm sorry, on the OSS side?

18 Q. Yes.

19 A. No. Basically in discussing this with
20 Mr. Holland, who is our OSS expert, he's on OSS
21 upgrades, the transition as well as the transaction,
22 applying benefit both the manual processes as well as
23 the semimechanized process. In fact, the only
24 difference between the manual and the semimechanized is
25 you have to do some manual entering of information under

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1 the manual process.

2 Q. Am I correct, Dr. Tanimura, that in
3 developing your rates, you have applied a common cost
4 factor of 24.75%?

5 A. For the monthly recurring charges?

6 Q. Yes.

7 A. Yes.

8 Q. And why did you select that value?

9 A. That was the value that was given in the 17th
10 supplemental order.

11 Q. And has Verizon subsequently developed --
12 well, let me ask this.

13 Was that value of 24.75% derived from a Qwest
14 cost study?

15 A. Yes, it was.

16 Q. And subsequent to the release of the 17th
17 supplemental order, did Verizon on its own develop a
18 common cost factor using a similar methodology as was
19 used by Qwest in developing the number of 24.75%?

20 A. Yes, I believe in that proceeding -- if
21 you're asking whether we had a separate calculation that
22 we're proposing?

23 Q. No, I'm asking if subsequent to that, the
24 release of that order, if you made any other
25 calculations of your common costs?

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1 A. Oh, no, not to my knowledge. We're depending
2 on the 17th order for that guidance.

3 DR. GABEL: Thank you, I have no further
4 questions.

5 JUDGE BERG: Madame Chair?

6 CHAIRWOMAN SHOWALTER: No.

7 JUDGE BERG: Mr. Kopta?

8 MR. KOPTA: Yes, thank you, Your Honor.

9

10 R E C R O S S - E X A M I N A T I O N

11 BY MR. KOPTA:

12 Q. I'm a little confused, Dr. Tanimura. In your
13 response to some questions from Dr. Gabel, you were
14 talking about the three different OSS costs, and this is
15 in your revised direct testimony on page 23, Exhibit
16 T-320. A CLEC ordering an unbundled loop from Verizon,
17 would that CLEC pay all three of the charges listed
18 here, or is that \$4.92 for only for line sharing orders?

19 A. Those would apply to unbundled loops as well.

20 Q. So in your Exhibit 323 on the first page, you
21 list only those -- only the two, the OSS transition and
22 OSS transaction, and you may have revised that exhibit
23 later and included the other, but I just wanted to see
24 whether that was, in fact, the case, because those are
25 the only two that are listed on this exhibit. Did you

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1 provide another exhibit that included that additional
2 OSS charge?

3 A. Yes, the NOMC cost, the \$4.92, is not an OSS
4 cost, so that's why it's not in that summary there. The
5 NOMC was part of the NRC development for the line
6 sharing NRC, and it was also discussed in the direct
7 testimony, but it wasn't considered an OSS cost.

8 Q. I'm sorry, I'm still confused. If it's not
9 an OSS cost recovery, is it part of the nonrecurring
10 charge that every CLEC pays when it submits an LSR; is
11 that what that charge is?

12 A. It is associated with the handling of a
13 nonrecurring charge. The OSS transaction and transition
14 costs are going to replace, I guess, the interim OSS
15 costs that were established previously. The NOMC is
16 something new, so we're saying that's associated with
17 the ordering process. It really should go into all of
18 the orders, all of the NRCs, but right now we're only
19 establishing line sharing order NRCs, so that's why
20 they're only included right now in the line sharing
21 rates.

22 How we transition from where we are with NRCs
23 now going forward, I'm not real clear. I do know -- I
24 believe the OSS rates should replace the interim rates.
25 How we get the NOMC in there, I'm not sure. That might

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1 be a Phase B issue.

2 Q. And that was actually going to be my
3 question. My understanding is that nonrecurring charges
4 will be reviewed in part B, and I assume it's Verizon's
5 expectation that the application of this NOMC charge to
6 orders other than line sharing will be part of Verizon's
7 proposal for nonrecurring charges in part B?

8 A. Yes. If I said otherwise, I misspoke. I
9 agree, it should be in part B.

10 MR. KOPTA: Thank you, that's all I have.

11 JUDGE BERG: Mr. Romano, any redirect of
12 Dr. Tanimura?

13 MR. ROMANO: No, Your Honor.

14 JUDGE BERG: All right.

15 Dr. Tanimura, thank you very much for being
16 here and testifying this afternoon.

17 With the conclusion of examination of
18 Dr. Tanimura, that finishes our scheduled hearings for
19 the afternoon, and we will adjourn until tomorrow.

20 (Hearing adjourned at 5:45 p.m.)

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